The Influence of Perceived Service Quality on Brand Image, Word of Mouth, and Repurchase Intention: A Case Study of Min-Sheng General Hospital in Taoyuan, Taiwan

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Abstract
The purpose of this research is to understand the relationship between patient-perceived service quality, brand image, word of mouth and repurchase intention. In addition, this study also seeks to find out if the differences in demographic factors have any influence on patient-perceived service quality, brand image, word of mouth and repurchase intention. The respondents of this study were outpatients at Min-Sheng General Hospital in Taoyuan, Taiwan. 400 questionnaires were distributed and 394 usable ones were collected. The results indicate that there is a positive relationship between patient-perceived service quality, brand image, word of mouth and repurchase intention. There is, however, a significant difference in patient-perceived quality and word of mouth when segmented by gender and income levels. And there is a significant difference in patient-perceived service quality, brand image, word of mouth and repurchase intention when segmented by age levels and education levels.

Keywords: Perceived service quality, brand image, word of mouth, repurchase intention

Introduction
In recent years, the health care industry environment has significantly changed in Taiwan. Since 1995, the year the government launched the National Health Insurance system, the competition between health service providers has increased dramatically, with both hospital and clinics facing the limitation of medical resources. Moreover, due to easier medical service accessibility and growing education level, patients’ requirements and expectations in terms of health care service quality are also increasing. When customers perceive good service, they might decrease their price-sensitivity. In addition, they will tell others about their useful experiences (Venetis and Ghauri, 2000). For service providers who intend to increase their performance, reinforce core competencies and place themselves more strategically in the marketplace, customers’ measurement of service quality is important (Cronin and Taylor, 1992; Jain and Gupta, 2004). Knowing how to manage their strategies effectively and efficiently can help health providers (Kearney, 1999).

Today, in the service industry, how to make a good brand impression on customers has become more and more important. When deciding to choose or refuse a company brand,
customers usually make a decision on the basis of the brand image, defined as the level of customers’ familiarity and trust with the company’s products and services. Thus, companies should examine the characteristics of their brand, deliver an appropriate image to their customers and then get the potential, long-term benefit (Fatt, 1997).

Silverman (1997) stated that word of mouth (WOM) has an influential power in the service marketplace. According to Murray (1991), when compared with purchasers of products, personal sources of information have a greater effect on service purchasers. Besides, WOM is an important factor for consumers’ evaluation before they decide to purchase services. When people do face-to-face WOM communication, it will bring more persuasive than the printed format (Herr, Kardes and Kim, 1991). Malhotra (2009) mentioned that as a service industry, hospital is a noble cause and cannot use advertising methods like other industries can. Therefore, when hospital service providers want to decrease their transaction costs, one of the most suitable advertising techniques for hospital is WOM.

At present, customers look for good service and will keep using this service again and again once they have found it. Thus, service quality has an influence on customers’ subsequent behavior, intentions and preference (Bolton, 1998). If hospital service providers can provide the service quality that equal or exceed patients’ expectations, patients will be more likely to choose the same provider again. Consequently, the result of customers’ repurchase intention is the appropriate way to examine the performance of product or service provide (Cronin and Michael, 1989).

Demographic segmentation variables are the popular fundamental factors which can help a company find its objective groups (Hayes and Bloom, 2002). When an organization faces different customer segments, it will also ascribe different levels of importance for service quality (Scott and Shieff, 1993). Through demographic segmentation, a company can classify the needs of the customers more easily.

In this study, the conceptual framework was developed to examine the outpatients of Min-Sheng General hospital in Taoyuan, Taiwan as an example to discuss the relationship of perceived service quality, brand image, word of mouth and repurchase intention. Besides, the researcher also seeks to determine if any demographic factors have an effect on other factors (patient-perceived service quality, brand image, WOM and repurchase intention). Therefore, after reviewing the literature related to all the factors considered, the conceptual framework, research hypotheses, and research methodology will be described. The researcher will then discuss the findings and make recommendations.

1. Literature Review

Service

Kotler and Armstrong (2001) defined service as any act or performance that a party can provide to another that is fundamentally intangible or untouched and does not affect the
ownership of anything. Its production can or cannot be tied to a physical product. A service can be a performance, a deed or not thing but it can depend on things for its performance; in here, thing refer to products or any tangibles (Rathmell, 1966).

