

# Service Quality Determinants and Effectiveness in the Real Estate Brokerage Industry

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**Abstract.** This study provides an analysis of the real estate brokerage industry for the purposes of identifying the determinants of service quality, the level of service quality, and possible service quality improvement measures. Factor analysis of survey response data is used to develop an empirical application of a theoretical service quality model.

Except for rank order, real estate service quality determinants are found to match those in other industries. Real estate service quality met expectations in three areas, and was below expectations in two areas. Salesperson performance evaluation measures are suggested to improve service quality.

## Introduction

Analyzing consumer satisfaction and quality in service sector industries is an evolving area of research of particular importance to the real estate brokerage industry. Studies published by the National Association of REALTORS and others repeatedly identify industry-wide characteristics of high turnover, low per capita income, and increasing levels of competition. For individual brokerage firms or real estate licensees to thrive and prosper in such an environment, they must recognize these industry conditions and adapt their business practices accordingly. Unfortunately, some of these undesirable industry characteristics may be attributed to external causes beyond the control of licensees such as lenient pre-licensing requirements. To compete effectively in the real estate brokerage industry, factors that can be controlled by the firm or licensee and used to increase overall profitability should be identified and optimally used.

One way to gain a competitive edge in the brokerage industry is to improve upon the

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quality of service that is being delivered to buyers and sellers in the marketplace. Service quality is generally recognized as distinct from product quality, because service quality is measured by the degree to which service performance matches consumer expectations of service. Once its determinants are recognized, service quality is an element that at least can be partially controlled and improved upon by real estate salespersons.

This study is an attempt to investigate the determinants and level of service quality in the real estate brokerage industry, based on the gap between service performance and homebuyer expectations of service quality. To do this, the service quality model recently developed by Parasuraman, Zeithaml and Berry [12] is used. Factor analysis is applied to survey response perceptions of service quality. Expected and perceived common factors of homebuyers are compared to determine the level of real estate service quality delivered. Salesperson expectations and perceptions of service quality are also identified using factor analysis. Salesperson responses are compared with those of homebuyers to provide additional insight about service quality in the real estate brokerage industry. Implications and suggestions for possible enhancement of real estate brokerage service quality and related research issues are given.

The second section of the paper contains a review of the relevant marketing literature pertaining to service quality. The third section describes an application of the service quality model to the real estate brokerage industry and outlines the research questions examined in the study. The fourth section of the paper discusses the research design, data collection, and statistical technique used to analyze survey responses from homebuyers and real estate salespersons. The fifth section contains the empirical results and their analysis. The last section contains the conclusions and suggestions for improvement of service quality.

## Evolution of the Service Marketing Concept

Despite growing importance of the service sector in our economy and substantive differences between the selling of products versus services, the marketing literature historically has been product oriented in its presentation of marketing strategies. Only since the late 1970s have marketing practitioners and academicians identified the need to differentiate a marketing model unique to service rather than product quality. Several studies [1, 2, 9, 14, 15, 16] underscore the need to expand marketing's conceptual boundaries from a framework that accommodates tangible product components into a more versatile model that accommodates intangible service components as well.

Unique characteristics of service sector industries differentiate them from product-oriented industries and compound the difficulty of defining service quality. These service characteristics have been neatly categorized by Zeithaml, Parasuraman and Berry [17] as heterogeneity or nonstandardized levels of service performance; inseparability of production and consumption due to continuous consumer interaction with delivery of service; intangibility due to the nature of services versus product performance; and perishability associated with inability to inventory services when demand fluctuates.

Definitions of service quality and service quality models were subsequently developed where service quality was premised as dependent on consumer comparisons between expectations of service and perceived service [3, 4, 7]. These models are largely based on a services disconfirmation paradigm that states that consumer quality expectations are met when service perception is as expected; negatively disconfirmed when service expectations exceed consumer perceptions of service received; and positively disconfirmed when perceived

**Exhibit 1**  
**Parasuraman's Model of Generic Service Quality Determinants**

	Word of Mouth	Personal Needs	Past Experience
Determinants of Service Quality		Expected Service	
1. Reliability of Service			
2. Service Assurances			Perceived Service Quality
3. Tangible Service Char.			Perceived Service Quality
4. Service Responsiveness		Perceived Service	
5. Service Empathy		Perceived Service	

service exceeds expected service. A more recent conceptual model of service quality was developed by Parasuraman, Zeithaml and Berry [12] by investigating retail banking, credit card, securities brokerage, and product maintenance services. Using a combination of industry executive interviews and consumer focus groups, service quality was again identified as meeting or exceeding consumer expectations of service. Consumer expectations of service were premised as being influenced by word of mouth, personal needs, and past experience. The level of delivered service quality stemmed from the direction and magnitude of the gap between expected and perceived service.

