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# RESIDENTS' SATISFACTION WITH APARTMENT LIVING IN KUWAIT: A STUDY OF THE DESIGN OF JABER AL AHMAD APARTMENTS

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## رضى السكان على السكن في الشقق: دراسة لتصاميم شقق مشروع مدينة جابر الأحمد

### ملخص

تبحث هذه الدراسة في موضوع السكن الحكومي في دولة الكويت ومشروع شقق مدينة جابر الأحمد الحديثة. ويسعى البحث إلى إيجاد ربط بين توفير السكن وتوقعات المواطنين ومستوى رضاهم.

وحيث أن حكومة دولة الكويت تقوم بتوفير المساكن لكافة المواطنين من خلال برنامج شامل للرعاية. إلا أن تحقيق هذا الهدف بات صعباً، لا سيما مع بلوغ قائمة المستحقين أكثر من 100,000 أسرة.

وبينما يختار غالبية المواطنين خيار الأرض والقرض الإسكاني لبناء منزل مستقل، هناك أقلية تختار بديل الشقق السكنية الذي توفره المؤسسة العامة للرعاية السكنية. وإن قدرة الحكومة على تلبية طلبات المواطنين المتزايدة، يتوقف على إمكانية إقناع المستفيدين لاختيار بدائل ذات كثافة أعلى وعلى تحقيق فهم أوسع لمفهوم التوقع من الإسكان والرضى عنه.

لقد أجرى البحث مجموعة المسوحات من خلال المقابلة الشخصية المباشرة مع 120 فرد من سكان مشروع شقق مدينة جابر الأحمد. كما تم تحليل النتائج وإجراء جدولة للنتائج بحسب الفئة العمرية.

وعند سؤال السكان عن التفضيل بين الشقق السكنية والمساكن المستقلة، فإن الغالبية العظمى تفضل المسكن المستقل. بينما توضح النتائج بأن الغالبية العظمى من السكان كذلك، أبدوا رضاهم عن مستوى تصميم وإنشاء شقق مشروع جابر الأحمد.

إن هذا البحث يسعى للمساهمة في تسليط الضوء على أهمية إيجاد حل طويل الأمد قابل للتحقيق ويحقق رضى المواطنين الكويتيين وطموحاتهم. من خلال فهم تطلعات السكان.

### Abstract

This study examines public housing in Kuwait and Jaber Al Ahmad apartments housing project. It tries to figure out how housing provision, citizen expectations, and satisfaction are linked.

Kuwait's government provide housing for Kuwaiti married couples as part of a welfare program. This goal has proven difficult to achieve, with a waiting list of over 100,000 people. While the majority of applicants apply for a residential plot and a housing loan to build a single-family home, a small number of candidates apply for the apartment unit's alternative.

The government's capacity to reduce housing demand hinges on its ability to persuade the public to move toward higher-density housing options. Understanding the concepts of housing expectation and satisfaction is crucial to achieve this goal.

This research conducted face-to-face surveys with residents of the Jaber Al Ahmad project. It includes a detailed survey analysis as well as a cross-tabulation analysis by age group.

When residents were asked why they picked an apartment over a single-family house and what their impressions were of living in the newly delivered apartment, the majority of respondents said they prefer a single-family house. These comments indicate that, while liking their apartment's design and layout, they would prefer to live in a single-family home.

The research sheds a light on the importance of finding a long-term, viable, and appealing public housing solution that meets Kuwaitis' aspirations through the understanding of citizens expectations.

## **1. Introduction**

As part of an extensive national welfare program, the government of Kuwait is obliged to provide housing for all Kuwaiti married couples. This massive objective has proven difficult to achieve, and the waiting list has exceeded 100,000 applicants. While the majority of applicants apply for a residential plot and a housing loan to construct a single-family house, a minority choose to apply for the small number of distributed apartment units. The success of the government to ease demand for housing depends on the ability to convince the Kuwaiti public to shift toward higher-density housing options. This can only be done through understanding the concept of housing expectation and housing satisfaction.

This research sheds light on the issue of public housing in Kuwait as well as the latest the design for Jaber Al Ahmad Housing project. It attempts to establish the link between housing provision, citizens' expectations, and satisfaction.

This paper illustrates the procedures and findings of face-to-face surveys with residents of the Jaber Al Ahmad project. It lists a detailed analysis of the survey and conducted cross-tabulation analysis according to age group.

The results show that when residents were asked why they chose an apartment over a single-family house and what their impression was like living in

the newly delivered apartment building, the majority of respondents said they prefer a single-family house. These responses show that, despite being content with their apartment's design, they preferred a single-family home. This place the Public Authority of Housing Welfare (PAHW) and the Kuwaiti government under pressure to provide a long-term, sustainable, and attractive public housing option that fits the aspiration of Kuwaitis.

### **1.1 The importance of the research**

Despite governmental efforts, Kuwaiti citizens face a growing housing problem. While the government engages in mega projects to construct new cities and residential neighborhoods, it does not seem to meet its ambitious goal of providing a single-family house to each household. The Kuwaiti urban model of urban sprawl and the construction of low-density residential neighborhoods consisting of thousands of 400 m<sup>2</sup> homes designed for a six to seven-person family is unsustainable. Experts advise moving toward higher densities, compact developments, and smaller housing units to meet the growing demand for housing design. Considering the rapid population growth, the lack of resources, and the scarcity of land available for development, the government should pursue an alternative model of housing. At the same time, it should encourage citizens to shift from their traditional preference for the single-

family house toward another urban model that is smaller in size and more efficient.

