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PATIENT LOYALTY TO HEALTHCARE ORGANIZATIONS: RELATIONSHIP MARKETING AND SATISFACTION

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ABSTRACT

This study examined a model of patient loyalty from the perspectives of relationship marketing and patient satisfaction. Data were analyzed in two separate but sequentially related stages using structural equation modeling with partial least squares. Patient satisfaction directly affected loyalty, but it did not mediate the relationship between relationship marketing and loyalty. Although healthcare providers can increase patient satisfaction by demonstrating trustworthiness and commitment and by the use of good communication skills, these factors do not have a significant effect on loyalty despite their overall positive impact.

JEL: I110, M310

KEYWORDS: Loyalty, Relationship Marketing, Patient Satisfaction

INTRODUCTION

Nowadays, every company is faced with sustained competitive rivalry and must compete to provide services that differ from those offered by their rivals. Some companies have realized that even a very good product is not a guarantee of long-term success (Gronroos, 2007) due, in part, to constantly increasing customer expectations regarding products. Thus, customers expect the same from all product offerings, and they are often disappointed.

Service providers include the customer in the product development process to build relationships. If a relationship impresses the customer, then the relationship is likely to be maintained over the long term (Gronroos, 2007). According to Sanchez, one of the basic goals of marketing is to determine the values of the customer and to incorporate them into marketing programs to enhance customer loyalty (Sanchez, 2003). Good relationships between customers and service providers can lead to satisfied customers (Anderson & Zimmerman, 1993). Overall satisfaction is a significant and direct precursor to loyalty (Bodet, 2008). Based on a previous study, Salgaonkar argued that satisfaction with a core service is important for overall customer satisfaction and, in turn, for customer loyalty. This also applies to healthcare (Salgaonkar, 2006).

The main goal of service providers is to meet the expectations of their consumers. In the domain of health services, the "consumer" is the patient, and healthcare providers manage patient expectations to minimize differences between such expectations and actual experiences (Baker, 1998). Patients seek healthcare to recover from illnesses and hope to receive good service, which they rate based on a series of variables that affect their satisfaction, engagement, and, ultimately, loyalty (Baird, 2013).

Healthcare is a very personal service. In general, patients who visit hospitals or clinics, sometimes accompanied by their families or relatives, are usually experiencing some degree of emotional and physical stress. Thus, issues related to the ability to meet the expectations of patients must be considered in the decision-making processes of service providers (Baird, 2000).

The field of healthcare is unique and cannot be held to the same standards of customer service that apply to other industries. Indeed, consumer decisions about other services can be avoided or postponed to a future date, depending on the wishes of the individual. In contrast, this is typically not an option in the health sector, where avoiding or delaying consumption decision may have serious implications for the health of the patient, potentially resulting in poorer health or even death. Thus, the factors that determine patient loyalty will vary from those that pertain to loyalty in other domains (Salgaonkar, 2006).

Every contact between a customer and an aspect of the service system ("service encounters") presents an opportunity to evaluate the service provider and the quality of the service, to form an opinion, as well as to interact with other patients (Salgaonkar, 2006).

Learning about patient loyalty, resulting from direct relationship marketing or from patient satisfaction, is important for healthcare organizations to sustain their enterprise in the long term. The purpose of this study was to analyze how subjects develop loyalty to healthcare organizations through relationship marketing and patient satisfaction. The discussion that follows is divided into three parts. First, it discusses patient loyalty to a healthcare organization using the data from all of the respondents. Second, the data were analyzed according to gender, and third, patient loyalty is discussed with reference to the age of respondents.

LITERATURE REVIEW

Loyalty

Customer loyalty is built with great effort by customized marketing programs that position the customer at the center of all the activities of the company. However, several multidimensional factors contribute to customer loyalty. Customer loyalty is also determined by the characteristics of the consumers. For example, some people do not like uncertainty and are very loyal to the first products they use. Others are more "adventurous" and want to try new products even though they like or are satisfied with previous products.

Originally, brand loyalty and customer loyalty had almost the same meaning. Moreover, several previous studies that extensively examined brand loyalty for tangible goods served as the basis for a concept of customer loyalty that now extends to service organizations that typically provide less tangible products (Gremler & Brown, 1996).

Loyalty is continued use of a product or service and is grounded in attitudes toward the product or service. The difference between loyal and habitual use relates to the dynamics underlying the selection of a particular product or service. A loyal buyer is, at some level, engaged in a relationship, whereas a habitual buyer is indifferently engaging in routine behavior (Knox, 1998). Dick and Basu (1994) treated the concept of customer loyalty as the relationship between one's attitude toward an entity (brand, service, store, and vendor) and one's patronage behavior. Gremler and Brown identified three separate dimensions of customer loyalty: behavioral loyalty, attitudinal loyalty, and cognitive loyalty. Behavioral loyalty was defined in terms of consumers' behaviors (such as repeat purchases) related to certain brands over time (Gremler & Brown, 1996).

Subsequent studies identified two dimensions of customer loyalty, behavior and attitude, and began to incorporate a more cognitive orientation, reflecting the assumption that a customer who was truly loyal did not consider alternative products when making the next purchase decision (Gremler & Brown, 1996).

Because of the complex nature of the services and the high level of involvement of patients in interactions with physicians, the interaction with the provider will be more important than that with the environment in healthcare settings. Patients come to healthcare settings to recover from illnesses. The core services provided can create positive physical *and* psychological reactions to doctors and treatment, which can increase loyalty (Salgaonkar, 2006). Everything a patient sees, hears, feels, and experiences in a healthcare setting should instill trust (Baird, 2013).

Relationship Marketing

Nowadays, many service providers employ relationship marketing strategies. Although an old idea, relationship marketing is considered to be at the forefront of marketing practices for services. Indeed, the creation of value through business relationships between buyers and sellers is becoming one of the most discussed topics in the marketing literature (Walter, Ritter, & Gemunden, 2001). This idea was actually first introduced by Berry in 1983 and has been recognized by Barnes and Gronroos (Berry, 1995).

Generally, consumers who use specific service suppliers for the first time feel uncertain and vulnerable, and these reactions are likely to be heightened for personal services (Berry, 1995). If a customer has no intention of establishing a relationship with a company, he or she can switch providers at any time. On the other hand, if the customer is seeking to establish a relationship, he or she would be willing to purchase the products or services in question without having to be "forced" to do so (Kumar, Bohling, & Ladda, 2003).