Regardless of the type of the service industry involved, Parasuraman found that the determinants of service quality were consistently identified by consumers as falling into the same general categories. Exhibit 1 illustrates a refined and abbreviated version of the generic service quality model that emphasizes a collapsed set of five determinants of service quality that stem from consumer perceptions of expected service. In rank order from most to least important, important service characteristics that influence quality were found to be reliability of service; assurances of service; tangible service characteristics; service responsiveness, and service empathy for the consumer. Exhibit 1 also illustrates the gap between expected and perceived service which is determinative of service quality. According to the theoretical model, consumer judgments about levels of service quality received depend on how they perceive actual service performance in light of what was expected [12, 13].

The foregoing service quality model was developed as generic in nature rather than specific to any particular service industry. While the service quality model has been discussed as theoretically applying to the health care industry by O'Connor and McIlwain [11], there appear to be no empirical research efforts that have applied the service quality model specifically to real estate brokerage or other service industries. Indeed, the bulk of existing research on real estate brokerage practices consists of trade-related or professional journal articles such as those in *Real Estate Today* and *Real Estate Issues* that discuss a particular sales technique or industry development. Others contain descriptive statistics of survey response data from salespersons, sellers, or homebuyers [6].

While categorized as a service sector industry, real estate brokerage differs in many respects

from the retail banking, securities brokerage, credit card, and product maintenance service industries that were used to develop generic determinants of service quality [12]. Unlike most other service industries, the real estate brokerage industry is characterized as being prescriptively customized [9]. That is, there is a high degree of consumer customization because the buyer is continuously involved in and affects the production process. In addition, salespersons are required to exercise a great degree of personal judgment concerning service and delivery characteristics. Because of these industry differences, service quality determinants for other industries may be inapplicable to real estate brokerage.

### **Service Quality in the Real Estate Brokerage Industry— Specific Research Issues**

The purpose of this study is threefold:

1. to identify the determinants of service quality in the real estate brokerage industry using as a theoretical framework the service quality model developed by Parasuraman, et al.;
2. to determine whether homebuyers' service expectations are congruent with their perceptions of service rendered by salespersons; and
3. to determine whether the determinants and perceptions of service quality perceived by salespersons are consistent with those perceived by homebuyers.

### **Research Design, Data Collection and Methodology**

Two questionnaires were developed with similar sets of questions and administered to 375 randomly selected homebuyers and 178 real estate licensees (both brokers and sales agents) in North Carolina during 1984-85. Lists of buyers who had purchased homes within a twelve-month period preceding the study were obtained from the Register of Deeds Offices in randomly selected North Carolina counties. Lists of real estate licensees who had participated in a home purchase transaction within the preceding year were obtained from multiple listing service records in randomly selected North Carolina counties.<sup>1</sup> Counties included in the population sample frame were evaluated to ensure representation of statewide demographic characteristics. Personal interview appointments were scheduled in advance by telephone, with no more than three call-backs made to prospective subjects. Follow-up attempts to contact non-respondent homebuyers and licensees did not produce additional useable data.

The survey instrument contained two distinct groups of questions. The first group of twenty-two questions pertained to expected attributes or behavioral characteristics of an ideal real estate salesperson.<sup>2</sup> The second group consisted of twenty-three questions about perceived attributes of actual salesperson behavior experienced in a home purchase transaction. The content of the questionnaires was developed by using homebuyer and salesperson focus group discussions of important sales attributes relevant to the purchase of a home, and refined by comparison with instruments used by the National Association of REALTOR's *Homebuying Survey*. Salesperson attributes were constructed for measurement using a 5-point Likert scale ranging from 1-very important, to 5-least important. The survey instrument was pretested using homebuyers and salespersons in a town excluded from the final data set. Copies of the survey instruments are available from the authors.

Factor analysis was selected as the appropriate data reduction technique to determine whether an underlying pattern of relationships existed in the highly correlated response data.