Accordingly, this research aims to examine the public opinions of the design sample of the residents of Jaber Al Ahmad apartments buildings who received their units in 2020 and test their level of satisfaction. This is in an attempt to shed light on the housing condition of Kuwait.

This research aims to:

- Demonstrate the importance of measuring citizens' satisfaction with the design of the public housing units and services.
- Measure the extent to which citizens are satisfied with recently received apartments.
- Identify features of public apartments that receive the highest appreciation.
- List the features of the public apartments that receive the lowest appreciation.
- Measure whether citizens who choose the apartment scheme are pleased with their choice instead of a single-family house.

## 1.2 Public Housing in Kuwait

The government of Kuwait has taken the responsibility for providing housing for its citizens in accordance with law No 15 of 1974 for the establishment of the Public Authority of Housing. This was responsible for the construction of homes for low-income people and the construction of

private houses. In 1993, the PAHW was established in accordance with law No 47 of 1993. The PAHW is a public institution with an independent budget that worked under the Minister of Housing that was in charge of planning, construction, and distribution of residential houses within residential neighborhoods.

The Kuwaiti government gives eligible households various options, including:

1. A governmental house built on a minimum 400 m<sup>2</sup> plot or a minimum 400 m<sup>2</sup> provided by the PAHW at nominal value, plus a monthly rent allowance of KWD 150 during the waiting period between filing for the home until receiving the unit.
2. A minimum of 400 m<sup>2</sup> plot of land provided by PAHW at nominal value and a KWD 70,000 long-term, interest-free loan from the savings and credit bank for the construction, plus a monthly rent allowance of KWD 150 during the waiting period.
3. A KWD 70,000 long-term, interest-free loan from the savings and credit bank to buy or build a house with a minimum area of 360 m<sup>2</sup> or buy an apartment with a minimum area of 360 m<sup>2</sup> (Public Authority of Housing Welfare 2011a) (Alshalfan, 2013, p. 10).



*Figure 1 Jaber Al Ahmad City Housing Project (cgtm.com. 2019)*

Despite efforts by PAHW and various governmental bodies, the waiting period is too long. In some cases, waiting periods extend as far as 15 to 20 years. This is coupled with increased prices of residential real estate and a spike in the rental cost that is consuming a large portion of the household income.



*Figure 2 A single-family house, Sabah Al Ahmad City, Kuwait (KUNA. 2017)*

Currently, the PAHW is under additional pressure to offer more housing in light of the growing backlog of applications. As a result, it continues to create neighborhood units and housing complexes up to 80

km from the city center. However, for the first time since 1989, it is reintroducing apartment living.

Lately, PAHW has completed and distributed two apartment units' projects, one in West Sulaibikhat and the other in Jaber Al Ahmad. According to PAHW, the demand for apartment units is rising. For example, in Jaber Al Ahmad there were 520 units and more than 610 applicants. According to a PAHW spokesman, citizens sought the apartment option for its reduced waiting period and the low monthly installments from the KWD 70,000 loan (AlSultan, 2020).

### **1.3 Jaber Al Ahmad Apartment Design Project**

Jaber Al Ahmad city is one of the recently completed housing projects by the PAHW. Jaber Al Ahmad is located in the western part of Kuwait City and is 25 km from the city center. The project covers an area of 1,245 ha. And when the project was completed, it had 4,608 plots with 1,475 houses and 520 apartments. Apartments resident started to move in from February 2021.



Figure 3 Jaber Al Ahmad Apartment Buildings. (Author, 2021)



Figure 4 Jaber Al Ahmad Apartment Lobby (Author, 2021)

The project consists of 104 apartment buildings, and each building consists of five floors. Each floor is dedicated to a single apartment, with a total of 520 apartments. Each apartment is 400 m<sup>2</sup>, has two entrances, and independent electromechanical systems. The apartment's floor plan consists of four

bedrooms, a multi-purpose room, two receptions, a living room, diwaniya (room for men gathering), and maid and driver rooms. Apartments are designed to house a six-person family as well as a maid and a driver. Also, each apartment has four dedicated parking spots in the vicinity.



Figure 5 Apartment's floor plan (Type 1 & 2) (PAHW. 2019)

#### 1.4 Citizen Satisfaction

Governments worldwide play a role in the provision of housing, either as a direct provider or through policy-making and/or economic and financial support. The housing sector is a major segment of the economy. Developed countries ensure that housing is affordable and homeownership is high amongst the population. Surely housing affordability plays a role in the social stability and wellbeing of the population as a whole. When governments engage directly in the provision and distribution of housing, they should routinely examine citizens' satisfaction. However, the definition of adequate housing differs depending on location. Each society has developed its own expectations and demands in terms of the specification of its housing form. This sought-after typology is developed historically through various established economic and social norms.

When the government of Kuwait (through PAHW) serves a large population and strives to market its apartment units as opposed to its demanded single-family homes, it should carefully examine citizens' reactions to improve its future projects. This attention to detail can make the design for the apartment units more attractive for the Kuwaiti population. When properly designed, apartments are easier to execute and provide a more sustainable solution than the standard single-family house.

