# Delighting Customers by Managing Expectations for Service Quality: An Example from the Optical Industry

Dr. Paula M. Saunders, Management, Wright State University Dr. Robert F. Scherer, Management, Wright State University Dr. Herbert E. Brown, Management, Wright State University

#### **Abstract**

Customer satisfaction measurement and management has the overall objective of satisfying -perhaps even delighting -- customers. Exceeding expectations (i.e., going beyond basic customer
satisfaction) is now widely recognized as an effective route to strategic, market-driven
organizational behavior. In the current study, expectations of customers of a wholesale optical
organization who were delighted with a supplier's total product and service offering were
compared and contrasted with those who were not delighted but were still either satisfied, or
somewhat satisfied, with the focal organization's performance.

#### Introduction

The health care industry, like other service industries, has become increasingly receptive to the notion that service quality and customer satisfaction management are critically important factors in the success of health care organizations. Some leading service quality thinkers have, in fact, concluded that customers should now be viewed as corporate assets, partners, and allies (Gummesson, 1993). Management has been slow to react, but is increasingly recognizing that the consumer is insisting on improvements in the quality of products and services, and is willing to change providers if not satisfied. This decreasing customer loyalty is key to modifying organizational direction. Management now understands that it must develop and manage an organization which provides the quality level that its customers want; thus, the need for continually measuring and improving the quality level that it offers has become the focus for management. In goods-producing industries, this focus involves measuring and improving the quality of both the tangible products and the accompanying services. In service organizations, such as in the health care industry, it involves measuring and improving the quality of the service process as well as the outcomes; the results of the measurement lead to designing and redesigning the process and implementing programs of change.

Not surprisingly, raising the customer satisfaction question to this level of significance has led to the issue's being studied in a diverse variety of health care settings, including outpatient services (Peyrot, Cooper, and Schnapf, 1993), dental services (Gopalakrishna and Mummalaneni, 1993), and pharmaceutical services (Smith and Coons, 1992). At this point in time, however, the amount of empirical research on customer satisfaction and health care service quality is limited (Walbridge and Delene, 1993). The study reported here, which investigated service quality in the optical industry, adds to a growing understanding of both customer satisfaction and service quality in the health care industry.

### **Researching Customer Perceptions**

Since service quality is a relative concept dependent on the perception of the customer, measurement requires going to the customer. Much research has now been dedicated to discovering effective ways to measure the customer's perception of quality. For the most part, research has viewed measurement as: (1) surveying the customer in regard to perception of the quality of the overall service and its individual dimensions; (2) surveying the customer in regard to level of satisfaction overall and on individual dimensions; and (3) measuring gaps between quality expectations of the customer before the service is experienced compared to the perception of the actual experience.

# **Customer Satisfaction and Service Quality**

If continued organizational success results from customer loyalty through customer satisfaction, then the crucial questions become how does an organization achieve customer satisfaction and what level of satisfaction is necessary? It has been argued that customer satisfaction is not only necessary but, indeed, a primary obligation of organizations (Peterson and Wilson, 1992). There is as yet, however, no consensus among researchers about how to either define or measure customer satisfaction. Further, how is service quality related to customer satisfaction? Is the customer satisfied with the service and, therefore, perceives it as being of high quality? Some researchers believe this to be true: in this case, satisfaction is an antecedent of service quality (Bitner, 1990; Bolton and Drew, 1991 a,b). On the other hand, it may be that the perception of service quality is what leads to customer satisfaction (Parasuraman, Zeithaml, and Berry, 1985, 1988; Cronin and Taylor, 1992) (i.e., the customer perceives the service to be of high quality and, therefore, is satisfied with it.) According to some researchers, individual service encounter satisfaction, overall service satisfaction, and the perceived service quality of either the overall service or individual service encounters may be independent constructs. Emerging from these disparate views and findings is a conclusion by some leading researchers that despite the uncertainty regarding the relationships, various dimensions of customer satisfaction are highly interdependent (Bitner and Hubbert, 1994). Underscoring this is a tendency among practitioners to use the terms "customer satisfaction" and "service quality" interchangeably.

Whatever one uses as an operational definition of service quality, it is logical to believe that an understanding of the consumer's overall perception of the supplier-provider organization as well as an understanding of the underlying dimensions of each service encounter are needed to fully understand service quality. Several studies have supported the measurement of consumer expectations based on a global attitude of service quality formed by degree of customer satisfaction after each successive encounter (Parasuraman et al., 1985, 1988).