**Exhibit 2**  
**Summary of Attributes and Rotated Factor Matrix Loadings for Analysis of Homebuyer Expectations of Ideal Salesperson Behavior**

Attribute	Factor Loading
<b>FACTOR ONE—Service Assurances &amp; Responsiveness</b>	(Eigen. 5.177)
1. Amount of contact time	.792
2. Closing involvement	.716
3. Willingness to recommend others	.714
4. Salesperson effort	.710
5. Salesperson interest	.628
6. Needs questionnaire	.555
7. Frequent communications	.519
<b>FACTOR TWO—Tangible Firm Characteristics</b>	(Eigen. 2.461)
1. Company size	.770
2. Amount of advertising	.722
3. Number of listings	.614
4. Type of advertising	.595
5. Multiple listing service membership	.532
<b>FACTOR THREE—Tangible Product Characteristics</b>	(Eigen. 1.476)
1. Location of listings	.819
2. Selections offered	.814
3. Price range of listings	.511
<b>FACTOR FOUR—Reliability of Service</b>	(Eigen. 1.245)
1. Professional qualifications	.742
2. Ability to get the best deal	.674
3. Company reputation	.360
<b>FACTOR FIVE—Service Empathy</b>	(Eigen. 1.162)
1. Commission rate	.736
2. Access ease of office	.570
3. Friendliness	.507
<b>FACTOR SIX—Post-Purchase Service Empathy</b>	(Eigen. 1.014)
1. Salesperson follow-up	.633

Factor analysis was used for exploratory purposes, with an *R*-type correlation matrix of attributes, the principal-component method of extracting defined initial factors, and Varimax orthogonal rotation with uncorrelated terminal factors.

## Empirical Results and Analysis

### *The Determinants of Service Quality*

1. *Results.* Factor analysis of homebuyer responses to the first block of twenty-two questions pertaining to expected salesperson behavior isolated six constructs of normative salesperson behavior which account for a cumulative 57% of total variance. Exhibit 2 provides a summary of this analysis. Each attribute loads satisfactorily on its respective factor, within a range of .360 to .819. For purposes of comparison and whenever possible, factors are identified using descriptions similar to Parasuraman's. The first factor has an eigenvalue of 5.177, accounts for 23.5% of total variance, and contains seven attributes of expected sales behavior. The

attributes contained within the first factor in rank order of factor loading from highest to lowest are amount of salesperson contact time, salesperson closing involvement, salesperson willingness to recommend others, salesperson effort, salesperson interest, attempts to learn homebuyer needs, and number of contacts made by salesperson. Identification or labeling of the commonalities captured by the first expectations factor appears to be a composite of service assurances and responsiveness, with emphasis placed on the former category. Service assurances include knowledge and courtesy to homebuyers as well as frequent communication. Service responsiveness includes willingness to help homebuyers by providing prompt service.

The second factor that was identified as a determinant of service quality has an eigenvalue of 2.461, accounts for 11.2% of factor variance, and contains five salesperson attributes. In rank order from highest to lowest, the salesperson characteristics contained in the second factor are size of the firm, amount of advertising, number of listings, type of advertising, and multiple listing service membership. The second factor can be readily labeled as tangible characteristics of the service firm.

The third homebuyer expectations factor has an eigenvalue of 1.476, accounts for 6.7% of variance, and contains three attributes. The attributes categorized in factor three are location of listing, selection of listings offered, and price range of listings. Factor three can be described as pertaining to tangible product characteristics. Factor number four contains three attributes, has an eigenvalue of 1.245, and accounts for 5.7% of variance. Ideal salesperson attributes captured by this factor include professional sales qualifications, ability to get the best deal, and reputation of the firm. Reliability of service is what is common in the fourth factor as each of the attributes contained within it pertain to dependability or ability to perform a task.

The fifth construct identified by factor analysis of responses about homebuyer expectations contains three attributes, has an eigenvalue of 1.162, and accounts for 5.3% of variance. Attributes contained within this group are commission rate, access ease of office, and salesperson friendliness. The fifth factor can be described as capturing service empathy for the homebuyer. Service empathy refers to individualized attention and care given to homebuyers and includes ease of salesperson approachability by prospective homebuyers. The sixth factor has an eigenvalue of 1.014, accounts for 4.6% of variance. The only attribute isolated by the sixth factor is salesperson follow-up. Because it also pertains to service empathy, the label given to the sixth factor is post-purchase service empathy.

In summary, the determinants of service quality as identified by factor analysis of homebuyer expectations of an ideal salesperson are attributes that pertain to service responsiveness and assurances, tangible characteristics of the firm, tangible characteristics of the products offered, reliability of service, and salesperson empathy for the homebuyer.

2. *Analysis of Determinants.* Empirical results of homebuyer expectations of ideal real estate salesperson attributes provide a preferred rank order of desired characteristics. In all instances, use of an exact or varied Parasuraman description was found to be appropriate for factor labeling. Exhibit 3 summarizes and compares the collapsed set of five real estate service quality determinants identified by this study with the generic set of service quality determinants.