Grönroos (1990) supported that service is any activities and take place in interaction between the client and services, products or systems of the service provider which are offered as solutions to solve problems for customers. Service is an activity that has some fundamentals of intangibility related to some interaction which client or property in its procession and the result does not transfer to ownership (Payne, 1993).

**Service Quality**

Lewis and Booms (1983) defined that service quality is an evaluation of the degree to which the service provider can match the expectations of the customer. The component of service quality as conceptualized in the service marketing research area that focuses on perceived quality; it is defined as a customer’s judgment related with an entity’s overall quality (Zeithaml, 1987).

In many past researches, service quality is often separated into two types follow as: technical quality and functional quality. Technical quality is indicated to the quality of the service goods such as what consumer purchases and whether the service can be fulfilled its technical identifications and standards (Grönroos, 2000). Technical quality in the health care sector is identified principally on the basis of the technical accuracy of the diagnoses and procedures. The kinds of techniques for measuring technical quality have been planned and are presently in use in health care organizations (Joint Commission for Accreditation of Health Care Organizations, 1987). Since information on health care is not often available to the public, knowledge or data of the technical quality of health care services remains within the only scope of health care professionals and administrators (Bopp 1990).

Meanwhile, functional quality is explained as the step in which the service goods are distributed and how the relationship between the service provider and its customers (Grönroos, 2000). Donabedian (1982), Kovner and Smits (1978) supported that functional quality refers to the style in which the health care service is delivered to patients. Patients are generally unable to accurately evaluate the technical quality of a health care service. Therefore, functional quality is usually the principal determinant of patients' quality perceptions. There is an indication to suggest that this perceived quality is the one most important factor influencing consumers' perceptions.

**Perceived Service Quality**

According to many researchers declared perceived service quality model, it has appeared that when customers measure service quality, they will compare their perceptions with real performance from the service provider with what they believe to be the expectations of service performance in their experience (Parasuraman et al., 1985; Zeithaml et al., 1988).
Snoj et al. (2004) defined perceived service quality as how well the client’s measurement of the overall of the service. It acts as the mental comparison between price and quality that is offered by service providers.

The communication method between the service provider and the receiver of a service is affected by the environment in a specific location where they work together and operate (Ford et al., 1998; Zineldin, 2004; Robicheaux and El-Ansary, 1975). Thus, perceived service quality of communication can show a patient’s level of overall satisfaction or overall service quality (Ganesan, 1994). Lim and Tang (2000) stated that when customers decide to choose a hospital, perceptions of service quality is a basic element. The perception of patients about health care quality is important to health care provider’s success, because it will affect patients’ satisfaction and profitability of hospital (Koska, 1990; Donabedian, 1966; Williams and Calnan, 1991).

Parasuraman et al. (1988) supported that SERVQUAL scale can provide an instrument for evaluating service quality. There are five dimensions which are tangible, reliability, responsiveness, assurance, and empathy. SERVQUAL scale can be applied to fit the characteristics or the requirements of a specific investigation of a particular organization.

Zineldin (2006) stated that SERVQUAL quality is a classification system concept. Moreover, the five quality dimensions (5Qs) model is an instrument that insures a reasonable level of reliability, validity and significance. Therefore, in this study, the researcher measures the outpatients’ perception of hospital service quality by using the 5Qs model. Zineldin (2000) expanded SERVQUAL models into a framework of five quality dimensions: quality of object, process, infrastructure, interaction and atmosphere.

Quality of object aims to evaluate the technical quality of medical care procedure. Quality of process intends to evaluate the functional quality of waiting time and speed of medical care activities. Quality of infrastructure is to evaluate the basic resources for operating the health care services, which includes internal competence and skills, know-how, experience, technology, attitudes, internal resources and activities, and how these activities are conducted. Quality of interaction aims to evaluate the communication and information change between patients and health care providers. Quality of atmosphere is to evaluate the relationship and interaction between patients and health care providers, friendly and patiently atmosphere should be considered very important.

The atmosphere in a particular environment where the service provider and receiver co-operate and operate will affect the interaction procedure between both of them (Ford et al., 1998; Zineldin, 2000; Robicheaux and EL-Ansary, 1975). Zineldin (2006) supported that the environment or atmosphere can influence the perceived service quality by developing or making it worse. This is appropriate in a hospital, medical care centre or private medical clinic environment where the patient or customers, nurses, and other health
care staffs are operating. Service quality in healthcare or hospital sector does not only rely on the quality of physicians but also consist of the staff, doctors, specific professional, nurses, building, waiting room, technical apparatus, machines used in health care service, etc.