Marketers began to change their views about the importance of relationships with customers because the creation and reinforcement of such relationships is the basis for profitable growth in the long run. As a result, relationship marketing quickly changed from a model based on an old-fashioned monologue into one based on a dialogue intended to build mutually beneficial long-term relationships between an enterprise and its customers. That is, marketers propose and customers dispose (Sanchez, 2003).

According to Berry, relationship marketing involves the efforts of multi-service organizations to attract, maintain, and enhance customer relationships. Good service is necessary to maintain the relationship (Berry, 2002), and the company must improve its services, elevating those that are "just good" to excellent.

Based on Bove and Johnson (2001), who also endorsed the opinion expressed by Dwyer, Crosby, Kumar, and Dorsch (i.e., that relationship strength and quality can be conceptualized as trust and commitment). I hypothesized that greater trust and commitment would be associated with a stronger the relationship between the customer and the service provider. According to Berry (1995), a company can build consumer trust in three ways: 1) opening lines of communication, 2) guaranteeing their service, and 3) providing a higher standard for their behavior. Morgan and Hunt (1994) proposed a model in which commitment and trust are key to the success of a marketing relationship, serving as mediating variables because they encourage exchange partners to preserve the investment in the relationship, inhibit pursuit of short-term alternatives, and maintain confidence that partners will not act opportunistically.

Correlation between Loyalty and Relationship Management

According to Gronroos (2007), one approach to business involves creating an attraction between the customer and a service company that may result in contact that leads to a mutually beneficial relationship. Such encounters generate services, a process or performance in which the customer is involved and that can last a long period of time, a short period, or even just a single meeting.

In accordance with Sanchez (2003), the establishment of a relationship with a customer that leads to enduring, profitable growth, rather than making a sale, is the central goal of relationship marketing. Sales are the beginning of an opportunity to turn a buyer into a loyal customer.

Customers who are loyal to a product are happy to help the company encourage others to try and even buy the company's products. Sanchez (2003) also noted that brand loyalty is an asset. Without the loyalty of its customers, a brand is merely a trademark—an ownable, identifying symbol with little value. The loyalty of its customers renders a brand much more than a trademark.

One increasingly common trend in relationship marketing by service providers, including healthcare companies such as hospitals and health clinics, is to increase the number of loyal customers by partnering with customers, suppliers, and other service providers within the same sector. In the healthcare sector, this trend is driven primarily by the intense competition among organizations (Naidu, Partivar, Sheth, & Wasgate, 1999). These authors proposed that relationship marketing programs may be more successful when there is open communication, mutual commitment, operational alignment, and a mutual understanding of each other's goals.

In the healthcare business, the customer is the patient. The relationship between patients and healthcare providers includes the interactions between patients and physicians, nurses, and service personnel. Communication is an important factor in building a relationship between physician and patient (Ishikawa et al., 2002). Based on a systematic meta-analysis, Griffin et al. asserted that the success of the physician–patient interaction is at the heart of medicine (Griffin et al., 2004). This was confirmed by Beck et al., who found that the physician–patient interaction was a central and essential element of ambulatory care medicine. They also cited evidence linking specific verbal and nonverbal behaviors to specific kinds of interaction between ambulatory primary care providers and their patients (Beck, Daughtridge, & Sloane, 2002). Based on the foregoing, the following hypothesis was proposed:

H1: That relationship marketing and loyalty are significantly positively correlated

Patient Satisfaction

As customer satisfaction refers to a specific evaluation of the overall service provided, it must be assessed based on the experience during the process of service delivery. According to Kotler (2003), satisfaction involves feeling happy or disappointed and derives from a comparison between one's impression of the performance (or outcome) of a product or service and one's expectations.

Many researchers have found that consumer satisfaction and patient satisfaction cannot be equated. As described by Newsome and Wright (1999), marketing-oriented conceptual models do not easily fit or are simply inappropriate for many common medical scenarios. The differences and the role(s) played by patient expectations, perceptions, and disconfirmation are not yet fully understood. The authors also said that many patients experience themselves in relation to a healthcare system, and it is possible that some patients may simply remain passive and not evaluate the service provided. Williams (1994) reported that patients may have a complex set of important and relevant beliefs that cannot be expressed in terms of satisfaction. According to Williams, the results of a satisfaction survey should be interpreted in the context of a number of assumptions about what the patient really means by "satisfied." Mpinga and Chastonay (2011) explored whether patient satisfaction was a health indicator by comparing health status with general patient satisfaction under the assumption that patient satisfaction may be useful as a health indicator. They concluded that patient satisfaction can be used as an indicator of health status.

Patient satisfaction with primary care professionals depends on personal characteristics. Age, health status, and socioeconomic status appear to have the strongest influence on level of satisfaction in this regard

(Bowman, Herndon, Sharp, & Dignan, 1992). It has also been noted that nurses are good communicators who spend time with patients and provide adequate information about the patients' conditions. Jenkinson et al. (2002) reported that age and overall self-rated health were only weakly related to satisfaction, and linear regression analyses have shown that the major determinants of patient satisfaction were physical comfort, emotional support, and respect for patient preferences. Merkouris et al. (2004) compared quantitative and qualitative approaches to the measurement of patient satisfaction with nursing care and concluded that a qualitative approach was better able to identify both the explicit and implicit attitudes of patients than was a quantitative approach. These results were used to evaluate, compare, and monitor treatments.

Correlation between Relationship Marketing and Patient Satisfaction

Relationship marketing includes how a company relates to its customers and thus involves more than just communication (Gronroos, 2007). In a competitive environment, marketing should involve efforts to establish relationships with potential consumers. The relationship between the consumer and the service provider can last a long time when companies focus on the customer as the center of their activities. Service providers in the field of healthcare include those involved in serving patients as consumers, such as managers, doctors, nurses, and administrative staff. In healthcare organizations, patients also interact with one another. A good relationship between the customer and the service provider can lead to a satisfied customer.

Anderson and Zimmerman (1993) found that a physician's perception of the relationship with his or her patients may be associated with patient satisfaction. In particular, physicians who characterized the patient–physician relationship as a partnership tended to have more satisfied patients than did those who view the relationship as controlled by the physician. These findings also indicated that a physician's sex and number of years in practice were unrelated to patient satisfaction.

