

A Review of Service Quality Research in Real Estate

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Abstract

This paper reviews service quality research in the residential real estate brokerage industry. This article emphasizes the important role that leveraging service quality plays in differentiating a real estate firm from its competitors. The study focuses on the initial measurement model that was developed and refined in the marketing literature, the Nelson and Nelson (1995) adaptation to real estate (RESERV), and the most recent works to reconcile the current understanding of the role that service quality plays in the brokerage industry. This review concludes with suggested directions for future research.

The United States is currently experiencing the worst real estate market since the Great Depression. Three years ago, people could not get their real estate licenses fast enough. Today, agents are finding other careers. Those who do stay in the business are learning to adapt in this quickly changing environment. Substantial income opportunities have given way to the need to focus on the intangibles, like providing high levels of customer service. Those agents who can adapt will be able to ride out the recession. Those who do not evolve will surely exit the industry. Now, more than ever before, providing customers with excellent levels of service quality is on the minds of those in the real estate brokerage industry.

Why is Service Quality Important in Real Estate?

Service quality is particularly important in the real estate brokerage business where the residential real estate market is rapidly and constantly changing. Agents and the industry benefit directly by asking for and receiving service quality information. Also, homebuyers and sellers will ultimately benefit from the improved service quality of agents. Additionally, clients benefit from knowing that the industry is interested in their opinions. By allowing customers to provide an assessment of their agent, the firm is able to make improvements to the service based on the homebuyers' and sellers' opinions. Ultimately, buyers and sellers will benefit from the improved service quality offered, because the better the real estate industry understands its customers, the more successful they will be in satisfying them.

Overview of Service Quality Research in Real Estate

Many service firms have benefited from the development and implementation of the service quality construct (Lovelock, 1983; Phillips, Chang, and Buzzell, 1983; Rudie

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and Wansley, 1985; Thompson, DeSouza, and Gale, 1985; Schmenner, 1986; Buzzell and Gayle, 1987; Hauser and Clausing, 1988; Ford Motor Company, 1990; Koska, 1990; Germano, 1992; Kearns and Nadler, 1992; Howcroft, 1993; Chen, Gupta, and Rom, 1994; Kettinger and Lee, 1995; and Rust, Zahorik, and Keiningham, 1995). But, only a limited number of studies have examined service quality in real estate. These studies include Johnson, Dotson, and Dunlap (1988), Shilling and Sirmans (1988), Sirmans and Sirmans (1991), McDaniel and Louargand (1994), Nelson and Nelson (1995), Seiler, Webb, and Whipple (2000), Dabholkar and Overby (2005), Seiler, Seiler, and Webb (2006), Seiler, Seiler, Winkler, Newell, and Webb (2008), and Seiler, Seiler, Arndt, Newell, and Webb (2010). The discussion below highlights some of these studies.

Sirmans and Sirmans (1991) examine the effect of the actions taken by landlords on the quality of service provided by property management. They found that holding professional designations, such as the Certified Property Manager (CPM), the Accredited Resident Manager (ARM), or the Certified Apartment Manager (CAM), result in higher rent and provide a positive signal to potential renters concerning the level of service quality provided by the property managers. Shilling and Sirmans (1988) discuss the effects of occupational licensing on service quality. They conclude that licensing reduces the number of complaints against real estate agents and significantly enhances the quality of real estate brokerage services.

According to Johnson, Dotson, and Dunlap (1988), early service quality research in the real estate brokerage services business was conducted based on such simplistic concepts as industry developments and particular sales techniques. Other studies contained only descriptive statistics from survey response data. Thus, the need for advancing real estate service quality research, especially measuring service quality, is apparent.

Johnson, Dotson, and Dunlap (1988) show that one way to gain an advantage over the competition is to improve the quality of services provided to homebuyers and sellers. Consequently, real estate firms and the real estate industry need to understand the expectations of their customers and determine how well they perform services. Only then can they successfully provide those wanted services and satisfy the real estate customers.

Dabholkar and Overby (2005) studied the relationships among four concepts: service process, service outcome, service quality, and customer satisfaction evaluations. The study found that process factors, such as "professionalism" and "guidance," are related to service quality and, similarly, outcome factors (e.g., the quick sale of a home) are related to customer satisfaction. It was also found that service quality evaluations precede customer satisfaction for normal service evaluations, but the opposite relationship is true for extreme service evaluations (i.e., customer satisfaction precedes service quality evaluations).

