Home-Buyers' Product Selecting Criteria vs. Satisfaction Rate in Northern Cyprus Construction Market

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Abstract

Home-building is a major segment of construction, which plays an important role in the overall economy of Northern Cyprus. Since satisfied customers are the backbone of the home building industry, providing superior quality to keep customers satisfied deserves attention. Most of the home-buyers in the specified sector sign their contracts with the home-builder contractor firms while the product (house) is still in the design stage, before the construction stage even started. Therefore, the correct criteria which the clients should consider while selecting the product to buy become even more complex. In an effort to determine the correct criteria that should be considered by the home-buyers in selecting the highest satisfaction producing products, this study examines the criteria currently used in the sector by presenting survey findings of 80 home-buyer clients in the specified market. The results revealed that there is a significant difference in the criteria that should be considered to reach higher satisfaction for different types of client groups. Furthermore, it was found that although 'product related criteria' are assigned high importance levels in the market, 'contractor related criteria' definitely need to be assigned more importance in the product selection stage to increase the satisfaction levels of the clients. Additionally, it was found that dissatisfaction due to 'service' provided by the contractors was more than that produced by 'product' related factors. The framework presented in this study will serve as a basis for a model, which will guide the home-buyer clients in selecting the correct product that will produce highest satisfaction for them at the end.

Keywords

Home-builder, Home-buyer, Product selection, Satisfaction rate, Northern Cyprus

1. Introduction

Northern Cyprus construction market is a small but competitive market. It has crucial importance for the country's overall economy. According to State Planning Organization, construction sector shares 7.8% of gross national product of Northern Cyprus in 2008. Furthermore, building works for private sector have always constituted a reasonably high share of the total construction works in this market. Nowadays, more than 80% share of the total construction activity is estimated to consist of private sector building works.

Home-building is a major segment of construction within the specified market and it is unknown how well the industry is meeting the customers' expectations in this segment. Providing superior quality to keep customers satisfied deserves attention in such an important issue.

Most of the home-buyers in the specified sector sign their contracts with the home-builder contractor firms while the product (house) is still in the design stage, before the construction stage even started.

Therefore, the correct criteria which the clients should consider while selecting the product to buy become even more complex. Considering the fact that a large number of clients in the specified market faced many major problems in the past ten years, the issue becomes even more important. In Northern Cyprus construction market, a fairly high number of clients who selected the home-builder and the product to buy while the project is in its design stage, faced problems like late delivery of the project, quality problems in the finished product or even sometimes the firm going bankrupt before finishing the project.

In an effort to determine the correct criteria that should be considered by the home-buyers in selecting the highest satisfaction producing products, this study examines the criteria currently used in the sector by presenting survey findings of 80 home-buyer clients in the specified market. Additionally, it combines these findings with the client satisfaction rates and hence provides a framework for the clients in making the right decisions while selecting the product to buy from a home-builder contractor. Considering the fact that there is no related study done in this unique construction market and also the importance of private building construction sector even for the overall economy of this small country, it was decided to thoroughly investigate this issue.

2. Literature Review

Numerous researchers have highlighted clients' expectations from contractors or contractor selection criteria used by the clients in the construction industry. Also, many other researchers have discussed clients' satisfaction in the construction industries. Ahmed and Kangari (1995) conducted a survey with 101 client companies to determine the factors that the clients perceive as being the most important when dealing with contractor organizations and hence develop a client-satisfaction model. Chinyio et al., (1998) defined a checklist of construction clients' needs, which can be used for establishing clients' project requirements. Wong et al., (2000) identified factors as project specific criteria (PSC), which are used by the clients in contractor selection process. Torbica and Stroh (2001) examines empirically home-builders' performance as measured by the degree of home-buyer's satisfaction. Soetanto (2004) presents the development of artificial neural network models for predicting client satisfaction levels arising from the performance of contractors, based on data from a questionnaire survey of clients in the United Kingdom. Egemen and Mohamed (2005) provides insights into private clients' needs, wants and expectations from contractor firms by presenting survey findings of 91 clients regarding this issue. Mbachu and Nkado (2006) developed a conceptual framework for assessment of client needs and measurement of client satisfaction levels in the building development process. Forsythe (2007) developed a conceptual framework for studying customer satisfaction in Australian residential construction.

