Assessing Patients Behavioral Intentions through Service Quality and Perceived Value

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ABSTRACT

This research proposed an integrative model of health care consumer satisfaction based on established relationships among service quality dimensions, perceived value, patient satisfaction and behavioral intention (WOM and willing to pay more). The study was conducted at the private hospitals in Karaj city, located in Iran. Structural equations modeling using LISREL was performed to empirically test the relationship between the constructions this study. The results indicate that service quality has a significant relationship with satisfaction and perceived value. But, relationship between of service quality with behavioral intentions was non-significant. Also, results indicate that satisfaction has a significant relationship with behavior intentions. Finally, it is suggested that managers can create very effective methods for developing positive behavioral intentions in customers by improving customer satisfaction and perceived value.

KEYWORDS: Service Quality, Perceived Value, Consumer Satisfaction, WOM, Willing to pay more, Hospital

INTRODUCTION

In today’s highly competitive healthcare environment, hospitals, like all other public or private organizations and institutions, are confronted with the necessity of measuring both their financial (costs, revenues, profitability) and non financial performance (quality of their services), in order to improve their functions and increase their competitiveness. Performance measurement is not an easy task in health services, where a wide range of stakeholder is involved [1]. Patient perception of service quality is a key determinant of a health care organization’s success due to its primary role in achieving patient satisfaction [2] and hospital profitability [3, 4]. Superior service quality enables a firm to differentiate itself from its competition, gain a sustainable competitive advantage, and enhance efficiency [5, 6]. The construct of service quality has therefore been a subject of great interest to service marketing researchers. Many empirical studies have investigated the relationships among the constructs of service quality, customer satisfaction, and behavioral intentions in a variety of industries and cultures. These include studies of the lodging industry in the USA [7], banking industry in Taiwan [8], health care industry in South Africa [9], airline industry in Korea [10] and tourist industry in Canada and Iran [6, 11]. Gronroos (1984) define service quality as a perceived judgment; resulting from an evaluation process where customers compare their expectations with the service they perceive to have received [12]. There is ample evidence that service quality have impact on perceived value, customer satisfaction and behavior intentions including word of mouth, loyalty, recommendation and willing to pay more [6, 11, 14, 15]. The objective of this study is to assessing patient’s behavioral intentions through service quality and perceived value in the health care industry. The article is structured as follows:

First we review the literature on perceived quality, satisfaction and behavioral intentions and develop a conceptual model. Next, we present the results of testing the model using SEM analysis, discuss the findings and outline some theoretical and managerial implications of our analysis. Finally, we discuss the limitations of our study and offer suggestions for future research.

MATERIALS AND METHODS

Service quality

Superior service quality enables a firm to differentiate itself from its competition, gain a sustainable competitive advantage, and enhance efficiency [16]. The benefits of service quality include increased customer satisfaction, improved customer retention, positive word of mouth, reduced staff turnover, decreased operating costs, enlarged market share, increased profitability, and improved financial performance [6]. Although defining the term service quality is not easy, marketing theorists generally accept that the concept is personal and subjective and that consumer perceptions constitute an essential element of its conceptualization [17]. Gronroos (1984) defined the perceived quality of a given service as: the result of an evaluation process, [in which] the

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consumer compares his expectations with his perception of the service received; in other words, he places the perceived service and the expected service opposite one another. Some researchers employ the gap model and measure perceived quality on the basis of disconfirmations of consumer expectations [12]. A more general application entails the use of the SERVQUAL scale, though some empirical research has indicated reliability and validity problems with this scale. Consequently, recent recommendations suggest the use of consumer perceptions to determine service quality, which appears to offer a superior criterion of psychometric and predictive evaluations. However, if consumers perceive service quality as satisfaction or meeting of expectations, confusion arises regarding the use of the term satisfaction [17]. The most widely reported set of service quality was offered by Parasuraman et al. (1985, 1988), who condensed using factor analysis the dimensions of service quality into five categories:

1. Tangibles (facilities, equipment and appearance of staff)
2. Reliability (ability to perform the promised service dependably and accurately)
3. Responsiveness (willingness to help customers and provide prompt service)
4. Assurance (knowledge and courtesy of staff and their ability to convey trust and confidence); and
5. Empathy (caring, individualized attention the organization provides to its customers) [18, 19].