Seiler, Seiler, and Webb (2006) were the first to identify whether individual homebuyer characteristics relate to the firm's overall service quality rating. The study employed

a hedonic model and used four homebuyer characteristics regarding purchases (repeat vs. first-time, local vs. out-of-town, individual vs. joint decision maker, Web vs. non-Web user). The results revealed that being a repeat buyer was the only variable that was significant in explaining a greater propensity to recommend the firm to others.

A comparative study found that the impact of service quality dimensions has changed since the early 1990s. Seiler, Seiler, Winkler, Newell, and Webb (2008) examined seven dimensions that are relevant to measuring service quality. Of the seven dimensions, tangibles, reliability, responsiveness, and empathy were statistically significant in the structural equation model. That is, the real estate agent's firm size, office's visual appeal and location (tangibles), their ability to deliver consistent and dependable service (reliability), to react quickly and creatively to a customer's needs (responsiveness), and to understand and respond sympathetically to a customer (empathy) are most important to a customer's perception of overall service.

Service Quality Defined

Quality is defined as adjustments according to the specifications of the customer (Crosby, 1979). Product quality is defined as making alterations according to customer preferences (Crosby, 1979). The analysis of product quality and benefits achieved from good product quality has been prevalent for many years. However, service quality, which is much more difficult to define and measure, is not as clearly understood and needs further examination. The seminal study in service quality was performed by Parasuraman, Zeithaml, and Berry (1985). These authors defined service quality as how well the service meets or exceeds the customer's expectations.

Service Quality Measurement Models

There has been much work in the area of conceptual service quality models. One review (Seth, Deshmukh, and Vrat, 2005) profiled 19 conceptual service quality models and identified a linkage among them. The review concluded that the field of service quality seems to have developed sequentially, with each subsequent model drawing from the findings/observations of previous ones. Only a few of these conceptual models have been operationalized and refined, and two of these models are the focus of this review.

SERVQUAL (P-E)

The seminal work in the conceptualization and operationalization of service quality theory was the development of a multiple-item scale (termed SERVQUAL in the original study—also referred to as “P-E”) for measuring perceptions and expectations of service quality (Parasuraman, Zeithaml, and Berry, 1985; 1988). Parasuraman, Zeithaml, and Berry (1988) attempted to measure the most important, fifth, quality gap by developing the P-E instrument. The goal of the research was to quantify the latent construct, “service quality,” so that firms could identify areas that needed improvement. Organizations could then use this information to make changes that will better meet customers' needs. They performed exploratory research to examine service

quality in four service settings (retail banking, credit cards, securities brokerage, and product repair and maintenance) in order to understand an area that is under-researched and difficult to define. Parasuraman, Zeithaml, and Berry (1985; 1988) developed this instrument, which uses a 22-item questionnaire, to measure service quality. That is, they attempted to quantify this latent theoretical construct called "service quality" so that firms can identify areas of needed improvement and use the information to make changes to better serve their customers. The 22-item scale questions are detailed in Exhibit 1.

Applications of SERVQUAL in the Real Estate Industry

Although some research has focused on service quality in real estate, few scholars have discussed the measurement of service quality in residential real estate. Johnson, Dotson, and Dunlap (1988) conducted the first measure of service quality in real estate brokerage. These authors analyzed homebuyers in order to evaluate the level of service quality currently delivered in the residential real estate brokerage industry. Similar dimensions to those in Parasuraman, Zeithaml, and Berry's (1985) study were found to exist (assurance and responsiveness, tangible firm, tangible product, reliability, and empathy); however, the rank order was different. Also inconsistent was the perception of service delivery from homebuyers' versus real estate agents' perspectives. In other words, real estate agents thought they knew and were delivering what homebuyers wanted. But this was found not to be true. Although their study was a good extension of SERVQUAL, the instrument was not a true application.

McDaniel and Louargand (1994) designed a survey based on the SERVQUAL instrument and surveyed homebuyers and real estate agents. They found that real estate agents are not delivering quality service up to their customers' level of expectation. They also found that the real estate brokerage industry is not a unique service provider. In addition, they were uncertain whether the buyer would come back to the real estate agency later as a seller if the real estate firm was unsuccessful in delivering a quality service. Because the real estate industry is a repeat contact and referral industry, this is an important issue. Further, the buyer is considered to be more than one-half of the sales transaction equation for two reasons (McDaniel and Louargand, 1994). First, the buyer is more likely than the seller to be the repeat customer. This is because the seller often leaves the area. Second, the buyer, who remains in the area, will likely provide future referrals.

