THE EFFECT OF DEMOGRAPHICS ON CUSTOMER EXPECTATIONS
FOR SERVICE QUALITY IN THE LODGING INDUSTRY

THESIS

Presented to the Graduate Council of the
University of North Texas in Partial
Fulfillment of the Requirements

For the Degree of

MASTER OF SCIENCE

By

Nancy L. Kniatt, B.A.
Denton, Texas
August, 1995
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This study investigated demographic characteristics of 240 Chamber of Commerce members in terms of their expectations for customer service in hotels. Subjects reported their age, gender, marital status, race, educational level, income level and ethnicity, and completed a 26-item questionnaire which measured expectations for customer service. Principal components analysis was used to reduce the 26 items to five dimensions of service quality, and multivariate analysis of variance was used to evaluate the effect of the demographic variables on those dimensions. Gender of the customer was found to have a significant effect on the combined dimensions of service quality; other variables were not significant.
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CHAPTER I

INTRODUCTION

Statement of the Problem

Hospitality enterprises face an increasingly critical problem in the 1990s and beyond--how to achieve a competitive advantage within the industry while coping with a marketplace that is shifting in demographic and economic terms. Karl Albrecht (1988) identifies “service excellence” as the key to competitive positioning:

Service excellence: A level of service quality, compared to your competitors, that is high enough in the eyes of your customers that it enables you to charge a higher price for your service product, gain an unnaturally large market share, and/or enjoy a higher profit margin than your competitors. (p. 12)

Peters and Austin (1985) believe that long-term competitive advantage comes from several “commonsense traits,” including “superior service and quality” (p. 47). Service quality has been defined as how well customers’ expectations are met by the service provider (Albrecht, 1988; Albrecht & Bradford, 1990; Albrecht & Zemke, 1985; Glover, 1988; Peters & Austin, 1985; Pickworth, 1987; Smith, 1988; Zeithaml, Parasuraman, & Berry, 1990). Determining customers' service expectations, and then meeting them, is a crucial key in giving lodging firms a definite competitive advantage.
In order to determine customers' expectations for service, the customer must first be identified and studied. Successful hospitality marketers study their customers from a multitude of perspectives, and one of these perspectives is the "demographic environment" (Powers, 1990, p. 19). The significance of complex demographic trends must be considered, and the study of individual demographic variables (or combinations of variables) can give a hospitality firm reference points to use as benchmarks in designing their customer service policies (Powers, 1990).

One of the most dynamic aspects of the customers' demographic environment is age. Demographic statistics describe a phenomenon that has been characterized as the "graying of America" (Uysal & McGuire, 1991). Census figures for 1990 indicate that one in four Americans is over 55. Between 1990 and 2020, this 50-and-over age group will increase in size by 74%, while the under-50 group is expected to increase only 1% (Exter, 1990).

The senior segment is an important target market for the hospitality industry. Anderson and Langmeyer (1982) conducted a study which compared the travel habits of persons under the age of 50 and those over the age of 50. They surveyed 826 randomly selected subjects including 333 over 50 and 493 between the age of 20 and 49. In addition to visiting family and friends, the over-50 group tended to visit historical sites, while the under-50 group tended to travel to outdoor recreations areas and manmade amusement sites. The study found that 50% of the travel of the under-50 group was for less than seven nights. For the over-50 group, 50% of the travel was for 4-12 nights, and
another 30% was for more than 12 nights. It was also found that the under-50 group spent less money per trip, and the over-50 group was more likely to spend more than $1000 per trip than any other amount.

In conjunction with an increase in the median age of the population, the gender of the customer will begin to reflect the normal decrease in the ratio of males to females which occurs with an increase in age. In 1940, there were 100.7 males for every female in the United States; by 1990 there were only 95.1 males for every female. In 1990 for persons aged 25 to 44 years the ratio was 98.9:100, for persons aged 45 to 64 years, the ratio was 92.5:100, and for those aged 65 years and over, there were 67.2 males for every 100 females (U. S. Bureau of the Census, 1992). According to the Monthly Labor Review (as cited in Powers, 1992), the proportion of women in the workforce has increased from 40% in 1975 to 45.4% in 1990, and is projected to increase to 47.4% by 2005, representing an increase of almost 25 million women from 1990 to 2005. More women can be expected to travel in conjunction with their work; in a survey of American travelers conducted by Reed Travel Group (as cited in McMullen, 1994), women were found to represent 43% of the 1993 business travelers. Levanthal (1991) states that older women (often widowed or divorced) will have the financial independence to travel, alone or in groups.

The racial and ethnic distribution of the American population is also in a state of flux. The percentage of White Americans in the total population is decreasing, while the percentage of other races is increasing. Persons of Hispanic origin also represent a
greater percentage of the population than they did a decade ago. In 1980, Whites represented 83.1% of Americans, Blacks 11.7%, Asians/Pacific Islanders 1.5%, and "Other" 3.6%; people of Hispanic origin (of any race) represented 6.4% of the population. By 1990, Whites represented 80.3%, Blacks 12.1%, Asians/Pacific Islanders 2.9%, and "Other" 4.7%; people of Hispanic origin represented 9% of the population (U. S. Bureau of the Census, 1992).

The marital status of the customer is also undergoing transition. Whereas 71.7% of the U.S. population over 18 years of age was married in 1970, only 61.3% were married in 1991 (U. S. Bureau of the Census, 1992).

The level of educational attainment of the American population has changed dramatically since 1970. Although the median school years completed has only risen from 12.1 to 12.7 since 1970, the percentage of the population over 25 years of age who have completed high school has risen from 52.4% to 78.4%, and the percentage who have completed four years of college has risen from 10.7% in 1970 to 21.4% in 1990 (U.S. Bureau of the Census, 1992). These figures suggest that customers in the 1990's will be much better educated than those of twenty years earlier.

Median annual household income, measured in constant (1990) dollars, shows little net increase between 1970 and 1990 but the total number of households increased 45.6% over the same period, indicating an increase in total overall income in the United States (U. S. Bureau of the Census, 1992).
As America's demographic profile changes, the service needs and expectations of its population are changing as well. Lodging firms need to determine how their target markets are being impacted by these changes. Those firms making this effort will put themselves in a position to modify their services and products in ways which will satisfy the needs and expectations of their customers; therefore, they will enjoy a competitive advantage within the industry.

Purpose Statement

This study examined the differences in and interactions between various demographic characteristics of the subjects in terms of their expectations for customer service. The study compared customer expectations for service quality based on age, gender, race, marital status, educational attainment, household income level, and ethnicity.

Research Questions

1. To what extent will differences in the demographic characteristics of customers relate to their expectations for customer service?

2. To what extent will interactions of demographic characteristics of customers relate to their expectations for customer service?

Hypotheses

1. There will be a significant difference between expectations for customer service as associated with customer age.
2. There will be a significant difference between expectations for customer service as associated with customer gender.

3. There will be a significant difference between expectations for customer service as associated with customer race.

4. There will be a significant difference between expectations for customer service as associated with customer marital status.

5. There will be a significant difference between expectations for customer service as associated with customer educational attainment level.

6. There will be a significant difference between expectations for customer service as associated with customer household income level.

7. There will be a significant difference between expectations for customer service as associated with customer ethnicity (Hispanic or non-Hispanic).

8. There will be a significant interaction between any given demographic characteristic and any other demographic characteristic (e.g., age and gender, age and race, age and marital status, age and educational attainment level, age and household income level, age and ethnicity, etc.).