**Demographic Factors**

Based on many previous studies, demographic factors distinguish market into groups on the basis of variables such as gender, age, income, family size family life style, occupation, education, religion, race, generation and nationality. It is easier to measure than other variables by using demographic segmentation (Kotler and Armstrong, 2001). In this study, the demographic factors of outpatients are as follow:

Gender: Male and female differ in their attitudes and behavior based on the genetic characters and some part on socialization. Females tend to accept more information and consume promptly, while males tend to concentrate on a part of the information in order to accomplish their aim (Kotler, Keller, Ang, Leong and Tan, 2006).

Age level: Consumers will change their attitude and requirements with age (Kotler et al., 2006). Age segmentation influences consumers’ decision when they got information, and it is an important condition for estimate service quality (Grazier, Richardson, Martin and Diehr, 1986).

Income level: Income segmentation presents the ability of a person can afford to pay a product or service (Schiffman and Kanuk, 1994). A person who has higher income would likely to replace health care providers (Grazier et al., 1986).

Education level: Education influences a person’s thinking and making a decision and even relates with others. In addition, education can strongly affect to a person’s preferences (Hawkins et al., 2001).

**Brand Image**

Keller (1998) conceptualized brand image as a perception of consumers when they see a brand and reflected by brand associations in their mind. And these associations of brand image are multidimensional and contain the emotional dimension or the attitudes regarding the brand and the perceived quality dimension. From consumers’ overall picture of their experiences, brand image is important because through this technique, brand image will create the consumer’s cognitive, emotional, and behavioral responses as an outcome (Padgett and Allen, 1997).

Moore (1981) argued that image is a mental estimate of a general degree of satisfaction from an organization’s activities and performances. And through image investigation, organizers will know the attitudes from customers tend to their companies, indeed, how well customers understand and what they prefer of companies.

In addition, Gardner and Levy (1995) mentioned that conveying a brand image to a target segment has become an important marketing activity for a long time. If the marketer can have good abilities to choose a brand meaning entering the market before other competitors, managing the meaning in the form
of an image, keeping the image over time, it will have long-term success for the brand.

Park, Jaworski, and MacInnis (1986) advanced that brand image is one strategic technique with the goal of helping the concept of a brand to be completed by means of an exercise in brand management. The objective of companies is to establish favorable and positive connection about the brand which the outcome in a positive image of the brand. The consumer may have more desire with one brand simply because this brand has the different image from other competitor’s brands (Schiffman and Kanuk, 1994).

**Word of Mouth (WOM)**

WOM is the oral, noncommercial communication between a receiver and a communicator about a brand, a product or a service offered for sale (Arndt, 1967). WOM represents the client’s willingness to recommend the product and service to others in the near future (Dabholkar et al., 1995). It can present verbal communications between present customers and other people or other parties (Helm and Schlei, 1998). WOM is very important factor when facing complex situations and experiencing risks by consumers (File, Cermak, and Prince, 1994). Silverman (1997) mentioned that besides the input to the potential customers about selling a product or service, WOM is also the output after buying of customers. When customers are willing to spread positive information to others, they more probably become loyal customers (Gremler and Brown, 1996). Merton (1968) also argued that WOM is a procedure of individual influence, and this kind of interpersonal communication is able to change the receiver’s behavior or attitudes. Moreover, Reichheld and Sasser (1990) stated that loyal customers provide free advertising via WOM suggestions, and creates more customers and profits to an organization. Services are usually more difficult to evaluate than goods (Murray and Schlacter, 1990). Therefore, service contexts result in a high-risk awareness with their intangibility, heterogeneity, perishability and inseparability (Mitchell and Greatorex, 1993).

Murray (1991) stated that in order to reduce the risk, customers undertake to extend their information gaining activities when they estimate a service provider, and he also supported that service clients usually take in mind the experience or point of view of other people, such as friends or family before they make a decision to pay for service. Moreover, Chaniotakis and Lymperopoulos (2009) supported that positive WOM provides consumer the capability to make more up to date choices and it can advantage from decrease perceived risk of a current purchasing behavior.

Williams and Hense (1991) noted that the importance of WOM communication is rising in the health care industry year by year. Hence, WOM has a significant influence on customers’ attitudes and behavior (Brown and Reingen, 1987), this kind of communication will strongly affect both short-term and long-term opinions of customers (Bone, 1995).