The findings of these studies provide valuable information for both the contracting organizations and the clients in the related sectors. However the clients of home-builder contractor firms have special circumstances which should be considered and dealt with separately. In an effort to determine the correct criteria that should be considered by the home-buyers in selecting the highest satisfaction producing products, this study examines the criteria currently used in the sector and combines these findings with the satisfaction rates.

3. Research Methodology

The research sample used in this study has been drawn from private construction clients, who had bought at least one product (home) from a home-builder in the last 5 years to make sure that they have the relevant knowledge to answer the questionnaire accurately. The literature review and preliminary consultation with experts formed the basis of the questionnaire. Before finalizing the main questionnaire, a pilot study was done, in which participants were asked to consider the relevance, order and length of the questionnaire.

A total of 80 private building construction clients in Northern Cyprus construction market were targeted and the data has been collected from this sample via face-to-face interviews in order to avoid any misinterpretation of the questions. Considering the possible unfamiliarity of the clients with these concepts, face-to-face interviews was selected as the data collection method.

A structured questionnaire was employed to survey the clients in the interviews. The questionnaire included two main sections. The first section was related to the criteria used by the clients in selecting the product that they recently bought from a home-builder. The respondents were asked for their perception of importance attached to the criteria listed while selecting the product to buy. The second section was about to determine the satisfaction rates of the same clients from the product they bought. The respondents were asked to specify their satisfaction rates of the product bought, considering various factors about the final product separately.

Survey data were analyzed using relative index (RI) technique. The RI technique is used extensively in construction research for measuring attitude, which is the perceived level of importance in this context, with respect to surveyed variables (Shash, 1993; Kometa *et al*., 1994; Jennings and Holt 1998; Wong *et al*., 2000). An ordinal scale was used for the measurement of variables and the respondents were asked to assign level of importance from 1 to 5 for each criterion, 1 being 'the least importance', 3 being 'some importance' and 5 being 'the most importance'. Data from the questionnaires were extracted to derive weightings of the factors included. The magnitude of RI was calculated for all the listed criteria and the variables were rank ordered based on RI.

In addition to considering the indices and ranks obtained from all of the respondents' results, two different subgroups in the clients' sample were identified and analyzed separately. The variables were rank ordered for each one of these two subgroups as well. Spearman Rank Correlation Coefficient (S.R.C.C.) test was performed on the pairs of ranks, obtained for the two different subgroups of respondents in order to define the correlation and hence the similarity (or difference) in behavior of different respondents under the given conditions.

4. Research Findings

4.1 Characteristics of Respondents

Table 1: Statistics about the Characteristics of the Respondents

Variable	Category 1	Category 2	Category 3
Type of construction project	Villa Type Residential Housing (56.25 %)	Apartment Type Residential Housing (43.75 %)	
Average size of projects (in £)	<70,000 (28.75 %)	70,000-120,000 (40 %)	120,000+ (31.25 %)

This section outlines the results from the analyses that were conducted on empirical data obtained from the survey. Before interpreting the research findings, the general characteristics of the respondents should be examined. The research sample has been drawn from private construction clients, who had bought at least one product (home) from a home-builder in the last 5 years. The responding clients were all from Northern Cyprus construction market. Descriptive statistics about the respondents are summarized in Table 1. The projects included in this study were all sold to the clients before they were completed, i.e. either in the design stage or during the construction stage. The cumulative related experience of the

responding clients was about 80 projects totaling over 9 million Pounds (£) of construction work in the last 5 years.

