

A Study on Comparison of Quality Perceptions of Contractors and Customers in Flat-For-Land Projects

* ¹Asst. Prof. Dr. **Bayram Er** and ²M.A. **Erdem Özer**

^{1 & 2} *Department of Architecture, Faculty Of Engineering And Natural Sciences, Alanya University, Türkiye*
E-mail ¹: bayram.er@alanyauniversity.edu.tr, E-mail ²: archerdemozer@gmail.com

Abstract

Quality is a subjective concept, varying from person to person, shaped by the extent to which individuals' expectations of a product or service are met. In Turkey, the majority of residential properties are constructed through flat-for-land projects. To ensure successful sales, contractors in such projects must determine customer expectations before starting construction. In other words, there should be a common quality perception between the contractor and the customer. This study aims to reveal whether there is an alignment between the quality perceptions of contractors and customers who purchase residential properties. Within this scope, semi-structured interviews were conducted with two different participant groups consisting of 9 contractors and 14 customers. Participants were asked to define a quality residence and specify the features that make a residence high quality. Through the interviews, six main themes and 18 sub-themes shaping participants' quality perceptions were identified. As a result, it was concluded that the themes of "Architectural Design," "Materials," and "Structural Stability" were common in the quality perceptions of both groups.

Keywords: Construction Management; Flat-For-Land Projects; Residential Property Quality.

1. Introduction

Quality is a relative concept, and its definition varies from person to person. However, Juran and Godfrey (1998) succinctly define quality as the degree to which needs are met. In this sense, people's perception of quality is formed by the quality indicators of a product or service that meet their needs (Er, 2016). While some of these quality indicators are objective, evaluating them requires technical knowledge. For example, the quality of thermal insulation in buildings is determined by the thermal insulation coefficient of the materials used. Although insulation is one of the primary indicators considered by customers purchasing housing, their technical knowledge is not sufficient to evaluate the quality of the materials. On the other hand, in most construction projects, the employer is also the end user. For instance, in a school construction project, the Ministry of National Education is both the employer commissioning the construction and the end user operating the school once construction is completed. An exception to this situation is construction projects based on a land-for-flats model. In such projects, the employer is also the contractor, who must then seek customers after producing the housing. In other words, contractors in land-for-flats construction projects must identify customer expectations before starting construction to be able to sell the units they produce. This study aims to determine whether the quality perceptions of contractors align with those of customers purchasing housing.

2. The Concept of Quality in Construction Projects

ISO defines quality as the totality of characteristics of a product or service that are based on its ability to meet specified or implied needs. In the literature, the definition of quality in construction projects is similar in content but varies in scope. Chung (1999) limits the scope of quality to the constructed structure itself, stating that a structure must function as designed to be considered of high quality. Rumane (2013), on the other hand, expands the scope to include the management approach, indicating that both the structure and management practices determine quality.

Atkinson (1995) notes that quality in construction projects emerges from different factors during the planning and implementation phases. In this sense, factors such as Instructions, Design, Material Selection, Design Details, Specifications, Quantity Estimation, Cost Estimation, Energy Consumption Benefits, And The Experience Of Designers influence quality during the planning phase. Meanwhile, factors such as Organizational Structure, The Contractor's Expertise, Supply Chain Management, Compliance With Contractual Terms, The Skills Of The Workforce, And The Application Properties Of Materials affect quality during the implementation phase. In other words, during the planning process, the level of meeting customer needs and the constructability of the project determine the overall quality, while during the implementation process, the quality of workmanship plays a crucial role in defining the total quality of the project.

3. Material and Methods

In this study, the grounded theory technique, one of the qualitative research methods, was used. This technique, conducted through semi-structured interviews, allows for asking participants questions about new topics that may arise during the interview (Güler et al., 2013). In semi-structured interviews, the researcher begins with prepared questions and can introduce new questions and perspectives based on the responses received.

The study population consists of contractors and customers who have purchased apartments in Alanya, a district in the Antalya province. The reason for selecting two different participant groups within the research population is to compare the views of the main stakeholders in the housing sector, namely the contractors and the customers, in line with the study's objective. Since it is not possible to calculate the size of the research population, the sample was determined using the convenience sampling method. In this method, researchers form the sample based on the study's objective (Marczyk, DeMatteo, and Festinger, 2005). In recent years, the construction of housing for local buyers has decreased in Alanya due to the increase in sales to foreigners. In this context, to identify the production practices of contractors based on the quality perceptions of local customers, participants in this group were selected from contractors with at least 10 years of experience who have previously constructed housing for local customers. Regarding the second group, participants were selected from customers who have purchased new apartments in the last five years. Information about the participants is presented in Table 1.

Table 1. Participants

Participant No.	Group	Participant No.	Group
1	Contractor	10	Customer
2	Contractor	11	Customer
3	Contractor	12	Customer
4	Contractor	13	Customer
5	Contractor	14	Customer
6	Contractor	15	Customer
7	Contractor	16	Customer
8	Contractor	17	Customer
9	Contractor	18	Customer
		19	Customer
		20	Customer
		21	Customer
		22	Customer
		23	Customer

The study was conducted between March and April 2023. Participants were asked, "Can you define a quality residence according to you? What features make a residence high quality?" It was observed that the responses began to repeat starting from the 7th participant among the contractors and the 12th participant among the customers. Subsequently, for verification purposes, two additional participants from each group were interviewed, and similar responses were obtained, leading to the conclusion of the study.

The reliability of the study was assessed using the Kappa reliability analysis. In this context, the 17 sub-themes identified were analyzed separately, and the Kappa reliability coefficient was found to be 0.824. Based on these findings, it was determined that the themes have very high reliability.