Immediately obvious from inspection of Exhibit 3 is the similarity of factor labels between the two groups. While similar identification was a self-imposed constraint in defining the real estate service quality determinants, it was by no means inappropriate to use predefined generic category labels.

While real estate service determinants contained in Exhibit 3 generally match those of the generic model, rank order of the determinants differ. Parasuraman found rank order of the generic set of service quality determinants to be uniformly consistent across retail banking,

**Exhibit 3**  
**Rank Order Comparison of Real Estate Service Quality Determinants with**  
**Generic Service Quality Determinants**

Real Estate Service Quality Determinants	Generic Service Quality Determinants
1. Service Assurances and Responsiveness	1. Reliability of Service
2. Tangible Firm Char.	2. Service Assurances
3. Tangible Product Char.	3. Tangible Service Char.
4. Reliability of Service	4. Service Responsiveness
5. Service Empathy	5. Service Empathy

securities brokerage, credit card, and product maintenance service industries. Service quality determinants in the real estate brokerage industry do not appear to conform to the rank order of behavioral dimensions contained in the generic model.

In particular, service assurances and responsiveness are ranked first in importance as determinants of service quality by real estate homebuyers, but second and fourth in the generic model. This implies that real estate homebuyers consider these two service attributes relatively more important than do consumers in other service industries. Homebuyers may consider assurances and responsiveness of service as relatively more important due to the infrequency of individual home purchases and consumer lack of technical knowledge about a home purchase transaction. Because selection of a home is largely an emotional decision surrounded by uncertainty, positive assurances and salesperson reinforcement may be more desirable for real estate than other purchase transactions.

Tangible characteristics are divided and ranked separately by homebuyers depending on whether they relate to the salesperson or the product. Tangible firm characteristics are ranked second and tangible product characteristics are ranked third by homebuyers, whereas the generic model assigns third place to all tangible service characteristics. Given the high average cost of housing and infrequency of purchase, it is not surprising that separate tangible factors are identified by homebuyers for the product as well as for the firm. Comparison of tangible attribute factors indicates that homebuyers place approximately the same level of importance to this category as do consumers in other service industries.

Perhaps most interesting in the comparison between the two groups is that reliability of service is ranked fourth by homebuyers as a determinant of quality, but places first as a determinant in the generic model. This difference in perspective is possibly caused by the substantial interactive role that homebuyers have with salespersons in a purchase transaction. Because the decision to buy belongs solely to the consumer, homebuyers are not as dependent on salesperson reliability or dependability to consummate the transaction. Homebuyers and generic groups both rank service empathy fifth in priority, which implies that both groups have similar expectations regarding relative importance of empathy as a service quality attribute.

The generic service quality model developed by Parasuraman, et al. appears to be robust and easily applicable to other service industries. To summarize the foregoing comparison between real estate and generic service quality factors, determinants in both groups are found to be virtually identical in content, but differ in rank order of relative importance. Real estate quality determinants of service assurances and responsiveness are ranked much higher and service reliability much lower by homebuyers than by other service industry consumers.

**Exhibit 4**  
**Summary of Attributes and Rotated Factor Matrix Loadings for Analysis of Homebuyer Perceptions of Salesperson Service Received**

Attribute	Factor Loading
<b>FACTOR ONE—Reliability of Service</b>	(Eigen. 6.111)
1. Ability to get the best deal	.695
2. Salesperson follow-up	.653
3. Earned commission	.651
4. Professional qualifications	.645
5. Willingness to recommend others	.560
6. Attempts to learn homebuyer needs	-.500
7. Company reputation	.470
<b>FACTOR TWO—Service Assurances &amp; Responsiveness</b>	(Eigen. 1.984)
1. Effort to educate about market	.713
2. Closing involvement	.634
3. Assisted with financing	.614
4. Frequent communications	.577
5. Amount of contact time	.536
<b>FACTOR THREE—Tangible Product Characteristics</b>	(Eigen. 1.481)
1. Location of listings	.674
2. Price range of listings	.601
3. Number of listings	.537
<b>FACTOR FOUR—Service Empathy</b>	(Eigen. 1.191)
1. Salesperson interest	-.751
2. Selections offered	-.529
3. Friendliness	.439
4. Needs questionnaire	-.430
5. Access ease of office	.388
<b>FACTOR FIVE—Tangible External Firm Char.</b>	(Eigen. 1.122)
1. Amount of advertising	.821
2. Type of advertising	.780
<b>FACTOR SIX—Tangible Internal Firm Char.</b>	(Eigen. 1.061)
1. Multiple listing service membership	.884

*Service Quality in the Real Estate Brokerage Industry*

1. *Results.* To evaluate service quality, homebuyer perceptions of actual service quality received from real estate salespersons are compared to their expectations of service quality. The factor analysis identified six factors in homebuyer responses about perceptions of service received, which account for 56.3% of cumulative variance. Results of this analysis are contained in Exhibit 4. All attributes load highly on their respective factors with loadings ranging from .389 to .884.

