The study of the relationship between value creation and customer loyalty with the role of trust moderation and customer satisfaction in Sari hospitals

Zienolabedin Rahmani[1], Mansour Ranjbar[2], Ali Asgar Nadi Gara[3], Mohammad Ali Heidari gorji[4]

[1] Ph.D., Department of Management in PNU, Tehran, Iran
[2] Ph.D., Mazandaran University of Medical Sciences, Sari, Iran
[3] Ph.D., of Biostatistics, Department of Biostatistics, School of Health Sciences, Mazandaran University of Medical Sciences, Sari, Iran
[4] Ph.D., of Nursing, Assistant Professor, School of Nursing, Mazandaran University of Medical Sciences, Sari, Iran

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Abstract
Background: Healthcare providers are competitive, owing to heightened customers' awareness and expectations of health care services.
Objective: The aim of this study was to determine the relationship between customer value creation and loyalty with mediator trust and customer satisfaction.
Methods: This is a cross sectional survey study. Participants were 196 patients referred to private hospitals in Sari city, Iran from May to June 2014 which were selected by convenience sampling method. Data were collected using questionnaires. Data were analyzed using the structural equation modeling software Smart PLS.
Results: The results revealed a relationship between customer value creation and customer loyalty in a Sari city private hospital, and customer satisfaction and trust, mediate the relationship between customer value creation and customer loyalty. The results also revealed significant positive relationship between customer satisfaction and trust (p=0.000 r=0.585).
Conclusion: customer satisfaction and trust mediate the relationship between customer value creation and customer loyalty.
Keywords: Value creation, Relationship quality, Trust, Satisfaction, Loyalty

1. Introduction

In the competitive world of today, customer issues are important to health care providers. The attitudes of customers toward healthcare providers and their services significantly affect the professional future of healthcare organizations (1-3). In this situation, all eyes are on the interests, behavior and sensitivities of customers, based on which service providers set their orientations (4) and offer services, so as to create value for patients and provide them with appropriate comprehension of service quality. Patients, as consumers of healthcare, are increasingly determining service quality. Thus, many health and medical organizations consider their service quality from the perspective of patients. Therefore, using the concept of value in the healthcare sector is a relevant approach to attract patient satisfaction and, consequently, to enhance healthcare and medical organizations in the competitive world today (5). Understanding the importance of customer value in developing service processes, customer value has become a management issue (6), and has been identified as the main scale of competitive strategy and the heart of management approaches (7, 8). The main concern of companies is to attract customers, while creating and maintaining customer loyalty. In the world today, paying attention to customer values is a competitive advantage; thus, successful companies are those that create better value and satisfaction for their customers (9). In health and medical organizations, it has been more difficult to attract and retain customers. Society in general has become increasingly aware of health and medical issues and healthcare quality issues. The large number of health services

means there are many more choices; in the present competitive field, the organizations that make a greater effort to attract their customer satisfaction will be more successful (5). This clearly shows the importance of paying attention to patient satisfaction, in order to create their expected value. A health and medical organization should concentrate on quality as a strategic scale and tool with which to promote patient satisfaction (10). Further, studies show that perceived value significantly affects satisfaction, which affects behavioral reaction indirectly (3, 11-13) Customer satisfaction, results from the comparison of customer expectation with the performance of service providers (3). Thus, customer value creation is a main factor in the business success of companies (14). The concepts of quality and value in healthcare are closely related. Looking at patients as consumers and customers has promoted concentration (15). Health and medical organizations are successful when they create value for their stakeholders, such as patients and physicians. Value is defined as the obtained customer satisfaction amount, with expenses and services. For all health and medical organizations, the main goal must be to promote the creation of customer value. If a financially rich organization is unable to create value for its patients, it can not be successful in fulfilling its commitments (16). By reinforcing the relationship between patients and hospitals, customer satisfaction grows naturally and the value of the relationships between the two parties enhances, as do patient trust and loyalty (17). The philosophy of the healthcare system is to provide and promote the health and well-being of people and societies, and their success criterion is to meet people's needs and demands in the field of health. Regarding the competitive atmosphere among healthcare service providers and customers' increased awareness of the services offered by hospitals, customer expectations have increased. Thus, in order to retain customers, healthcare service providers should create value for their customers. Healthcare service providers should endeavor to create and maintain patient loyalty in order to both increase their market share and promote health in society. Thus, in the present study, the importance of patient loyalty in hospitals is examined. Relationships among value creation and patient loyalty in healthcare and medical centers as well as the mediating role of satisfaction and trust, are investigated.