Significance of the Study

In the competitive environment of the lodging industry, there are some optimistic signs, but true recovery may still be many years away. After a decade of overbuilding and the economic recession of 1990-1991, industry occupancy rates (reflecting the ratio of rooms sold to total rooms available for sale) are beginning to show a steady but
gradual increase. In its annual report on the state of the industry, PKF Consulting (1994) projects a 1995 occupancy rate of 69.5%, up from a low of 63.7% in 1991. Average daily room rates increased only 1.7% in 1994, and are predicted to increase 2.7% in 1995, while the inflation rate ranges from 3% to 3.5% (1994). Following several years of almost nonexistent hotel construction, the demand for hotel rooms has begun to catch up with the supply. A recent study reported in the Hospitality Valuation Journal (as cited in Gregerson, 1995) predicts that occupancy rates will level out at 74% by 1997, but they also foresee that new full-service property development will not be economically feasible until at least 2001.

Operational profits (profits before debt service) in the lodging industry are projected to reach 23.9% of total revenue in 1995, up from 19.7% in 1990 (PKF Consulting, 1994). Based on the sluggish revenue growth during this period, this increase in profitability indicates a reduction in costs, and hotel operators who survived the recession often cut back on employees in an attempt to reduce overhead (Gregerson, 1995). In terms of service quality, this may have been an undesirable tactic, since fewer employees may leave a property poorly equipped to provide the level of service quality that will differentiate it from its competition. Clearly, lodging firms should be exploring all available means of increasing their competitive advantage in order to increase both the occupancy rates and the average daily room rates at their properties.

Service quality has been characterized by marketing and management theorists as the competitive edge of the 1990s. Albrecht and Bradford (1990) conducted
comprehensive reviews of the status of service quality in America, and concluded that the businesses which will prosper in the 1990s will be "customer-driven" (p. 82). Peters and Austin (1985) advise companies to first gain a competitive edge by providing a higher perceived quality of product (service); this would result in gains in market share. They refer to this as "earning your way in," as opposed to "buying your way in" with discounted pricing strategies (p. 76).

In a discussion of service management, Haywood (1987) acknowledges the central importance of the customer and recommends that managers obtain a clear picture of their customers' expectations in order to design and produce their service concept. Furthermore, he states that service quality is so important to competitiveness that it must be viewed as an essential part of management strategy, rather than as an afterthought. A lodging firm which has as its goal an increased share of the market must establish the identification and achievement of service quality as its most essential task.

In order to serve a customer, you need to know your customer. Albrecht and Bradford (1990) emphasized the value of gaining demographic information: "Getting a clear snapshot of your customer, from a demographic perspective, is one of the first tasks facing a business that wants to gain the service advantage" (p. 97).

As an example of the impact a demographic change can imply, in Hotel Management and Operations, Rutherford (1990) points out the increasing potential of the senior market as the twenty-first century approaches. The senior segment is growing more rapidly than other segments of the population and will soon include the first wave
of the baby boom generation. The ability to identify and track the expectations for service quality of this segment will enable lodging firms to take full advantage of the market potential of this group as it grows in size and importance.

The results of this study will be used to design standards of service quality for the lodging industry that will meet the needs and expectations of the American population as it moves forward into the 21st century. Lodging firms which have such standards in place over the next several years will benefit by having increased appeal to this changing market.

Limitations

1. Generalizability of results is limited to the membership of the Chamber of Commerce in Lewisville, Texas.

Delimitations

1. Participants will be limited to members of the Chamber of Commerce in Lewisville, Texas.

2. Participants will have spent at least one night in a hotel or motel within the past year.

Assumptions

1. Customer expectations for service quality are measurable.

2. Participants in the study will respond truthfully and accurately.

3. Participants in the study will have stayed in hotels for business and non-business purposes.
Definition of Terms

The following terms are defined for use in this study:

1. **Service quality** is the degree of variance between customer expectations for service and their perceptions of its actual delivery (Zeithaml et al., 1990).

2. **Occupancy rate** is a ratio which indicates the proportion of rooms sold to rooms available for sale during a specific period of time (Steadmon & Kasavana, 1988).

3. **Market share** is the percentage a lodging facility captures of the total business in its product class in a given area (Lewis & Chambers, 1989).

4. **Average daily rate** is determined by dividing the net revenue from all rooms by the number of rooms sold (Steadmon & Kasavana, 1988).
CHAPTER II

REVIEW OF LITERATURE

This chapter is a review of the literature related to this study. The focus of this review is presented under the following major headings: (1) Theoretical Background and Framework, and (2) Review of Related Research in terms of (a) quality service in the hospitality industry, and (b) the demographics of the customer.

Theoretical Background/Framework

The literature concerning the definition and importance of the concept of service quality has grown considerably over the past decade. Most of the definitions of service quality refer to customer expectations in some form, usually as a baseline reference for measuring customer perceptions. Glover (1988) sees quality as consistent delivery of service according to the standards expected by the customer. Pickworth (1987) also defines quality in terms of customer expectations. Gronroos (1984) measures service quality as the difference between expected service and perceived service.

Going a step further, Mill (1986) perceives a duality of expectation types in the hospitality industry: physical expectations regarding the property where the service is rendered, and psychological expectations regarding the service itself. Both of these must be met in order to achieve service quality.

Czepiel (1985) also defines service quality as a concept encompassing two dimensions. He refers to them as "actual functional service" and the "manner in which
service is delivered" (p. 13). Customer satisfaction is defined in terms of how the actual service outcome compares with the customer's expectations.

Perhaps the best known model of service quality is that developed by Zeithaml, Parasuraman, and Berry (1990). They define service quality as "the extent of discrepancy between customers' expectations or desires and their perceptions" (p. 19). As shown in Figure 1, their model identifies five dimensions of service quality: tangibles, reliability, responsiveness, assurance (including competence, courtesy, credibility and security), and empathy (including access, communication and understanding the customer).

**Figure 1.** Customer assessment of service quality. Adapted from *Delivering Quality Service* (p. 23) by V. A. Zeithaml, A. Parasuraman, & L. L. Berry, 1990, New York: The Free Press. Copyright 1990 by The Free Press.

The tangibles dimension is reflected in the physical aspects of the facility as well as the appearance of the staff. The dimension of reliability is concerned with how well
things work in the hotel and whether the service is dependable and consistent, and is
delivered in a timely manner. The dimension of assurance is related to the guests'
confidence in the knowledge, capability, and experience of the hotel staff. Promptness
and availability of service are the key aspects of the dimension of responsiveness. The
final dimension, that of empathy, reflects the overall sense of well-being conveyed to the
guests when a concerned and caring hotel staff operates the property for the convenience
of the guests.

Four areas of discrepancy are identified between managements' perceptions of
service quality and the actual delivery of the service to the customers; a fifth area is
described as the discrepancy between the customers' expectations for service and their
perceptions of its delivery (Figure 2). Zeithaml et al. (1990) call these discrepancies
"gaps":

Gap 1, the discrepancy between customers' expectations and managements'
perceptions of those expectations; Gap 2, the discrepancy between managements'
perceptions of customers' expectations and service-quality specifications; Gap 3,
the discrepancy between service-quality specifications and actual service
delivery; and Gap 4, the discrepancy between actual service delivery and what is
communicated to the customers about it. We linked customer-perceived quality
shortfalls (Gap 5) to these four gaps in the form of a conceptual model of service
quality. (p. 49)
The Zeithaml service quality model is attractive for use in this study because of its identification of the service "gaps." Each of these gaps represents an opportunity to locate specific problem areas and implement corrective measures. The plan for closing
each of these gaps becomes a design for positive action toward the improvement of a lodging property's overall service quality.