4.2 Product Selecting Criteria

The first section of the questionnaire was aiming to uncover the importance assigned to different criteria by the clients while they select the product to buy from a home-builder contractor. It was attempted to provide a good compilation of major factors. A summary of 'Relative Indices' and Ranks derived from the responses of all of the 80 clients is presented in Table 2.

The average RI value presented in Table 2 is fairly high, which is a clear indication of the high emphasis assigned to the specified factors by the respondents. The results show that the responding clients in the construction market place extremely high emphasis on price offered, as expected. In spite of the fact that more clients are trying to achieve best value instead of the lowest price in the recent years, it is obvious that price still emerged as the leading factor in the specified market. In addition to overall price, the payment plan offered by the contractor firms emerged as a factor with very high importance (ranked 2nd). The factors ranked from 3rd to 8th were also factors related to the product itself. The quality of materials used, the overall size, the architectural design and the location of the product were all factors related to the product itself and were all assigned very high importance scores in the selection process. The location of the product also emerged as a major factor with very high importance level and fairly high rank.

Although, one would expect that factors related to the contractor company will be assigned high importance levels, the results clearly demonstrated that the factors related to the contractor company were assigned relatively lower importance scores compared to the product related factors. Among the factors related to contractor company, 'experience of the contractor' was selected as the most important one with an RI index of 0.692 and rank 9th. The other contractor-related factors were assigned lower importance levels.

The approach of most of the clients towards factors like 'warranty conditions', 'image and identity of the contractor firm' or 'technical ability or resources of the contractor' was interesting in the sense that the clients did not place much emphasis on these factors. 'The contractor firm's overall attitude to the client in the first visit' did not come out as a major factor in the selection process at all.

In addition to overall respondents' results, the relative indices and ranks for two different subgroups available in our respondents' sample are presented in Table 3 to observe the behavior and reveal the clients' approaches for these two different categories separately. Average RI values presented in Table 3 for the two different subgroups show that villa-type building clients lend more overall emphasis on the specified factors than apartment type building clients give them credit for. The overall observation of the results in Table 3 showed apparent differences among factor rankings of the two types of client groups. S.R.C.C. test showed a certain amount of correlation to exist between these two groups (r_s=0,686).

When the factors are investigated in detail, the first observation is that 'the final price of the product' is the leading factor in both of the client groups, as expected. However, when the remaining factors are investigated separately, it can be seen that both the scores and ranks for various factors change significantly according to the type of client. Apartment-type clients assign a lot more significance on 'payment plan proposed by the contractor'. Considering that budgets of apartment-type clients may be limited compared to the other group, this finding is actually expected. Of specific interest, villa-type clients seem to place a lot more emphasis on 'the architectural design of the building' and 'the location of the product'.

Table 2: Product Selecting Criteria (Aggregated Response)

N	Factor Description	RI	Rank
1	The final price of the product	0,958	1
2	The payment plan proposed by the contractor	0,925	2
3	The quality and the type of the materials to be used in the building construction	0,903	3
4	The overall size (indoor area) of the building	0,887	4
5	The architectural design of the building	0,847	5
6	The location of the product	0,835	6
7	The current stage of the construction project	0,750	7
8	The availability of selection choice for the clients in certain interior details	0,748	8
9	Experience of the contractor	0,692	9
10	Time of delivery of the project	0,685	10
11	The quality of contractor's previous works (contractor's history)	0,660	11
12	Financial stability of the contractor	0,650	12
13	References about the contractor (from previous customers)	0,605	13
14	Warranty conditions the contractor firm offers	0,603	14
15	The image and identity of the contractor in the market	0,585	15
16	The contractor firm's overall attitude and approach to the client during the first visit	0,517	16
17	Technical ability and resources of the contractor	0,468	17
18	The size of the whole project (total number of flats or villas in the project)	0,447	18
	Average RI:	0,709	