Due to the large spectrum of housing types, it is challenging for housing providers to measure satisfaction. Thus, the government should measure citizens' satisfaction with public services to enhance performance and provide continuous improvement. Satisfaction can be defined as

“Residential satisfaction, defined as the feeling of contentment when one has or achieves what one needs or desires in a house, is an important



indicator for the planners, architects, developers and policy makers use it in several ways” (Zainul Abidin, Abdullah, Basrah, & Alias, 2019, p. 2) (Zainul Abidin, Abdullah, Basrah, & Alias, 2019)

“the valuation that customers make of their experience on receiving a product or service. This valuation may or may not include price, the purchase transaction, delivery, performance once in use or consumed, prior knowledge, etc.” (Zeithaml, 1993). Satisfaction with housing provision or services differ from other products in that it is the “perceived” gap between a respondent’s need and aspiration and the reality of the current residential context (McCray & Day, 1977, p. 248). Housing satisfaction is a wide-ranging subject that could cover the unit itself, the amenities, and the urban contract as a whole. (Zahari, 2016, p. 8). All in all, satisfaction in housing is locally defined and distilled from accepted norms. At the same time, it results from comparing the user's expectation and their actual experience of the received product (i.e., housing unit). “The review of the literature revealed that all theories are all variants of the consistency theories and have all been focused on the nature of the users’ post-usage evaluation process, while they have all viewed satisfaction as a responsive reaction to a product experience by the users” (Clinton & Wellington, 2013, p. 53).

In a semi-democratic society, such as Kuwait, people tend to demand a lot from governments, and despite visible efforts, these people may continue to hold negative views about public institution performances. “Many people have an anti-public sector bias where they unconsciously see public services as less efficient and of lower quality, which colors their assessment” (Moynihan, 2017).

## 2. Research Methodology

For this research, the authors sought to carry out face-to-face surveys with the residents of the recently completed Jaber Al Ahmad City apartment. The authors believed those surveys are reliable tools to measure residents’ satisfaction in their apartment’s design. The researchers believed governments, in particular, could benefit from these surveys and improve decision-making mechanisms. Generally speaking, surveys can be an indicator of government performance. Surveys provide meaningful information that is based on direct experience and has substantial political or symbolic value. Conducting citizen surveys provides visible evidence to the public that agencies are genuinely interested in what their clients think (Gao, 2012, p. 140).

Surveys can be defined as “a systematic gathering of data that uses a questionnaire to collect the same information from each individual service user, usually based on a sample drawn from a wider population which may be all service users or a smaller sub-group. General surveys are useful to get a broad picture of the views of service users on a range of issues” (Thijs, 2011, p. 34).

### 2.1 Study Procedures

The researchers followed standard procedures when developing the survey questionnaire (Gall, Borg, & Gall, 1996, p. 291). They started with the definition of the research problem, chose the pilot sample, designed the survey, and then conducted an initial test to check the effectiveness of questions. Afterward, the researchers started the face-to-face questionnaire with a simple introduction explaining the subject of the research and then analyzed the responses.

The pilot sample was taken from Kuwaiti adult males and females who reside within the Jaber Al

Ahmad apartment buildings area (over 18 years old). The researchers also recognized the importance of making the survey engaging, since it is well known that the design of a questionnaire and its questions plays a significant role in motivating participants to respond and to answer honestly. In this context, when designing the questionnaire, the authors attempted to make the questions accessible and interesting. Questions were organized logically, to help the participants easily read them and interact positively. Also, the authors tried to keep the questions as short as possible. As such, the survey avoided terms that might confuse some of the participants and the use of positive or negative words that would affect the neutrality and subsequently the integrity and objectivity of the

questionnaire. After the questions were prepared, the researchers distributed a number of them to a group of respondents to conduct a pilot test of the surveys. The authors took the opinions of specialists and made the necessary alterations.

The researchers conducted the surveys personally to ensure accurate data collection. When the interviewer is physically present to ask the survey questions and assist the respondent in answering them, it is easier to judge and establish engagement. This offered many advantages over mail and telephone surveys in terms of the complexity and quality of the collected data.

(Gall, Borg, & Gall, 1996, p. 291).

<b>Number:</b>				<b>Date:</b>			
<b>i. Which age group do you belong?</b>							
1-30		31-40		41-50		50 & above	
<b>ii. Sex:</b>							
Male				Female			
<b>iii. Ownership:</b>							
Owner		Tenant		Family member			
<b>How do you evaluate the Jabe Al Ahmad Apartment Project?</b>							
#	Element	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very dissatisfied	
1	Context (Parking – sidewalk – Landscape ... etc)						
2	Elevation & Exterior Design						
3	Hight – Number of Floors						
4	Building Entrance						
5	Apartment Entrance						
6	Apartment components						
7	Interior Space Planning						
8	Rooms Area						
9	Interior Design – Finishes						
10	Overall Quality						
<b>11. Generally, are you satisfied with the apartment?</b>							
Satisfied		Unsatisfied		I don't Know			
<b>12. Are you satisfied with the decision to choose the apartment option as opposes to a single-family house?</b>							
Satisfied		Unsatisfied		I don't Know			

Figure 6 the questionnaire form. (Authors).