RESERV (Real Estate SERVICE quality)

While the SERVQUAL instrument was designed to apply across many service industries, Babakus and Boller (1992) and Vandamme and Leunis (1993) suggest that the instrument is not as easily generalized to certain services. Carman (1990) concurs and believes that new items and factors can be added that are specific to the service industry being measured. Thus, different factors may be formed for different service industries. Further, Babakus and Boller (1991), Carman (1990), and Parasuraman, Berry, and Zeithaml (1991) all state that only positively worded questions should be used in the instrument. Nelson and Nelson (1995) applied these improvements and

Exhibit 1

SERVQUAL Questions from Parasuraman, Zeithaml, and Berry (1988)

Expectation Questions

- E1. They should have up-to-date equipment.
- E2. Their physical facilities should be visually appealing.
- E3. Their employees should be well dressed and appear neat.
- E4. The appearance of the physical facilities of these firms should be in keeping with the type of services provided.
- E5. When these firms promise to do something by a certain time, they should do so.
- E6. When customers have problems, these firms should be sympathetic and reassuring.
- E7. These firms should be dependable.
- E8. They should provide their services at the time they promise to do so.
- E9. They should keep their records accurately.
- E10. They shouldn't be expected to tell customers exactly when services will be performed.
- E11. It is not realistic for customers to expect prompt service from employees of this firm.
- E12. Their employees don't always have to be willing to help customers.
- E13. It is okay if they are too busy to respond to customer requests promptly.
- E14. Customers should be able to trust employees of these firms.
- E15. Customers should be able to feel safe in their transactions with these firms' employees.
- E16. Their employees should be polite.
- E17. Their employees should get adequate support from these firms to do their jobs well.
- E18. These firms should not be expected to give customers individual attention.
- E19. Employees of these firms cannot be expected to give customers personal attention.
- E20. It is unrealistic to expect employees to know what the needs of their customers are.
- E21. It is unrealistic to expect these firms to have their customers' best interests at heart.
- E22. They shouldn't be expected to have operating hours convenient to all their customers.

Perception Questions

- P1. XYZ has up-to-date equipment.
 - P2. XYZ's physical facilities are visually appealing.
 - P3. XYZ's employees are well dressed and appear neat.
 - P4. The appearance of the physical facilities of XYZ is in keeping with the type of services provided.
 - P5. When XYZ promises to do something by a certain time, it does so.
 - P6. When customers have problems, XYZ is sympathetic and reassuring.
 - P7. XYZ is dependable.
 - P8. XYZ provides its services at the time they promise to do so.
 - P9. XYZ keeps its records accurately.
 - P10. XYZ does not tell customers exactly when services will be performed.
 - P11. You do not receive prompt service from XYZ's employees.
 - P12. Employees of XYZ are not always willing to help customers.
 - P13. Employees of XYZ are too busy to respond to customer requests promptly.
 - P14. You can trust employees of XYZ.
 - P15. You feel safe in their transactions with XYZ's employees.
 - P16. Employees of XYZ are polite.
 - P17. Employees get adequate support from XYZ to do their jobs well.
 - P18. XYZ does not give you individual attention.
 - P19. Employees of XYZ do not give you personal attention.
 - P20. Employees of XYZ do not know what your needs are.
 - P21. XYZ does not have your best interests at heart.
 - P22. XYZ does not have operating hours convenient to all their customers.
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proceeded to develop a new instrument named RESERV using the development process of SERVQUAL as a benchmark.

RESERV was adapted from SERVQUAL in order to meet the requirements of the residential real estate brokerage industry by measuring the service quality of residential real estate services. Specifically, the RESERV instrument measures expectations, perceptions, and overall service quality. The scale was developed in two phases. First, a pretest was conducted in which items from the first stage of the SERVQUAL development were slightly reworded to fit the real estate industry. One inappropriate item was eliminated and one item was inserted due to the importance discovered in prior research. Comparable to SERVQUAL, RESERV has items stated as expectations of service in Likert-scale format. In the second phase, additional items were added according to the pretest results and previous research findings. Ultimately, RESERV reduced to 31 questions and seven factors (five that match SERVQUAL dimensions and two that are new). For the 31 item statements, respondents are asked to indicate, on a seven-point Likert scale, whether they agree or disagree (7 = strongly agree; 1 = strongly disagree). RESERV then uses the same 31 items (again using the same seven-point Likert scale) to measure perceptions by using expectations restated as perceptions of service quality actually provided. The seven dimensions are tangibles, reliability, responsiveness, assurance, empathy, professionalism, and availability. The 31-item scale questions are detailed in Exhibit 2. The instrument was also found to be reliable and valid and should be the starting point from which future research studies in this area are conducted.

