Enhancement of the Designer Performance in Kitchen Interior Design

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Abstract
The success of the interior designer is measured to the extent the interior designer meets user requirements. As such, the most important factor affecting the performance of the designer, is making evaluations for identifying users correctly and completely at the preliminary preparation stage. Interviews are made with the user at the beginning of the design process with an eye to learn the preferences, lifestyle and expectations thereof. There are several documents which will help the designer to make correct determinations at this stage. The more complete data is obtained by virtue of these documents, which in general have the nature of questionnaire, the higher performance will be achieved by the designer. The objective of the study, in this context, was determined as examination of the documents which were benefited for identifying the features of the user at the preliminary preparation stage by the designer and proposals of the designer made for necessary revisions to obtain complete and accurate data by these documents. The scope of the study is limited only to kitchen design in order to obtain detailed results. Documents related to the identification of the user as to kitchen design was researched in line with the specified scope and objective at the first stage as methodology. At the next stage, all data obtained were examined in a systematic way by comparing and the deficiencies of documents were shown. At the final stage the proposals were made to eliminate the said deficiencies. It will be possible to have the projecting process proceed more accurately and increase the designer performance by using a questionnaire to be created in line with the recommendations made within the context of the study.

Keywords: Performance based design, kitchen interior design, clientquestionnaire, designer performance.

INTRODUCTION

Inevitable necessity of taking the developing and changing conditions in the field of interior design and the implementation thereof into consideration and implementing restructuring works including changes in this direction is a reality which is also addressed in the literature. One of the key concepts of the cited approach is the concept of "performance-based design" and it is inevitable to rethink the entire design process with an integrated view in this direction [1;2].

"Performance" is a measurable phenomenon. According to which criteria an objective is achieved and the level of performance in such achievement are as important as achieving an objective. The issue of how performance can be increased has been one of the main issues dealt with in recent years both by literature and in practice. Models to determine the factors

affecting a particular actor's performance in a certain process are also being developed among works related with performance [1, 2].

Carrying out the preliminary preperation stage fully and correctly is one of the major factors affecting the performance of the designer who is one of the most important actors in interior design and implementation thereof. In order to achieve this process correctly, it is extremely important for the designer to identify the factors he has to take into account most during the creative process. In this context, Arcan and Evci [3] have stated that human being is the measure of everything and indicated that combination of the single actions, which are performed by human beings-who have to be considered most within the design process-in accordance with the requirements thereof, constitute the areas of action and combination of the areas of actions constitute the areas of usage. Accordingly, they emphasize the fact that interior design is realized by regulating the areas of action and the necessary equipment components by proper circulation areas. In other words, the interior space is designed for human beings and the most basic factor for the designers is the user of that area [4].

As such, the most important factor affecting the performance of the designer which is making evaluations for identifying users has to be conducted correctly and completely at the preliminary preparation stage. This is because the success of the interior designer is measured to the extent the interior designer meets user requirements. Sufficient time has to be spared for the interviews carried out in order to determine the cited requirements [5]. Ching [6] emphasizes that users and their actions need to be taken into account with an eye to understand the function of the interior space in the best and most accurate way and to meet the requirements related thereto. Stephenson and Stephenson [7] also supports all these ideas and state that the designer may have valuable ideas at the starting point but these ideas will have no value if they are not in line with the users' budgets, personalities, lifestyles and habits [2].

For all these reasons, preferences and expectations of the user are learned by discussing therewith at the beginning of the design process. In addition, decisions are taken by discussing on the structural and economic problems. There are several documents which will help the designer to make correct determinations as to the features the user at this stage. The more complete data is obtained by virtue of these documents, which in general have the nature of questionnaire, the higher performance will be achieved by the designer.

PURPOSE AND METHODOLOGY
The objective of the study, in this context, is determined as examination of the documents which are benefited for identifying the features of the user at the preliminary preparation stage by the designer and proposals for necessary revisions to obtain complete and accurate data by these documents. The scope of the study is limited only to kitchen design in order to obtain detailed results. Documents related to the identification of the user as to kitchen design was researched in line with the specified scope and objective at the first stage as methodology. At the next stage, all data obtained will be examined in a systematic way by comparing and the deficiencies of documents will be shown. At the final stage the proposals will be made to eliminate the said deficiencies.

Examination of Documents Benefited in Identifying Users Regarding Kitchen Design
Literature and practical application resources were researched to determine the documents utilized for user requirements in kitchen interior design at the first stage [3;5; 6; 7; 8; 9; 10; 11;

12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 13; 24; 25; 26; 27; 28; 29; 30]. A total of 83 questions in 25 different resources were reached basing on the results of these researches (Table 1).