Bowman et al. (1992) assessed the validity, reliability, and utility of the "Patient–Physician Interaction Scale" (PDIS) in a university-based family practice center. Data were collected at the time of the visit and 1 month later during both health maintenance appointments and visits in response to specific presenting problems. PDIS scores were correlated with patient assessments of overall satisfaction ($P < 0.01$), which demonstrated the criterion-based validity of the measure. The internal consistency (reliability) of the PDIS was tested with Cronbach's α, which was consistently >0.80. Given the foregoing, I proposed the following hypothesis:

H2: Relationship marketing and patient satisfaction are significantly positively correlated

Correlation between Patient Satisfaction and Loyalty

McDougall and Levesque (2000) found that consumer satisfaction was strongly related to the establishment of loyalty (an average $R^2 = 0.833$ for the four units of service). Fornell et al. (1996) created a model based on the American Customer Satisfaction Index (ACSI) and found that the ACSI was positively related to customer loyalty. Gronhold et al, (2000) subsequently developed a model of the European Customer Satisfaction Index (ECSI) and conducted a pilot test in 12 countries, including Denmark. Customer satisfaction had a strongly positive effect on the establishment of loyalty ($R^2 = 0.691$, on average). Olsen (2002) conducted a split-sample survey of households in Norway to examine evaluations of different seafood products. The authors defined and measured relative attitudes and compared the results to evaluations of dissimilar or individual products.Their model included satisfaction as a mediator between quality and repurchasing loyalty. The relationship between satisfaction and loyalty was significant and positive across products in both the comparative and non-comparative approaches. Based on the foregoing, I proposed the following hypothesis:

H3: That patient satisfaction and loyalty are significantly positively related

Patient Satisfaction Mediates the Relationship between Relationship Marketing and Loyalty

Patients who have already been satisfied (i.e., have received and reacted positively to treatment from physicians and nurses), become committed to (Morgan & Hunt, 1994) communicate well with (Ishikawa et al, 2002), and are devoted to their healthcare providers. That is, patient loyalty can be a direct result of a marketing relationship (Sanchez, 2003) or, for new patients, it can emerge as an indirect result of satisfaction (Merkouris, Papathanassoglou, & Lemonidou, 2004). Based on the foregoing, I proposed the following hypothesis:

H4: That patient satisfaction mediates the relationship between relationship marketing and loyalty.

DATA AND METHODOLOGY

Research Design

This study was designed to test the associations among relationship marketing, patient satisfaction, and loyalty as well as to examine whether patient satisfaction mediates the association between relationship marketing and loyalty to healthcare organizations.

Research was conducted at one hospital (Banyumas Regency Hospital) and two clinics (the Red Cross Branch of Banyumas Clinic and the Muhammadiyah University of Purwokerto Clinic) in Indonesia. Questionnaires were distributed to individuals (or the adult representatives of children) undergoing outpatient treatment at the hospital or clinics.

Operational Definitions of Research Variables and Indicators:

Conceptualization of relationship marketing: according to Berry (2002), relationship marketing refers to efforts by multi-service organizations to attract, maintain, and enhance customer relationships. Operationalization of relationship marketing: Morgan and Hunt (1994) proposed a model in which commitment and trust were key to the success of a marketing relationship. Communication is also an important contributor to the establishment of a relationship between a physician and a patient (Ishikawa et al, 2002). Thus, this study examined commitment, trust, and communication skills as indicators in this regard.

Conceptualization of patient satisfaction: satisfaction reflects the degree to which one feels happy or disappointed; it results from a comparison between the perceived performance (or outcome) of a product or service and expectations (Kotler, 2003).

Operationalization of patient satisfaction: Patient satisfaction was defined as the extent to which a patient's expectations or needs were adequately met by the service provided. This study used treatment experience, feelings of happiness or disappointment, and whether respondents would recommend the service to others as indicators in this regard.

Conceptualization of loyalty: loyalty is the degree to which a customer repeatedly patronizes a service provider, has a positive attitude toward the provider, and considers using only this provider when a need for the service arises again (Gremler & Brown, 1996).

Operationalization of loyalty: patient loyalty is increased by relationship marketing and satisfaction. This study used the extent to which respondents felt positively about and defended their service providers as well as repeat patronage as indicators in this regard.

Data Collection

We collected data through questionnaires to patients who had been undergoing treatment in Banyumas Regency Hospital, Red Cross Clinic Banyumas Branch and Muhammadiyah University of Puwokerto Clinic. The questionnaires were distributed to respondents at the time of their treatment between 15 February and 15 March 2013. In total, 315 questionnaire sets were distributed. However, only 307 were completed and returned to the researcher. Three respondents did not complete all questions, and five did not return their questionnaires.

Data regarding sex, age, education level, and the purpose of medical treatment were obtained. In terms of age, the largest group of respondents consisted of those aged 17–25 years and the smallest group consisted of those aged younger than 17 years. There were 122 male respondents and 185 female respondents. In terms of educational level, the largest group consisted of those who graduated from high school, whereas the smallest consisted of those who did not complete primary school. Most patients at Banyumas Regency Hospital saw medical specialists, whereas most patients at the Red Cross Branch Clinic and Muhammadiyah University Clinic were treated by general practitioners.

Data Analysis

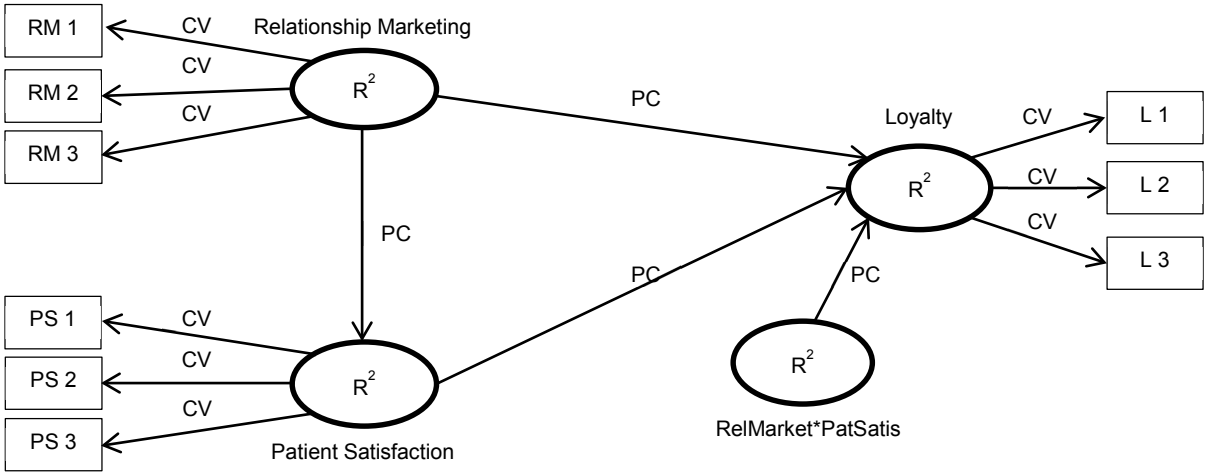
The data were analyzed in two separate, but sequentially related, stages using structural equation modeling (SEM) with partial least squares (Smart PLS 2.0). I first designed the measurement model (outer model) to determine the validity and reliability of the indicators of the latent variables. Second, the structural model was tested by designing the inner model. Once the model was judged to meet the criteria, the next outer model was tested. During this stage, the relationships among the latent variables were addressed based on the theoretical assumptions of the study. The structural model of the relationships among the latent variables was based on the formulation of the research problem or hypothesis. Structural equation modeling (SEM) involves generalizations and extensions of first-generation procedures, such as principal component analysis, factor analysis, discriminant analysis, and multiple regressions. The application of certain constraints or assumptions in SEM allows for more flexibility (Chin, 1998). PLS Path Models were used to analyze the moderating effects of the variations in the factors that affect the strength or direction of the relationship between exogenous and endogenous variables (Henseler & Fassot, 2010). In this study, patient satisfaction was the moderating variable, which may strengthen or weaken the relationship between the variables of relationship marketing and loyalty.