Subsequently, several studies reported that the SERVQUAL scale is not universal because the dimensionality of service quality apparently depends on the type of service examined [6].

In today’s highly competitive healthcare environment, hospitals, like all other public or private organizations and institutions, are confronted with the necessity of measuring both their financial (costs, revenues, profitability) and non financial performance (quality of their services), in order to improve their functions and increase their competitiveness. Performance measurement is not an easy task in health services, where a wide range of stakeholders is involved [1]. Moulin (2004) suggests eight essentials of performance measurement, including service quality [20].

There are many researches that investigate relationship between of service quality and customer satisfaction. It is generally accepted that a positive relationship exists between perceived service quality and customer satisfaction [6, 13, 17, 21, 22]. There is empirical evidence supporting this causal linkage between health care service quality and patient satisfaction [23, 24, 25]. Much evidence has also been gathered in the field of health care marketing for the direct impact of quality perception on patient behavioral intentions [23, 25, 26]. Also Past studies have suggested that service quality have a direct influence on behavioral intentions (repurchase, loyalty, probability of paying more and WOM) [14, 15, 17, 27]. As an extension of the above conceptualizations of value (as consisting of benefits and sacrifices) and service quality (as benefits), it is postulated that value perceptions of medical services will be directly influenced by perceived service quality. Past research, though scant in volume, has corroborated the service quality-Value link for health care service [26, 28] and for other services [29, 30].

**Value**

The role of value is becoming an increasing concern to consumers and marketers because it is one of the most powerful forces in today’s marketplace [31]. Marketers are constantly challenged to increase the value of their product/service by improving the product/service benefits, reducing costs through productivity or both [32]. Value is considered to be a pivotal determinate of product choice and its importance has been equaled to quality in determining customer shopping behavior [33]. Zithaml (1988) defines value as the consumer overall assessment of the utility of a product based on perception of what’s received and what is given [33]. Numerous studies was shown that have specified relationships between quality, value, satisfaction and consequence as customer loyalty, positive word of mouth, price premium and repurchase intention. Also Past studies have suggested that perceived value is an important antecedent to satisfaction and behavioral intentions [34].

**Satisfaction**

Consumer satisfaction is a concept that has been widely debated in the literature [35]. Customer satisfaction has long been considered a fundamental determinant of long-term customer behavior, so service firms increasingly dedicate substantial energies to tracking customer satisfaction [31]. Understanding what influences consumer satisfaction can help business owners and managers design and deliver appropriate offers that cater to market demand [36]. Customer satisfaction is defined as an evaluation process in which the customer compares his or her prior expectation to the service (or perceived service) experienced. This comparison of execrated and perceived service experienced is referred to as the disconfirmation model [37]. Consumer satisfaction is fundamental to the practice of consumer sovereignty. For health care providers, consumer satisfaction leads to favorable results, such as higher rates of patient retention, positive word of mouth and higher profits [38]. Past studies have suggested that satisfaction have a direct influence on behavior intention [39, 40, 41].
Behavioral intentions

Customers frequently develop an attitude toward purchasing based on a prior service experience. They also undergo a cognitive decision-making process about whether to stay or leave a service firm [38]. Oliver (1997) referred to behavioral intentions as the stated likelihood to engage in a particular behavior [42]. In this paper, behavioral intentions are considered to include willing to pay more and word-of-mouth intentions. Zeithaml et al. (1996) grouped behavioral intentions into favorable behavioral intentions (positive word of mouth, recommending, remaining loyal, spend more, and paying a price premium), and unfavorable behavioral intentions (negative word of mouth, switching to another company, complaining to external agencies, less business with company)[43]. Word-of-mouth communication has been proven to be one of the strongest predictors for shaping the behaviors and attitudes of future clientele. WOM consists of oral, person-to-person communication between a receiver and a communicator whom the receiver perceives as non-commercial, regarding a brand, product or service [44]. Willingness to pay more is the intention of a customer to pay a higher price than competitors charge for the benefits that the customer currently receives from the service provider. Zeithaml et al. (1996) use willingness to pay as a behavioral proxy for value [43]. A customer who has a stronger bond with a specific provider (e.g., loyal customer) will be willing to pay higher prices based on greater value provided by that provider’s products and services [45]. WOM and WPM are in fact post consumption effects. Several studies investigated the direct effect of service quality and satisfaction on behavioral intentions. Researches findings indicate that service quality and satisfaction has a direct relationship with WOM and willing to pay more [6, 11, 45].