Table 1. Questions for determining user requirements in kitchen interior design

No	Questions for User Recognition
1	In what form is the timeline (start and end date of work, exceptions)?
2	What is the budget?
3	What is the type of project (renewal of the current situation/new construction)?
4	What is the scope of the project (such as only renewal of the kitchen furniture and changing the surface coating and etc.)?
5	Is it required to replace or to completely eliminate an existing structural feature of the space?
6	When was the residence built?
7	When was the existing kitchen constructed?
8	Since when has the residence been used for living?
9	How long is it planned to live more in the residence?
10	Why is there need for a new kitchen?
11	What is the biggest problem of the existing kitchen?
12	What are the things the users are happy with the existing kitchen?
13	What are the things that the users are not happy with the existing kitchen?
14	What is the most important thing for the person who prepares the meals in the kitchen?
15	What is the request as to the relations of the kitchen with the adjacent spaces?
16	Is it requested to enlarge the kitchen?
17	What is the request as to the appearance of the kitchen and feeling it has to create?
18	What is the number of people using the residence?
19	What is the social status of the people using the residence?
20	What are the ages of the people using the residence?
21	Are there children people using the residence? How old are they?
22	What are the relations of the people using the residence with each other and what are the specific requirements?
23	What are the anthropometric measurements of the users?
24	Is there a person (s) with physical handicaps?
25	Are there pets? What kind? How many?
26	How many people prepare the meals at the same time in the kitchen?
27	How is the kitchen used? Who use the kitchen most?
28	Who is the person in particular who prepares the meals?
29	Which hand does the person preparing the meal use?
30	Does the person (s) who prepares the meals in the kitchen have specific expectations?
31	Who is the person giving decision as to the kitchen's design?
32	How much time is spent during the day in the kitchen?
33	What are the secondary activities carried out in the kitchen?
34	Will there be a washing machine in the kitchen?
35	Will there be cellar in the kitchen? What is the preferable size of it?
36	Is a relaxation corner required in the kitchen?
37	Will the child at home use the kitchen for doing his homework?
38	Is an office corner required in the kitchen?
39	Will the kitchen be open to living room?
40	Is the kitchen at the right place of the residence?
41	Is a control system for decorative purposes, protection from sun or for privacy necessary?
42	How important is it for users to see the view outside?
43	How important is natural lighting for users?
44	What are the requirements as to storage area?
45	Is there need for a special storage area for any equipments or food and beverages?
46	What are the stationary or mobile kitchen appliances? How often are they used?
47	How quiet and effectively do the existing devices work?
48	Are there any devices which need to be protected among the existing devices?
49	Are there any furniture which need to be protected among the existing furniture?
50	What kind of kitchen sink is prepared?
51	Is there need for more than one kitchen sink in the kitchen?
52	Is there need for a special fixture?
53	Is there need for more than one dishwasher?
54	Is food waste disposer required?
55	Is food waste compactor required?
56	Is a recyclable food waste system which separates the food waste required?
57	Is there a water filter system in the residence?
58	Is the ventilation system in the kitchen adequate?
59	Is radio or TV required in the kitchen?
60	What kind of accessories is required in the kitchen?
61	Where is the dining area required to be?
62	If it is requested to eat in the kitchen, is it preferred to eat on the kitchen bench or is a separate table requested?
63	How many people do usually eat together in the kitchen?
64	What types of meals are consumed (appetizers, meals which take a long time and etc.)?
65	What kinds of food are cooked?
66	How often is the food shopping made?
67	What types of material and food are bought during grocery shopping?
68	Which door of the house is used after coming from shopping?
69	What kind of fuel is used?

70	Which colors are preferred?
71	Which colors are not preferred?
72	Which colors are required to be in the kitchen?
73	Which colors are preferred by the other people who use the residence?
74	Which materials are preferred?
75	Which style (s) is preferred?
76	Is there special furniture, a decorative design element or a work of art that reflects the lifestyle of the user?
77	Is it important for users to have a sustainable design?
78	Is there a religious belief system which will affect the design?
79	Is the kitchen a socializing area for the users of the residence?
80	Are entertainments organized often in the residence?
81	Are entertainments realized with large groups in the residence?
82	Do friends or relatives use the kitchen?
83	Will the guests be entertained in the kitchen?

When the distribution of questions used to determine the user requirements as to kitchen interior design listed in Table 1 were examined by resources they were found to be as provided in Table 2.