In designing the measurement model (outer model), measures used for the constructs included convergent and discriminant validity, composite reliability, and Cronbach's α. Convergent validity measures the magnitude of the correlation among the latent variables within a construct by examining the reliability of an item in terms of a standard loading factor. A correlation can be said to be valid if it has a value >0.7. Loadings of 0.5 or 0.6 may be acceptable if the research is still at an early stage of developing measurement scales (Chin, 2010). Discriminant validity, the next evaluation assessed and compared the discriminant validity and the square root of the average variance extracted (AVE). The model was assessed by measuring the cross-loading between constructs. When their correlation with each indicator construct is greater than that with the other constructs, the latent construct indicators are better predictors than are the other constructs. When the correlation between the latent construct indicator and each indicator construct is stronger than it is with the other constructs, good discriminant validity has been achieved. The recommended value is >0.5 (Fornell & Larcker, 1981). Composite reliability values of >0.6 indicate that the construct is reliable (Bagozzi & Yi, 1988). Cronbach's α, following a PLS approach: test–reliability

was assessed using Cronbach's α, which assesses the consistency of items. Cronbach's α is acceptable if $\alpha \geq 0.5$.

Designing the structural model (inner model), after the model was judged to meet the criteria for the outer model, the structural models were tested. This stage assessed the relationship among the latent variables based on the study's theoretical assumptions. The design of the structural model of the relationships among latent variables was based on the formulation of the research problem or hypothesis.

Figure 1: Model of Patient Loyalty to Healthcare Organizations Through Relationship Marketing and Satisfaction



RM1, 2 & 3 are indicators of Relationship Marketing; PS1, 2 & 3 are indicators of Patient Satisfaction; L1, 2 & 3 are indicators of Loyalty; R^2 is R square of the variables; CV is Convergent Validity (loading factor); PS is the Path Coefficient

The structural model is tested by evaluation of goodness of fit and path coefficients.

RESULTS AND DISCUSSIONS

The model of patient loyalty to healthcare organizations through relationship marketing and satisfaction was analyzed using structural equation modeling (SEM) with partial least squares (Smart PLS 2.0). We analyzed the data in three stages. In the first stage, the data were analyzed as a comprehensive dataset. In the second stage, the data were separated based on gender, and finally, in the third stage, based on age.

Firstly, the outer measurement model can be described as the comprehensive dataset. This measurement model was considered from a convergent validity (loading factor) perspective; based on table 1, the convergent validity value was > 0.7, indicating validity. All reported AVEs exceeded 0.5, confirming that all measures had discriminant validity. The values for composite reliability were >0.6, indicating that the latent constructs of loyalty, patient satisfaction, relationship marketing, and the construct that mediated between relationship marketing and patient satisfaction were reliable. The Cronbach's α values for all latent constructs were >0.5, indicating that the questionnaire was internally consistent.

Figure 2 shows the structural equation modeling with partial least squares of patient loyalty from the perspectives of relationship marketing and patient satisfaction. According to Figure 2, it can be seen that the R^2 (evaluation of goodness of fit) of patient satisfaction and loyalty are 0.740 and 0.647 respectively. The R^2 value of 0.740 indicates that 74.0% of the variability in the patient satisfaction construct was

explained by relationship marketing. The R^2 value of 0.467 indicates that 46.7% of the variability in loyalty can be explained by relationship marketing, patient satisfaction and also the moderating construct of relationship marketing and patient satisfaction.

Table 1: Convergent Validity, Discriminant Validity (AVE), Composite Reliability, and Cronbach's α in the Comprehensive Dataset

Discriminant Validity (AVE), Composite Reliability, Cronbach's α	**Statements of Questioner**	**Convergent Validity (Loading Factor)**
Relationship Marketing	ŁM1: The clinic/hospital is always willing to establish an ongoing relationship with me	0.897
AVE = 0.835	ŁM2: I entrust therapeutic treatment for a disease that I have experienced on the clinic / hospital is	0.929
composite reliability = 0.938	ŁM3: The doctors, nurses, and staff at the clinic/hospital are able to communicate well with me	0.914
Cronbach's α = 0.900	ŁS1: I was satisfied with my treatment at the hospital/clinic	0.912
Patient Satisfaction	ŁS2: The services I received at the hospital/clinic met my expectations	0.917
AVE = 0.757,	ŁS3: If asked about where to get the best treatment, I would recommend the hospital/clinic	0.775
composite reliability = 0.903, Cronbach's α = 0.838		
Loyalty	.1: If you find a hospital/clinic that offers a variety of high-quality services, you do not switch treatment facilities	0.777
AVE = 0.660,	.2: If anyone tried to criticize this clinic/hospital, I would try to defend it	0.806
composite reliability = 0.853,	.3: If the clinic/hospital advised me to undergo a wellness check to evaluate my progress, I would will return for that	0.853
Cronbach's α = 0.749		

RM: relationship marketing, PS: patient satisfaction, L: loyalty

Figure 2: Structural Equation Modeling with Partial Least Squares of Patient Loyalty as a Comprehensive dataset