## The Expectations Gap

Examining expectations as a way to understand and improve service quality has been accepted for some time (Miller, 1977; Swan and Trawick, 1980; Prakash, 1984). An important underlying assumption of this perspective is that service quality can be defined as the difference between the expected service level and the perception of the actual service received (Parasuraman et al., 1985, 1988; Brown and Swartz, 1989). This expectations-perception gap became the leading customer service

measurement framework with the development of the SERVQUAL model by Parasuraman et al. (1988). Since being introduced, the efficacy of measuring service quality by comparing what customers expect before receiving a product or service with the actual experience of receiving it has been convincingly supported (Gronroos, 1984; Raphel, 1992). The power of the approach is also supported by its numerous successful applications. For example, in one health care study, significant gaps were found to exist between client expectations and actual experiences, and between client experiences and the physicians' perceptions of the client experiences (Brown and Swartz, 1989).

Expectations for service quality and satisfaction have been defined in various ways, but two major thrusts predominate. In the satisfaction literature, expectations have been defined as predictions of what the consumer thinks he or she is likely to receive (Miller, 1977; Swan and Trawick, 1980; Prakash, 1984). In contrast, in the service quality literature, expectations have been viewed as desires or wants of consumers -- in other words, what the consumer thinks should be offered (Miller, 1977; Swan and Trawick, 1980; Parasuraman et al., 1988). Researchers have also discussed other levels of expectations (Miller, 1977) describes a minimum acceptable level of performance which he labeled as minimum tolerable expectations, and Parasuraman, Berry, and Zeithaml (1991) discuss a zone of tolerance between adequate service, and desired service. A conceptual model proposed by Zeithaml, Berry, and Parasuraman (1993) attempts to incorporate all of these concerns into one framework by specifying three different levels of customer expectations, including "...(1) desired service, which reflects what customers want; (2) adequate service, the standard that customers are willing to accept; and (3) predicted service, the level of service customers believe is likely to occur" (p. 10).

# **Underlying Dimensions**

Contemporary investigations have begun to focus on the underlying components or dimensions of global expectations. Gronroos (1990) suggests that the difference between expected quality and experienced quality could be explained by a set of dimensions that includes the supplier's professionalism and skills, attitudes and behavior, accessibility and flexibility, reliability and trustworthiness, recovery, reputation, and credibility. Peterson (1992) suggests that there are at least eight underlying quality dimensions including performance, reliability, features, conformance, durability, serviceability, aesthetics, and perceived quality. The SERVQUAL model defines service quality as having five underlying variables (Zeithaml et al., 1990): tangibles, reliability, responsiveness, assurance, and empathy. Research by Walbridge and Delene (1993), undertaken to evaluate the attitudes of physicians concerning service quality,

found that service quality attitudes of respondents were related to the Zeithaml et al. (1990) dimensions. In a study of outpatient services, expectations from nonmedical and medical domains were found to be important predictors of patient satisfaction and recommendations of an organization by its clients (Peyrot et al., 1993). Satisfaction with dental services has also been assessed using dimensions such as waiting time, availability, convenience, continuity of care, cost of care, and management of pain (Gopalakrishna and Mummalaneni 1993). The nature of the above studies is varied but all of them suggest that underlying dimensions may be significant indicators of service quality or customer satisfaction, and thus provide support for evaluating customer satisfaction through analysis of dimensional expectations.

# Customer Satisfaction Dimensions Specific to the Industry

Research in health care and other settings suggests that management of expectations are improved best when customer satisfaction dimensions are defined in terms of individual organizational factors. Although the SERVQUAL expectations/perceptions measurement model provides dimension statements designed to be applicable across a broad spectrum of services, the authors suggest that the framework can be adapted to fit the specific needs of particular organizations (Parasuraman et al., 1988). Cronin and Taylor (1992) conclude that the dimensions of service quality may be different in different industries and SERVQUAL (and their own SERVPERF model) scale items, therefore, may not be appropriate for all indus-Anderson and Fornell (1994) go further by pointing out that there is, in fact, a need to measure and assess expectations for service quality based upon the specific product and service factors offered by a service provider.

# Effect of Expectations and Quality Perceptions on Purchase Intentions

Expectation research has also found that overall service quality has an effect on purchase intentions (Parasuraman et al., 1988). As early as 1980, Oliver asserted that performance expectations are the bases for the consumer's attitude about the service provider, and the attitude affects the consumer's intention to purchase from the provider. Cronin and Taylor (1992) assert'that service quality may be an antecedent of customer satisfaction and, thus, customer satisfaction variables impact purchase intentions to a greater extent than service quality. In a longitudinal study of telephone customers, Bolton and Drew (1991a,b) explored the behavioral implications of customer satisfaction on attitudes which precede purchase. These studies imply some support for the impact of customer satisfaction

and service quality levels on customer retention, market share, and profitability.