4. Results and Discussion

Based on the responses to the research question obtained from the interviews, six main themes were identified and categorized into different sub-themes: "Architectural Design," "Materials," "Building Durability," "Social Facilities," "Common Facilities," and "Building Location" (Table 2).

Table 2. Main and Sub-Themes

Architectural Design	Material	Building Durability	Social Facilities	Common Facilities	Building Location
Functionality	Material Quality	Structural System	Sports Areas	Parking Area	Location
Sunlight	Workmanship Quality	Ground	Pool	Security	Landscape
Size and Spaciousness			Indoor Entertainment Areas	Elevator	Transport
			Children's Play Area		

4.1 Views on Architectural Design

Under the main theme of Architectural Design, participants expressed their views on three sub-themes identified as "Usability," "Sunlight," and "Size and Spaciousness." Upon examination of the participant opinions regarding the sub-theme of "Usability," it was determined that 11 participants, comprising 5 contractors and 6 customers, provided their views. Participants generally expressed expectations such as ergonomics, ease of transition between rooms, kitchen and bathroom design, and absence of empty spaces under this theme. Regarding the "Sunlight" sub-theme, 2 contractors and 2 customers addressed it, with the expectation being that rooms receive sunlight. As for the "Size and Spaciousness" theme, participants emphasized a sense of spaciousness different from usability. Five participants, including 2 contractors and 3 customers, addressed this sub-theme.

4.2 Views on Materials

The second main theme that emerged based on participant views is labeled "Materials." Within this main theme, participants expressed their views on two sub-themes identified as "Material Quality" and "Workmanship Quality." Regarding "Material Quality," 6 contractors and 7 customers provided their views. Although participants emphasized material quality, they did not specifically address expectations regarding high-quality materials. Only one contractor mentioned that materials should be of first-class quality and comply with standards, while one customer expressed the expectation that materials should be durable. In fact, in the discussions, contractors stated that customers prioritize factors such as cost, location, and size of the residence over material quality when purchasing a property, and they make material selections based on these factors. Consequently, it can be inferred that contractors perceive materials that customers find acceptable as high-quality and select materials for the construction based on the customer profile. The fact that none of the 7 participating customers addressed this sub-theme and the customers who did address it did not mention expectations regarding materials support this conclusion. Regarding the "Workmanship Quality" sub-theme, 9 participants (5 contractors, 4 customers) addressed it. The common view of both participant groups regarding this sub-theme is that proper workmanship is necessary to derive efficiency from the materials used.

4.3 Views on Building Durability

Regarding this main theme, participants provided their views on two sub-themes: "Structural System" and "Foundation." A total of 10 participants, comprising 5 contractors and 5 customers, expressed their views on the "Structural System" sub-theme. The general expectation regarding this sub-theme is that buildings should be constructed in compliance with earthquake regulations. As for the "Foundation" sub-theme, only 3 participants (1 contractor, 2 customers) addressed it. In this regard, participants emphasized the need for the foundation to be sturdy.

4.4 Views on Social Facilities

The fourth main theme that emerged based on participant views is labeled "Social Facilities." Within this main theme, some participants expressed their views solely on the main theme of "Social Areas" (2 contractors, 1 customer), while others provided their views on four sub-themes identified as "Sports Areas" (1 contractor, 2 customers), "Pool" (1 contractor, 1 customer), "Indoor Entertainment Areas" (1 customer), and "Children's Play Area" (1 customer). Both contractors and customers generally emphasized the importance of these areas for spending leisure time without leaving the site. Actually, while the previous three main and sub-themes are directly related to the residence itself, these main and sub-themes are related to areas outside the residence. Therefore, these expectations apply to residences built on large plots.

4.5 Common Facilities

The fifth main theme that emerged based on participant views is labeled "Common Facilities." Within this main theme, participants provided their views on three sub-themes identified as "Parking Area," "Security," and "Elevator." The same participants (1 contractor, 6 customers) expressed their views on the "Parking Area" and "Security" sub-themes. Regarding the "Elevator" sub-theme, only 1 contractor addressed it. Actually, since these main and sub-themes are also related to areas outside the residence, customers have provided more views.

4.6 Building Location

The sixth main theme that emerged based on participant views is labeled "Building Location." Within this main theme, participants provided their views on three sub-themes identified as "Location," "Scenery," and "Transportation." Similar to the previous main theme, the same participants (2 contractors, 8 customers) expressed their views on "Location" and "Scenery." Regarding the "Transportation" sub-theme, only 1 customer addressed it.

5. Conclusions

Quality perception in individuals is determined by the quality indicators of a product or service. Knowing the quality perception formed in customers in Flat-For-Land construction projects is an important factor for the success of projects by the contractor. This study aimed to reveal both the quality perception of customers and contractors and

to determine whether they overlap. In this regard, semi-structured interviews were conducted with two different participant groups consisting of customers and contractors.

As a result of the interviews, participants addressed 6 main themes and 17 sub-themes that could be considered as quality indicators. These main themes, "Architectural Design," "Materials," and "Building Durability," are directly related to the constructed building, while the themes "Social Facilities," "Common Facilities," and "Building Location" are related to the size of the construction site and the region where it is located.

Both participant groups reported the most views on themes directly related to the constructed building. Therefore, it is understood that these themes overlap in the quality perception of both groups. Regarding themes related to the size of the construction site and the region, customers expressed more views. Although this result indicates that quality perception does not overlap, it is understood from the interviews with contractors that construction is done according to the customer profile. In other words, contractors also attach importance to these themes for high-income customers because they increase the cost of housing. In conclusion, it is understood from the study that quality perception largely overlaps for both participant groups.

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Conflict of Interests

The Author(s) declare(s) that there is no conflict of interest.

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