Research model and hypotheses

Based on the preceding literature, the research model and hypotheses for this study, shown in Figure 1, which investigates of the effect of service quality and value on satisfaction and behavior intentions.

Figure 1: research conceptual model

H1: Service quality is positively related to customer satisfaction.
H2: perceived value is positively related to customer satisfaction.
H3: Service quality is positively related to perceived value.
H4: Service quality is positively related to WOM communications.
H5: Service quality is positively related to willing to pay more.
H6: perceived value is positively related to WOM communications.
H7: perceived value is positively related to willing to pay more
H8: Customer satisfaction is positively related to WOM communications.
H9: Customer satisfaction is positively related to willing to pay more.

RESEARCH METHODOLOGY

To test the hypotheses, multi item scales validated in previous studies were identified and modified to fit the study setting. Service quality dimensions were measured by using five latent variables, namely tangibles, reliability, responsiveness, assurance and empathy. Each of these, and the indicators used to assess them, can be summarized as follows: (1) “Tangibles”: The indicators of this variable, which is related to the facilities and the equipment of the hospital, incorporated the “comfortable and friendly environment”, the “clean environment”, the “up-to-date equipment”, and the “clean and comfortable rooms”. (2) “Reliability”: The indicators of this variable, which is related to the ability to perform the promised service dependably and accurately, incorporated
the “organization” and the “reliability of the maternity hospital” as well as, the “kept promises”, and the “right way to carry out services”. (3) “Responsiveness”: The indicators of this variable, which is related to the willingness to help customers and provide prompt service, incorporated the “24-hour service availability”, the “staff willing to respond to any need”, the “staff spends time with each one in order to answer their questions”, and the “staff responds quickly” (4) “Assurance”: The indicators of this variable, which is related to the knowledge and courtesy of staff and their ability to convey trust and confidence, incorporated the “knowledgeable and experienced staff”, the “friendly and courteous staff”, the “treatment with dignity and respect”, and the “staff explains thoroughly medical condition”. (5) “Empathy”: The indicators of this variable, which is related to the caring and individualized attention the organization provides to its customers, incorporated the “staff understands specific needs of mothers”, the “staff show sincere interest”, the “staff offers personalized attention”, and the “staff looks for the best for the mothers’ interests” [1]. Value was measured using the three-item five-point Likert scale [46, 47]. Satisfaction was measured using eight items five point Likert [42]. Word-of-mouth activity was measured using the three-item five-point Likert scale [48]. Willingness to pay more was measured using the two-item five point Likert scale [43, 45].

**Sample population and Data Collection Procedure**

The study was conducted at the private hospitals in Karaj city, located in Iran. In today’s highly competitive healthcare environment, hospitals, like all other public or private organizations and institutions, are confronted with the necessity of measuring both their financial (costs, revenues, profitability) and non-financial performance (quality of their services), in order to improve their functions and increase their competitiveness. The research population in this study consisted of patients of private hospitals in Karaj city. Stratified random sampling was used; however, the method of selecting respondents was systematic random sampling. In base of received information, the total number of patients these hospitals are specific. The population size was 2891000, and the sample size was determined according to Krejcie and Morgan’s (1970) table to be at least 384. Data were collected from 520 patients. A total of 410 usable questionnaires were retained [49].