There is at this time no consensus on the causal relationship between service quality and customer satisfaction and, ultimately, purchase behavior; therefore, the most efficient and effective management implementation programs in relation to understanding and influencing consumer purchase intentions have yet to be determined. The need for further research into this unresolved issue is stressed in the most recent research of Parasuraman, Zeithaml, and Berry (1994), Cronin and Taylor (1994), and Teas (1994).

Several researchers have connected service quality perceptions to repurchase intentions (Boulding, Kalra, Staelin, and Zeithaml, 1993; Anderson and Sullivan, 1993). In a recent study, Rust (1993) linked repurchase with overall satisfaction and delight; it is noted, however, that repurchase intention was measured rather than retention itself. His research of a hotel and bank provided the basis for his decision support system model to quantify the market share implications, net present value of the resulting profit stream, and ROQ (return on quality) of a proposed quality expenditure.

# The Need for Providing High Satisfaction Levels

The results of effective customer satisfaction measurement should result in information that provides management with a basis for improvement. The choices offered must discriminate among satisfaction levels. characterizes the difference between the customer who is merely satisfied and the one who is satisfied beyond expectations or delighted? One of the problems often described in the customer satisfaction literature is the problem of negative skewness indicating a majority of positive or high satisfaction ratings (Peterson and Wilson, 1992). Because customers tend to give high ratings, it is difficult to distinguish important differences. Does the rating reflect simply that the customer had experienced no problems, or in fact, that he or she was truly delighted? Customers in both situations may give higher scale ratings. Research by Rust (1993) used the terms much better than expected, about as expected, and worse than expected, hoping to avoid the skewed response problems and also the connotative problems associated with the term delight. In view of widespread practitioner use of the term delight to mean extraordinary satisfaction, Rust, chose to equate the much better than expected choice with delighted.

The findings of the Rust (1993) study and the resulting model developed support the benefits derived from converting customers from dissatisfied to satisfied, and also from satisfied to delighted, although the derived benefits for the latter were shown to be less significant. Despite the lack of supporting evidence, business and

organizational success is now widely understood to require more than mere satisfaction; it may, indeed, require customer delight. Peter Garcia of the Xerox Corporation stressed this point in an address to the American Marketing Association's First Congress on Customer Satisfaction in May of 1991 when he noted that future leaders of world class businesses will set outrageous goals for customer satisfaction (Garcia, 1991). Mr. Garcia's perspective echoes that of many academics and practitioners who argue that business and organizational success in the future means exceeding, rather than just meeting, the expectations of customers/clients.

# Objectives of the Current Investigation

The need for research on meeting expectations for service quality in the health care industry is becoming increasingly important as the competition for customers grows increasingly intense. Previous investigations have implied a relationship between delighting customers and purchase behavior but there has been little research designed to determine potential differences in how customers who are delighted differ from customers who are merely satisfied. Research of this type would allow health care service providers to target marketing efforts at individual consumers more effectively and better manage those processes that are linked to customer perceptions of service quality. The basic premise is that a customer who is delighted has had personal expectations for service quality met or exceeded and will, therefore, continue to make purchases from the provider organization and, perhaps, tell others. Those who are not delighted can be individually approached so that service providers can make adjustments to meet their expectations and secure the relationship with such customers by taking steps to delight them.

Thus, in the current study our objectives were (1) to determine if customers who are delighted and those who are merely satisfied can be differentiated by their expectations for product and service quality and (2) to identify how the expectations of customers who are delighted, and those who are not, differ on a variety of individual product and service quality factors.

# Method

# Focal Organization

The study was conducted in the optical industry and focused on the relationship between independent primary eyecare providers and one of their suppliers of lenses, frames, lens grinding services, and other services. The focal organization was an optical wholesale laboratory in the midwestern United States with sales of approximately \$5,000,000 and about 100 employees. The supplier laboratory interacts with its customers

through prescriptions and orders for related products which are faxed to the optical lab from eyecare provider offices. Orders also come in from field sales people who call on the focal firm's customer base of eyecare providers to service the accounts, to sell frames and lenses, and to promote sales of lenses, lens grinding services and other services.