Finally, the instrument measures overall ratings of the quality of service received and whether or not the respondent would recommend the firm to others. Specifically, the overall questions ask how the subject would rate the overall quality of the services received from the real estate firm (4 = excellent, 3 = good, 2 = fair, 1 = poor) and whether the respondent would recommend the firm to others (4 = definitely yes, 3 = probably yes, 2 = probably no, 1 = definitely no).

Nelson and Nelson (1995) found that RESERV is appropriate for measuring service quality in the residential real estate brokerage industry, and that this industry is not uniquely different from other service sectors. They also found that all the dimensions (tangibles, reliability, responsiveness, assurance, empathy, professionalism and availability) were significant in determining overall service quality and whether the respondents would recommend the firm to a friend. They further suggest future research that applies the use of RESERV with modifications as needed.

Although the scale shows great promise, the authors state that it should be tested in other geographic areas before it can be considered an industry standard that will allow researchers to generalize findings (external validity). In this regard, they argue that the structure of the instrument has been established and the results provide convincing evidence for the appropriateness of the use of the RESERV scale, but that the instrument should be subjected to further refinements.

Seiler, Seiler, Arndt, Newell, and Webb (2010) further refined the RESERV scale. They found that the seven-dimension scale had a somewhat better predictive power,

Exhibit 2

RESERV Questions from Nelson and Nelson (1995)

Expectation Questions

1. Real estate firms should keep clients informed about matters of concern to them.
2. Real estate agents should be easy to contact by telephone.
3. Real estate firms should use up-to-date technology.
4. Clients should not have to wait a long time for results.
5. Clients should feel safe in their transactions with real estate agents.
6. Real estate agents should be instrumental in getting the best purchase price for a home.
7. Real estate firms should be dependable.
8. Real estate agents should always be willing to help clients.
9. Real estate agents should receive adequate support from their firms to do their jobs well.
10. Real estate agents should be available at hours convenient to their clients.
11. The commission or fee charged should be in keeping with services provided.
12. Real estate agents should give clients personal attention.
13. Real estate firms should provide their services at the time they promise to do so.
14. Real estate agents should have extensive training and education.
15. Real estate firms should respond to client requests promptly.
16. Clients should be able to contact a senior broker in a real estate firm without difficulty.
17. Properties should be well advertised by real estate firms.
18. Real estate agents should be aggressive on their clients' behalf.
19. Real estate offices should be conveniently located.
20. Real estate firms should protect their clients' interests and well being.
21. Clients should be able to trust a real estate firm's agents.
22. The size of a real estate firm should be appropriate for the services offered.
23. Real estate agents should make every effort to understand the needs of their clients.
24. A real estate firm's agents should be knowledgeable.
25. Clients should not have to wait to get appointments with real estate agents.
26. Clients' dealings with real estate firms should be very pleasant.
27. Real estate firms should tell clients exactly when services will be performed.
28. Real estate firms should keep accurate records.
29. Real estate offices should be visually appealing.
30. Real estate agents should make suggestions about how to best search for a home to purchase.
31. Real estate agents should be reputable.

Ultimately Eliminated Expectation Questions

32. Real estate agents should dress in a professional manner.
33. Real estate firms should be affiliated with nationally known firms.
34. Real estate firms should have a good reputation in the community.
35. Real estate agents should be polite.
36. Real estate agents should never talk down to clients.

Perception Questions

1. Your real estate firm kept you informed about matters of concern to you.
 2. Your real estate agent was easy to contact by telephone.
 3. Your real estate firm used up-to-date technology.
 4. You did not have to wait a long time for results.
 5. You felt safe in your transactions with your real estate agent.
 6. Your real estate agent was instrumental in getting the best purchase price for your home.
 7. Your real estate firm was dependable.
 8. Your real estate agent was always willing to help you.
 9. Your real estate agent received adequate support from his/her firm to do the job well.
 10. Your real estate agent was available at hours convenient to you.
 11. The commission or fee charged was in keeping with services provided.
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Exhibit 2 (continued)
RESERV Questions from Nelson and Nelson (1995)