Table 2. Distribution of questions used to determine the user requirements by resources

No	[3]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
1					X				X		X					X					X			X	
2				X	X				X	X	X	X				X		X			X			X	X
3									X	X															
4				X								X				X		X		X	X				
5				X								X													
6									X							X			X		X				X
7									X											X	X				
8																X					X				
9																X									
10						X												X		X	X	X		X	X
11							X																		
12					X	X	X	X	X				X			X			X	X	X	X			
13					X	X			X				X			X			X	X	X	X			
14							X																		
15				X			X		X																
16									X																
17		X		X		X			X								X				X			X	
18	X		X	X					X	X				X					X	X	X		X		
19	X							X													X		X		
20	X		X	X															X	X	X				
21	X												X												
22	X														X	X									
23	X			X											X			X					X		
24	X			X	X				X	X			X												
25									X	X			X					X		X	X				
26					X		X	X	X											X	X	X	X		
27							X																		
28													X							X	X		X		
29				X					X				X	X							X				
30																					X				
31					X				X		X														
32		X			X				X	X						X									
33		X	X		X	X			X	X			X		X	X			X		X		X		
34		X											X									X			
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40														X											
41																		X							
42							X																		
43							X												X						
44					X	X	X	X	X						X						X	X	X		
45					X	X			X				X			X			X		X	X			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
46					x		x	x	x			x					x	x		x		
47												x										
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69							x											x				
70		x		x			x	x						x	x	x		x				x
71								x						x	x			x				x
72		x						x						x				x	x			
73								x														
74				x	x		x		x			x			x	x		x	x			
75			x							x	x	x			x		x	x		x	x	x
76														x								
77								x				x					x	x	x			
78												x										
79								x														
80						x	x	x						x				x		x		
81																				x		
82												x										
83	x											x					x					

When the data in Table 2 were evaluated, it was observed that the questions used for user identification were in different number in different documents. For example; Beamish et al. [14] used 33 questions while Alonso [10] used 10 questions and Sweet [19] used only 3 questions and they made their evaluations on the basis of these questions. In other words, it can be observed that the structures of these documents used for the same purpose are different to obtain different levels of information.

The space has to be analyzed in terms of function and comfort as a priority in order that the designer has a high performance. To this end, the most essential requirement is to design all the components of the space in accordance with the user's anthropometric dimensions. For example, maximum reaching height is completely different for a 1.52 cm tall female user and 1.85 cm tall male user. Hence, the first question required for identifying the user is "What is the anthropometric measurements of the users?" However, when the existing documents were examined, it was found that this question is discussed only in Stephenson and Stephenson (1960); Arcan and Evci [3]; Dave Fox [24] and JRL Kitchen Design [28]. Furthermore, the answer to be given to this question can vary according to the nature of the action to be performed. However, there is no information describing the nature of the action in the existing documents.

Considering all the data obtained in this study, it was found that there were 84 questions in total in documents benefited from in order to identify the user. However, it has been

determined that even Beamish et al. [14] who had the most evaluation questions used only 33 of them. In other words, 51 different questions which would help to identify the user more was ignored in this resource.

When the 84 questions listed in Table 1 was observed, it was seen that most of them had the nature to make receiving clear and accurate answers difficult . For example, the most likely answer to be given by the user to the question of "Which colors are desired to be in the kitchen?" will be light green, dark caramel, orange, and etc. However, it has very less possibility that the light green or dark caramel envisaged by the designer and the user will be the same color. A failure to be made at this stage may result in emergence of undesired consequences in terms of user satisfaction. In other words, there is not a structure which provides common language of the designer and the user in the existing documents.

When the questions related to the identification of users in Table 1 were examined it can be observed that there are no questions regarding equipments inside the cupboards. As a matter of fact, these types of equipments are the most important components that increase the functionality of the kitchen.

It is thought that all these determined deficincies make the identification of the user in sufficient level and accurately hard. Therefore, in the next phase of the study recommendations will be provided for the elimination of such deficiencies.

Recommendations for Elimination of Deficiencies in Documents Benefited for Identifying Users Regarding Kitchen Design

It is recommended to create questionnaire by taking into consideration all of the 84 different questions listed in Table 1 in order to obtain more accurate and sensitive data by the documents utilized in order to dentify the user regarding kitchen design. Furthermore,the question of "What is the anthropometric measurements of the users?" which is one of the most important questions among these questions should be able to be answered by taking into consideration the actions to be performed within the space. In other words, the issue of "which measures should be taken for what actions" must be defined in the questionnaire.

It is recommended that the questions in the questionnaire to be created must be in nature to ensure the receipt of clear and accurate answers. As in the color example provided hereinabove when the question of "What are the colors desired to be in the kitchen?" is answered, the user must select the color from a color chart instead of telling the name and the tone of the color.

When the questionnaire is created, questions that will allow receipt of users' view to determine the equipments to be used in the cupboards in the kitchen must be provided in the questionnaire. For example, it should be asked which storage system the user would prefer among the storage systems which turn fully, three-quarter or half in corner cabinets or the storage systems which can go out fully when the lid is opened.

RESULTS

It will be possible to have the projecting process proceed more accurately and increase the designer performance by using a questionnaire to be created in line with the recommendations made within the context of the study.

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