Table 3: Product Selecting Criteria by the Type of Construction Project [a]

N	Factor Description	Villa Type Housing (Group 1)		Apt. Type Housing (Group 2)	
		RI	Rank	RI	Rank
1	The final price of the product	0,951	1	0,966	1
2	The payment plan proposed by the contractor	0,911	4	0,943	2
3	The quality and the type of the materials to be used in the building construction	0,898	5	0,909	3
4	The overall size (indoor area) of the building	0,880	6	0,897	4
5	The architectural design of the building	0,933	2	0,737	7
6	The location of the product	0,916	3	0,731	8
7	The current stage of the construction project	0,649	12	0,880	5
8	The availability of selection choice for the clients in certain interior details	0,871	7	0,589	13
9	Experience of the contractor	0,702	8	0,680	9
10	Time of delivery of the project	0,560	15	0,846	6
11	The quality of contractor's previous works (contractor's history)	0,680	9	0,634	11
12	Financial stability of the contractor	0,631	13	0,674	10
13	References about the contractor (from previous customers)	0,658	11	0,537	14
14	Warranty conditions the contractor firm offers	0,587	14	0,623	12
15	The image and identity of the contractor in the market	0,662	10	0,486	16
16	The contractor firm's overall attitude and approach to the client during the first visit	0,551	16	0,474	18
17	Technical ability and resources of the contractor	0,458	17	0,480	17
18	The size of the whole project (total number of flats or villas in the project)	0,413	18	0,491	15
	Average RI:	0,718		0,699	

[a] Spearman Rank Correlation Coefficient (r_s) between villa-type and apartment-type clients is 0.686; correlation is significant at 1% level.

The availability of selection choice for the clients in certain interior details' also emerges as a major factor in villa-type clients compared to apartment-type ones. On the other hand, it seems that apartment-type clients are assigning much more importance to the 'current stage of the project'. 'Time of delivery of the project' was also another factor which was assigned a much higher value by apartment-type clients. These findings show that apartment-type clients would like to invest money in projects which are continuing and are going to be completed in very near future. This may be an indication of their urgent need for a house or it may be explained by their need to invest their money in a more secure option. Considering the fact that a certain number of clients in the specified market, who bought houses from contractor firms before the constructions started, faced many problems in the past, the need for security of the clients was actually expected.

When the contractor-related factors are investigated, it is observed that some of them are assigned higher values by villa-type clients while the opposite is true for the others. However, in general, contractor-related factors are assigned lower emphasis compared to the product related factors for both of the groups. Apartment-type clients assigned higher importance to 'financial stability of the contractor', 'technical ability and resources of the contractor' and 'warranty conditions' while villa-type clients importance scores were higher for 'references about the contractor', 'the quality of contractor's previous works' and 'the image and identity of the contractor in the market'. This may be an indication that apartment-type clients with limited budgets are looking for more secure options while villa-type clients are looking for higher quality.

From the overall observation of the scores and the ranks of the *product-related factors*, it is seen that marketing for villas should focus on 'quality', 'architectural design', 'aesthetics' and 'location' while for apartment type clients the main focus should be 'a competitive price', 'a convenient payment plan' and 'a fast delivery time' for the project. From the overall observation of the scores and the ranks of the *contractor-related factors*, it is found that marketing for villas should focus on 'firm's brand name' and 'firm's history' while marketing for apartments should focus on 'firm's financial stability', 'firm's resources' and 'warranty conditions'.

4.3 Satisfaction Rates of the Responding Clients

The second section of the questionnaire was aiming to examine the satisfaction rates of the clients from the products that they bought from home-builder contractor firms. Satisfaction about the product was investigated under five different categories. A summary of 'Relative Indices' and Ranks derived from the responses of all of the 80 clients is presented in Table 4.

