The Influence of Demographic Characteristics on Service Quality Perceptions

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Abstract

The services industry represents an overwhelming proportion of total employment and gross domestic product in the United States. Researchers and practitioners continue to study, analyze, and describe strategies for which organizations can reap competitive advantages. The growth and increasing significance of the service sector in developed markets like the US has spawned a sizeable body of related research addressing a variety of issues such as service quality and its dimensions. Providing superior quality in service experiences is an effective approach to acquire such an advantage. In the face of increasing competition, it is in an organization's best interest to provide customers with the best service possible. This principle is prevalent in all industries, including various types of nonprofits and profit seeking organizations. In medical services, studies have shown that a variety of variables impact the perception of service quality. An extensive literature review reveals there is evidence that a number of demographic characteristics have been linked to service quality perceptions. This paper asserts that demographic characteristics influence the outcomes of a customer or patient's perception of the quality of a service experience. Particularly, this study proposes that age, income, occupation, status, tenure, proximity, and ethnicity can help provide insight into the types of customers or patients that patronize a medical service.

Keywords: *Service Quality, SERVQUAL, demographic characteristics, quality perceptions, medical services*

1. Introduction

1.1   Service quality

In a time of intense competition, with high customer expectations, companies are always interested in retaining existing customers. Since the vast majority of companies depend on repeat business, a heavy emphasis on the antecedents of service quality has evolved. Service quality remains one of the most significant areas in marketing. Attempts to define, describe, and identify service quality and its predictors abounds the marketing literature. Service quality is especially significant to marketers for two reasons. First, this concept determines the success or failure of service providers. Secondly, the implementation of service quality influences the rate of acceptance of the service. Thus, research on service quality has implications for the adoption and diffusion of services across industries. This study will examine some of the existing issues on consumer service quality, and suggest practical and theoretical relevance. It is vital to recognize all influencing variables related to service quality, in conjunction with personality traits. When studying service quality, it is beneficial to incorporate a model that considers the concept that predispositions toward a service are subsequently altered by social interactions that occur during the before and during the delivery process.

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Many studies have examined service quality in various contexts, focused on individual characteristics, and ignored many other factors. Essentially, it is necessary to recognize all personality and demographic variables to achieve a more accurate depiction of service quality. Researchers have long suspected that a services consumer can be described by various demographics. Identifying these demographics remains important to marketers because they help with targeting decisions. This paper will describe service quality and its outcomes by discussing prevailing demographic factors. Seven demographic factors were examined. Based upon this analysis, hypotheses are developed. The hypotheses are tested and conclusions drawn.

An extensive review of extant literature on service quality reveals that numerous predictors of service quality have been proposed. Most practitioners would argue that there is no single predictor of service quality. Given the failure to find empirical support for a concept of service quality that is generalizable over a wide range of services, it is not surprising that differing profiles of consumers would be found for different types of services. Several researchers have tabulated the complex and contradictory nature of the empirical studies relating service quality to personality, attitudinal, social and demographic factors. For such factors, there are numerous studies suggesting both positive and negative relationships with service quality and many indicating no relationship whatsoever. To adequately study this phenomenon, several criteria must be taken into consideration. This paper contends that service quality is influenced by several demographic variables. This study will evaluate each of these variables.

In the context of service, complex situational and communication effects intervene between the service and the perception of service quality. Furthermore, studies have shown that service quality is a key determinant of market share and return on investment as well as cost reduction (Parasuraman, Zeithaml, and Berry 1985). In addition, service quality is a vital antecedent of customer satisfaction. In turn, customer satisfaction leads to developing and maintaining loyal customers who may become advocates for a firm and promote the organization further by making positive referrals through credible word-of-mouth communication (Guiry & Vequist 2011). Mass media channels are relatively more important at the knowledge function and interpersonal channels, such as word-of-mouth communications, are relatively more important at the persuasion function in service quality. Accordingly, these authors suggest that it is chiefly the favorable personal recommendation of a social contact which is thought to be instrumental in influencing an individual to adopt.So, communication effects are another area to research for service quality.