The first factor includes getting the best deal, salesperson follow-up, whether salesperson earns the commission, professional qualifications, willingness to recommend others, attempts to learn homebuyer needs, and reputation. The seven attributes contained within the first factor can be labeled as reliability of service. The first factor has an eigenvalue of 6.111, and accounts for 26.6% of variance. The second factor contains five attributes of salesperson behavior: efforts to educate homebuyer, salesperson closing involvement, salesperson assistance in obtaining financing, frequency of communications, and length of communications. The



**Exhibit 5**  
**Rank Order Comparison of Service Quality Perceived and Expected by Homebuyers**

Perceived Service	Expected Service
1. Reliability of Service	1. Service Assurances and Responsiveness
2. Service Assurances and Responsiveness	2. Tangible Firm Char.
3. Tangible Product Char.	3. Tangible Product Char.
4. Service Empathy	4. Reliability of Service
5. Tangible Firm Char.	5. Service Empathy

second factor can be labeled as capturing service assurances and responsiveness. It has an eigenvalue of 1.984, and accounts for 8.6% of variance.

The third construct identified using homebuyer perceptions of service received contains only three attributes and is labeled tangible product characteristics. The three attributes are location of listings, prices of listings, and number of listings. The third factor has an eigenvalue of 1.481 and accounts for 6.4% of variance. The fourth factor contains the following five attributes: salesperson interest, selection of listings offered, friendliness, use of a needs questionnaire, and access ease of office. While definition of this factor is more complex because it seems to capture a diverse group of characteristics, it is labeled as service empathy. The fourth factor has an eigenvalue of 1.191, and accounts for 5.2% of variance.

The fifth component identified contains amount of advertising and type of advertising as perceived characteristics of service received. The fifth factor has an eigenvalue of 1.122 and accounts for 4.9% of factor variance. Identification of this factor as tangible external firm characteristics seems appropriate. The sixth factor only contains multiple listing service membership as an attribute. The factor has an eigenvalue of 1.061 and accounts for 4.6% of factor variance. While substantial overlap exists between the fifth and sixth factors because both pertain to tangible firm characteristics, the sixth factor can be differentiated by labeling it as a tangible internal firm characteristic.

To summarize, in rank order from most to least important, homebuyer perceptions of real estate service received are found to be reliability of service, service assurances and responsiveness, tangible product characteristics, service empathy, tangible external firm characteristics, and tangible internal firm characteristics.

*2. Analysis of Service Quality.* Assuming that service quality is as defined in the literature, i.e., a consumer comparison between perceived and expected service, then service quality in the real estate brokerage industry can be analyzed by comparing factors that describe homebuyer perceptions of service received to factors that describe homebuyer expectations of service. If perceived service received either equals or exceeds expectations of service, then service quality is indicated. Conversely, if perceived service received falls below expected service, then service quality is not indicated. Content of expected versus perceived questions contained in the survey instrument were intentionally designed to be similar, so that factors from the two question groups could be identified and compared by rank order of importance. To facilitate the service quality evaluation using rank attribute order, factors perceived to be received and expected by homebuyers are collapsed and compared in Exhibit 5.

Only two of the perceived factor attributes, i.e., reliability of service and service empathy, rank higher than homebuyer expectation factors which indicates that real estate service quality exceeds minimum standards in these two categories. The factor category of tangible product

attributes ranks third in both perceived and expected homebuyer responses. This indicates that service quality components pertaining to house characteristics are delivered as expected. Finally, a comparison of the rank order of perceived versus expected service assurances and responsiveness and tangible firm characteristics factors indicates that perceptions fall below expectations. Therefore, acceptable service quality by real estate salespersons is not being delivered to homebuyers in these two areas.