## 2.2 Survey Analysis

The survey was conducted between the 1st of October 2021 and the 15th of November 2021. Face-

to-face interviews were conducted on-site, and participants were selected randomly. It is estimated that the overall population of the project (Jaber Al

Ahmad apartment buildings) is 2,500, including children. The researchers chose to limit the sample size to 120 adult respondents that cover males and

females above the age of 18 years old. (see Table 1 & Figure 7).

**2.2.1 The Demographics**

		N	Respondents (%)	
<b>i</b>	<b>Age</b>			
		1-30	45	37
		31-40	31	25
		41-50	28	23
		51-70+	16	13
<b>ii</b>	<b>Sex</b>			
		Male	82	68
		Female	38	32
<b>ii</b>	<b>Ownership</b>			
		Owner	51	42
		Tenant	25	20
		Family member	44	36

Table 1 Demographics table

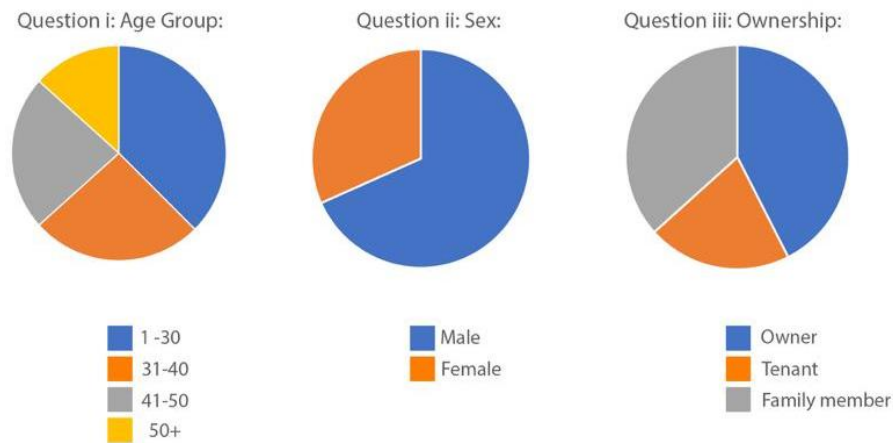


Figure 7 Demographic Pie Chart

**2.2.2 Interpretation of Results**

Table 2 illustrates the compiled results and its statistics. Figures 8 and 9 represents the results in pai charts.

<i>Question i</i>	0-31	31-40	41-50	50+	No.	
	45	31	28	16	120	
<b>Age Group</b>	<b>37.5</b>	<b>25.8</b>	<b>23.3</b>	<b>13.3</b>	<b>100%</b>	
<i>Question ii</i>	M	F				
	82	38			120	
<b>Sex:</b>	<b>68.3</b>	<b>31.7</b>			<b>100%</b>	
<i>Question iii</i>	<i>Owner</i>	<i>Tenant</i>	<i>Family member</i>			
	51	25	44		120	
<b>Ownership status</b>	<b>42.5</b>	<b>20.8</b>	<b>36.7</b>		<b>100%</b>	
	<i>Very Satisfied</i>	<i>Satisfies</i>	<i>Neutral</i>	<i>Dissatisfied</i>	<i>Very Dissatisfied</i>	<i>No.</i>
<i>Question 1</i>	27	40	23	10	20	120
<b>Context</b>	<b>22.5</b>	<b>33.3</b>	<b>19.2</b>	<b>8.3</b>	<b>16.7</b>	<b>100%</b>
<i>Question 2</i>	34	59	11	8	8	120
<b>Elevation &amp; Exterior Design</b>	<b>28.3</b>	<b>49.2</b>	<b>9.2</b>	<b>6.7</b>	<b>6.7</b>	<b>100%</b>
<i>Question 3</i>	32	60	16	4	8	120
<b>Hight – Number of Floors</b>	<b>26.7</b>	<b>50.0</b>	<b>13.3</b>	<b>3.3</b>	<b>6.7</b>	<b>100%</b>
<i>Question 4</i>	32	60	16	4	8	120
<b>Building Entrance</b>	<b>26.7</b>	<b>50.0</b>	<b>13.3</b>	<b>3.3</b>	<b>6.7</b>	<b>100%</b>
<i>Question 5</i>	38	65	11	1	5	120
<b>Apartment Entrance</b>	<b>31.7</b>	<b>54.2</b>	<b>9.2</b>	<b>0.8</b>	<b>4.2</b>	<b>100%</b>
<i>Question 6</i>	42	53	13	6	6	120
<b>Apartment components</b>	<b>35.0</b>	<b>44.2</b>	<b>10.8</b>	<b>5.0</b>	<b>5.0</b>	<b>100%</b>
<i>Question 7</i>	39	54	12	6	9	120
<b>Interior Space Planning</b>	<b>32.5</b>	<b>45.0</b>	<b>10.0</b>	<b>5.0</b>	<b>7.5</b>	<b>100%</b>
<i>Question 8</i>	34	51	16	10	9	120
<b>Rooms Area</b>	<b>28.3</b>	<b>42.5</b>	<b>13.3</b>	<b>8.3</b>	<b>7.5</b>	<b>100%</b>
<i>Question 9</i>	23	37	20	11	29	120
<b>Interior Design – Finishes</b>	<b>19.2</b>	<b>30.8</b>	<b>16.7</b>	<b>9.2</b>	<b>24.2</b>	<b>100%</b>
<i>Question 10</i>	26	43	18	13	20	120
<b>Overall Quality</b>	<b>21.7</b>	<b>35.8</b>	<b>15.0</b>	<b>10.8</b>	<b>16.7</b>	<b>100%</b>
	<b>YES</b>	<b>NO</b>	<b>Don't Know</b>	<b>No.</b>		
<i>Question 11</i>	87	20	13	120		
<b>Generally, Are you satisfied with the decision to choose the apartment option as opposes to the single-family house?</b>	<b>72.5</b>	<b>16.7</b>	<b>10.8</b>	<b>100%</b>		
<i>Question 12</i>	15	103	2	120		
<b>Are you satisfied with the decision to choose the apartment option as opposes to a single-family house?</b>	<b>12.5</b>	<b>85.8</b>	<b>1.7</b>	<b>100%</b>		