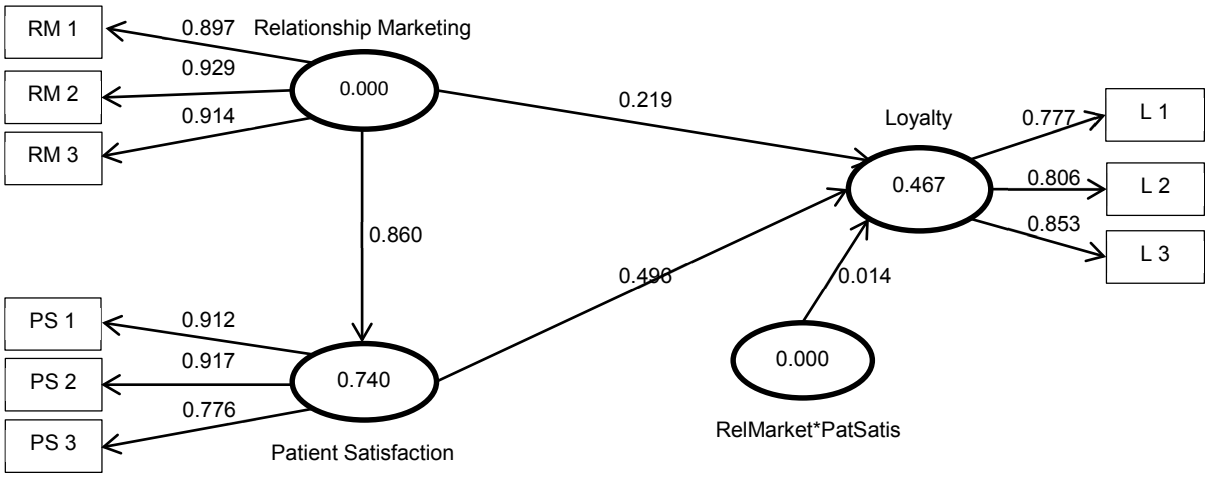


Table 3 describes the path coefficients of the model as a comprehensive dataset (307 samples). The results reflected positive relationships between constructs (see the original sample). Relationship marketing was positively related to loyalty (0.218), showing that the relationship between relationship marketing and loyalty was positive. However, the *t*-test revealed that relationship marketing had no significant effect on patient loyalty (1.087). In terms of statistical significance, given that the results of the *t* test < *t* table (α = 0.05), then hypothesis H1, that relationship marketing and loyalty are significantly positively correlated, should be rejected.

Table 3: Path Coefficients, t Statistics and Results

Relationship	Path Coefficient	*t* Statistic	Result
Relationship marketing → Loyalty	0.218	1.087	Not accepted
Relationship marketing → Patient satisfaction	0.860	25.619**	Accepted
Patient satisfaction → Loyalty	0.496	2.748**	Accepted
RelMarket*PatSatis → Loyalty	0.014	0.153	Not accepted

*RelMarket*PatSatis: mediated of relationship marketing x patient satisfaction*
*** significance at 5 percent*

Relationship marketing was positively related to patient satisfaction (0.860), and the *t*-test indicated that relationship marketing had a significant effect on patient satisfaction (significance at 5 %). Thus, hypothesis H2, that marketing and patient satisfaction are significantly positively correlated, should be accepted.

Patient Satisfaction was positively related to loyalty (0.496), and the *t*-test showed it had a significant effect on loyalty (significance at 5 %). Thus, hypothesis H3, that patient satisfaction and loyalty are significantly positively related, should be accepted.

Relationship marketing was positively related to loyalty (0.014) via the variable of patient satisfaction; however, the relationship was not significant according to the t test value of 0.153. Thus, hypothesis H4, that patient satisfaction mediates the relationship between relationship marketing and loyalty, should be rejected.

Clinics/hospitals attract, nurture, and build relationships with patients. The relationship between a clinic/hospital and a patient can be measured in terms of commitment, trust, and communication. This relationship had a positive relationship with loyalty, as measured by strongly positive attitudes toward the institution, willingness to defend it, and repeat patronage. However, relationship marketing had no significant effect on loyalty. Most respondents in this study were patients who received medication and treatment at hospitals and clinics that, as state employees, retired state employees, or people below the poverty line who became government dependents, used medical insurance provided by the government or universities. As hospitals and clinics remain in the same location, patients typically become regular customers. The direction of the influence of relationship marketing to loyalty was positive, indicating that a better relationship between healthcare providers and patients results in greater loyalty; however, this does not significantly affect attitudes. According to Dick and Basu (1994), a relatively negative attitude coupled with highly repetitive patronage can be considered "spurious loyalty," marked by the influence of non-attitudes on behavior. A loyalist is, at some level, involved in a relationship, whereas a habitual user behaves in a routine manner and is indifferent about his/her choice. These two types of consumers have different styles, although both seemingly exhibit behavioral loyalty (Knox, 1998).

A clinic/hospital is always willing to establish a continuous treatment relationship with patients who trust the facility. Good communication by doctors, nurses, and other parties at the clinic/hospital has a positive and significant impact on patient satisfaction. Patient satisfaction with the services received from a hospital/clinic encompasses the treatment experience, feelings of happiness or disappointment (in the context of expectations), and whether one would recommend the facility to others. The marketing relationship between healthcare providers and patients can be very important to the latter's evaluation of the healthcare provided by the former (Salgaonkar, 2006).

Satisfaction with treatment has a positive and significant impact on loyalty. Patients will show increased loyalty when they feel a positive connection with a hospital/clinic. However, patient satisfaction does not significantly mediate the relationship between relationship marketing and loyalty.

In the second stage, the data were analyzed by gender (122 males and 185 females). Table 4 shows the measurement of the model by convergent validity. It can be seen that all indicators have a value >0.7, except PS3 male. However, loadings of 0.5 or 0.6 may be acceptable because the research is still at an early stage in terms of developing measurement scales (Chin, 2010). All indicators of both genders were therefore considered valid. In Table 5, all of the outer measurement models can be seen to be acceptable in terms of the values of AVE, composite reliability and Cronbach's α.

Table 6 shows the evaluation of goodness of fit by gender. It can be seen that the R square of patient satisfaction is 0.346 for male and 0.536 for female. This indicated that 34.6% and 53.6% of the variability in the patient satisfaction construct was explained by relationship marketing for males and females, respectively. The variability in loyalty, explained by relationship marketing, patient satisfaction and also the moderating construct of relationship marketing and patient satisfaction, is 46.7% and 77.2% for males and females respectively.