12. Your real estate agent gave you personal attention.
 13. Your real estate firm provided services at the time it promised to do so.
 14. Your real estate agent had extensive training and education.
 15. Your real estate firm responded to your requests promptly.
 16. You could contact a senior broker in your real estate firm without difficulty.
 17. The property you purchased was well advertised by your real estate firm.
 18. Your real estate agent was aggressive on your behalf.
 19. Your real estate firm's office was conveniently located.
 20. Your real estate firm protected your interests and well being.
 21. You could trust your real estate agent.
 22. The size of your real estate firm was appropriate for the services you received.
 23. Your real estate agent made every effort to understand your needs.
 24. Your real estate agent was knowledgeable.
 25. You did not have to wait to get appointments with your real estate agent.
 26. Dealings with your real estate firm were very pleasant.
 27. Your real estate firm told you exactly when services would be performed.
 28. Your real estate firm kept accurate records.
 29. Your real estate firm's offices were visually appealing.
 30. Your real estate agent made suggestions about how to best search for a home to purchase.
 31. Your real estate agent was reputable.
- Ultimately Eliminated Expectation Questions**
32. Your real estate agent dressed in a professional manner.
 33. Your real estate firm is affiliated with a nationally known firm.
 34. Your real estate firm has a good reputation in the community.
 35. Your real estate agent was polite.
 36. Your real estate agent never talked down to you.
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but lacked in parsimony compared to utilizing a single dimension, "professionalism." This was also the first study to compare the three ways to measure service quality: (1) perceptions of service quality, (2) perceived service quality given expectations, and (3) the traditional perceptions minus expectations gap. Measuring only perceptions of service quality was found to work better in the real estate industry where decisions are complex and usually quite lengthy.

Remaining Service Quality Studies in Real Estate

Seiler, Webb, and Whipple (2000) examined the extent to which service quality influences homebuyers to use the firm again (repeat contact) and recommend the firm to someone else (referral) and found significant relationships. The authors state that real estate firms frequently use their own in-house surveys to measure service quality. In assessing one of these in-house surveys, they found that although there is some valuable information and the firm is benefiting from the results, there are also some problems. It is possible that the measurement model was misidentified due to important missing variables. They suggest that the instrument can be improved to more accurately measure service quality and recommend using other instruments already in place (such as RESERV) that exhibit higher reliability and validity. The

better the instrument, the better able the firm will be to make more accurate and effective marketing decisions.

Johnson, Dotson, and Dunlap (1988) propose that the determinants of service quality found in real estate are basically the same as those found in other industries (generic determinants). The generic determinants are reliability, assurance, responsiveness, tangibles, and empathy. The generic determinants were compared to the real estate determinants, which are assurance and responsiveness, tangible firm, tangible product, reliability, and empathy. Although these authors conclude that the factors are generally the same as those found by Parasuraman, Zeithaml, and Berry (1988), the factor structure identified in their real estate study is different from the generic determinants. Specifically, there is a different composition and labeling of the dimensions.

In addition, there is a difference in the rank order of importance between expected and perceived service for homebuyers. Based on eigenvalues (the total variance explained by each factor), the comparison in rank order for perceived service is reliability, assurance and responsiveness, tangible product, empathy, and tangible firm, while the rank order they find in expected service is assurance and responsiveness, tangible firm, tangible product, reliability, and empathy. They discovered that in two of the five areas (assurance/responsiveness and tangible firm), real estate service quality is below expectations. If assurance and responsiveness accounted for two dimensions, as they do in most studies, then there are really three areas that are lacking. Finally, they show a difference in the rank order of importance of expectations and perceptions between homebuyers and real estate agents.

Contrary to Johnson, Dotson, and Dunlap (1988), McDaniel and Louargand (1994) conclude that determinants of service quality are exactly the same as those found using the generic instrument. Not only do the authors show them to be the same, they also find the rank order of importance to be exactly the same as those from the generic instrument. Also, contrary to Johnson, Dotson, and Dunlap's (1988) results, McDaniel and Louargand (1994) conclude that real estate agents fail to meet customer expectations at roughly the same rate as other service industries fail to meet their customers' expectations. McDaniel and Louargand (1994) and Zeithaml, Parasuraman, and Berry (1990) found that perceptions fell far below expectations in all dimensions, except tangibles. Finally, as in the generic service quality instrument, the real estate applications demonstrate that, unfortunately, the most important factors (reliability, assurance, empathy, and responsiveness) have the lowest SERVQUAL scores.

Related to this discussion is the issue of whether the industry can be compared to others. Johnson, Dotson, and Dunlap (1988) suggest that there is a high degree of customization involved in real estate services due to the extended and continuous interaction between the customer and service provider. They explain that this is truer for real estate services than for other services. As a result, the industry service quality determinants might not be applicable to residential real estate brokerage.