Table 2 Results compilation Table.

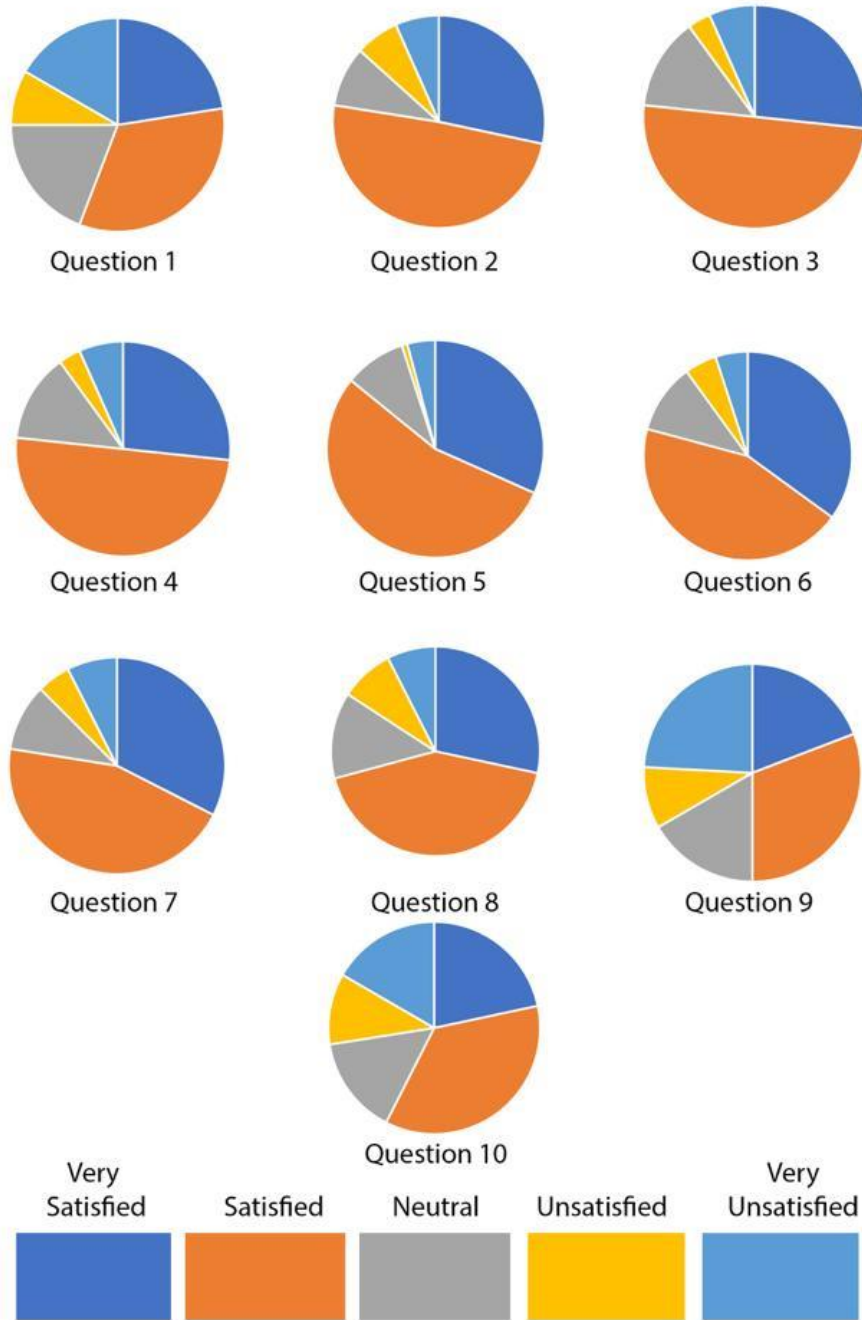


Figure 8 Questions 1,2,3,4,5,6,7,8,9 & 10 results in pai chart

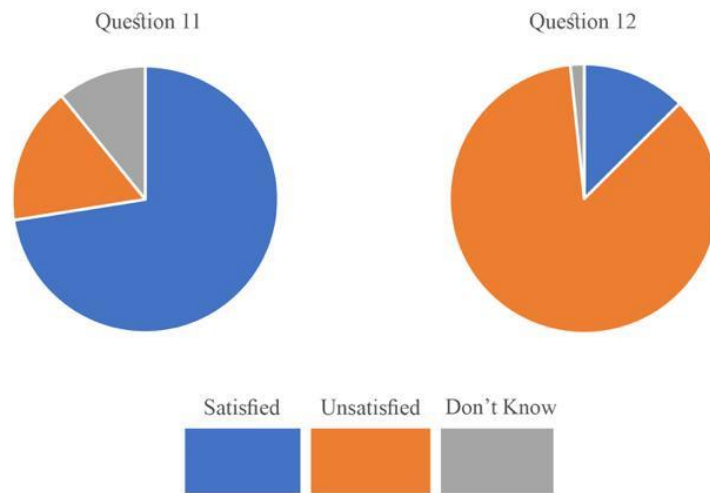


Figure 9 Question 11 & Question 12 results in pai charts.

**Question (1): Context (parking, sidewalk, landscape, etc.)**

Looking at question one (01) and satisfaction level with the context of the project, results from the majority of respondents were as follows: fully satisfied (22.5%), satisfied (33.3%), neutral (19.2%), unsatisfied (8.3%), and very unsatisfied (16.7%).

Looking at the satisfaction in terms of age group, results from the first age group (18-30) were as follows: fully satisfied (22.9%), satisfied (39.6%), neutral (20.8%), unsatisfied (2.1%), and very unsatisfied (14.6%). Results from the second age group (31-40) were as follows: fully satisfied (16.7%), satisfied (25%), neutral (19.4%), unsatisfied (11.1%), and very unsatisfied (27.8%). Results from the third age group (41-50) were as follows: fully satisfied (26.1%), satisfied (21.7%), neutral (21.7%), unsatisfied (13%), and very unsatisfied (17.4%). Results from the fourth age group (51-70+) were as follows: fully satisfied (23.1%), satisfied (53.8%), neutral (7.7%), unsatisfied (15.4%), and very unsatisfied (00%).

**Question 2: Opinion about facade and exterior elevation**

As for question two (02), which asks about the evaluation of residents with the exterior elevation of the apartment buildings, results for the majority of respondents were as follows: fully satisfied (28.3%), satisfied (49.2%), neutral (9.2%), unsatisfied (6.7%), and very unsatisfied (6.7%).

Looking at the satisfaction with exterior elevation in terms of age group, results from the first age group (18-30) were as follows: fully satisfied (31.3%), satisfied (52.1%), neutral (4.2%), unsatisfied (8.3%), and very unsatisfied (4.2%). Results from the second age group (31-40) were as follows: fully satisfied (25%), satisfied (61.1%), neutral (8.3%), unsatisfied (00%), and very unsatisfied (5.6%). Results for the third age group (41-50) were as follows: fully satisfied (26.1%), satisfied (47.8%), neutral (13%), unsatisfied (4.3%), and very unsatisfied (8.7%). Results from the fourth age group (51-70+) were as follows: fully satisfied