### Respondents

The focal firm's customers offer their patients primary eyecare, including eye examinations and a wide variety of eyewear products. Personnel in these offices typically include, at minimum, one or more Optometrists and an Optician, an Ophthalmologist and an Optician, or both an Ophthalmologist and Optometrist as well as an Optician. Typical annual sales of these offices, including eve examinations, are between \$250,000 and \$500,000 (Census International, 1993). Decision makers in all of the focal organization's approximately 450 customer offices were asked to participate in the study. The person responsible for choosing the practice's supplier of wholesale optical services was designated as the person who should complete the questionnaire. One hundred and forty-two usable questionnaires were returned. Most often, the decision maker/respondent held the position of Optician.

#### Measures and Procedure

Personal interviews with selected opticians and optometrists and a focus group interview with selected personnel from the focal organization were used to determine the relevant expectation variables. Sixteen specific customer expectations were identified in these sessions. These included expectations related to technical, interpersonal, and product/service dimensions. Technical dimensions included lens specifications, correctness, and accuracy. Interpersonal dimensions that were examined were sales personnel, and friendli-The product/service dimensions studied were selection, pricing, delivery, fairness, customer service, technical support, special orders, training, dispensing, variety, and information. (see the Appendix for the operational definitions used for each of these customer expectations).

Respondents were asked to answer the following question concerning each of the sixteen expectation variables: "How well does (the focal organization) meet your expectations in each of the following areas?" A five-point scale ranging from "1 = much worse than expected" to "5 = much better than expected" was used for rating these variables. Overall satisfaction with the focal organizations's performance was measured with a five-point scale ranging from "1 = very satisfied" to "5 = very dissatisfied." "Very satisfied" was used an indicator of "delight." Thus, the 79 respondents who were very

satisfied with the overall performance of the focal organization comprised the delighted group. The not delighted group was comprised of the 63 respondents who indicated that they were either satisfied or somewhat satisfied with the overall performance of the focal organization.

#### **Results**

Bivariate correlations for all 16 of the expectation variables were reviewed as a preliminary analytic technique (see Table 1). All correlations between pairs of variables were significant (p < .05). Correlations were all positive and ranged from .25 to .74 and indicate weak to moderate associations. The relatively small amount of overlap in variance between pairs of variables indicates relatively unique expectations.

Stepwise discriminant analysis was performed to accomplish the first research objective of determining if delighted and not delighted customers could be differentiated by their expectations. Respondents were grouped according to their self-description as being delighted (n = 90), or as being not delighted (n = 77). Expectations were used as the discriminating variables. The discriminant function derived was significant (p < .01) and included 6 of the 16 expectation variables after the final inclusion step (1 technical, 2 interpersonal and 3 product/service variables).

Results of the classification analysis are shown in Table 2. Overall, customer expectation variables correctly classified 76.06 percent of delighted and not delighted customers of the focal organization. The model was almost equally effective at classifying delighted customers (74.7 percent correctly classified) and not delighted customers (77.8 percent correctly classified).

|   |     |     | Pairw | rise Co | rrelati | ions bet | Table 1<br>tween Ven | le 1<br>Vendor | Expec | tation V | Table 1 Pairwise Correlations between Vendor Expectation Variables $^{\rm a}$ | es   |      |      |      |
|---|-----|-----|-------|---------|---------|----------|----------------------|----------------|-------|----------|---|------|------|------|------|
| Variable                                  | (1) | (2) | (3)   | 4       | (5)     | (9)      | (2)                  | (8)            | (6)   | (10)     | (11)  | (12) | (13) | (14) | (15) |
| Selection                                 | į   |     |       |         |         |          |                      |                |       |          |   |      |      |      |      |
| Specifications<br>Pricing                 | .37 | .53 |       |         |         |          |                      |                |       |          |   |      |      |      |      |
| Delivery                                  | .29 | .42 | 44.   |         |         |          |                      |                |       |          |   |      |      |      |      |
| Correctness                               | .42 | .74 | .46   | .52     |         |          |                      |                |       |          |   |      |      |      |      |
| Accuracy                                  | .47 | .61 | .51   | .61     | .70     |          |                      |                |       |          |   |      |      |      |      |
| Fairness                                  | .37 | .51 | .35   | .46     |         | .63      |                      |                |       |          |   |      |      |      |      |
| Sales Personnel                           | .47 | .52 | .33   | .41     | 95.     | .59      | 09:                  |                |       |          |   |      |      |      |      |
| <ol><li>Customer Service</li></ol>        | 44. | .43 | .27   | .47     |         |          | 09:                  | .73            |       |          |   |      |      |      |      |
| . Technical Support                       | .49 | .50 | .32   | .34     |         |          | .56                  | .57            | .65   |          |   |      |      |      |      |
| 11. Friendliness                          | .42 | .48 | .46   | .42     |         |          | .58                  | .59            | .65   | .58      |   |      |      |      |      |
| . Special Orders                          | .37 | 69: | .47   | .46     |         |          | .57                  | .55            | .53   | .52      | .59   |      |      |      |      |
| 13. Training                              | .42 | 09: | .43   | .37     |         |          | .51                  | .52            | .56   | 09:      | .56   | 69:  |      |      |      |
| <ol> <li>Dispensing</li> </ol>            | .42 | 44. | 39    | .26     |         |          | .40                  | .41            | .41   | .43      | .39   | .46  | .63  |      |      |
| 15. Variety                               | .27 | 36  | .50   | .26     |         |          | .26                  | .29            | .20   | .24      | .23   | .33  | .33  | .50  |      |
| 16. Information                           | .43 | .28 | 39    | .30     |         |          | .22                  | .29            | .34   | .35      | .31   | .33  | .38  | .47  | .64  |
| <sup>a</sup> For all correlations p < .05 | .05 |     |       |         |         |          |                      |                |       |          |   |      |      | 4    |      |
| 1   |     |     |       |         |         |          |                      |                |       |          | >,  |      |      |      |      |
|   | 10  |     |       |         |         |          |                      |                |       |          |   |      |      |      |      |