### *Perceived Service Quality: Salesperson versus Homebuyer*

A comparison of homebuyer perceptions and expectations of service quality indicates that real estate service quality is being delivered in some but not all desired areas. In particular, service quality is being delivered in areas of reliability, homebuyer empathy, and product characteristics, but not in areas of service assurances and responsiveness. To understand why service quality is not being uniformly delivered to homebuyers, salespersons who had been involved in a sales transaction during the preceding year were interviewed about their expectations and perceptions of quality brokerage service. By comparing factor analysis results of salesperson service expectations with consumer service expectations, an evaluation can be made about whether salespersons understand the determinants of service quality in their industry. If salespersons' expectations of service quality differ from those of homebuyers, then real estate service quality would not be expected. Conversely, if salespersons are found to understand and match homebuyer determinants of service quality, then failure to deliver uniform service quality is attributed to some other cause. A comparison of salesperson perceptions and homebuyer perceptions of service quality is undertaken to identify possible causes of varying service quality.

1. *Salesperson and Homebuyer Expectations: Results and Analysis.* Factor analysis of salesperson responses to a block of twenty-two questions about expectations of ideal salesperson attributes identified seven groups of normative sales behavior patterns that cumulatively account for 61.5% of variance. Factor findings are summarized in Exhibit 6. Attributes load satisfactorily on the identified factors within a range from .522 to .855. The first sales expectation factor has an eigenvalue of 5.626, accounts for 25.6% of total variance, and contains five salesperson attributes. First factor attributes include closing involvement, attempts to learn homebuyer needs, reputation of the firm, salesperson interest, and salesperson friendliness. The first factor is primarily oriented toward service assurances.

The second salesperson expectations factor has an eigenvalue of 1.833, accounts for 8.3% of variance, and contains four attributes of desired behavior. In rank order of loading from highest to lowest, the attributes of willingness to recommend others, amount of contact time, ability to get the best deal, and price range of listings are included in the second factor. Although characteristics from other areas seem to be included in the second factor, service responsiveness is the most appropriate label.

The third factor has an eigenvalue of 1.512 and accounts for 6.9% of variance. Characteristics of type and amount of advertising, size of the firm, and number of listings are included within this factor. Factor three for salesperson expectations is labeled as pertaining to tangible characteristics of the firm. Factor four contains behavior attributes of salesperson effort, commission rate, number of contacts made, and professional qualifications. While commonalities in this factor also difficult to identify, salesperson reliability is chosen as the most suitable factor label. The fourth factor has an eigenvalue of 1.379 and accounts for 6.3% of variance.

The fifth salesperson expectations factor contains the attributes of location of the listings

**Exhibit 6**  
**Summary of Attributes and Rotated Factor Matrix Loadings for Analysis of**  
**Salesperson Expectations of Ideal Salesperson Behavior**

Attribute	Factor Loading
<b>FACTOR ONE—Service Assurances</b>	(Eigen. 5.626)
1. Closing involvement	.719
2. Needs questionnaire	.703
3. Company reputation	.666
4. Salesperson interest	.661
5. Friendliness	.641
<b>FACTOR TWO—Service Responsiveness</b>	(Eigen. 1.833)
1. Willingness to recommend others	.785
2. Amount of contact time	.762
3. Ability to get the best deal	.710
4. Price range of listings	.546
<b>FACTOR THREE—Tangible Firm Characteristics</b>	(Eigen. 1.512)
1. Type of advertising	.782
2. Amount of advertising	.681
3. Company size	.579
4. Number of listings	.517
<b>FACTOR FOUR—Reliability of Service</b>	(Eigen. 1.379)
1. Salesperson effort	.666
2. Commission rate	.646
3. Number of contacts made	.585
4. Professional qualifications	.522
<b>FACTOR FIVE—Tangible Product Characteristics</b>	(Eigen. 1.089)
1. Location of listings	.791
2. Selections offered	.613
<b>FACTOR SIX—Service Empathy</b>	(Eigen. 1.056)
1. Multiple listing service membership	.855
2. Access ease of office	.551
<b>FACTOR SEVEN—Post-Purchase Service Empathy</b>	(Eigen. 1.029)
1. Salesperson follow-up	.809

as well as selection of listings offered. It has an eigenvalue of 1.089 and accounts for 4.9% of variance. The fifth factor is readily labeled as pertaining to characteristics of the product. The sixth factor has an eigenvalue of 1.056 and accounts for 4.8% of variance with ease of office. This factor is identified as pertaining to service empathy.

The seventh factor contains only the attribute of salesperson follow-up, which is another aspect of service empathy. It has an eigenvalue of 1.029 and accounts for 4.7% of variance. Exhibit 7 summarizes the factors that identify commonalities in real estate salesperson responses about expected service quality. For comparison purposes, factors that represent homebuyer expectations of service quality are repeated in Exhibit 7.