These results very clearly demonstrate that the clients in general are satisfied with the final product's quality, design or performance, while they face dissatisfaction problems regarding to the contractor related issues. The sharp decrease of satisfaction RI score from 0.720 to 0.570 or lower actually shows that dissatisfaction problem is mainly due to the contractor firms selected and the services they provide. Product delivery process emerged as the factor causing the most dissatisfaction with very low satisfaction rate RI score of 0.450. The fairly low score of 0.570 assigned to 'The overall approach of the contractor and contractor's personnel to the client throughout the construction process' shows that today's clients' satisfaction cannot be obtained only with the final product's quality but home-builder organizations also should focus on the services they provide to the clients.

When the satisfaction rates for two different subgroups presented in Table 5 are investigated, it is observed that there exists a high similarity between them. For both of the groups, dissatisfaction seems to be due to contractor related factors while product related factors produced fairly high amount of satisfaction for them. The only difference between the two groups seemed in the first two factors. Villa-type clients were most satisfied with the 'overall design of the house' with an RI index of 0.773 while

apartment-type clients were most satisfied with the 'overall quality of the finished product' with an RI index of 0.737.

Table 4: Satisfaction Rates of the Responding Clients (Aggregated Response)

N	Factor Description	RI	Rank
1	The overall design of the house –(Aesthetics, Performance)	0,750	1
2	The overall quality of the finished product	0,720	2
3	The overall approach of the contractor and contractor's personnel to the client throughout the construction process	0,570	3
4	Contractor obeying the contract conditions	0,508	4
5	Product delivery process (time of delivery)	0,450	5
	Average RI:	0,600	

Table 5: Satisfaction Rates by the Type of Client

Type of Construction Project		Villa Type Housing (Group 1)		Apt. Type Housing (Group 2)	
N	Factor Description	RI	Rank	RI	Rank
1	The overall design of the house –(Aesthetics, Performance)	0,773	1	0,720	2
2	The overall quality of the finished product	0,707	2	0,737	1
3	The overall approach of the contractor and contractor's personnel to the client throughout the construction process	0,556	3	0,589	3
4	Contractor obeying the contract conditions	0,516	4	0,497	4
5	Product delivery process (time of delivery)	0,453	5	0,446	5
	Average RI:	0,601		0,598	

5. Conclusions

Building works for private sector have always constituted a reasonably high share of the total construction works in Northern Cyprus construction market. Home-building is a major segment of construction, which plays an important role in the overall economy of the country. Since satisfied customers are the backbone of the home building industry, providing superior quality to keep customers satisfied deserves attention. In an effort to determine the correct criteria that should be considered by the home-buyers in selecting the highest satisfaction producing products, this study examined the criteria currently used in the sector by presenting survey findings of 80 home-buyer clients in the specified market.

One would expect that factors related to the contractor company will be assigned high importance levels. However, the results clearly demonstrated that the factors related to the contractor company were assigned relatively lower importance scores compared to the product related factors. On the other hand, although clients assign much more importance to *product-related factors* in the product selection process, the findings of this study demonstrated that dissatisfaction is usually due to *contractor related factors.* Therefore, clients should increase the importance of *contractor related factors* in the product selection stage and should not only focus on the product itself. Considering the fact that the projects included in this study were projects, which were all sold to the clients before they were completed, 'choosing the right

home-builder' becomes as important as 'choosing the right product' for the satisfaction of clients at the end of the project.

The findings of this study also suggest that any model regarding home-buyer clients product selecting criteria should definitely differentiate among different types of client groups to reflect the approaches of the related clients in a better manner. From the findings of this study, it can be concluded that marketing for villas should focus on 'quality', 'architectural design', 'aesthetics' and 'location' of the product while for apartments the main focus should be 'a competitive price', 'a convenient payment plan' and 'a fast delivery time' for the project. Additionally, home-builder firms should emphasize on their 'firm's brand name', 'firm's history' for villa-type clients and 'firm's financial stability', 'firm's resources' 'warranty conditions' for apartment-type clients.

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