(15.4%), satisfied (53.8%), neutral (23.1%), unsatisfied (7.7%), and very unsatisfied (00%).

### **Question 3: Building height and number of floors**

Regarding question three (03), which asks about the resident's opinion about the height of the apartment building, results from the majority of respondents were as follows: fully satisfied (26.7%), satisfied (50%), neutral (13.3%), unsatisfied (3.3%), and very unsatisfied (6.7%).

Looking at the satisfaction with height of the buildings and the number of floors in terms of age group, results from the first age group (18-30) were as follows: fully satisfied (41.7%), satisfied (45.8%), neutral (4.2%), unsatisfied (2.1%), and very unsatisfied (6.3%). Results from the second age group (31-40) were as follows: fully satisfied (16.7%), satisfied (61.1%), neutral (5.6%), unsatisfied (2.8%), and very unsatisfied (13.9%). Results from the third age group (41-50) were as follows: fully satisfied (26.1%), satisfied (60.9%), neutral (00%), unsatisfied (8.7%), and very unsatisfied (4.3%). Results of the fourth age group (51-70+) were as follows: fully satisfied (15.4%), satisfied (84.6%), neutral (00%), unsatisfied (00%), and very unsatisfied (00%).

### **Question 4: Building entrance**

In question four (04), which enquires about the resident's impression about the main entrance of the building, results from the majority of respondents were as follows: satisfied (26.7%), satisfied (50%), neutral (13.3%), unsatisfied (3.3%), and very unsatisfied (6.7%).

Looking at the satisfaction with height of the buildings in term of age group, results from the first age group (18-30) were as follows: fully are satisfied (31.3%), satisfied (45.8%), neutral (16.7%),

unsatisfied (2.1%), and very unsatisfied (4.2%). Results from the second age group (31-40) were as follows: fully satisfied (13.9%), satisfied (47.8%), neutral (8.7%), unsatisfied (2.8%), and very unsatisfied (13.9%). Results from the third age group (41-50) were as follows: fully satisfied (34.8%), satisfied (47.8%), neutral (8.7%), unsatisfied (4.3%), and very unsatisfied (4.3%). Results from the fourth age group 51-70+) were as follows: fully satisfied (23.1%), satisfied (46.2%), neutral (23.1%), unsatisfied (7.7%), and very unsatisfied (00%).