Regarding the first gap in the model (between customers' expectations and managements' perceptions of those expectations), Zeithaml et al. (1990) state that "the necessary first step in improving quality of service . . . is for management to acquire accurate information about customers' expectations" (p. 39).

Review of Related Research

Quality service in the hospitality industry

Customer service has been identified as a key factor in guest satisfaction. In a 1988 article, Cadotte and Turgeon reported on two surveys conducted in 1978. The first survey was conducted by the National Restaurant Association. They surveyed 432 food service firms, representing 22,000 food service units, asking them to rate the frequency of complaints and compliments for 26 service categories. "Quality service" was ranked first of the 26 attributes as a source of compliments, and third as a source of complaints (following availability of parking and traffic congestion within the restaurant).

In the second survey, The American Hotel and Motel Association sampled 260 lodging executives representing 280,000 rooms, in order to gather data on the relative frequency of 26 categories of compliments and complaints. These respondents ranked "quality service" fourth as a source of compliments and third as a source of complaints (following price of service and speed of service).
Identifying existing gaps in hotel service quality is an essential first step in improving the guests' assessment of service quality. Lewis (1987) surveyed 23 upper management personnel of a 400-room hotel, as well as a random sampling of 116 guests at the hotel. Respondents evaluated the importance of 44 hotel attributes. Regarding Zeithaml's "Gap 1," there was a significant difference between the ratings of management and guests on 27 of the 44 attributes. In 15 of these cases, management believed guests would expect more than they actually did. In eight cases, guest expectations exceeded those of management, and four of these were in areas considered critical in terms of a guest's repurchase decision (cleanliness, speed of checkin/checkout, staff friendliness, and quiet).

The tangible dimensions of service quality are seen as particularly important to hotel guests. Furthermore, the way in which customer complaints are handled is extremely important. In a 1987 survey regarding guest complaints from 1314 guests of six hotels in one city, Lewis and Morris found that guests were likely to make immediate complaints in person about physical tangible factors, and to use comment cards to complain later about intangible factors. Lewis and Morris also studied 479 persons, guests of nine hotels in one chain, who sent letters of complaint after their stay. Fully three-fourths had already complained in person, and of these 88% remained dissatisfied. Sixty-two percent were likely to tell others outside their family about their complaint, and this figure rose to 73% if the complaint was not resolved.

The demographics of the customer
Very little current literature is available on customer demographic comparisons, with the exception of age. Other demographic characteristics have been described, but not in the form of between-groups comparisons of consumers (e.g. male and female, Hispanic and non-Hispanic, married and single). Although senior citizens as a group have been the subject of much study, very little research is available concerning their perceptions regarding service quality in the hospitality industry. In a 1979 study, Ash, Gardiner, & Quelch surveyed 1052 Canadian households on their use of various general and repair services over a two-year period. Respondents were asked to evaluate the importance of their purchase, and the degree of their satisfaction or dissatisfaction with it. They found strong evidence of higher levels of post-purchase satisfaction in respondents who were over 55 years of age, and a moderate degree of correspondence between age groups with respect to the type of service.

Several recent articles have discussed African-Americans and Hispanics as consumers. A study by Simmons Market Research Bureau (as cited in Morris, 1993) shows that slightly over 50% of adult white Americans took at least one overnight trip in 1991, whereas only 33% of African-American adults made such a trip. Twice as many whites (18%) as African-Americans (9%) took four or more trips in 1991. Morris states that African-Americans spend $30 billion a year on travel and tourism, but they prefer to visit places where they will be treated with respect rather than places where they might be mistaken for employees.
Braus (1993) states that over three-quarters of Hispanic respondents to a survey reported a preference for Spanish-language television or radio programming. They tend to have larger families (27% of Hispanic households have more than four people), and 14% report a household income of $50,000 or more. Riche (1993) warns that businesses will have to find common ground that encompasses all racial and ethnic groups in order to appeal successfully to our growing multicultural society.

Household discretionary income is a factor in how often persons travel for non-business reasons. According to Russell and Exter (1993), “the average household with discretionary income had more than $11,000 in such spending money in 1991” (p. 29). They found that discretionary income is greatest for households headed by persons 45 to 54 years old, and per capita discretionary income is greatest in households headed by persons 55 to 64 years old.

Summary

Chapter II presented a review of the literature related to the theoretical background of the concept of service quality and introduced the model of service quality developed by Zeithaml et al (1990). In addition, literature was reviewed pertaining to quality service in the hospitality industry, and to the demographic characteristics of the customers.
CHAPTER III

METHODS AND PROCEDURES

The purpose of this chapter is to describe the methodology involved in conducting the present study. This chapter includes statements on the type of research, the subjects for the study, the instrumentation, and the procedures for data collection and analysis. The general purpose of this study is to identify the ways in which customer expectations for service quality in the lodging industry vary according to the demographic characteristics of the customer.

Type of Research

The research design used for this research was a descriptive study. It took the form of a cross-sectional field survey in which the variables were measured once.

Sample

Subjects for this study consisted of the members of the Chamber of Commerce of Lewisville, Texas. An up-to-date mailing list of this group was purchased, and the questionnaire was directed to the full membership of the Lewisville Chamber of Commerce. There were 821 members at the time the study was conducted. Within three weeks of the initial mailing, 187 (23%) responses were received. Of these, 27 were rejected because the respondents did not meet the minimum criteria of having spent at least one night in a hotel in the past year. In addition, four responses were not used.
because respondents failed to complete all of the demographic information, or else they failed to complete the questionnaire items regarding customer expectations for service quality.

A follow-up mailing to nonrespondents was conducted, and an additional 97 responses were received. Of these, nine were rejected because the respondents did not meet the minimum criteria of having spent at least one night in a hotel in the past year. Four responses were not used due to the respondent's failure to complete either the demographic information or the questionnaire items regarding service quality expectations. Table 1 displays a summary of the responses to the survey.

Table 1
Summary of Responses

<table>
<thead>
<tr>
<th>Response Characteristic</th>
<th>#</th>
<th>%</th>
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<tbody>
<tr>
<td>Total Sample:</td>
<td>821</td>
<td>100</td>
</tr>
<tr>
<td>Total Returned:</td>
<td>284</td>
<td>34</td>
</tr>
<tr>
<td>Total Usable Responses:</td>
<td>240</td>
<td>29</td>
</tr>
<tr>
<td>Total Non-Usable Responses:</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>Did not meet minimum criteria (had not spent any nights in a hotel in the past year):</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Did not fully complete the questionnaire:</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

The total number of responses received was 284 out of 821 surveys mailed, resulting in a total response rate of 34%. The final number of usable responses received was 240, giving an overall usable response rate of 29%.
Instrument

The instrument used for this study was LODGSERV, a 26-item index developed for use in the lodging industry by Knutson, Stevens, Wullaert, Patton, and Yokoyama (1990). This instrument was designed to measure customers' expectations for service quality in the lodging industry.

The LODGSERV instrument has been used to study customers' expectations for service quality in economy, mid-price, and luxury hotels (Knutson, Stevens, Patton, and Thompson 1992). The instrument has also been translated into Japanese, Mandarin Chinese, Cantonese Chinese, Australian and British-English. In a pilot project, the translated instrument was then administered in Japan, Taiwan, Hong Kong, Australia and the United Kingdom (Patton, Stevens, and Knutson, 1994). Results indicated that LODGSERV was able to maintain good reliability and validity when administered to other (non-American) cultures.