**Repurchase Intention**
Repurchase intention is the individual’s judgment about repeat purchasing again in the same firm (Hellier et al., 2003). The reason that makes customers decide to choose the same service provider and repurchase the same service is on the basis of their past experiences (Wathne et al., 2001). Chandon et al. (2004) mentioned that repurchase intention is the product or service that is accessible in memory than it is for a first time purchase.

Ranaweera, Chatura and Prabhu (2003) supported that repurchase intention is a tendency of customers to be with the same company in the near future. Repurchase intention involves an individual’s judgment about subscribing service providers again from the same current firm and an evaluation of current service situation (Hellier et al., 2003). Bolton, Kannan, and Bramlett, (2000) also mentioned that customers will buy a service again depending on their awareness of value from their earlier service encounters and expectations of the relationship with a business in the future. Rising clients’ repurchase intention can increase firm continuous revenue and increase operating efficiency over time (McDougall and Levesque, 2000).

Fornell (1992) suggested that customer’s repurchase intention is essentially the most important concept in marketing. Moreover, repurchase intention seems like to be the core concept of customer loyalty. It is especially considered to be one of the best measurements of customer loyalty or customer constancy in marketing research area and it is one of many ways to examine buyer loyalty behavior (Olsen, 2002; Bloemer & Kasper, 1995). Parasuraman and Grewal (2000) affirmed that repurchase intention shows the client’s likelihood of repeatedly buying goods or services in the future and it is closely related to customer loyalty.

2. Conceptual Framework

Figure 1: Conceptual Framework

3. Research Hypotheses

Based on the study objectives of this research, 19 hypotheses were adopted for this study to measure the relationship between the independent variables (patient-perceived service quality, and demographic factors) and the dependent variables (brand image, word of mouth and repurchase intention) that can be classified into five groups:
Group 1 consists of three hypotheses (H1-H3). This group tests the relationship between patient-perceived service quality (object, process, infrastructure, interaction, and atmosphere), brand image, word of mouth and repurchase intention in Min-Sheng General Hospital in Taoyuan, Taiwan.

Group 2 consists of four hypotheses (H4-H7). This group tests the difference in patient-perceived service quality (object, process, infrastructure, interaction, and atmosphere) when determined by different demographic factors in terms of gender, age levels, income levels and education levels in Min-Sheng General Hospital in Taoyuan, Taiwan.

Group 3 consists of four hypotheses in group 3 (H8-H11). This group tests the difference in brand image when classified by different demographic factors in terms of gender, age levels, income levels and education levels in Min-Sheng General Hospital in Taoyuan, Taiwan.

Group 4 consists of four hypotheses (H12-H15). This group tests the difference in word of mouth when segmented by different demographic factors in terms of gender, age levels, income levels and education levels in Min-Sheng General Hospital in Taoyuan, Taiwan.

Group 5 consists of four hypotheses (H16-H19). This group tests the difference in repurchase intention when based on different demographic factors in terms of gender, age levels, income levels and education levels in Min-Sheng General Hospital in Taoyuan, Taiwan.

4. Research Methodology

In this study, the researcher collected the data by distributing questionnaires. And 394 validly questionnaires were collected out of 400 respondents. The researcher uses the non-probability sampling which is a technique that possibility of any person of the population will be chosen. There are two steps which are shown as follow:

(i) Quota sampling is a non-probability sampling procedure that ensures the certain characteristics of a population sample and it will be described to the accurate extent that the researcher wants to know (Zikmund, 2000). In this study, the respondents are outpatients who had visited five branches of Min-Sheng General Hospital in Taoyuan, Taiwan.

(ii) Convenience sampling is the sampling procedure of obtaining units or people that are most conveniently available (Zikmund, 2000). In this study, the researcher selected the sample populations that are promptly ready, near or agreeable to answer the questionnaires.