2. Material and Methods

The present cross-sectional study was conducted in May 2014 on patients referred to a private hospital in Sari city, Iran, using convenience sampling. The sample size was determined as 196, using the Cochran formula. Data were collected using questionnaires. Questions 1-5 on value creation and relationship quality, were based on the Flint questionnaire, questions 8-11, on trust, were based on the Raja questionnaire. Questions 12-15, on satisfaction, were based on the questionnaire designed by Morgan and Hunt, questions 16-19, on loyalty, and questions 20-24 were based on the questionnaire by Raja. These factors were combined and evaluated using structural equation modeling. The first part of the questionnaire concerns demographic variables, such as sex, age, marital status, education, and professional experience. The second part includes 24 questions on the variables of the study on five-point Likert scale, with the choices quite agree to quite disagree. The independent variable in the present study is value creation and the dependent variables are satisfaction, trust, and quality of relationship. In order to determine the validity of the questionnaire, the study scale was offered to some faculty members. After obtaining suggestions from the faculty members, the questionnaire was corrected by the researchers. Also, the convergent and divergent validity of the scale was evaluated using the structural equation modeling statistical software, Smart PLS. The reliability of the scale was evaluated using Cronbach's alpha coefficient, with a coefficient of 88%. After determining the validity and reliability of the scales, the questionnaires were distributed to participants. Participants were coded and categorized according to their responses. The descriptive statistics of the data were calculated and appropriate tests were used in order to accept or reject the designed theories empirically. The descriptive statistical software Excel was used to analyze general and demographic data, including age, sex, education, and so on. Structural equation modeling software was used to analyze the research data inferentially and investigate the simultaneous effects of independent variables.

3. Results

Fifty-eight percent (n=114) of participants were female and 42% (n=82) were male. Seventy-eight percent (n=153) were married and 22% (n=43) were single. Twenty-nine percent (n=67) were 20 -30 years old, 39% (n=77) were 30-40 years old, 16% (n=31) were over 50 years old. Thirty-seven percent (n=73) had associate degree, 15% (n=30) had B.S, 30% (n=50) had M.S, and 18% (n=36) had Ph.D. degrees. Thirty-two percent (n=63) were office staff, 19% (n=38) were self-employed, 10% (n=20) were university students, 25% (n=49) were house wives and 14% (n=28) had other jobs. As seen in Table 1, the coefficient between value creation and customer loyalty was 0.016, the corresponding statistical value is 7.89, which is greater than 1.96. Thus, the effect is not significant. The indirect path coefficient between value creation and customer loyalty through customer satisfaction was 0.407. The Sobel test was used to investigate the mediator role of the variable of customer satisfaction between the variables of knowledge creation and loyalty; the Sobel statistical value was 4.69. Since this value was greater than 1.96, the

relationship between these variables was significant. Customer satisfaction thus mediates the relationship between knowledge creation and customer loyalty. The path coefficient between customer satisfaction and customer loyalty 0.541, which in relation to the statistical value of t was equal to 5.88, which was greater than 1.96. Consequently, the relationship between these variables was significant. The path coefficient between customer satisfaction and customer loyalty through customer relationship quality was equal to 0.021. In relation to the Sobel statistical value, it was equal to 0.56, which was smaller than 1.96. Consequently, the effect between these variables was not significant. The relationship quality variable therefore, does not mediate the relationship between customer satisfaction and customer loyalty. The path coefficient between customer trust and loyalty 0.415; that corresponded to the t value was 4.01, which was greater than 1.96. Thus, the relationship between these variables was significant and the path coefficient between customer trust and loyalty through relationship quality was equal to -0.016. Based on the Sobel value, it was equal to 0.51, which was smaller than 1.96. Consequently, the effect between these variables was not significant: relationship quality does not mediate the relationship between customer trust and loyalty. The results obtained from the field study in the Smart PLS software showed that, at a confidence level of 95%, customer value creation in a Sari city private hospital has a positive and significant effect on customer loyalty. Changing the path coefficient between customer value creation and customer loyalty from 0.616 to 0.407, we conclude that customer satisfaction plays a mediator role between customer value creation and customer loyalty in the private hospital of Sari city. Changing the path coefficient between customer value creation and customer loyalty from 0.616 to 0.207, we can conclude that trust mediates between customer value creation and customer loyalty in the Sari city private hospital. The correlation between customer satisfaction and trust was 0.585, and the value of probability, smaller than 0.01. Thus, the relationship was positive and significant. Changing the path coefficient between customer satisfaction and customer loyalty from 0.541 to 0.0210, we can conclude that relationship quality does not mediate the relationship between customer satisfaction and customer loyalty in the Sari city private hospital.