Unlike Johnson, Dotson, and Dunlap (1988), who found the real estate industry to be different from other service providers, McDaniel and Louargand (1994) demonstrate

that the real estate brokerage industry is not a unique service provider. That is, they conclude that the real estate industry is not that different from other service industries. Nelson and Nelson (1995), Seiler, Seiler, Winkler, Newell, and Webb (2008), and Seiler, Seiler, Arndt, Newell, and Webb (2010) provide support that the real estate industry is not a unique, stand-alone service industry, as well. Although there may be some dimensionality differences, it appears that real estate is similar to other service industries. Exhibit 3 shows the similarities in dimensions.

Exhibit 3
Summary of the Various Dimensions Found in Real Estate Service Quality Studies

Johnson, Dotson, and Dunlap (1988)

Assurance and responsiveness
Tangible firm
Tangible product
Reliability
Empathy in service
Empathy in post-purchase service

McDaniel and Louargand (1994)

Tangibles
Reliability
Responsiveness
Assurance
Empathy

Nelson and Nelson (1995)

Tangibles
Reliability
Responsiveness
Assurance
Empathy
Professionalism
Availability

Seiler, Webb, and Whipple (2000)

Tangibles
Agent Characteristics

Note: This study did not use one of the three discussed instruments.

Seiler, Seiler, Winkler, Newell, and Webb (2008) and Seiler, Seiler, Arndt, Newell, and Webb (2010)

Tangibles
Reliability
Responsiveness
Assurance
Empathy
Professionalism
Availability

Note: The 2010 study also found that the professionalism dimension acts as a strong proxy for the full scale.

Technological Influences on Real Estate Service Quality

The use of the Internet to pre-screen or begin the home-buying process is hypothesized to increase the overall level of satisfaction of the buyer (Benjamin, Jud, and Sirmans, 2000; Seiler, Seiler, Winkler, Newell, and Webb, 2008). Initial Web searches allow the future buyer to gather information on the neighborhood, school district, specific home attributes (such as price, square footage, lot size, view), and pictures of the home (Miller, 1996). Simply stated, the Internet is an efficiency creator. It allows the buyer to see hundreds of properties in just a few hours. This enables the individual to have a very good idea of what he/she can afford, what style of house he/she is looking for, the desired neighborhood, and so forth. Getting these issues out of the way before ever meeting with a broker allows the time with the broker to be better spent. In other words, the potential buyer experiences the steep learning curve before contact is made with a broker. Therefore, much of the uncertainty and frustration with the process is overcome before the broker gets involved. This leads to a higher level of satisfaction, as well as a higher rating of service quality. Internet search time was measured in absolute terms, as well as a percentage of total search time.

The "tangibles" dimension refers to the firm's use of technology, the physical appearance of the firm, the firm's staff, equipment, and how well the firm advertises (Parasuraman, Zeithaml, and Berry, 1985; 1988; and Garretson and Clow, 1999). People who search on the Internet are obviously utilizing some of the firm's technology. In fact, use of technology and the Internet are almost synonymous (Strauss and Frost, 1999). It is the first impression made on the Internet user. Does the site have a virtual reality (360 degree) tour? Are pictures of each property shown in detail? Is sufficient information provided on each property? These technology-related questions are important to Internet searchers (Hall, 2002).

The "tangibles" dimension also refers to the physical appearance of the firm's building. Since the real estate office building is likely shown on the firm's website, it is another first impression made on the Internet searcher. Having an impressive physical structure adds legitimacy to the firm in the mind of the potential client (Garretson and Clow, 1999). For these reasons, the "tangibles" dimension is hypothesized to be robust in explaining overall service quality for Internet searchers.

The "responsiveness" dimension refers to the willingness of realtors to help customers in a timely fashion and be available when the realtors say they will (Parasuraman, Zeithaml, and Berry, 1985, 1988; and Garretson and Clow, 1999). In this regard, using the Internet allows homebuyers to quickly locate information. In addition, unlike agents who would soon tire of consumers who spend endless hours searching and exploring options, the computer has infinite patience (Strauss and Frost, 1999).

Future Research Areas in Real Estate

Service quality has been significantly refined by McDaniel and Louargand (1994) and especially advanced by Nelson and Nelson (1995) and Seiler, Seiler, Winkler, Newell,

and Webb (2008). Both academicians and practicing professionals have more recently shown an interest in measuring service quality in residential real estate brokerage firms. Researchers in this area conclude that additional studies are a necessity (Johnson, Dotson, and Dunlap, 1988; Nelson and Nelson, 1988, 1991, 1995; McDaniel and Louargand, 1994; Seiler, Webb, and Whipple, 2000; Webb, 2000; and Seiler, Seiler, Winkler, Newell, and Webb, 2008).