In this research, primary data were collected from the questionnaires with the outpatients who ever used the service in the Min-Sheng General Hospital of five branches. At each of five branches, the researcher distributed 80 questionnaires during September 3rd to 12th, 2010 in the hall of outpatient department. In this survey, there are five parts with a total of 42 items in the questionnaire as the instrument to collect the data.
The first part refers to patient-perceived service quality. This part uses the five-points Liket Scale which measures how the feelings of respondents form the service that the hospital builds. The score ranges from very bad (1) to very good (5). Part two to part four are brand image, word of mouth and repurchase intention. The researcher uses the Likert Scale which has 5 points to measure attitude to indicate respondents how strongly of their perception on disagree and agree. The score ranges from strong disagree (1) to strongly agree (5). The last part refers to the demographic characteristics of respondents which are gender, age levels, income levels and education levels by using multiple choices.

5. Results and Conclusions

There are four respondent’s characteristics in this study; gender, and age, income, and education levels. The sample size is made up of a majority of females (n=227, 57.6%) over males (n=167, 42.4%). The main age level range is 41 to 50 years old (n=105, 26.6%), and most respondents’ monthly income is between 20,001 to 30,000 New Taiwan Dollar (NTD) (n=181, 45.9%). In addition, the results indicate that the majority of respondents have a bachelor’s degree (n=251, 63.7%).

All the data was analyzed by using the Statistical Package of Social Science (SPSS) program, including Person Correlation Coefficient, Independent t-Test and Analysis of Variance (ANOVA) statistics methods.

In this study, nineteen hypotheses were tested, and the results indicate that except for hypothesis 8, 10, 16 and 18 which failed to reject the null hypotheses, all other hypotheses rejected the null hypotheses.

Firstly, the findings show that there is a positive relationship between patient-perceived service quality and brand image. This is consistent with Aydin and Özer’s (2005) research. Likewise, there is a positive relationship between patient-perceived service quality and word of mouth. Many previous studies support this result (Lovelock et al., 1996; Zeithaml et al., 1996; Dabholkar et al., 1995). There is also a positive relationship between patient-perceived service quality and repurchase intention. This is in-keeping with various previous studies (Cronin and Taylor, 1994; Zeithaml et al., 1988).

Secondly, the researcher found that there is a significant difference in patient-perceived service quality and word of mouth when segmented by gender. Female outpatients are more satisfied with the hospital service quality and willing to recommend the hospital to others more than male outpatients. This result is consistent with a number of previous studies that have found that females have a higher level of satisfaction with doctors, medical treatment and health arrangement than males (Weiss, 1988; Schauffler and Rodriguez, 1994; Carlson et al., 2000).

Next, there is a significant difference in patient-perceived service quality, brand image, word of mouth and repurchase intention when segmented by age and education levels. The findings indicate that younger patients are more dissatisfied with medical care services than
older patients, in-keeping Dimatteo and Hays’s study (1980).

Finally, there is a significant difference in patient-perceived service quality and word of mouth when segmented by income levels. Previous research supports this finding that higher income patients can recognize a lower hospital service quality than lower income patients (Cole and Balasubramanian, 1993).

**Recommendations**

Based on the findings of this study, the researcher would like to make the following recommendations to the directors of Min-Sheng General Hospital.

This study presents a moderate positive relationship between patient-perceived service quality, brand image, word of mouth and repurchase intention. This means that brand image, word of mouth and repurchase are connected with the hospital service quality. As a result, the researcher recommends that the hospital managers improve their service quality starting with the first part of the process. The results show that waiting time is the main reason negatively affecting the agreement level of outpatients. The researcher suggests that the hospital managers add more outpatient services during night time in order to lower the consulting time. Besides, the hospital can provide magazines, books and televisions to help outpatients and their families occupy themselves during the waiting time.

The service quality at the interaction part of the process is another point to which the managers need to pay attention. Thus, the researcher recommends that the managers of each branch set a training program for their staffs in order to strengthen their communication skills and improve their interaction with outpatients during service procedures so as to display more individual concerns toward these outpatients.

Furthermore, the researcher suggests that the hospital set a special service center for tracing outpatients’ condition and actively inform them of any medical checkup or subsequent consultation via the phone or email. For some departments with a higher visiting rate, the hospital should provide more medical staffs in order to reduce the risk of physicians’ negligence to outpatients because of their busy schedule. Also, the researcher suggests that the hospital managers keep training their medical staffs so as to further develop their skills in order for them to be more professional and have sufficient skills to deal with any case.

Finally, as the results point out, some of the variables are related to demographic factors; which implies that Min-Sheng General Hospital managers need to stress the need for the staff to understand outpatients’ needs whatever the demographic factors. Once customers have a positive intention, they will have a positive word of mouth and continue to revisit the hospital.

**References**