Table 1. The coefficient of T direction and value among Maknoon research variables

Direction among variables	Direction coefficient	t	Result
Value Creation ≥ Customer loyalty	0.616	7.892	Significant
Value Creation ≥ Customer Satisfaction ≥ Customer loyalty	0.407	4.69 Sobel	Significant
Value Creation ≥ Trust ≥ Customer loyalty	0.207	3.55 Sobel	Significant
Customer Satisfaction ≥ Customer loyalty	0.541	5.881	Significant
Customer Satisfaction≥ relationship customer customer ≥ Customer loyalty	-0.021	0.56 Sobel	Non-Significant
Trust ≥ Customer loyalty	0.415	4.018	Significant
Trust ≥ relationship quality ≥ Customer loyalty	-0.016	0.51 Sobel	Non-Significant

4. Discussion

The results of the present study show that customer value creation has a positive and significant effect on customer loyalty in a Sari city private hospital. However, customer satisfaction mediates the relationship between customer value creation and customer loyalty. Also, trust plays a mediating role between customer value creation and customer loyalty. There is a significant relationship between customer satisfaction and customer trust and between relationship quality and customer loyalty. In addition, relationship quality mediates the relationship between customer trust and customer loyalty. Consistent with the present study and comparing its results to those of other studies, a study showed that customer perceived value and the ethical reputation of banks have a positive and significant effect on customer satisfaction, which plays a mediating role in the relationship between ethical reputation and perceived value in customer loyalty [9]. Results of a study showed that customer value has a positive effect on customer satisfaction and loyalty and customer satisfaction also has a positive effect on customer loyalty. Ethical reputation modifies and reinforces the effect between customer value, and customer value and customer satisfaction [17]. A study showed that the customer special value of a brand and communication special value are positively related to customer loyalty. In addition, the two variables of communication special value and special value perception of desirability positively impact relationship with customer loyalty through the special value of a brand. It was found that the variable of special value perception through desirability isn't directly related to customer loyalty [18]. A study suggested that the three variables of customer satisfaction, trust of a brand, and commitment to a relationship, positively and significantly affect patient loyalty to the hospital brand. Based on these results, promoting service quality, hiring skillful physicians, fairness and honesty in the treatment of patients, providing

patients with sufficient information about their treatment, following up their health condition after discharging and reinforcing relationships with family doctors, can enhance-patients' loyalty to the hospital brand (19). A study suggested that customer special value and customer satisfaction directly affect customer loyalty, and that special value of value, special value of brand, and trademark indirectly affect customer loyalty (20). A study showed that the image of the restaurant, early and directly did not exert a significant effect on customer loyalty, but positively affected customer loyalty indirectly through customer satisfaction, and perceived value indirectly through customer satisfaction (21). A study suggested that service quality has a positive and direct effect on perceived value and customer satisfaction, and that, perceived value had a positive and direct effect on customer satisfaction and loyalty. Customer satisfaction also had a direct and positive effect on customer loyalty, while service quality did not, but rather exerted a positive, indirect effect through perceived value with customer satisfaction (22). Results of a study showed that perceived value is divided into five elements: social value, position value, comfort value, cognitive value, and emotional value. Regarding the study results, social value, position value and comfort value significantly affect customer loyalty (23). A study suggests that customer trust and satisfaction modify the relationship of customer value creation and customer loyalty. Based on the suggested model, relationship quality mediates the relationship between customer satisfaction and trust and customer loyalty (13). The study reported that customer value exerts a direct effect on aspects of customer loyalty (24). A study showed that customer value is a strong predictor of customer satisfaction and loyalty and that satisfaction mediates loyalty (25). According to Duman and Mattila (2005) research on factors affecting perceived value in the tourism industry, indicates that highly perceived value can be predicted by evaluating the behavioral intentions of customers (26).

5. Conclusions
From this study, it can be concluded that customer value creation has a significant effect on customer loyalty, and that customer satisfaction and trust are mediators. So, customer and customer values should be realized. Customer satisfaction depends on trust. Relationship quality can affect customer loyalty and create mutual trust. The results of this study are of practical relevance to the authorities and employees of hospital organizations, and contribute to the literature. It is suggested that studies of customer requirements, evaluations of product and service value offered to customers, rates of customer satisfaction and loyalty to the satisfaction, investigation of the strategies of value creation to enhance the trust of customers and additional research conducted on the present research project in other statistical societies in other public and private hospitals are conducted. The limitations of the current study included the fact that there was only one examinee and, that some participants lacked the adequate understanding, communication, and willingness to complete the questionnaires.

Conflict of Interest:
There is no conflict of interest to be declared.

Authors' contributions:
All authors contributed to this project and article equally. All authors read and approved the final manuscript.

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