| Table 2   |  |
|---|--|
| Classification Results Matrix by Customer Group |  |

|                         |          | Prec        | licted Gro   | oup Memb | pership         |
|-------------------------|----------|-------------|--------------|----------|-----------------|
| Actual Group            |          | <u>Deli</u> | <u>ghted</u> | Not D    | <u>elighted</u> |
| Membership<br>Delighted | Cases(n) | n<br>59     | %<br>74.7    | n<br>20  | %<br>25.3       |
| Not Delighted           | 63       | 14          | 22.2         | 49       | 77.8            |

Total cases correctly classified = 76.06%

Classification based upon the 6 discriminating variables made 51.11 percent fewer errors than would be expected through random group assignment. Thus, this analysis provided strong support for the ability of customer expectations to differentiate between these two customer groups of the focal organization.

A review of the canonical discriminant loadings was conducted to determine the specific contributions of each of the 6 customer expectation variables to differentiate between customer groups (see Table 3). The most important discriminating expectation factor was customer service. Friendliness, fairness, and specifications all made moderately strong contributions to differentiating delighted and not delighted customers. Moderate contributions were made by selection and sales personnel. These results show there is a mix of technical, interpersonal, and product/service expectations which are useful in distinguishing between customers who are delighted and those who are not delighted.

The second research objective focused on specific differences between customer groups on fulfillment of expectations. To identify specific differences in magnitude and direction, by delighted and not delighted customer groups on individual expectation variables, univariate F-tests were performed (see Table 3). All F-tests revealed significant (p < .01) differences between customers who were delighted and not delighted on all 6 of the expectation variables. Customers who were delighted had their expectations for friendliness, customer service, sales personnel, fairness, selection, and specifications met more strongly by the focal organization than customers who were not delighted. Collectively, these univariate F-test results demonstrate that delighted customers perceive the greatest fulfillment of expectations by the focal organization.

#### Discussion

The objectives of this study were to determine if

expectations fulfillment differentiates customers who are delighted with a health care provider's products and services from those who are not delighted. The results of the study support this contention in relation to selected product, service, technical, and interpersonal expectation factors. Six expectation factors contributed to a delighted status for individual respondent-customers, with the strongest contributions being made by customer service, friend-liness, fairness, and specifications.

Two caveats to the current research outcomes are evident. First, the current study utilized only one focal organization in the wholesale optical industry. Thus, the results should be generalized to other industries and organizations cautiously. Second, only a small set of customer expectation variables were used as discriminating variables. Other expectations in the optical industry may be equally important in distinguishing between customer groups. Furthermore, customer expectations in the optical industry may differ from those of customers in other health care organizations.

Given these limitations, three tentative conclusions can be drawn from the current results. First, expectations can be used to distinguish between customer groups who are delighted and those who are less than delighted. The study shows that delighted customers are those whose expectations have not just been met, but have been exceeded. This suggests that health care providers may want to use the supplier approach that Dent (1992) refers to as "organizing around the external needs of customers." This requires organizations to go beyond performance that leads only to customer satisfaction, and instead, strive to exceed industry standards, or even customer-accepted standards, and delight their customers.