**Validity and Reliability**

A pretest was conducted to check the validity and reliability of scale items in the survey instrument by surveying 40 patients. Two types of validity tests were used to test the goodness of the measure: content validity and face validity. A reliability test was used to assess the consistency of the result measurements. The coefficient alpha is the most popular measure of reliability for a multi-item scale. This was used to assess the internal homogeneity existing among the items scale in this study. Values were all above 0.70. Each construct yielded the following reliabilities: Cronbach alpha coefficient for service quality was 0.81, perceived value was 0.74, satisfaction was 0.86, word of mouth was 0.87, willing to pay more was 0.92, Thus, these values were above the 0.70 level suggested by Nunnally (1978), and therefore indicated internal consistency [50].

**ANALYSIS AND RESULTS**

<table>
<thead>
<tr>
<th>Table1: Demographic details</th>
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<tbody>
<tr>
<td><strong>Demographic variables</strong></td>
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<tr>
<td>Gender</td>
</tr>
<tr>
<td>Male</td>
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<tr>
<td>Female</td>
</tr>
<tr>
<td>Total</td>
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<tr>
<td>Age (years)</td>
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<tr>
<td>Below 20</td>
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<td>20-30</td>
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<td>30-40</td>
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<td>40-50</td>
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<tr>
<td>Above 50</td>
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<tr>
<td>Total</td>
</tr>
<tr>
<td>Education level</td>
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<td>Diploma</td>
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<tr>
<td>Associates Degree</td>
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<tr>
<td>Bachelor of Science</td>
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<tr>
<td>Master of science</td>
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<tr>
<td>PhD</td>
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<tr>
<td>Total</td>
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</table>

The demographic characteristics of the sample were shown in Table 1. Structural equations modeling using LISREL 8.54 for Windows were performed to test the relationships between the constructs in this study. First, a confirmatory factor analysis (CFA) was performed to identify whether the measurement variables reliably
reflected the hypothesized latent variables. Second, a structural equation modeling (SEM) with latent variables was tested to determine the adequacy of the constructs of the model and test the hypotheses.

Prior to conducting Structural Equation Modeling (SEM), a measurement model was assessed using LISREL 8.54. The overall evaluation of the model fit was based on multiple indicators (Ladhari, 2007). These indicators included the \( \chi^2 \); the normed fit index (NFI), the nonnormed fit index (NNFI), the comparative fit index (CFI), the root mean squared error of approximation (RMSEA), Goodness of Fit Index (GFI), Root Mean Square Residual (RMR), and Incremental Fit Index (IFI). The fit statistics showed that the measurement model fit the data reasonably well. However, the chi-square for this model was significant. This statistic is sensitive to large sample size. The results of overall evaluation of the model fit were shown in Table 2.

Table 2: Indicators of fit for measurement model

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \chi^2 )</td>
<td>310.82</td>
</tr>
<tr>
<td>df</td>
<td>110</td>
</tr>
<tr>
<td>RMR</td>
<td>0.11</td>
</tr>
<tr>
<td>GFI</td>
<td>0.92</td>
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<tr>
<td>AGFI</td>
<td>0.89</td>
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<tr>
<td>NFI</td>
<td>0.96</td>
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<tr>
<td>NNFI</td>
<td>0.97</td>
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<tr>
<td>IFI</td>
<td>0.97</td>
</tr>
<tr>
<td>CFI</td>
<td>0.97</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.067</td>
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</tbody>
</table>

A structural equation modeling (SEM) with latent variables was tested to determine the adequacy of the constructs of the model and test the hypotheses. The structural model estimates are used to verify the hypothesized relationships. All hypothesized relationships are statistically significant (t-value, |1.96|). In addition, the structural model showed acceptable fit. Also, the results of Structural parameter estimates were shown in Table 3 (see Table 3).