Table 4: Convergent Validity by Gender

Indicators	Convergent validity of Male	Convergent validity of Female
RM1	0.867	0.907
RM2	0.923	0.932
RM3	0.895	0.921
PS1	0.880	0.923
PS2	0.894	0.928
PS3	0.693	0.798
L1	0.739	0.801
L2	0.850	0.781
L3	0.842	0.855

The recommended value for validity of convergent validity is > 0.7

Table 5: Discriminant Validity (AVE), Composite Reliability, and Cronbach's α by Gender

Gender	AVE	Composite Reliability	Cronbach's α	Result
Male				
Relationship marketing	0.801	0.924	0.876	Acceptable
Patient satisfaction	0.684	0.865	0.765	Acceptable
Loyalty	0.660	0.853	0.744	Acceptable
RelMarket*PatSatis	0.578	0.992	0.900	Acceptable
Female				
Relationship marketing	0.846	0.943	0.910	Acceptable
Patient satisfaction	0.783	0.915	0.860	Acceptable
Loyalty	0.661	0.854	0.751	Acceptable
RelMarket*PatSatis	0.788	0.971	0.966	Acceptable

The recommended value for validity of Average Variance Extracted (AVE) is >0.5. The recommended value for validity of composite reliability is >0.6. The recommended value for validity of Cronbach's alpha is ≥ 0.5

As demonstrated in Table 7, all path coefficients are positive except for the moderating effects, which are negative for male patients. The most significant relationship is that between relationship marketing and patient satisfaction for both male and female patients. The results are acceptable for all relationships. However, there is no moderating effect in patient satisfaction as demonstrated by the *t* statistics for both groups of patients.

As the path coefficient of both groups of patients are positive, it can be concluded that the better the relationship between service providers and patients, the greater the loyalty of both male and female patients. In other words, relationship marketing has a direct relationship to loyalty based on gender. This study supports the first hypothesis that relationship marketing and loyalty are significantly positively correlated. This is consistent with the results of the study by Ndubusi (2006). Patients, both male and female, will be

loyal if the service provider is able to attract, maintain, and enhance customer relationships, as described by Berry (2002).

Table 6: Evaluation of Goodness of Fit by Gender

Constructs	R^2 of Male	R^2 of Female
Loyalty	0.346	0.536
Patient Satisfaction	0.467	0.772

R^2 is R square

A similar result was seen in the relationship between patient satisfaction and loyalty, although for female patients the correlation was higher than for male patients. This finding is in line with the loyalty of patients seen in its entirety and is also consistent with the findings of McDougall and Levesque (2000), Fornell et al. (1996) and Gronhold et al, (2000). However, patient satisfaction was not found to be moderating the relationship between relationship marketing and loyalty. Patients can immediately be loyal, following relationship marketing from the service provider, without having to be satisfied first.

Table 7: Path Coefficients, t Statistic and Result by Gender

Relationship	Male			Female		
	Path Coefficient	*t* Statistic	Result	Path Coefficient	*t* Statistic	Result
Relationship marketing → Loyalty	0.278	3.534**	Accepted	0.126	10.147**	Accepted
Relationship marketing → Patient satisfaction	0.805	19.231**	Accepted	0.878	47.029**	Accepted
Patient satisfaction → Loyalty	0.264	1.894**	Accepted	0.651	4.796**	Accepted
RelMarket*PatSatis → Loyalty	-0.110	0.930	Not accepted	0.052	0.873	Not accepted

*RelMarket*PatSatis: mediated relationship of marketing × patient satisfaction. ** Significance at 5%.*

In the final stage, the data were analyzed by age (< 17-25 years old (125 samples), 26-46 years old (89 samples), and > 46 years old (93 samples)). Table 8 shows the convergent validity by age. All indicators meet the requirements, as described below the table. In other words, all indicators based on age were considered valid. According to Table 9, all of the outer measurement model can be seen as acceptable in terms of the values of AVE, composite reliability and Cronbach's α.

Table 8: Convergent Validity (Loading Factor) by Age

Indicators	Convergent Validity for Patients Aged < 17-25	Convergent Validity for Patients Aged 26-46	Convergent Validity for Patients Aged >46
RM1	0.912	0.820	0.761
RM2	0.925	0.890	0.849
RM3	0.905	0.903	0.737
PS1	0.924	0.907	0.771
PS2	0.934	0.892	0.791
PS3	0.792	0.695	0.772
L1	0.797	0.580	0.830
L2	0.889	0.576	0.534
L3	0.873	0.918	0.826

The recommended value for validity of convergent is > 0.7. Loadings of 0.5 or 0.6 may be acceptable because the research is still at an early stage of developing measurement scales (Chin, 2010)

In Table 10, the R squared (evaluation of goodness of fit) of patient satisfaction and loyalty by age are shown. The R^2 values of 0.446, 0.495, and 0.496 indicate that 44.6%, 49.5% and 49.6% of the variability in loyalty can be explained by relationship marketing, patient satisfaction and the moderating construct of relationship marketing and patient satisfaction for patients aged <17-25, 26-45 and >46 years, respectively. Furthermore, the R^2 values of 0.753, 0.667 and 0.509 indicate that 75.3%, 66.7% and 50.9% of the variability in the patient satisfaction construct can be explained by relationship marketing according to age.

Table 9: Discriminant Validity (AVE), Composite Reliability, Cronbach's α by Age

Gender	AVE	Composite Reliability	Cronbach's alpha	Result
< 17-25 years old				
Relationship marketing	0.835	0.938	0.901	Acceptable
Patient satisfaction	0.785	0.916	0.861	Acceptable
Loyalty	0.730	0.890	0.816	Acceptable
RelMarket*PatSatis	0.732	0.960	0.954	Acceptable
26-46 years old				
Relationship marketing	0.760	0.904	0.840	Acceptable
Patient satisfaction	0.700	0.874	0.781	Acceptable
Loyalty	0.503	0.743	0.596	Acceptable
RelMarket*PatSatis	0.603	0.929	0.917	Acceptable
> 46 years old				
Relationship marketing	0.615	0.827	0.687	Acceptable
Patient satisfaction	0.605	0.821	0.675	Acceptable
Loyalty	0.552	0.781	0.602	Acceptable
RelMarket*PatSatis	0.313	0.700	0.772	Acceptable

The recommended value for validity of Average Variance Extracted (AVE) is >0.5. The recommended value for validity of composite reliability is >0.6. The recommended value for validity of Cronbach's α is ≥ 0.5

Relationship marketing had positive and significant influences on loyalty in two age brackets. This result supports the first hypothesis that relationship marketing and loyalty are significantly positively correlated. In contrast, for patients over the age of 46 years, relationship marketing had a negative impact and no significant influence on loyalty. Furthermore, relationship marketing had positive and significant influences on patient satisfaction in all three age groups. The second hypothesis that relationship marketing and patient satisfaction are significantly positively correlated can be accepted. There was also a positive and significant relationship between patient satisfaction and loyalty. This finding supports the third hypothesis. Patient satisfaction as a mediation between relationship marketing and loyalty was negative for all age groups. This factor had no significant influence on loyalty, except for patients over 46 years old.