1.2 Service quality in medical services

Service marketing is steadily growing and becoming increasingly significant in developed markets. This emphasis on service marketing has created an extensive amount of related research addressing a variety of issues in measuring the concept of service quality and its dimensions. Service quality has been described as a global judgment, or attitude, related but not equivalent to satisfaction, which results from the comparison of expectations with perceptions of service performance (Bolton & Drew 1991). In a heath care context, patients' expectations are formed as a result of previous experiences with the provider, word-of-mouth communication, social media, marketing communications, and personal needs (Parasuraman, Zeithaml, & Berry, 1985).

Generally, Parasuraman, Zeithaml, and Berry (1988) have defined the service quality concept in terms of five major dimensions:

- Tangibles: Appearance of physical facilities, equipment, personnel, and communication materials
- Reliability: Ability to perform the promised service dependably and accurately
- Responsiveness: Willingness to help customers and to provide prompt service
- Assurance: Knowledge and courtesy of employees and their ability to convey trust and confidence
- Empathy: Providing caring, individualized attention to customers.

Since the seminal piece by Parasuraman, Zeithaml, and Berry (1988), the ServQual measurement tool has been applied in fields that span the service industry spectrum. One very interesting application is in the areas of marketing and managing medical services. There have been several service quality studies in the medical field.

According to Lal, Vij, and Jain (2014), the increased emphasis on quality in medical services is attributable to benefits which both patients and medical service facilities may acquire from providing quality medical service. Some of the benefits received by medical patients include a more effective and efficient service (Nelson, 1990). The benefits enjoyed by medical services primarily evolve from having more satisfied patients. This is important as satisfied patients may develop more positive perceptions of health care delivery and these perceptions should act to provide health care organizations with: more loyal customers, more compliant customers, enhanced image, less staff turnover and increased efficiency (Lal, Vij, and Jain 2014). Considering that there are numerous factors that influence service quality perceptions, his study is designed to determine if there is difference between patients' perceptions of service quality and their demographic characteristics. This evaluation leads us to hypotheses that evaluate each of the service quality dimensions.

1.3 Demographic characteristics and service quality

It has been theorized that demographics can serve as an important influence on the consumer decision making process. In the service industry, a few empirical studies have reported on the influence of demographics on customer service quality perceptions and behavior (Ganesan-Lim, Russel-Bennett, and Dagger, 2008). This paper reviews and evaluates select demographic factors which have been examined in the past. The study proposes hypotheses, to be tested empirically and analyzed qualitatively.

Age. Generally, age is an important factor affecting consumer behavior. Specifically, age differences are of concern to marketing practitioners, who face the problem of tailoring marketing communications to fit the processing abilities of both age groups (Roedder and Cole 1986). In services, age relates significantly and negatively; signifying that the older customers as compared to their younger counterpart, hold less favorable opinion about the reliability as well as three other service quality constructs, personal interactions, functional quality, outcome quality and overall service quality (Lal, Vij, and Jain 2014).

Income. It has been determined that in some cases the income of a person has a strong effect on choice decisions (Zeithaml, 1985). Generally, statistics indicate that people with higher income have achieved a higher level of education. As a result, they often engage more in information processing prior to the decision process (Schaninger & Sciglimpaglia, 1981), and their choice is essentially based on the evaluation of the information given to them. Thus, this paper examines the relationship of income as a demographic characteristic that might affect the consequences of service quality.

Occupations. Among many demographic variables, research has found occupation to be a significant factor affecting customer and patient perceptions of overall service quality. Safakli (2007) found that service quality perceptions differ across customers of different occupational groups. It has been shown that people buy products and services that match with requirements of occupations they pursue. Knowledge of customers' occupation can help marketers in devising strategies capable of more effectively delivering services to the specific needs of customers belonging to different occupation groups (Lal, Vij, and Jain 2014).