### **Question 5: Entrance of the apartment**

When asked about the entrance of the apartment in question five (5), results from the majority of respondents were as follows: fully satisfied (31.7%), satisfied (54.2%), neutral (9.2%), unsatisfied (.8%), and very unsatisfied (4.2%).

Looking at the satisfaction with the entrance of the apartment in terms of age group, the results from the first age group (18-30) were as follows: fully satisfied (37.5%), satisfied (50%), neutral (10.4%), unsatisfied (00%), and very unsatisfied (2.1%). Results from the second age group (31-40) were as follows: fully satisfied (22.2%), satisfied (61.1%), neutral (5.6%), unsatisfied (2.8%), and very unsatisfied (8.3%). Results from the third age group (41-50) were as follows: fully satisfied (30.4%), satisfied (56.5%), neutral (4.3%), unsatisfied (4.3%), and very unsatisfied (4.3%). Results from the fourth age group (51-70+) were as follows: fully satisfied (38.5%), satisfied (46.2%), neutral (15.4%), unsatisfied (00%), and very unsatisfied (00%).

### **Question 6: Apartment components**



For question six (6), which surveyed the residents about the components of the apartment, results for the majority of respondents were as follows: fully satisfied (35%), satisfied (44.2%), neutral (10.8%), unsatisfied (5%), and very unsatisfied (5%).

Looking at the satisfaction with apartment components in terms of age group, results from the first age group (18-30) were as follows: fully satisfied (37.5%), satisfied (41.7%), neutral (10.4%), unsatisfied (4.2%), and very unsatisfied (6.3%). Results from the second age group (31-40) were as follows: fully satisfied (25%), satisfied (47.2%), neutral (16.7%), unsatisfied (5.6%), and very unsatisfied (5.6%). Results from the third age group (41-50) were as follows: fully satisfied (30.4%), satisfied (43.5%), neutral (13%), unsatisfied (8.7%), and very unsatisfied (4.3%). Results from the fourth age group (51-70+) were as follows: fully satisfied (30.8%), satisfied (61.5%), neutral (7.7%), unsatisfied (00%), and very unsatisfied (00%).

#### **Question 07: Internal layout**

For question seven (07), which asks about the internal layout of the apartment, results from the majority of respondents were as follows: fully satisfied (32.5%), satisfied (45%), neutral (10%), unsatisfied (5%), and very unsatisfied (7.5%).

Looking at the satisfaction with the internal layout in terms of age group, results for the first age group (18-30) were as follows: fully satisfied (43.7%), satisfied (39.6%), neutral (6.2%), unsatisfied (2.1%), and very unsatisfied (8.3%). Results from the second age group (31-40) were as follows: fully satisfied (2.7.8%), satisfied (44.4%), neutral (16.7%), unsatisfied (5.6%), and very unsatisfied (5.6%). Results from the third age group (41-50) were as follows: fully satisfied (26.1%), satisfied (39.1%), neutral (8.7%), unsatisfied (13%), and very

unsatisfied (13%). Results from the fourth age group (51-70+) were as follows: fully satisfied (38.5%), satisfied (38.5%), neutral (7.7%), unsatisfied (15.4%), and very unsatisfied (00%).

#### **Question 08: Room areas**

For question eight (08), which relates to residents' opinions about rooms, results from the majority of respondents were as follows: fully satisfied (28.3%), satisfied (42.5%), neutral (13.3%), unsatisfied (8.3%), and very unsatisfied (7.5%).

Looking at the satisfaction with room areas in terms of age group, results from the first age group (18-30) were as follows: fully satisfied (35.4%), satisfied (43.8%), neutral (10.4%), unsatisfied (2.1%), and very unsatisfied (8.3%). Results for the second age group (31-40) were as follows: fully satisfied (19.4%), satisfied (44.4%), neutral (22.2%), unsatisfied (5.6%), and very unsatisfied (8.3%). Results for the third age group (41-50) were as follows: fully satisfied (26.1%), satisfied (39.1%), neutral (13%), unsatisfied (17.4%), and very unsatisfied (4.3%). Results from the fourth age group were as follows: (51-70+) fully satisfied (23.1%), satisfied (61.5%), neutral (7.7%), unsatisfied (7.7%), and very unsatisfied (00%).

#### **Question 09: Interior design and finishes**

For question nine (09), which asks the surveyed residents about their satisfaction level regarding interior design and finishes, the results for the majority of respondents were as follows: fully satisfied (19.2%), satisfied (30.8%), neutral (16.7%), unsatisfied (9.2%), and very unsatisfied (24.2%).

Looking at the satisfaction with interior design and finishes in terms of age group, results from the first age group (18-30) were as follows: fully satisfied

(29.2%), satisfied (25%), neutral (22.9%), unsatisfied (10.4%), and very unsatisfied (12.5%). Results from the second age group (31-40) were as follows: fully satisfied (5.6%), satisfied (41.7%), neutral (17.4%), unsatisfied (5.6%), and very unsatisfied (36.1%). Results from the third age group (41-50) were as follows: fully satisfied (21.7%), satisfied (21.7%), neutral (17.4%), unsatisfied (4.3%), and very unsatisfied (34.8%). Results from the fourth age group (51-70+) were as follows: fully satisfied (23.1%), satisfied (38.5%), neutral (23.1%), unsatisfied (7.7%), and very unsatisfied (7.7%).