LODGSERV was adapted from the more generic SERVQUAL instrument developed by Zeithaml, Parasuraman, and Berry in 1990. Knutson et al. (1990) established reliability for LODGSERV "using tests for (1) internal consistency, (2) parallelism, and (3) calculations of coefficient alpha" (p. 279). Alpha levels for the five dimensions of service quality identified by Zeithaml et al., and evaluated by the refined 26-item index, range from 0.63 to 0.80. The alpha level for the dimension of "reliability" is 0.63; for the dimension of "assurance" it is 0.73; for "responsiveness" it is 0.70; for "tangibles" it is 0.71; and for "empathy" it is 0.80. The total index has an alpha
level of 0.92. Content validity for LODGSERV is assumed, because validity had been established for the original SERVQUAL instrument, and "the intent of each question was maintained" (Knutson, et al., p. 288). The authors of LODGSERV also pretested the instrument (N=20) and found no problems with wording or understanding.

Participants in the study were directed to rate each of the 26 statements in the instrument on a scale of "7" to "1." Strong agreement with the statement was indicated by circling the number "7," and strong disagreement was indicated by circling the number "1." If the subject did not have strong feelings regarding the statement, a number in the middle was circled. Subjects were also asked to indicate their age, gender, race, marital status, level of educational attainment, household income level, and ethnicity (Hispanic or non-Hispanic).

Procedures

Approval for investigation involving the use of human subjects was obtained from the University of North Texas Institutional Review Board for the Protection of Human Subjects. A packet containing a copy of the LODGSERV questionnaire and instructions for its completion was mailed to each subject. The packet also included a cover letter on University of North Texas Small Business Institute letterhead which briefly explained the significance of the research, the voluntary nature of the subject's participation, and the confidentiality of the subject's response. Subjects were asked to respond via an enclosed, prepaid return envelope.
Data Collection

Questionnaire packets were addressed to the person identified by the Lewisville Chamber of Commerce as the member firm's contact or representative. Each return envelope was numbered, and as each response was received this number was checked off on the original mailing list. Three weeks after the original mailing, a follow-up packet was sent to all nonrespondents. This packet contained an amended cover letter and another copy of the LODGSERV questionnaire.

Data Analysis

Data collected for this study were analyzed using the Statistical Package for the Social Sciences (SPSS). Summary descriptive statistics were obtained for the independent variables (age, gender, race, marital status, educational attainment level, household income level, and ethnicity).

The 26 items on the LODGSERV instrument were reduced to the five dimensions of service quality (tangibles, reliability, responsiveness, assurance, and empathy) in order to simplify further statistical analysis and to follow the technique used by Knutson, et al (1990). This was accomplished through the use of principal components analysis.

Although the dependent variables are measured on an ordinal (Likert) scale, it is generally accepted in social science research that the results may be treated as interval-scale data, allowing the use of parametric test procedures in order to benefit from the additional power of these tests (Huck, Cormier, and Bounds, 1974).
Multivariate analysis of variance was used to examine the differences in and interactions between demographic groups on expectations for the five dimensions of service quality. In testing the hypotheses, the .10 level of probability was used.
CHAPTER IV

RESULTS

Introduction

This study was designed to examine customer expectations for service quality and how the demographic characteristics of the customer might influence those expectations. The study also investigated the impact of interactions between certain demographic characteristics on expectations for service quality.

Several distinct statistical procedures were employed in analyzing the collected data. Summary descriptive statistics were obtained for all the variables. The minimum criteria for including a response was that the respondent had spent at least one night in a hotel or motel in the past year. Subjects reported spending between one and 117 nights in hotels or motels in the past year. The demographic attributes of the subjects were evaluated and frequency counts and percentages were obtained for the independent variables of age, gender, marital status, race, educational attainment, annual household income, and ethnicity.

Twenty-six questions regarding customer expectations for service quality were investigated to determine frequencies of response, percentages, minimum and maximum values, means, and standard deviations. The 26 items were also examined with the goal of condensing them into a smaller number of underlying dimensions through the use of principal components analysis.
Multivariate statistical techniques were employed to test the hypotheses identified in Chapter I, by examining the effects of the independent (demographic) variables on the dimensions of service quality identified through principal components analysis. Effects were investigated for each independent variable and for selected interactions between independent variables.

Sample

The population for this study included the current membership of the Chamber of Commerce of Lewisville, Texas, and consisted of 821 subjects who were listed by the Chamber of Commerce as owners or managers of the member businesses or organizations. There were 240 usable responses (29%). Two-thirds of the respondents were between 31 and 50 years of age (65.8%) and almost two-thirds were male (64.6%). The majority were married (84.7%), and almost all respondents were Caucasian and Non-Hispanic (97.5% and 99.0% respectively). Two-thirds (65.6%) reported having at least a 4-year college degree, and 20.6% had postgraduate degrees. Almost half reported annual household income in excess of $75,000 (48.9%). Table 2 provides a summary of the demographic attributes of the respondents.

Table 2

<table>
<thead>
<tr>
<th>Demographic Attributes of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value</strong></td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>20 to 30 years of age</td>
</tr>
<tr>
<td>31 to 40 years of age</td>
</tr>
</tbody>
</table>

(table continues)
Table 2
Demographic Attributes of Respondents

<table>
<thead>
<tr>
<th>Value</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>41 to 50 years of age</td>
<td>86</td>
<td>35.8</td>
</tr>
<tr>
<td>51 to 60 years of age</td>
<td>44</td>
<td>18.3</td>
</tr>
<tr>
<td>Over 60 years of age</td>
<td>21</td>
<td>8.8</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td>----</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>153</td>
<td>64.6</td>
</tr>
<tr>
<td>Female</td>
<td>84</td>
<td>35.4</td>
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<tr>
<td>Missing</td>
<td>3</td>
<td>----</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>200</td>
<td>84.7</td>
</tr>
<tr>
<td>Single</td>
<td>36</td>
<td>15.3</td>
</tr>
<tr>
<td>Missing</td>
<td>4</td>
<td>----</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>233</td>
<td>97.5</td>
</tr>
<tr>
<td>African-American</td>
<td>4</td>
<td>1.7</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>0.8</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>----</td>
</tr>
<tr>
<td>Educational Attainment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did not graduate high school</td>
<td>4</td>
<td>1.7</td>
</tr>
<tr>
<td>High school graduate</td>
<td>46</td>
<td>19.3</td>
</tr>
<tr>
<td>2-year college degree</td>
<td>32</td>
<td>13.4</td>
</tr>
<tr>
<td>4-year college degree</td>
<td>107</td>
<td>45.0</td>
</tr>
</tbody>
</table>

(table continues)
Table 2
Demographic Attributes of Respondents

<table>
<thead>
<tr>
<th>Value</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master's degree</td>
<td>21</td>
<td>8.8</td>
</tr>
<tr>
<td>Doctoral degree</td>
<td>28</td>
<td>11.8</td>
</tr>
<tr>
<td>Missing</td>
<td>2</td>
<td>---</td>
</tr>
</tbody>
</table>

Annual Household Income

<table>
<thead>
<tr>
<th>Income Range</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under $10,000</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>$10,000 to $14,999</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>$15,000 to $24,999</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>$25,000 to $34,999</td>
<td>17</td>
<td>7.2</td>
</tr>
<tr>
<td>$35,000 to $49,999</td>
<td>33</td>
<td>14.0</td>
</tr>
<tr>
<td>$50,000 to $74,999</td>
<td>69</td>
<td>29.4</td>
</tr>
<tr>
<td>Over $75,000</td>
<td>115</td>
<td>48.9</td>
</tr>
<tr>
<td>Missing</td>
<td>5</td>
<td>---</td>
</tr>
</tbody>
</table>

Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Non-Hispanic</td>
<td>205</td>
<td>99.0</td>
</tr>
<tr>
<td>Missing</td>
<td>33</td>
<td>---</td>
</tr>
</tbody>
</table>