Measuring these expectations is, of course, an integral part of knowing where and how to exceed them. The implications for the health care industry are significant. It has had a reputation for being paternalistic (knows what the client needs better than the client does) and uncaring (the clients must take what they get; they don't have much choice). The reality which the health care industry is facing today is that the customer does have choices and will exercise that right and choose the supplier who offers respect and concern. The service research strongly suggests that consumers want to understand their options in health care and make their own decisions, and they want the service process to be, at a minimum satisfactory and, if possible, more than

Table 3
Univariate F-tests, Means, and Loadings for Customer Expectation
Variables Used for Classification

|      |                  |   | <u>Me</u>        | <u>an</u>     |                             |
|------|------------------|---|------------------|---------------|-----------------------------|
|      | Variable         | $\underline{\mathrm{F}^{\mathrm{a,b}}}$ | <b>Delighted</b> | Not Delighted | <u>Loading</u> <sup>c</sup> |
| 5.   | Selection        | 16.65                                   | 3.94             | 3.43          | .54                         |
| 4.   | Specifications   | 20.72                                   | 4.02             | 3.46          | .60                         |
| 3.   | Fairness         | 28.13                                   | 3.97             | 3.28          | .70                         |
| , 6. | Sales Personnel  | 15.49                                   | 4.13             | 3.62          | .52                         |
| 1.   | Customer Service | 38.48                                   | 4.10             | 3.41          | .81                         |
| 2.   | Friendliness     | 37.78                                   | 4.30             | 3.60          | .74                         |

<sup>&</sup>lt;sup>a</sup> All F-tests performed with 1 and 140 degrees of freedom

satisfactory. Improvements to the process can not be made without input from the consumer; health care industries in a competitive environment must research customer wants and needs (expectations) relating to the service process, must measure satisfaction levels, and then design or redesign the process to accomplish improvement.

The second conclusion is that specific expectation variables can differentiate customers who are delighted from those who are not delighted. In this study the most important contributor to distinguishing between customer groups was customer service, followed by friendliness, and fairness. These are specific expectation factors which can, in many cases, be managed at no or low cost; therefore, these variables can be cost effectively used to differentiate one optical organization from another in the eyes of customers. This is an approach that is now being recommended by researchers as a major way to gain a competitive advantage (Anderson and Fornell, 1994; Weinrauch and Natarajan, 1992). It is interesting to note that dimensions differentiating customer delight are related to how the client or customer is treated, and these are just as important as the those related to expertise. Customer service includes such factors as reliability, timeliness, and courtesy, for example. These are the kinds of issues that can be improved through awareness and changes in the system process design.

A third conclusion from this research is that exceeding customer expectations makes a difference. Health care providers are too often prone to equate marketing with aggressive promotion or selling when, in fact, health care marketing is understood best when it is understood as designing customer-impinging processes and systems that permit and encourage delivery of delighted levels of service on factors that are important to the health care organization's client base. Only after these are in place does aggressive promotion of an organization make any real sense. Delight with service comes from performing at a quality level which makes one tell others that this particular supplier is the preferred service provider because both the outcomes and the process indicate efforts at continuous improvement through research and concern for the customer. The results are a lasting and mutually beneficial relationship between the health care supplier organization and its customer.

# **Suggestions for Future Research**

Future research on differentiating customers by expectations is required to confirm or refute the results of the current investigation. Researchers are encouraged to test this model using other measures of delight and also to use other health care provider organizations as the context. Research is also needed which evaluates customer behavior, particularly customer retention over time, based upon expectation management. Useful research might also be conducted concerning the difference between customers of a company who perceive expectations as exceeded versus those who do not. Questions requiring investigation include, (1) do some customer segments value some product or service characteristics more than other segments? and (2) is there a reason why some customers within the same

<sup>&</sup>lt;sup>b</sup> For all F-tests p < .01

<sup>&</sup>lt;sup>c</sup> Correlations between canonical discriminant function and expectation variables

segment perceive a higher degree of quality on some characteristics even though there actually is none? Finally, productive studies might be conducted assessing the specific processes needed to improve the match between customer expectations and the performance of health care organizations, thus helping practitioners understand how to cement the relationship between customers and their supplier health care organizations.