A comparison of salesperson expectations with homebuyer expectations of quality real estate service reveals highly conforming responses in the identification and ranking of attribute patterns. The only area of noticeable difference between salesperson and homebuyer

**Exhibit 7**  
**Rank Order Comparison of Service Quality Expectations of Salespersons and Homebuyers**

Salesperson	Homebuyer
1. Service Assurances	1. Service Assurances and Responsiveness
2. Service Responsiveness	2. Tangible Firm Char.
3. Tangible Firm Char.	3. Tangible Product Char.
4. Service Reliability	4. Service Reliability
5. Tangible Product Char.	5. Service Empathy
6. Service Empathy	

expectations is that homebuyers rank tangible product characteristics a little higher in importance than do real estate salespersons. What this comparison implies is that real estate salespersons know and understand the determinants of service quality that are expected by homebuyers. While this implication is somewhat reassuring to the real estate brokerage industry, it does not explain why homebuyers do not perceive real estate service quality as being uniformly delivered.

2. *Salesperson and Homebuyer Perceptions: Results and Analysis.* Comparison of factor analysis results of homebuyer and salesperson service quality expectations indicates that both groups agree on the determinants of service quality in the real estate brokerage industry. If salespersons understand and are knowledgeable about what is expected of them by homebuyers, why is it that service quality is not being uniformly delivered to homebuyer consumers? Factor analysis of salesperson responses to twenty-three questions about actual service delivered by the salesperson in a recent sales transaction is used to identify common response behavior patterns. A comparison between salesperson and homebuyer factor responses about actual sales behavior is made to determine whether there is agreement between the two groups. If salesperson and homebuyer factor responses about perceived behavior do not match in attribute descriptions and rank order, the disparity may explain the varying level of service quality delivered by the real estate industry.

Factor analysis of salespersons' perceptions about their actual sales behavior identified three attribute factors that cumulatively account for 61.3% of variance. A summary of analysis findings are contained in Exhibit 8. Attributed loadings range from .544 to .881 on their respective factors. The first behavioral construct identified using factor analysis of salesperson perceived sales characteristics contains fifteen different attributes, has an eigenvalue of 10.351, and accounts for 45% of variance. In rank order of loading from highest to lowest, the attributes contained within the first factor are professional qualifications, assistance in obtaining financing, length of communications, efforts to educate homebuyer, number of listings, closing involvement, frequency of communications, friendliness, ability to get the best deal, willingness to recommend others, amount of advertising, use of a needs questionnaire, location of listings, multiple listing service membership, and selection of listings offered.

The diverse nature of the fifteen attributes collapsed within the first factor makes it inappropriate to use a previously defined factor label. The first factor includes three attributes pertaining to reliability, five attributes pertaining to service assurances and responsiveness, two product characteristic attributes, three attributes pertaining to service empathy, and two attributes about tangible characteristics of the firm. A broad but appropriate label for the first salesperson perception factor is well-rounded service. Well-rounded service implies that

**Exhibit 8**  
**Summary of Attributes and Rotated Factor Matrix Loadings for Analysis of**  
**Salesperson Perceptions of Actual Service Delivered**

Attribute	Factor Loading
<b>FACTOR ONE—Well-Rounded Service</b>	<b>(Eigen. 10.351)</b>
1. Professional qualifications	.881
2. Assistance with financing	.881
3. Amount of contact time	.865
4. Effort to educate about market	.828
5. Number of listings	.811
6. Closing involvement	.775
7. Frequent communications	.765
8. Friendliness	.757
9. Ability to get the best deal	.727
10. Willingness to recommend others	.722
11. Amount of advertising	.624
12. Needs questionnaire	.623
13. Location of listings	.605
14. Multiple listing service membership	.574
15. Selections offered	.544
<b>FACTOR TWO—Service Reliability</b>	<b>(Eigen. 2.489)</b>
1. Company reputation	.760
2. Earned commission	.712
3. Salesperson follow-up	.712
4. Access ease of office	.695
5. Price range of listings	.694
6. Type of advertising	.674
<b>FACTOR THREE—Service Empathy</b>	<b>(Eigen. 1.255)</b>
1. Attempts to learn homebuyer needs	.858
2. Salesperson interest	.644

salespersons perceive their individual sales behavior to be balanced in all areas. In other words, salespersons apparently believe that overall service quality in all areas is being delivered to homebuyers. They perceive themselves as having delivered quality service within each factor category.

The second factor identified is also a composite group of six attributes from different categories. It can be labeled as capturing service reliability, since three of the attributes fall within that category. The second factor has an eigenvalue of 2.489, and accounts for 10.8% of variance. Included attributes within the second factor are reputation, whether salesperson earned the commission, salesperson follow-up, access ease of office, prices of listings, and quality of advertising.