Table 3: Structural parameter estimates

<table>
<thead>
<tr>
<th>Hypothesized path</th>
<th>Path coefficient</th>
<th>T value</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Service quality ( \rightarrow ) Satisfaction</td>
<td>0.66</td>
<td>3.77</td>
<td>Supported</td>
</tr>
<tr>
<td>H2: Perceived value ( \rightarrow ) Satisfaction</td>
<td>0.23</td>
<td>1.32</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H3: Service quality ( \rightarrow ) Perceived value</td>
<td>0.95</td>
<td>20.38</td>
<td>Supported</td>
</tr>
<tr>
<td>H4: Service quality ( \rightarrow ) WOM</td>
<td>0.18</td>
<td>0.88</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H5: Service quality ( \rightarrow ) Willing to pay more</td>
<td>0.14</td>
<td>0.85</td>
<td>Not supported</td>
</tr>
<tr>
<td>H6: Perceived value ( \rightarrow ) WOM</td>
<td>0.77</td>
<td>3.64</td>
<td>supported</td>
</tr>
<tr>
<td>H7: Perceived value ( \rightarrow ) Willing to pay more</td>
<td>0.01</td>
<td>0.71</td>
<td>Not supported</td>
</tr>
<tr>
<td>H8: Satisfaction ( \rightarrow ) WOM</td>
<td>0.43</td>
<td>6.26</td>
<td>supported</td>
</tr>
<tr>
<td>H9: Satisfaction ( \rightarrow ) Willing to pay more</td>
<td>0.73</td>
<td>8.43</td>
<td>supported</td>
</tr>
</tbody>
</table>

DISCUSSION AND CONCLUSION

The health care industry in the world has recently experienced unprecedented challenges and changes. Health care providers now face intensified competition due to the industry’s movement towards managed health care systems and maturation with overcapacity [47]. In order to create or sustain competitive advantage, health care providers are compelled to integrate the traditional medical approach, which stresses the effectiveness and efficacy of health service outcomes from the provider’s perspective, with a patient-centered principle, which takes into account patients’ concerns and interests [51]. Consequently, consumerism now appears on the health care industry agenda. This research targeted to study the effects of service quality dimensions and perceived value on satisfaction and behavior intentions in private hospitals in Karaj city located in Iran. As hypothesized, service quality has a significant direct positive relationship with satisfaction and perceived value. This result supports the finding of Grabar et al., 2010, Chen and Chen, 2010, Chaniotakis & Lymeropoulos, 2009, González et al., 2007, Choi et al., 2007 [1, 13, 17, 23, 34]. The relationship perceived value with satisfaction was non-significant. This result doesn’t support the finding of Chen & Chen 2010 and Choi et al., 2004 [23, 34]. Also, the relationship service quality with WOM and willing to pay more was non-significant. This result doesn’t support the finding of Chaniotakis & Lymeropoulos, 2009, Choi et al., 2004, Baker & Crompton, 2000 and Alexandris et al., 2002 [1, 14, 15, 23]. Also, this result supports the finding of Chen & Chen, 2010 [34]. Perceived value has a significant direct positive relationship with WOM and willingness to pay more was non-significant. Similar to the finding of the Choi, 2004, Chaniotakis & Lymeropoulos 2009, Martin et al., 2008, ladhari, 2007, Bigne et al., 2008 [1, 23, 41, 44, 52]. Results of this study clearly demonstrate the ability of service quality to influence patient satisfaction. Hence, health care providers are encouraged to seek ways in which they can increase perceived service quality. Also, results show that Satisfaction has a significant relationship with WOM and willing to pay more. Thus, managers and marketers should focus on
keeping customers satisfied. The research findings must be considered within the limitations of the research methodology. This study focuses only on the health care industry. Additional research is needed to examine these relationships within and across additional sectors. Another limitation stems from the use of self-report measures of affective and cognitive bases. These explicit measures are more likely to be tied to deliberative affect and cognition, because they encourage an active search in memory for specific emotional experiences and cognitive beliefs associated with the focal leisure experience. It should be also noted that the service quality scale used in this study, though developed in reference to the extant scales in the literature (particularly the SERVQUAL scale), and might be culturally biased. Further research would be interesting to re-evaluate the proposed model variables and their relationships with a sample from another country with different characteristics (e.g. population, income, etc.).

REFERENCES