Other demographics. According to Homberg and Gierung (2001), the impact of gender on buying behavior has attracted some research interest (e.g., Jasper & Lan, 1992; Slama& Tashhan, 1985; Zeithaml, 1985). Women's purchasing behavior is found to he strongly influenced by their evaluation of personal interaction processes. Compared to men, women are more involved in purchasing activities (Slama & Tashlian, 1985), and pay more attention to the consulting services of the sales personnel (Gilbert & Warren, 1995). Based on these arguments, lead to the suggestion that gender might moderate the linkages between the three satisfaction dimensions and loyalty. As an example, one might predict that the loyalty effect of satisfaction with the sales process is stronger for women than for men, whereas the impact of product satisfaction on loyalty might be stronger for men. In addition to age, income, and occupation, this paper will analyze demographic characteristics of patients in status, tenure, proximity, and ethnicity.

2. Methods

One-way ANOVA (Analysis of Variance) was used to detect any statically significant differences in the importance of patient perceptions regarding factors that affect service quality in a large obstetrician and gynecological medical practice ((Moore, McCabe, Alwan, & Craig, 2016). The sample size of n = 363 gives adequate statistical power to infer any difference in ratings of perceptions of service quality are not the result of chance. Seven hypotheses regarding demographic effect on service perception were developed H1-H7:

- H1: Service quality perceptions differ across age groups of customers in a medical office.
- H2: Service quality perceptions differ across occupational groups of customers in a medical office.
- H3: Service quality perceptions differ across income groups of customers to a medical office.
- H4: Service quality perceptions differ across patient status groups of customers in a medical office.
- H5: Service quality perceptions differ across patient tenure groups of customers in a medical office.
- H6: Service quality perceptions differ across proximity groups of customers in a medical office.
- H7: Service quality perceptions differ across ethnicity of customers in a medical office.

Data of patient ratings of perceptions of service quality on five dimensions: Tangibles: Appearance of physical facilities, equipment, personnel, and communication materials, Reliability: Ability to perform the promised service dependably and accurately, Responsiveness: Willingness to help customers and to provide prompt service , Assurance: Knowledge and courtesy of employees and their ability to convey trust and confidence, Empathy: Providing caring, individualized attention to customers were analyzed between different demographic measure (patient status, tenure, proximity, age, ethnicity, occupation, and income) using the ANOVA (Comparison of Means) function in the statistical software package SPSS. Gender was not a relevant factor since the type of medical practice attracts only female patients.

3. Results

Table 1 below shows the sample size for each demographic factor as well as the mean response rating of perceptions of service quality on each of the five dimensions. Table 1 lists the statistically significant ratings by demographic factor and service dimension. The results of the test of each hypothesis are presented.

Table 1 One-Way ANOVA-Comparisons of Mean Difference by Demographic Characteristics

		Tangibles	Reliability	Responsiveness	Assurance	Empathy
Age (Years) **						
➢ *Under 18*	8	16.25	18.75	17.50	21.25	**27.5**
➢ *18 to 30*	118	18.46	22.43	18.83	20.61	**20.36**
➢ *31 to 40*	83	17.05	23.10	19.39	20.723	**20.18**
➢ *41 to 50*	50	16.36	23.67	19.10	20.90	**21.04**
➢ *51 to 60*	36	18.06	25.97	20.00	19.72	**17.36**
➢ *61 to 70*	27	19.44	25.37	17.78	19.63	**17.78**
➢ *71 to 80*	8	18.75	22.5	21.25	20.00	**16.25**
➢ *No Response*	27	16.85	14.63	19.25	20.48	**18.33**
Income*						
➢ < $ 20,000	47	19.68	**21.80**	18.72	21.17	20.10
➢ $20,001 to $40,000	80	17.81	**22.56**	18.93	20.43	20.18
➢ $40,001 to $60,000	57	16.63	**24.15**	19.07	20.64	19.24
➢ $60,001 to $80,000	32	17.18	**25.31**	19.37	21.71	17.656
➢ $80,001 to $100,000	9	14.44	**25.55**	20.00	20.55	19.44
➢ >$100,000	13	14.84	**30.38**	19.61	18.84	15.53
➢ Unemployed	15	18.00	**21.66**	19.66	21.00	19.66
➢ No Response	104	18.07	**23.02**	19.00	19.85	21.00