Table 10: Evaluation of Goodness of Fit by Age

Constructs	R^2 of <17-25 y.o	R^2 of 26-45 y.o	R^2 of >46 y.o
Loyalty	0.446	0.495	0.496
Patient Satisfaction	0.753	0.667	0.509

R^2 is R square. y.o is years old

Patients aged less than 17 to 25 years were loyal to their healthcare providers as a result of relationship marketing, and similarly if they were satisfied. However, satisfaction does not mediate the relationship. This pattern of relationships affecting loyalty is also found in patients aged between 26 and 45 years. Good relationships built by the hospital or clinic can make a patient at that age loyal and satisfied with the provider, without them having to be satisfied with the outcome of their health provision.

On the other hand, relationship marketing for patients aged over 46 years did not affect loyalty. Instead the relationship showed a negative correlation; the greater the relationship marketing, the lower the loyalty to healthcare providers, although the degree of influence was not significant. Nevertheless, these patients were satisfied after receiving relationship marketing. The results related to the mediated relationship between patient satisfaction and marketing indicated a significant relationship between relationship marketing and loyalty despite being negative.

According to Yoon et al (2009), more satisfactory decision-making occurred when an individual's ability was in accordance with the environment demands. The authors add that older adults have greater consumer experience and expertise and therefore may be more competent in making decisions. In this situation,

elderly patients have longer-term interactions with their healthcare providers and must be satisfied before becoming loyal. Relationship marketing is not a significant direct influence on loyalty, but it does affect it indirectly through satisfaction.

Table 11: Path Coefficients, t Statistic and Result by Age

Relationship	<17-25 y.o		26-45 y.o		> 46 y.o	
	Path Coefficient	*t* Statistic	Path Coefficient	*t* Statistic	Path Coefficient	*t* Statistic
Relationship marketing → Loyalty	0.368	6.952**	0.079	7.112**	-0.268	1.134
Relationship marketing → Patient satisfaction	0.868	38.820**	0.817	20.105**	0.714	10.267**
Patient satisfaction → Loyalty	0.315	2.212**	0.608	4.072**	0.631	4.980**
RelMarket*PatSatis → Loyalty	-0.020	0.260	-0.052	0.466	-0.354	2.146**

*RelMarket*PatSatis: mediated of relationship marketing x patient satisfaction. y.o is years old. ** significance at 5 %*

CONCLUDING COMMENTS

This study examined patient loyalty to healthcare providers and the factors that influence this phenomenon. Thus, this study extends previous research on loyalty, particularly with regard to healthcare organizations. This study also evaluated a model of loyalty to service providers that includes three antecedents: the marketing relationship, patient satisfaction, and the relationship between relationship marketing and loyalty as mediated by patient satisfaction. Patient loyalty was tested using structural equation modeling by partial least squares. The data were analyzed in two steps: first, the structural model was tested as an outer model; second, the inner model was tested. In addition, the data were analyzed in three ways: overall data; by gender; and by age.

The correlation between relationship marketing and loyalty was positive and significant on both genders, patients under 17–25 years old and those 25–45 years old. These results support the first hypothesis that relationship marketing and loyalty are significantly positively correlated. In contrast, for patients over 46 years old, that result was negative and showed no significant effect. When considering the whole dataset, the relationship between those factors was positive but not significant. In other words, hospitals or clinics can build good relationships through trust, commitment and communication skills to gain the loyalty of male and female patients aged up to 46 years. However, patients over 46 years of age were not affected by relationship marketing.

Relationship marketing and patient satisfaction are significantly positively correlated. This can be seen in the results for the comprehensive dataset, for gender and age. All patients become satisfied after the healthcare providers provide relationship marketing. As patients come to a healthcare provider seeking treatment and, typically, are in a state of pain and/or stress, it is not surprising that the data show that efforts by doctors, nurses, and other staff involved in healthcare to develop trust, show commitment, and use good communication skills contribute to an overall positive experience by patients. This pattern of relationship is similar to the relationship between patient satisfaction and loyalty. However, when looking at patient satisfaction as the mediation between relationship marketing and loyalty, the influence (though negative) is only on patients over 46 years old. For the comprehensive dataset and female patients, this relationship was positive but not significant. For male patients, those under 17 to 25 years old and those aged 25 to 45 years, there was no significant influence and the results were negative.

It can be argued that loyalty to hospitals or clinics can be achieved directly for male and female patients, patients less than 17 to 25 years old, and those of 25 to 45 years old. Some degree of loyalty can be achieved by healthcare organizations if they provide services, regardless of the type of patient. For elderly patients, loyalty can be gained through satisfaction.

Finally, this research contributes to understanding the importance of the efforts of healthcare organizations to develop loyalty by focusing on relationship marketing and patient satisfaction. The limitation of this study is that respondents were localized in one regency and the results may not be representative of the entire country. Future studies should sample more patients nationally and also examine the difference between private and government health providers.

REFERENCES

Anderson, Lynda A, & Zimmerman, March A. (1993). Patient and physician perceptions of their relationship and patient satisfaction: a study of chronic disease management. *Patient Education and Counseling, 20*(1), 27-36.

Bagozzi, Richard P, & Yi, Youjae. (1988). On the evaluation of structural equation models. *Journal of the academy of marketing science, 16*(1), 74-94.

Baird, K. (2000). *Customer service in health care: a grassroots approach to creating a culture of service excellence*: Jossey-Bass.

Baird, K. (2013). *Raising the bar on service excellence*: Archieboy Holdings, LLC.

Baker, S.K. (1998). *Managing patient expectations: the art of finding and keeping loyal patients*: Jossey Bass Publishers.