### \*\*\*References\*\*\*

- Anderson, Eugene and Claes Fornell, "A Customer Satisfaction Research Prospectus," Roland T. Rust and Richard L. Oliver (eds.), Service Quality, Thousand Oaks, CA: Sage Publications, Inc., pp. 241-268, 1994.
- 2. Anderson, Eugene W. and Mary W. Sullivan, "The Antecedent and Consequences of Customer Satisfaction for Firms," *Marketing Science*, Vol. 12, No. 2, pp. 125-143, 1993.
- 3. Bitner, Mary Jo, "Evaluating Service Encounters: The Effects of Physical Surroundings and Employee Responses," *Journal of Marketing*, Vol. 54, No. 2, pp. 69-82, 1990.
- Bitner, Mary Jo and Amy Hubbert, "Encounter Satisfaction Versus Overall Satisfaction Versus Quality: The Customer's Voice," in Roland T. Rust and Richard L. Oliver (eds.), Service Quality, Thousand Oaks, CA: Sage Publications, Inc., pp. 72-94, 1994.
- Bolton, Ruth N. and James H. Drew, "A Longitudinal Analysis of the Impact of Service Changes on Customer Attitudes," *Journal of Marketing* Vol. 55, No. 1, pp. 1-9, 1991a.
- Bolton, Ruth N. and James H. Drew, "A Multi-stage Model of Customers' Assessments of Service Quality and Value," *Journal of Consumer Research* Vol. 17, No.4, pp. 375-84, 1991b.
- Boulding, William, Ajay Kalra, Richard Staelin, and Valarie A. Zeithaml, "A Dynamic Model of Service Quality: From Expectations to Behavioral Intentions," *Journal of Marketing Research* Vol. 30, No. 1, pp. 7-27, 1993.
- 8. Brown, Stephen W. and Teresa A. Swartz, "A Gap Analysis of Professional Service Quality," *Journal of Marketing* Vol. 53, No. 2, pp. 92-98, 1989.
- Census International, 20/20 Optical Group, New York, NY: Jobson Publishing Corporation, January, 71, 1993.
- Cronin, J. Joseph, Jr. and Steven A. Taylor, "Measuring Service Quality: A Reexamination and Extension," *Journal of Marketing* Vol. 56, No. 3, pp. 55-68, 1992.
- Cronin, J. Joseph, Jr. and Steven A. Taylor, "SERV-PERF Verus SERVQUAL: Reconciling Performance-Based and Perceptions-Minus-Expectations Measurement of Service Quality," *Journal of Market*

- ing Vol. 58, No. 1, pp. 125-131, 1994.
- 12. Dent, Harry S., Jr., "The Secret to Customer Service: Understanding the New Inner-Directed Consumer and Worker," *Small Business Forum* Vol. 9, No. 3, pp. 52-59, 1992.
- 13. Garcia, Peter, "Customer Satisfaction Measurement -- Listening to the Voice of the Customer," *The First Congress on Customer Satisfaction and Market-Driven Quality*, pp. 147-159, 1991.
- 14. Gopalakrishna, Pradeep and Venkatapparao Mummalaneni, "Influencing Satisfaction for Dental Services," *Journal of Health Care Marketing* Vol. 13, No.1, pp. 16-22, 1993.
- 15. Gronroos, Christian, "A Service Quality Model and its Marketing Implications," *European Journal of Marketing* Vol. 18, No.4, pp. 36-44, 1984.
- 16. Gronroos, Christian, Service Management and Marketing, New York, NY: Lexington Books, 1990.
- 17. Gummesson, Evert, Quality Management in Service Organizations, Stockholm, Sweden: International Service Quality Association, University of Stockholm, 1993.
- 18. Miller, John A., "Studying Satisfaction, Modifying Models, Eliciting Expectations, Posing Problems, and Making Meaningful Measurements," In H. Keith Hunt (ed.), Conceptualization and Measurement of Consumer Satisfaction and Dissatisfaction. Bloomington, IN: School of Business, Indiana University, pp. 72-91, 1977.
- 19. Oliver, Richard L., "A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions," *Journal of Marketing Research* Vol. 17, No. 4, pp. 460-469, 1980.
- Parasuraman, A., Valerie A. Zeithaml, and Leonard L. Berry, "A Conceptual Model of Service Quality and Its Implications for Future Research," *Journal* of Marketing, Vol. 49, No. 4, pp. 41-50, 1985.
- Parasuraman, A., Valarie A. Zeithaml, and Leonard L. Berry, "SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality," *Journal of Retailing* Vol. 64, No.1, pp. 12-40, 1988.
- 22. Parasuraman, A., Leonard L. Berry, and Valarie A. Zeithaml, "Understanding Customer Expectations of Service," *Sloan Management Review*, Vol. 32, No. 3, pp. 39-48, 1991.
- 23. Parasuraman, A., Valarie A. Zeithaml, and Leonard L. Berry, "Reassessment of Expectations as a Comparison Standard in Measuring Service Quality: Implications for Further Research," *Journal of Marketing* Vol. 58, No. 1, pp. 111-124, 1994.
- Peterson, Robert A. and William R. Wilson, "Measuring Customer Satisfaction: Fact and Artifact,"
   *Journal of the Academy of Marketing Science* Vol. 20, No. 1, pp. 61-71, 1992.
- 25. Peterson, R.T., "A Longitudinal Analysis of Marketing Factors Related to Small Business Success," *Journal of Business and Entrepreneurship* Vol. 4, No.