N = 240

Analysis of Data

Responses to each of the 26 questions regarding expectations for customer service were summarized in terms of their means and standard deviations, as well as the minimum and maximum values selected. Table 3 displays the results of this investigation.
Table 3
Summary of Responses

<table>
<thead>
<tr>
<th>Item #</th>
<th>M</th>
<th>SD</th>
<th>Minimum&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Maximum&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>5.93</td>
<td>1.19</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>02</td>
<td>6.00</td>
<td>0.97</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>03</td>
<td>6.60</td>
<td>0.63</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>04</td>
<td>6.05</td>
<td>0.95</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>05</td>
<td>6.17</td>
<td>1.04</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>06</td>
<td>6.13</td>
<td>0.95</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>07</td>
<td>6.69</td>
<td>0.66</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>08</td>
<td>6.77</td>
<td>0.53</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>09</td>
<td>6.71</td>
<td>0.54</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>10</td>
<td>6.80</td>
<td>0.48</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>11</td>
<td>6.41</td>
<td>0.80</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>12</td>
<td>6.56</td>
<td>0.68</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>13</td>
<td>5.82</td>
<td>1.11</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>14</td>
<td>6.27</td>
<td>0.91</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>15</td>
<td>6.28</td>
<td>0.87</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>16</td>
<td>6.16</td>
<td>0.93</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>17</td>
<td>6.45</td>
<td>0.72</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>18</td>
<td>6.25</td>
<td>0.86</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>19</td>
<td>6.16</td>
<td>0.92</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>20</td>
<td>6.17</td>
<td>0.98</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>21</td>
<td>5.62</td>
<td>1.15</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>22</td>
<td>6.01</td>
<td>1.02</td>
<td>2</td>
<td>7</td>
</tr>
</tbody>
</table>

(table continues)
Table 3

Summary of Responses

<table>
<thead>
<tr>
<th>Item #</th>
<th>M</th>
<th>SD</th>
<th>Minimum&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Maximum&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>6.33</td>
<td>0.85</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>24</td>
<td>5.89</td>
<td>1.14</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>25</td>
<td>5.50</td>
<td>1.35</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>26</td>
<td>6.10</td>
<td>1.04</td>
<td>3</td>
<td>7</td>
</tr>
</tbody>
</table>

<sup>a</sup> 1 = Strongly Disagree. 7 = Strongly Agree.

Number of valid observations (listwise) = 227

Data collected for this study were analyzed using the Statistical Package for the Social Sciences (SPSS). The first step in the investigation consisted of performing a principal components analysis on the 26 items on the LODGERV index. In this procedure, components (factors) are extracted; the items which make up each component are correlated with each other but are largely independent of other subsets of variables (Tabachnick and Fidell, 1989). The goal of this procedure was to reduce the 26 variables from the survey instrument to a smaller number of factors in order to simplify further analysis and to confirm the five dimensions of service quality used in the service quality model presented in Chapter I (Zeithaml et al., 1990), and in the development of the LODGERV instrument by Knutson et al. (1990).

The total number of respondents was used in obtaining factor groupings. Cases with missing values for any of the 26 items were deleted listwise. The Kaiser-Meyer-Olkin measure of sampling adequacy was .91490, which is considered to be "marvelous"
(Kaiser, 1974). This is an index for comparing the magnitudes of the observed correlation coefficients to the magnitudes of the partial correlation coefficients; small values for this measure would indicate that factor analysis of the variables might not be recommended.

During the principal components analysis procedure, initial statistics showed that five factors had Eigenvalues greater than 1.0, and 61.5% of the total variance was attributable to these five factors. Table 4 illustrates the communality of the variables, or the proportion of variance explained by the common factors, and summarizes the percentage of variance accounted for by each of the five factors. These five factors will be labeled “tangibles,” “reliability,” “responsiveness,” “assurance,” and “empathy” (Knutson, et al., 1990) and will be used as the dependent variables for this study.

Table 4

<table>
<thead>
<tr>
<th>Variable</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item #</td>
<td>Communality</td>
</tr>
<tr>
<td>01</td>
<td>70659</td>
</tr>
<tr>
<td>02</td>
<td>70134</td>
</tr>
<tr>
<td>03</td>
<td>51364</td>
</tr>
<tr>
<td>04</td>
<td>59138</td>
</tr>
<tr>
<td>05</td>
<td>44498</td>
</tr>
<tr>
<td>06</td>
<td>54172</td>
</tr>
<tr>
<td>07</td>
<td>56627</td>
</tr>
<tr>
<td>08</td>
<td>56376</td>
</tr>
</tbody>
</table>

(table continues)
Table 4

Principal Components Analysis Final Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Communality</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item #</td>
<td>#</td>
<td>Eigenvalue</td>
</tr>
<tr>
<td>09</td>
<td>.73897</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>.64873</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>.66456</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>.54293</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>.62830</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>.58072</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>.68196</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>.58802</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>.63628</td>
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<td>18</td>
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<td>19</td>
<td>.61945</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>.65409</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>.64926</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>.57931</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>.71091</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>.57267</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>.58946</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>.62815</td>
<td></td>
</tr>
</tbody>
</table>

After extraction, varimax rotation was performed on the factor matrix. Rotation results in a simplified matrix, which is easier to interpret, by redistributing the explained variance for the individual factors. The varimax rotation method minimizes the number
of variables that have high loadings on a factor (Tabachnick & Fidell, 1989). Table 5 provides a summary of the factor loadings of the 26 items after rotation.

Table 5

<table>
<thead>
<tr>
<th>Factor Groupings of 26 Survey Items</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tangibles</strong></td>
<td></td>
</tr>
<tr>
<td>#02 - Have attractive facility</td>
<td>.80</td>
</tr>
<tr>
<td>#01 - Have up-to-date equipment</td>
<td>.74</td>
</tr>
<tr>
<td>#06 - Have visually attractive rooms</td>
<td>.53</td>
</tr>
<tr>
<td>#03 - Have clean, neat personnel</td>
<td>.47</td>
</tr>
<tr>
<td>#05 - Serve high quality food/beverages</td>
<td>.46</td>
</tr>
<tr>
<td><strong>Reliability</strong></td>
<td></td>
</tr>
<tr>
<td>#09 - Be dependable and consistent</td>
<td>.77</td>
</tr>
<tr>
<td>#10 - Have equipment that works well</td>
<td>.75</td>
</tr>
<tr>
<td>#08 - Correct things that are wrong</td>
<td>.73</td>
</tr>
<tr>
<td>#07 - Provide promised services on time</td>
<td>.70</td>
</tr>
<tr>
<td><strong>Responsiveness</strong></td>
<td></td>
</tr>
<tr>
<td>#11 - Shift personnel to where lines occur</td>
<td>.73</td>
</tr>
<tr>
<td>#12 - Provide prompt, quick service</td>
<td>.63</td>
</tr>
<tr>
<td>#16 - Provide information about hotel and outside services</td>
<td>.59</td>
</tr>
<tr>
<td>#17 - Personnel well-trained, competent</td>
<td>.51</td>
</tr>
<tr>
<td><strong>Assurance</strong></td>
<td></td>
</tr>
<tr>
<td>#15 - Make guest feel comfortable</td>
<td>.72</td>
</tr>
</tbody>
</table>