The third salesperson perceptions factor contains the two attributes of attempts to learn homebuyer needs and salesperson interest. It has an eigenvalue of 1.255 and accounts for 5.5% of variance. While the two attributes could be identified as belonging to two different groups, service empathy is an appropriate label for the third factor. For comparison purposes, salesperson and homebuyer perception of service factors are listed in Exhibit 9.

An examination of the salesperson and homebuyer perception of service factors contained in Exhibit 9 reveals disparity in the number of factors identified, the labeling of factors, and their rank order. Because of its composite nature, the first salesperson perception factor was incapable of being matched to any of the previously assigned attribute group labels. Identification

**Exhibit 9**  
**Rank Order Comparison of Service Quality Perception of Salespersons and Homebuyers**

Salesperson	Homebuyer
1. Well-Rounded Service	1. Service Reliability
2. Service Reliability	2. Service Assurances and Responsiveness
3. Service Empathy	3. Tangible Product Char.
	4. Service Empathy
	5. Tangible Firm Char.

of only three salesperson perception of service factors is probably a direct result of the first factor containing fifteen of the twenty-three possible attributes, as well as the fact that the factor analysis program is constrained by a minimum eigenvalue of 1 in classifying factors. Examination of the remaining two salesperson factors reveals that rank order of service reliability as perceived by salespersons is lower than that of homebuyers, while rank order of service empathy as perceived by salespersons is higher than that of homebuyers.

Due to lack of commonality in factor labeling, it is difficult to make any meaningful comparisons between salesperson and homebuyer perceptions of service quality. At best, it can be stated that there is little conformity between the two group responses. Apparently, salespersons perceive the service they rendered to be significantly different from what homebuyers perceive it to be.

### Conclusions and Implications

This study applies the service quality model developed by Parasuraman et al. [12] to the real estate brokerage industry for the purposes of identifying determinants of service quality, evaluating the level of service quality delivered, and investigating possible methods of improving service quality in the real estate brokerage industry. Analysis of homebuyer response patterns about expectations of service indicate that the determinants of real estate service quality are service assurances and responsiveness, tangible firm characteristics, tangible product characteristics, reliability of service, and service empathy. Service quality determinants identified by this study generally match the generic determinants identified by Parasuraman, except for rank order. Real estate quality determinants of service assurances and responsiveness are ranked higher in importance and service reliability is ranked lower in importance by homebuyers than by consumers in other service industries.

To evaluate the level of service quality delivered in the real estate brokerage industry, homebuyer perceptions about services received in a recent sales transaction were compared to homebuyer expectations of preferred service. Service quality was found to be delivered in areas of service reliability, empathy, and tangible product characteristics. However, service quality fell below expectations in the areas of service assurances and responsiveness, as well as tangible characteristics of the firm.

To identify service quality improvement measures, salespersons were interviewed about their expectations and perceptions of service quality. Salesperson expectations of service quality determinants were found to match homebuyer expectations of service quality. Great disparity, however, was found to exist between salesperson and homebuyer perceptions of

service quality delivered by salespersons. Inability to match salesperson and homebuyer perceived service attributes as well as varying rank order of importance provides a possible explanation of why real estate service quality is not being uniformly delivered in all attribute categories by the industry.

While disparity between salesperson and homebuyer perceptions of service provides a possible explanation for the varying levels of service quality delivered to homebuyers, it also has other implications for the real estate brokerage industry. These implications suggest that salespersons either do not want to, do not know how to, or routinely do not properly evaluate their work performance. It is also quite possible that salespersons do not like to honestly disclose information relative to their own performance and self-worth. Independent, unbiased self-evaluation is difficult to perform. Individual interviews with salespersons about performance on their last sales transaction could easily result in the categorical "everything I did was perfect" response which was captured by the well-rounded service factor.

If response honesty by salespersons about their performance can be assumed, then independent peer or supervisor evaluation of a salesperson's recently completed sales transactions may be in order. That is, if salespersons really do not know what aspects of their service performance are in need of improvement, they cannot possibly improve their future behavior patterns. Performance feedback and evaluation are necessary to improve service quality because they provide a base for implementing corrective behavioral attributes and improving future service quality.

## Notes

Exclusive use of MLS records to obtain lists of real estate licensees who had participated in the sale of a home within the preceding year results in some sample bias by excluding non-REALTOR licensees from the sample.

Questions in the survey instruments used the terms REALTOR and realty office to collectively refer to both real estate brokers and sales agents. This report uses the term salespersons to refer to all real estate licensees.

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