# Appendix Operational Definitions for Vendor Expectation Variables

| Variable | Definition |
|----------|------------|
|          |            |

| Selection         | Lens selection offered.  |
|-------------------|--|
| Specifications    | Getting Lens specifications right the first time.  |
| Pricing           | Prices for quality and services delivered.   |
| Delivery          | Delivery of prescriptions on the date and time specified.  |
| Correctness       | Correctness and completeness of orders when delivered.   |
| Accuracy          | Accuracy and timeliness of invoices, acknowledgements.   |
| Fairness          | Fairness and timeliness of complaint resolutions.  |
| Sales Personnel   | Knowledge, accessibility and responsiveness of sales personnel to your needs.  |
| Customer Service  | Knowledge, accessibility and responsiveness of customer service people to your needs.  |
| Technical Support | Provision of technical and other support as needed.  |
| Friendliness      | Friendliness and ease of doing business.   |
| Special Orders    | Getting special lens specifications right the first time.  |
| Training          | Level and effectiveness of technical training on lenses and frames.  |
| Dispensing        | Level and effectiveness of training on how to present lenses and frames to patients.   |
| Variety           | Variety of frames offered.   |
| Information       | Quality and quantity of product information and literature supplied.   |
|                   | Specifications Pricing Delivery Correctness Accuracy Fairness Sales Personnel Customer Service  Technical Support Friendliness Special Orders Training Dispensing  Variety |

- 53, pp. 71-75, 1992.
- 26. Peyrot, Mark A., Philip D. Cooper, and Donald Schnapf, "Consumer Satisfaction and Perceived Quality of Outpatient Health Services," *Journal of Health Care Marketing*, Vol. 13, No. 1, pp. 24-33, 1993.
- Prakash, Ved, "Validity and Reliability of the Confirmation of Expectations Paradigm as a Determinant of Consumer Satisfaction," *Journal of the Academy of Marketing Science* Vol. 12, No. 4, pp. 63-76, 1984.
- 28. Raphel, Murray, "Customer Service Doesn't Work Anymore," *Direct Marketing* Vol. 55, No. 3, pp. 38-39, 1992.
- 29. Rust, Roland T., Return on Quality (ROQ): Measuring the Financial Impact of Your Company's Quest for Quality, Chicago, IL: Probus Publishing Co., 1993.
- 30. Smith, Harry A. and Stephen Joel Coons, (eds.), Marketing Pharmaceutical Services: Patron Loyalty, Satisfaction and Preferences. Binghampton, NY: Pharmaceutical Products Press, 1992.
- 31. Swan, John E. and I. Frederick Trawik, "Satisfaction Related to Predictive vs. Desired Expectations," In H. Keith Hunt and Ralph L. Day (eds.), Refining Concepts and Measures of Consumer Satisfaction and

- Complaining Behavior. Bloomington, IN: School of Business, Indiana University, pp. 7-12, 1980.
- 32. Teas, R. Kenneth, "Expectations as a Comparison Standard in Measuring Service Quality: An Assessment of a Reassessment," *Journal of Marketing* Vol. 58, No. 1, pp. 132-139, 1994.
- 33. Walbridge, Stephanie W. and Linda M. Delene, "Measuring Physician Attitudes of Service Quality," *Journal of Health Care Marketing*, Vol. 13, No. 1, pp. 6-15, 1993
- 34. Weinrauch, J.D., and R. Natarajan, "A Quest for Quality in Small Business: Challenges, Prescriptions, and Research Opportunities," *Journal of Business and Entrepreneurship* Vol. 4, No. 2, pp. 77-88, 1992.
- 35. Zeithaml, Valarie A., A. Parasuraman, and Leonard L. Berry, *Delivering Service Quality*, New York, NY: The Free Press, 1990.
- 36. Zeithaml, Valarie A., Leonard L. Berry, and A. Parasuraman, "The Nature and Determinants of Customer Expectations of Service," *Journal of the Academy of Marketing Science*, Vol. 21, No. 1, pp. 1-12, 1993.