(table continues)
Table 5

Factor Groupings of 26 Survey Items

<table>
<thead>
<tr>
<th>Factor</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>#19 - Employees sensitive to individual needs</td>
<td>.65</td>
</tr>
<tr>
<td>#20 - Make guest feel valued</td>
<td>.65</td>
</tr>
<tr>
<td>#14 - Phone reservationists knowledgeable</td>
<td>.62</td>
</tr>
<tr>
<td>#04 - Decor consistent with image &amp; price</td>
<td>.60</td>
</tr>
<tr>
<td>#13 - Make extra effort for special requests</td>
<td>.57</td>
</tr>
<tr>
<td>#23 - No red tape involved to contact manager</td>
<td>.57</td>
</tr>
<tr>
<td>#26 - Staff are sympathetic when things go wrong</td>
<td>.57</td>
</tr>
<tr>
<td>#18 - Employees are supported by management</td>
<td>.50</td>
</tr>
</tbody>
</table>

Empathy

<table>
<thead>
<tr>
<th>Factor</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>#25 - Have healthful and/or special menu options</td>
<td>.70</td>
</tr>
<tr>
<td>#24 - Provide complimentary services</td>
<td>.66</td>
</tr>
<tr>
<td>#22 - Operate services during convenient hours</td>
<td>.65</td>
</tr>
<tr>
<td>#21 - Anticipate guests’ needs and wants</td>
<td>.64</td>
</tr>
</tbody>
</table>

The five factors which were extracted have a close but not exact alignment with the factors identified by Knutson, et al. (1990) in developing the LODGSE RV instrument. Seven of the 26 items in this study loaded on different factors. Item #16 (having a knowledgeable staff) and #17 (having a trained and experienced staff) loaded on responsiveness rather than assurance. Item #4 (having decor that reflects the hotel's concept) loaded on assurance rather than tangibles. Item #13 (willing to handle special requests) loaded on assurance, rather than responsiveness. Item #20 (making the guest feel special and valued), #23 (not making the guest deal with red tape), and #26 (having
sympathetic employees) all loaded on assurance rather than empathy. These differences may reflect the overlap inherent in the three dimensions of responsiveness, assurance, and empathy; although they have different nuances, each of these factor labels can be defined in terms of understanding, sensitivity, confidence, and comfort.

Hypothesis Testing

Multivariate analysis of variance procedures were used to test for the main effects of the independent variables on the five dimensions of service quality identified through principal components analysis (tangibles, reliability, responsiveness, assurance, and empathy) and for selected interactions between the independent variables. The independent variables were age, gender, marital status, race, educational attainment, household income level, and ethnicity. Since no respondents reported being “Asian/Pacific Islander,” race was recoded to three levels (1=Caucasian, 2=African-American, and 3=Other). Since no respondents reported having income less than $10,000, or between $15,000 and $24,999, and only one reported having income between $10,000 and $14,999, only income levels above $25,000 were considered in the analyses. Table 6 shows the results of the multivariate tests of significance using Wilk’s criterion.

Table 6

<table>
<thead>
<tr>
<th>Effect</th>
<th>df</th>
<th>F</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>20/723.97</td>
<td>.99921</td>
<td>227</td>
</tr>
<tr>
<td>Gender</td>
<td>5/219.00</td>
<td>1.88776*</td>
<td>225</td>
</tr>
</tbody>
</table>

(table continues)
Table 6

**Multivariate Tests of Significance using Wilk’s Criterion**

<table>
<thead>
<tr>
<th>Effect</th>
<th>df</th>
<th>F</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital Status</td>
<td>5/217.00</td>
<td>.73743</td>
<td>223</td>
</tr>
<tr>
<td>Race</td>
<td>10/438.00</td>
<td>.78947</td>
<td>226</td>
</tr>
<tr>
<td>Educational Attainment</td>
<td>25/819.00</td>
<td>1.16605</td>
<td>225</td>
</tr>
<tr>
<td>Annual Household Income</td>
<td>15/588.40</td>
<td>1.20958</td>
<td>221</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>5/190.00</td>
<td>1.18410</td>
<td>196</td>
</tr>
</tbody>
</table>

*Note.* N varies due to missing responses.

* p < .10

**Hypothesis 1**

This research hypothesis stated that “there will be a significant difference between expectations for customer service as associated with customer age.” Since no significant differences were found in the effect of age on the five dimensions of service quality, Hypothesis 1 was not supported (Table 6).

**Hypothesis 2**

The research hypothesis stated that “there will be a significant difference between expectations for customer service as associated with customer gender.” The results of the multivariate test for this hypothesis are included in Table 6. Using Wilk’s criterion, the results indicate that the combined dependent variables were significantly affected by gender, F (5,219) = 1.88776, p < .10. Thus, the null hypothesis may be rejected, and the research hypothesis is supported. Univariate tests for gender on the five dimensions for service quality show that only assurance was significantly affected by gender (Table 7).
Female respondents demonstrated higher mean scores on assurance than males; this indicated that women were more concerned than men about their sense of personal comfort and more appreciative of personalized attention from their service supplier. Nine of the 26 items on the LODGSRV instrument loaded on the factor representing assurance (Table 5). As illustrated in Table 8, females had higher mean scores than males for every item in the assurance group.

Table 8

<table>
<thead>
<tr>
<th>Ranked Means of Female and Male Responses to Assurance Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Item</strong></td>
</tr>
<tr>
<td>#14 - Phone reservationists</td>
</tr>
<tr>
<td>#15 - Make guest feel comfortable</td>
</tr>
</tbody>
</table>

(see table continuation)
Table 8

**Ranked Means of Female and Male Responses to Assurance Items**

<table>
<thead>
<tr>
<th>Item</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#23 - No red tape involved to contact manager</td>
<td>6.4167 3 84</td>
<td>6.2763 1 152</td>
</tr>
<tr>
<td>#18 - Employees supported by management</td>
<td>6.4167 4 84</td>
<td>6.1711 3 152</td>
</tr>
<tr>
<td>#20 - Make guest feel valued</td>
<td>6.2976 5 84</td>
<td>6.0850 6 153</td>
</tr>
<tr>
<td>#04 - Decor consistent with image and price</td>
<td>6.2857 6 84</td>
<td>5.9150 8 153</td>
</tr>
<tr>
<td>#26 - Staff are sympathetic when things go wrong</td>
<td>6.2738 7 84</td>
<td>6.0131 7 153</td>
</tr>
<tr>
<td>#19 - Employees sensitive to individual needs</td>
<td>6.1566 8 83</td>
<td>6.1722 2 151</td>
</tr>
<tr>
<td>#13 - Make extra effort for special requests</td>
<td>5.9881 9 84</td>
<td>5.7386 9 153</td>
</tr>
</tbody>
</table>

*Note: n varies due to deletion of cases which had missing values.*

**Hypothesis 3**

The research hypothesis stated that "there will be a significant difference between expectations for customer service as associated with customer race." Since no significant differences were found in the effect of race on the five dimensions of service quality, Hypothesis 3 is not supported (Table 6).
Hypothesis 4

The research hypothesis stated that "there will be a significant difference between expectations for customer service as associated with customer marital status." Since no significant differences were found in the effect of marital status on the five dimensions of service quality, Hypothesis 4 is not supported (Table 6).

Hypothesis 5

The research hypothesis stated that "there will be a significant difference between expectations for customer service as associated with customer educational attainment level." Since no significant differences were found in the effect of educational attainment level on the five dimensions of service quality, Hypothesis 5 is not supported (Table 6).

Hypothesis 6

The research hypothesis stated that "there will be a significant difference between expectations for customer service as associated with customer household income level.” Since no significant differences were found in the effect of household income level on the five dimensions of service quality, Hypothesis 6 is not supported (Table 6).