Considering there have been less than a dozen academic studies on measuring service quality in the residential real estate industry, there is still much to be learned. These initial studies have provided valuable insights and are a good beginning to understand service quality. However, additional research is needed with substantial sample size, that continues to investigate larger and more geographically diverse markets, examines and/or verifies different approaches to measuring service quality, continues to apply a sophisticated methodology like SEM, and uses additional reliability and validity measures so that the industry can correct its shortcomings and provide the services their customers want, but are not currently getting.

With so many changes occurring in the residential real estate brokerage industry, it would be extremely useful to examine the importance of the different dimensions and individual questions. This could be done through analysis and/or by directly asking the respondents. An exploratory study and/or focus group would be a great place to begin. It is very possible that with the industry changes, some of the questions are no longer as functional as they once were. The fact that respondents are not as concerned with the firm as much as they used to be and are more conscious of the agent is quite possibly an example of the changing environmental forces that should be taken into consideration when conducting future research. Technological advancement is another. In general, instruments used to measure service quality should be dynamic and in keeping with the industry changes.

Continued studies on homebuyers are important, but so are examinations of home sellers, which can be more difficult to reach because of a lack of forwarding address. Additional studies that further compare the measurement of the three instrument variations would also be valuable. Moreover, robustness checks on validity would also be beneficial. As per Parasuraman, Berry, and Zeithaml (1991), respondents could be given definitions of dimensions and then asked to place each question under the factor the respondent believes to be relevant.

The recent and very steep recession leads one to wonder if different real estate agent skill sets might emerge as being more important in an up versus a down market. For example, with so many properties currently being underwater, agents who have experience working with short sales, creative financing, an ability to work with lenders, and so forth, could conceivably top people's list of critical skills. And with frequently announced new governmental homebuyer programs, an agent who is up-to-date with current buyer incentives might also be in high demand. In sum, service quality research in real estate is an area ripe for future research possibilities.

References

- Babakus, E. and G. Boller. An Empirical Assessment of the SERVQUAL Scale. *Journal of Business Research*, 1992, 24, 253-68.
- Benjamin, J., G. Jud, and G. Sirmans. Real Estate Brokerage and the Housing Market: An Annotated Bibliography. *Journal of Real Estate Research*, 2000, 20:1/2, 217-78.
- Buzzell, R. and B. Gale. *The PIMS Principles*. New York: The Free Press, 1987.
- Carman, J. Consumer Perceptions of Service Quality: An Assessment of the SERVQUAL Dimensions. *Journal of Retailing*, 1990, 66:1, 33-55.
- Chen, I., A. Gupta, and W. Rom. A Study of Price and Quality in Service Operations. *International Journal of Service Industry Management*, 1994, 5:2, 23-33.
- Crosby, P. *Quality is Free*. New York: New American Library, 1979.
- Dabholkar, P.A. and J.W. Overby. Linking Process and Outcome to Service Quality and Customer Satisfaction Evaluations: An Investigation of Real Estate Agent Service. *International Journal of Service Industry Management*, 2005, 16:1, 10-28.
- Ford Motor Company. Memorandum to Dealers. October 3, 1990.
- Garretson, J. and K. Clow. The Influence of Coupon Face Value On Service Quality Expectations, Risk Perceptions and Purchase Intentions in the Dental Industry. *Journal of Services Marketing*, 1999, 13:1, 59-72.
- Germano, C. *The Bottom Line of Quality*. Memphis, TN: Federal Express Corporation, 1992.
- Hall, P. How We Stay Ahead of Our Web Users. *Computers in Libraries*, 2002, 22:1, 16-21.
- Hauser, J. and D. Clausing. The House of Quality. *Harvard Business Review*, 1988, 66, 63-73.
- Howcroft, B. Staff Perceptions of Service Quality in a UK Clearing Bank: Some Empirical Findings. *International Journal of Service Industry Management*, 1993, 4, 5-24.
- Johnson, L., M. Dotson, and B. Dunlap. Service Quality Determinants and Effectiveness in the Real Estate Brokerage Industry. *Journal of Real Estate Research*, 1988, 3:2, 21-36.
- Kearns, D. and D. Nadler. *Prophets in the Dark: How Xerox Reinvented Itself and Beat Back the Japanese*. NY: Harper Collins Publishers, 1992.
- Kettinger, W. and C. Lee. Perceived Service Quality and User Satisfaction with the Information Services Function. *Decision Sciences*, 1995, 25, 737-66.
- Koska, M. High-Quality Care and Hospital Profits: Is There a Link?, *Hospitals*, 1990, 64, 62-3.
- Lovelock, C. Classifying Services to Gain Strategic Marketing Insights. *Journal of Marketing*, 1983, 47, 9-20.
- McDaniel, J. and M. Louargand. Real Estate Brokerage Service Quality: An Examination. *Journal of Real Estate Research*, 1994, 9:3, 339-51.
- Miller, N. Web Implications and Resources for Real Estate Finance. *Real Estate Finance*, 1996, 13:3, 74-83.
- Nelson, S. and T. Nelson. RESERV: An Instrument for Measuring Real Estate Brokerage Service Quality. *Journal of Real Estate Research*, 1995, 10:1, 99-113.
- Nelson, T. and S. Nelson. Franchise Affiliation and Brokerage Firm Selection: A Perceptual Investigation. *Journal of Real Estate Research*, 1988, 3:2, 87-107.
- . A Model for Real Estate Brokerage Firm Selection. *Real Estate Educators Association Journal*, 1991, Spring, 64-71.
- Parasuraman, A., L. Berry, and V. Zeithaml. Refinement and Reassessment of the SERVQUAL Scale. *Journal of Retailing*, 1991, 67:4, 420-50.
- Parasuraman, A., V. Zeithaml, and L. Berry. A Conceptual Model of Service Quality and Its Implications for Future Research. *Journal of Marketing*, 1985, 49, 41-50.