Beck, Rainer S, Daughtridge, Rebecca, & Sloane, Philip D. (2002). Physician-patient communication in the primary care office: a systematic review. *The Journal of the American Board of Family Practice 15*(1), 25-38.

Berry, Leonard L. (1995). Relationship marketing of services—growing interest, emerging perspectives. *Journal of the Academy of Marketing Science 23*(4), 236-245.

Berry, Leonard L. (2002). Relationship marketing of services perspectives from 1983 and 2000. *Journal of Relationship Marketing 1*(1), 59-77.

Bodet, Guillaume. (2008). Customer satisfaction and loyalty in service: Two concepts, four constructs, several relationships. *Journal of Retailing and Consumer Services 15*(3), 156-162.

Bove, Liliana L, & Johnson, Lester W. (2001). Customer relationships with service personnel: do we measure closeness, quality or strength? *Journal of Business Research 54*(3), 189-197.

Bowman, Marjorie A, Herndon, Anne, Sharp, Penny C, & Dignan, Mark B. (1992). Assessment of the patient-doctor interaction scale for measuring patient satisfaction. *Patient Education and Counseling 19*(1), 75-80.

Chin Wynne W. (1998). Commentary: Issues and opinion on structural equation modeling. *MIS Quarterly:vii-xvi.*

Chin, Wynne W. (2010). How to Write Up and Report PLS Analyses, In V Esposito Vinzi, W.W. Chin, J. Henseler & H. Wang (Eds.), *Handbook of Partial Least Squares* (655-690): Springer Berlin Heidelberg.

Dick, Alan S & Basu, Kunal. (1994). Customer loyalty: toward an integrated conceptual framework. *Journal of the Academy of Marketing Science 22*(2), 99-113.

Fornell, Claes, Johnson, Michael D, Anderson, Eugene W, Cha, Jaesung, & Bryant, Barbara Everitt. (1996). The American Customer Satisfaction Index: Nature, Purpose, And Findings. *The Journal of Marketing*, 7-18.

Fornell, Claes, & Larcker, David F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research (JMR), 18*(1).

Gremler, Dwayne D, & Brown, Stephen W. (1996). Service loyalty: its nature, importance, and implications. *Advancing Service Quality: A Global Perspective*, 171-180.

Griffin, Simon J, Kinmonth, Ann-Louise, Veltman, Marijcke WM, Gillard, Susan, Grant, Julie, & Stewart, Moira. (2004). Effect on health-related outcomes of interventions to alter the interaction between patients and practitioners: a systematic review of trials. *The Annals of Family Medicine, 2*(6), 595-608.

Gronholdt, Lars, Martensen, Anne, & Kristensen, Kai. (2000). The relationship between customer satisfaction and loyalty: cross-industry differences. *Total Quality Management, 11*(4-6), 509-514.

Gronroos, C. (2007). *Service Management and Marketing: Customer Management in Service Competition*: Wiley.

Henseler, J & Fassott, Georg. Testing Moderating Effects in PLS Path Models: An Illustration of Available Procedures. In V Esposito Vinzi, W.W. Chin, J. Henseler & H. Wang (Eds.), *Handbook of partial least squares* (713-735): Springer Berlin Heidelberg.

Ishikawa, Hirono, Takayama, Tomoko, Yamazaki, Yoshihiko, Seki, Yukiko, Katsumata, Noriyuki, & Aoki, Yutaka. (2002). The interaction between physician and patient communication behaviors in Japanese cancer consultations and the influence of personal and consultation characteristics. *Patient education and counseling, 46*(4), 277-285.

Jenkinson, Crispin, Coulter, A, Bruster, S, Richards, N, & Chandola, T. (2002). Patients' experiences and satisfaction with health care: results of a questionnaire study of specific aspects of care. *Quality and Safety in Health Care, 11*(4), 335-339.

Knox, Simon. (1998). Loyalty-based segmentation and the customer development process. *European Management Journal, 16*(6), 729-737.

Kotler, P. (2003). *Marketing Management*: Prentice Hall/Pearson Education International.

Kumar, V, Bohling, Timothy R, & Ladda, Rajendra N. (2003). Antecedents and consequences of relationship intention: Implications for transaction and relationship marketing. *Industrial Marketing Management, 32*(8), 667-676.

McDougall, Gordon HG, & Levesque, Terrence. (2000). Customer satisfaction with services: putting perceived value into the equation. *Journal of services marketing, 14*(5), 392-410.

Merkouris, Anastasios, Papathanassoglou, Elizabeth DE, & Lemonidou, Chryssoula. (2004). Evaluation of patient satisfaction with nursing care: quantitative or qualitative approach? *International journal of nursing studies, 41*(4), 355-367.

Morgan, Robert M, & Hunt, Shelby D. (1994). The commitment-trust theory of relationship marketing. *The Journal of Marketing*, 20-38.

Mpinga, Emmanuel Kabengele, & Chastonay, Philippe. (2011). Satisfaction of patients: A right to health indicator? *Health policy, 100*(2), 144-150.

Naidu, GM, Parvatiyar, Atul, Sheth, Jagdish N, & Westgate, Lori. (1999). Does relationship marketing pay? An empirical investigation of relationship marketing practices in hospitals. *Journal of Business Research, 46*(3), 207-218.

Newsome, P, & Wright, G. (1999). A review of patient satisfaction. *British Dental Journal, 186*(4).

Ndubusi, NO. (2006). Effect of gender on customer loyalty: a relationship marketing approach. *Marketing Intelligence & Planning, 24*(1), 48-61.

Olsen, Svein Ottar. (2002). Comparative evaluation and the relationship between quality, satisfaction, and repurchase loyalty. *Journal of the Academy of Marketing Science, 30*(3), 240-249.

Salgaonkar, Pradeep B. (2006). *Marketing of Healthcare Services*: Abhijeet Publications, Delhi. India.

Sanchez, John G. (2003). Customer relationship marketing: Building customer relationships for enduring profits in a wired economy. *Research paper*. Atthapholj.net..

Walter, Achim, Ritter, Thomas, & Gemünden, Hans Georg. (2001). Value creation in buyer–seller relationships: Theoretical considerations and empirical results from a supplier's perspective. *Industrial Marketing Management, 30*(4), 365-377.

Williams, Brian. (1994). Patient satisfaction: a valid concept? *Social science & medicine, 38*(4), 509-516.

Yoon, C, Colle, CA & Lee, MP. 2009. Consumer Decision Making and Aging: Current Knowledge and Future Directions. *Journal of Consumer Psychology*.19, 2–16.

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