Hypothesis 7

The research hypothesis stated that "there will be a significant difference between expectations for customer service as associated with customer ethnicity (Hispanic or non-Hispanic).” Since no significant differences were found in the effect of ethnicity on the five dimensions of service quality, Hypothesis 7 is not supported (Table 6).
Hypothesis 8

The research hypothesis stated that “there will be a significant interaction between any given demographic characteristic and any other demographic characteristic (e.g., age and gender, age and race, age and marital status, age and educational attainment level, age and household income level, age and ethnicity, etc.).” Since gender was the only independent variable that demonstrated a significant main effect, this hypothesis was tested by evaluating the interactions between gender and age, gender and race, gender and marital status, gender and educational attainment, and gender and household income level. Gender and ethnicity were not analyzed because the only two respondents who reported being non-Hispanic were of the same gender, leaving a redundancy in the design matrix.

A two-way MANOVA was used to analyze each of the independent variables paired with gender. No significant results were found in multivariate analyses of the interactions between gender and age, gender and marital status, gender and race, gender and educational attainment, or gender and household income level. Therefore, the null hypothesis is accepted for interactions between gender and each of the other independent variables, and Hypothesis 8 is not supported.

Summary

The extent to which differences in the demographic characteristics of the customers relate to their expectations for customer service was addressed by Hypotheses 1 - 7. Gender was determined to be the only demographic characteristic which demonstrated a significant main effect on expectations for customer service. The extent
to which interactions of the customers' demographic characteristics relate to their expectations for customer service was addressed by Hypothesis 8. Interactions were investigated for pairings of gender with the other independent variables, and no significant interactions were found. Chapter V deals with a summary of the study, conclusions drawn from the findings reported in this Chapter, and recommendations.
CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to investigate the difference in and interactions between various demographic characteristics of the subjects in terms of their expectations for customer service. Expectations for customer service were measured on five dimensions of service quality: tangibles, reliability, responsiveness, assurance and empathy. The demographic characteristics examined were age, gender, marital status, race, educational attainment, household income level, and ethnicity (Hispanic or non-Hispanic).

The following hypotheses were tested for significance at the .10 level of probability:

Hypothesis 1: There will be a significant difference between expectations for customer service as associated with customer age.

Hypothesis 2: There will be a significant difference between expectations for customer service as associated with customer gender.

Hypothesis 3: There will be a significant difference between expectations for customer service as associated with customer race.

Hypothesis 4: There will be a significant difference between expectations for customer service as associated with customer marital status.
Hypothesis 5: There will be a significant difference between expectations for customer service as associated with customer educational attainment level.

Hypothesis 6: There will be a significant difference between expectations for customer service as associated with customer household income level.

Hypothesis 7: There will be a significant difference between expectations for customer service as associated with customer ethnicity (Hispanic or non-Hispanic).

Hypothesis 8: There will be a significant interaction between any given demographic characteristic and any other demographic characteristic (e.g., age and gender, age and race, age and marital status, age and educational attainment level, age and household income level, age and ethnicity, etc.).

The instrument utilized in collecting data for this study was LODGSERV, a 26-item index developed by Knutson, et al. (1990). LODGSERV was designed to measure customer expectations for service quality in the lodging industry. It was adapted from the more generic SERVQUAL instrument developed by Zeithaml, et al. (1990).

The questionnaire consisted of two sections. In the first section, subjects were asked how many nights they had stayed in a hotel in the past year. The minimum criteria for accepting a response was that the subject had spent at least one night in a hotel in the past year. Subjects were also asked in this section to indicate their age, gender, marital status, race, educational attainment, household income level, and ethnicity.

The second part of the questionnaire consisted of the 26 items comprising the LODGSERV instrument. Items were rated on a scale from “7” to “1.” Subjects indicated a response of “7” if they were in strong agreement with the statement, a response of “1” if
they were in strong disagreement with the statement, and a number somewhere in
between if they did not have strong feelings about a statement.

The survey was conducted in spring 1995, with an initial mailing of 821 survey
packets made to members of the Chamber of Commerce of Lewisville, Texas.
Nonrespondents were sent a second survey packet three weeks after the initial mailing.

A total of 240 usable responses were received, for a usable response rate of 29%.
Summary descriptive statistics were obtained for each of the demographic characteristics
which constituted the independent variables for the study. About two-thirds of the
subjects were male (64.6%) and between 31 and 50 years of age (65.8%). The majority
were married (84.7%), Caucasian (97.5%), and non-Hispanic (99%). Subjects were well
educated; slightly less than half had a 4-year college degree (45%), and one in five had a
postgraduate degree (20.6%). Almost half of the subjects had an annual income in
excess of $75,000 (48.9%).

Data were analyzed in two steps. Principal components analysis was used to
reduce the 26 items on the LODGSERV instrument to factors representing the five
dimensions of service quality: tangibles, reliability, responsiveness, assurance, and
empathy. These dimensions are drawn from the service quality model presented in
Chapter I (Zeithaml, et al., 1990).

Using the demographics of the subject as independent variables and the five
dimensions of service quality as dependent variables, data were then analyzed using
multivariate analysis of variance (MANOVA) to test each of the eight hypotheses
presented in Chapter I. In the first hypothesis, it was predicted that age would have a
significant effect on expectations for customer service. However, the results of the MANOVA procedure did not support this prediction.

In the second hypothesis, it was predicted that gender would have a significant effect on expectations for customer service. MANOVA procedures were applied to ascertain significance. As predicted, a significant difference was found between expectations for customer service as associated with gender. In further univariate tests, statistics were obtained for each of the dimensions for service quality. Gender had a significant effect on assurance; expectations for this customer service dimension were higher for females than for males. The effect of gender on each of the other dimensions (reliability, responsiveness, empathy and tangibles) was not significant.

In hypotheses three through seven, predictions were made that there would be a significant difference in expectations for customer service based on marital status, race, educational attainment, household income level and ethnicity, respectively. Each of these hypotheses were tested using MANOVA procedures and no significant differences were noted. Therefore, these hypotheses were not supported.

In the eighth hypothesis it was predicted that there would be a significant difference between any given demographic characteristic and any other demographic characteristic. Since gender was the only demographic characteristic that demonstrated an effect on expectations for customer service, this hypothesis was tested using MANOVA procedures to evaluate the interaction between gender and the other demographic characteristics. No significant interactions were found.
Conclusions

This research was based on the model for service quality expectations developed by Zeithaml et al. (1990). The study was designed to ascertain whether an investigation of the demographic characteristics of customers in the lodging industry (or even those of a specific lodging property) would be beneficial in terms of assisting management in determining which dimensions of service quality should be emphasized in operation and marketing strategies.

The following conclusions are based on the findings of this study. Lodging firms which have large, or growing, female clientele should establish appropriate procedures and train their staff to meet—and exceed—the criteria for the service quality dimension of assurance, such as making the customer feel comfortable and valued. More than their male counterparts, women are concerned about how they are treated as guests. One female subject included a note with her response, saying that, “I quit using a hotel because the front desk clerks never looked at me.” She added that the front desk clerks failed to ever use her name when they were dealing with her.

Lodging firms should spend their time and effort on identifying other information about their customers such as psychographic characteristics (those measuring personality and life-style traits), and not overly concern themselves with collecting demographic data. The exception to this would be gender, which fortunately is the easiest demographic data to collect through actual observation of the customer.
Recommendations for Further Research

The following recommendations in the form of generalizations are suggested by the researcher based on the findings and conclusions from this study.

1. Replicate this study on a more racially and ethnically mixed population, or on other racial or ethnic groups. For example, the study could be replicated using members of African American or Hispanic business groups or Chambers of Commerce.

2. Conduct a study using the LODGSRV instrument in conjunction with another test to measure personality characteristics, such as the Myers-Briggs Type Indicator.