Occupation						
➢ Administrative	8	13.12	22.50	20.00	21.87	16.25
➢ Banking	2	20.00	40.00	15.00	15.00	10.00
➢ Bar/Night Club	2	25.00	20.00	20.00	20.00	15.00
➢ Clerical	3	18.33	23.33	16.66	23.33	18.33
➢ Education	21	17.28	27.47	16.76	19.85	18.9
➢ Finance	7	15.00	27.14	18.57	24.28	15.00
➢ Manager	30	17.66	23.83	20.00	21.66	20.50
➢ Medical	45	17.51	22.77	20.22	20.66	19.48
➢ Real Estate	4	18.75	29.00	16.00	22.50	22.00
➢ Restaurant	20	19.50	23.25	19.75	22.25	19.00
➢ Sales	26	18.26	21.15	18.26	21.34	22.11
➢ Technical	2	15.00	25.00	20.00	25.00	15.00
➢ Unemployed	40	18.25	22.25	18.37	19.87	21.50
➢ Other	100	17.40	23.73	18.95	19.65	19.90
➢ No Response	47	17.97	22.02	19.89	19.78	19.68
Patient Status	**N**	**Rating**	**Rating**	**Rating**	**Rating**	**Rating**
➢ *Existing*	241	17.19	23.54	19.25	20.58	19.93
➢ *New*	60	18.5	22.87	18.93	20.83	20.74
➢ *No Response*	56	17.71	23.52	18342	19.68	18.83
➢ *No Response*	118	18.75	23.19	18.71	20.87	19.64
Proximity						
➢ *Local*	285	17.80	22.99	19.13	20.50	20.15
➢ *Non Local*	44	17.73	25.91	18.30	20.34	18.64
➢ *No Response*	28	16.79	23.93	19.64	20.54	18.40
Ethnicity**						
➢ African American	52	**20.00**	21.83	18.94	19.14	20.10
➢ Caucasian	244	**17.14**	24.03	19.07	20.58	20.02
➢ Asian	3	**30.00**	20.00	16.67	20.00	13.33
➢ Hispanic	12	**17.50**	18.75	20.83	25.00	17.92
➢ Native American	2	**20.00**	20.00	20.00	20.00	20.00
➢ Other	9	**18.89**	22.22	15.56	21.11	22.22
➢ No Response	35	**16.86**	24.00	19.71	20.14	18.71

Significance * p < 0.10, ** p < 0.05

4. Tests of hypotheses:

H1: Service quality perceptions differ across age groups of customers in a medical office.
H1 is supported. ANOVA indicates a statistically significant difference between group means at the 95% confidence level. Younger patients list empathy as more important than other age groups.
H2: Service quality perceptions differ across occupational groups of customers in a medical office.
H2 is not supported. ANOVA indicates no statistically significant difference between group means.
H3: Service quality perceptions differ across income levels of customers in a medical office.
H3 is supported. ANOVA indicates a statistically significant difference between group means at the 90% confidence level. Higher income patients list reliability as more important than other income groups.
H4: Service quality perceptions differ across patient status groups of customers in a medical office.
H4 is not supported. ANOVA indicates no statistically significant difference between group means.
H5: Service quality perceptions differ across patient tenure groups of customers in a medical office.
H5 is not supported. ANOVA indicates no statistically significant difference between group means.

H6: Service quality perceptions differ across patient proximity groups of customers to a medical office.
H6 is not supported. ANOVA indicates no statistically significant difference between group means.
H7: Service quality perceptions differ across ethnic groups of customers in a medical office.
H7 is supported. ANOVA indicates a statistically significant difference between group means at the 95% confidence level. Asian patients list tangibles as more important than other ethnic groups.

5. Conclusion

This study reveals that there are statistical differences for age, income, and ethnicity regarding the influence of demographic characteristics and service quality perceptions. There are definite theoretical and practical relevance for service quality research. Demographic variables information is useful for the concepts of segmentation, targeting, and positioning. Resultantly, medical practitioners can separate patients on key demographic factors and ultimately target those who are most responsive and profitable. In addition, there are implications for marketing communications. Having the ability to profile patients and utilize the most effective media and messages can be a critical tool. Overall, there are implications for marketing management, strategy and planning, decision-making processes, market segmentation, target marketing and product positioning.

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