- . SERVQUAL: A Multiple-Item Scale for Measuring Customer Perceptions of Service Quality. *Journal of Retailing*, Spring 1988, 12–40.
- Phillips, L., D. Chang, and R. Buzzell. Product Quality, Cost Position and Business Performance: A Test of Some Key Hypotheses. *Journal of Marketing*, 1983, 47, 26–43.
- Rudie, M. and H. Wansley. The Merrill Lynch Quality Program. In *Services Marketing in a Changing Environment*. T. Bloch, G. Upah, and V. Zeithaml (eds.). Chicago: American Marketing Association, 1985.
- Rust, R., A. Zahorik, and T. Keiningham. Return on Quality (ROQ): Making Service Quality Financially Accountable. *Journal of Marketing*, 1995, 59, 58–70.
- Schmenner, R. How Can Service Businesses Survive and Prosper? *Sloan Management Review*, 1986, Spring, 21–32.
- Seiler, V., M. Seiler, A. Arndt, G. Newell, and J. Webb. Measuring Service Quality with Instrument Variation in an SEM Framework. *Journal of Housing Research*, 2010, 19:1, 47–63.
- Seiler, V., M. Seiler, and J. Webb. Impact of Homebuyer Characteristics on Service Quality in Real Estate Brokerage. *International Real Estate Review*, 2006, 9:1, 44–61.
- Seiler, V., M. Seiler, D. Winkler, G. Newell, and J. Webb. Service Quality Dimensions in Residential Real Estate Brokerage. *Journal of Housing Research*, 2008, 17:2, 101–16.
- Seiler V., J. Webb, and T. Whipple. Assessment of Real Estate Brokerage Service Quality with a Practicing Professional's Instrument. *Journal of Real Estate Research*, 2000, 20:1/2, 105–17.
- Seth, N., S.G. Deshmukh, and P. Vrat. Service Quality Models: A Review. *International Journal of Quality & Reliability Management*, 2005, 22:9, 913–49.
- Shilling, J. and C.F. Sirmans. The Effects of Occupational Licensing on Complaints Against Real Estate Agents. *Journal of Real Estate Research*, 1988, 3:2, 1–9.
- Sirmans, G.S. and C.F. Sirmans. Property Manager Designations and Apartment Rent. *Journal of Real Estate Research*, 1991, 7:1, 91–8.
- Strauss, J. and R. Frost. *Marketing on the Internet: Principles of Online Marketing*. First Edition, Upper Saddle River, NJ: Prentice Hall, 1999.
- Thompson, P., G. DeSouza, and B. Gale. The Strategic Management of Service Quality. The Strategic Planning Institute, Cambridge, MA: PIMSLETTER, No. 33, 1985.
- Vandamme, R. and J. Leunis. Development of a Multiple-Item Scale for Measuring Hospital Service Quality. *International Journal of Service Industry Management*, 1993, 4:3, 30–49.
- Webb, J.R. An Inquiry into the Professional Self Image of Real Estate Agents. *Journal of Real Estate Research*, 2000, 20:1/2, 153–77.
- Zeithaml, V., A. Parasuraman, and L. Berry. *Delivering Quality Service: Balancing Customer Perceptions and Expectations*. New York: The Free Press, 1990.