3. Conduct a study of expectations for customer service using the LODGSRV instrument, combining the dimensions of responsiveness, assurance and empathy into one broader dimension of “comfort” or “concern.”

4. Conduct a study which measures customers’ perceptions of service quality received in actual situations.
APPENDIX A

COVER LETTER
March, 1995

Dear Chamber of Commerce Member:

Managers in the lodging industry feel it is extremely important to acquire information on guest expectations in order to improve their service quality. You are invited to participate in a study of guest expectations for service. This study is part of a master's thesis for the School of Merchandising and Hospitality Management at the University of North Texas.

You have been selected to participate because of your position as a member of the Chamber of Commerce, and the amount of travel often required of business and professional persons.

Enclosed is the research questionnaire for this study. The questionnaire should take about ten minutes to complete. A self-addressed stamped envelope is enclosed for the return of the questionnaire.

The number on the enclosed envelope is for mailing purposes only, so that it can be checked off when your response is received. Your answers will be kept confidential.

Your participation is voluntary, and you are free to stop participating at any point of the questionnaire. If you choose not to participate, please return the uncompleted questionnaire in the enclosed envelope.

If you are interested in a summary of the results of this study, please include a business card when returning your questionnaire.

Your cooperation and participation in this study are appreciated.

Louis D. Ponthieu, Ph.D.
UNT - Small Business Institute

Richard F. Tas, Ph.D., Chair
Division of Hotel and Restaurant Mgt.

Nancy L. Kniaatt
Project Director
APPENDIX B

FOLLOW UP COVER LETTER
May 1995

Dear Chamber of Commerce Member:

Approximately a month ago you received a questionnaire concerning CUSTOMER EXPECTATIONS FOR SERVICE QUALITY IN THE LODGING INDUSTRY. We are particularly interested in obtaining your response to the survey because business persons represent a large segment of the clientele of the lodging industry.

If you have mailed back the completed questionnaire, we appreciate your assistance and prompt response. If you have not, enclosed please find another copy of the questionnaire along with a postage-paid self-addressed envelope. We hope you will take a few minutes to complete and return the survey at this time.

Your input is important to the success of this study. Thank you for your participation!!

Louis D. Ponthieu, Ph.D. Richard F. Tas, Ph.D., Chair Nancy L. Kniatt
UNT - Small Business Institute Division of Hotel and Restaurant Mgt. Project Director
APPENDIX C

INSTRUMENT
CUSTOMER EXPECTATIONS FOR SERVICE QUALITY
IN THE LODGING INDUSTRY

This is a survey about staying in hotels. There is no right or wrong rating for each statement; all we are interested in is a number that best represents your opinion about hotel services.

In the past twelve months, approximately how many nights did you stay in a hotel? _______ nights
(If "none", do not continue; please return the uncompleted questionnaire in the enclosed envelope.)

What percent of these nights were for business purposes? _______%

Depending on the number of nights you stay on any given trip, a hotel may be your destination hotel or your transient hotel. It is a destination hotel when you specifically go there to stay several nights for a vacation, weekend, a convention, conference, or on business. On the other hand, it is a transient hotel when you stay there overnight on your way to another destination. Using these definitions, approximately what percent of the nights you stayed in a hotel in the past twelve months were in a destination hotel? _______%

Please indicate the following about yourself by circling your response:

**AGE:**
1. 20-to-30 years of age
2. 31-to-40 years of age
3. 41-to-50 years of age
4. 51-to-60 years of age
5. Over 60 years of age

**RACE:**
1. Caucasian
2. African-American
3. Asian/Pacific Islander
4. Other

**GENDER:**
1. Male
2. Female

**MARITAL STATUS:**
1. Married
2. Single

**EDUCATIONAL ATTAINMENT:**
1. Did not graduate from high school
2. High school diploma
3. 2-year college degree
4. 4-year college degree
5. Master's degree
6. Doctoral degree

**ANNUAL HOUSEHOLD INCOME:**
1. Under $10,000
2. $10,000 to $14,999
3. $15,000 to $24,999
4. $25,000 to $34,999
5. $35,000 to $49,999
6. $50,000 to $74,999
7. Over $75,000

**ETHNICITY:**
1. Hispanic
2. Non-Hispanic

Please complete the survey questionnaire on the back of this page. Thank You!
DIRECTIONS: Please indicate by circling the appropriate number the extent to which you think hotels should provide the features described by each of the following statements. If you strongly agree that a hotel should possess the feature described, you would circle the number "7". If you strongly disagree, you would circle the number "1". If your feeling is in between, circle the appropriate number between "7" and "1".

WHEN YOU STAY AT A HOTEL, THE HOTEL SHOULD .......

1. Have up-to-date equipment (such as key cards, computerized from desk, fast efficient elevators) 7 6 5 4 3 2 1
2. Have buildings, lobbies and public areas which are visually attractive 7 6 5 4 3 2 1
3. Have personnel who are clean, neat, and appropriately dressed 7 6 5 4 3 2 1
4. Have decor consistent in keeping with its image and price range 7 6 5 4 3 2 1
5. Serve food and beverages that are consistently high in quality 7 6 5 4 3 2 1
6. Give me a room which is visually attractive 7 6 5 4 3 2 1
7. Provide promised or advertised services on time (such as room ready, wake-up call, room-service delivery) 7 6 5 4 3 2 1
8. Quickly correct anything that is wrong (like the TV doesn’t work, towels forgotten, phone message not received) 7 6 5 4 3 2 1
9. Be dependable, consistent, and able to be counted on 7 6 5 4 3 2 1
10. Have utilities and equipment that work well (phones, elevators, showers, TV) 7 6 5 4 3 2 1
11. Have personnel shift to help where lines occur (check-in, check-out, cleaning and resetting tables in the restaurant) 7 6 5 4 3 2 1
12. Provide prompt and quick service (check-in, check-out, deliver extra requested towels) 7 6 5 4 3 2 1
13. Have staff that gives extra effort to handle my special requests 7 6 5 4 3 2 1
14. Have knowledgeable phone reservationists who answer my questions completely 7 6 5 4 3 2 1
15. Make me feel comfortable and confident in my dealings with them 7 6 5 4 3 2 1
16. Have personnel (front desk, bellpersons) who are both able and willing to give me information about the hotel and outside services (directions, restaurants, attractions) 7 6 5 4 3 2 1
17. Have personnel who seem well-trained, competent and experienced 7 6 5 4 3 2 1
18. Seem to give employees support so that they can do their jobs well 7 6 5 4 3 2 1
19. Have employees who are sensitive to my individual needs and wants rather than always "going by the book" 7 6 5 4 3 2 1
20. Make me feel like a special and valued guest 7 6 5 4 3 2 1
21. Anticipate my individual needs and wants (such as extra towels since I have children staying in my room, or early housekeeping since I’ll be working a lot in my room) 7 6 5 4 3 2 1
22. Operate its facilities and services (such as restaurants, room service, pool, health facilities) during hours which are convenient for me 7 6 5 4 3 2 1
23. NOT make me go through a lot of red tape to contact a hotel manager or supervisor 7 6 5 4 3 2 1
24. Provide complimentary services like courtesy shuttles, morning coffee and morning newspaper 7 6 5 4 3 2 1
25. Have restaurant and room service menus that include healthful and/or special diet options 7 6 5 4 3 2 1
26. Have employees who are sympathetic and reassuring if something is wrong (TV doesn’t work, towels are missing, phone message is not received) 7 6 5 4 3 2 1

PLEASE RETURN COMPLETED SURVEY BY APRIL 17, 1995
REFERENCES