#### **Question 10: Overall quality**

Question ten (10) tried to understand respondents' thoughts about the quality of materials within the apartment. The majority thought that they were fully satisfied (21.7%), satisfied (35.8%), neutral (15%), unsatisfied (10.8%), and very unsatisfied (16.7%).

Looking at the satisfaction with the overall quality in terms of age group, results from the first age group (18-30) were as follows: fully satisfied (25%), satisfied (39.6%), neutral (18.8%), unsatisfied (6.3%), and very unsatisfied (10.4%). Results from the second age group (31-40) were as follows: fully satisfied (13.9%), satisfied (38.9%), neutral (8.3%), unsatisfied (13.9%), and very unsatisfied (25%). Results from the third age group (41-50) were as follows: fully satisfied (21.7%), satisfied (26.1%), neutral (13%), unsatisfied (13%), and very unsatisfied (26.1%). Results from the fourth age group (51-70+) were as follows: fully satisfied (23.1%), satisfied (53.8%), neutral (00%), unsatisfied (23.1%), and very unsatisfied (00%).

**Question 11: Overall satisfaction** In question eleven (11), the researcher attempted to get the

overall satisfaction level of respondents, and it was shown that the majority agreed (72.5%), Disagree (16.7%), Don't Know (10.8%).

Looking at the overall satisfaction in terms of age group, results from the first age group (18-30) were as follows: Agree (77.1%), disagree (8.3%), don't know (14.6%). Results from the second age group (31-40) were as follows: Agree (72.2%), disagree (22.2%), Don't know (5.6%). Results from the third age group (41-50) were as follows: Agree (47.8%), disagree (34.8%), Don't know (17.4%). Results from the fourth age group (51-70+) were as follows: Agree (84.6%), disagree (15.4%), Don't know (00%).

#### **Question 12: Decision to choose the apartment option**

In the question twelve (12), the aim was to measure satisfaction with the majority of respondents that opted for an apartment. Results show that (12.5%) agree, (85.8%) disagree, and don't know (1.7%).

Looking at the satisfaction with the decision to choose the apartment option in terms of age group, results from the first age group (18-30) are as follows: Agree (10.4%), disagree (87.5%), Don't know (2.1%). Results from the second age group (31-40) were as follows: Agree (13.9%), disagree (86.1%), Don't know (00%). Results from the third age group (41-50) were as follows: Agree (17.4%), disagree (82.6%), Don't know (00%). Results from the fourth age group (51-70+) were as follows: Agree (7.7%), disagree (84.6%), Don't know (7.7%).

### **3. Findings**

The authors distilled the following findings from the survey:

- The survey shows that the majority of residents of Jaber Al Ahmad apartments are satisfied with the overall context, landscaping, sidewalks, and availability of parking.
- The results illustrate that most residents of Jaber Al Ahmad are satisfied with the exterior design of the buildings.
- Looking at the survey outcome, we can see that most of the surveyed residents of Jaber Al Ahmad projects are satisfied with the building height, which is limited to five floors.
- The survey outcome shows that most residents are satisfied with the building's main entrance.
- Most surveyed residents are satisfied with the apartment entrance.
- Most surveyed residents are satisfied with the components of the apartment.
- Most surveyed residents are satisfied with the interior layout of the apartments.
- The vast majority of surveyed residents were satisfied with their room size and areas.
- In terms of the interior design and interior finishes, the survey shows that the majority were satisfied, but the survey illustrates a high minority of surveyed residents who felt unsatisfied.

When the researchers conducted cross-tabulation analysis according to age group and satisfaction with the interior design of the apartment; the result showed that a large minority of the middle age group (between the ages of 31 and 50) were unsatisfied.

- When asked about their impression of the overall quality of the residential unit, most residents are satisfied. However, a

considerable minority were somewhat or very unsatisfied.

- All in all, the survey shows that the vast majority of residents were satisfied with their residential units.
- The survey shows that when residents are asked about their decision to choose an apartment as opposed to a single-family house, the vast majority of respondents expressed that they prefer a single-family house.

These answers illustrate that despite residents' satisfaction with the various design elements of apartments, they are still tied to the traditional view of preferring the single-family house. This finding poses a challenge for the Public Authority of Housing Welfare and the Kuwaiti government to try to offer a sustainable public housing option that is attractive and meets the expectations of the Kuwaiti population.

#### 4. Further Research

The authors acknowledges that the subject is complex and wide-ranging. Other areas of this issue would benefit from further research, such as:

- To form a comprehensive understanding, it would be beneficial to undertake an in-depth exploration of the expectation of the design for housing of Kuwaiti citizens and its relation to housing choice.
- It would also be helpful to capture qualitatively the experiences and perspectives of various housing types in the State of Kuwait.
- It would be beneficial to conduct research to explore interior design and architectural elements that may contribute to further

public satisfaction with the design for the apartment living.

- \*Design research could benefit from these findings to arrive at specific design

solutions and housing typologies that may fit with the aspiration of the Kuwaiti population.

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