

## **Analysis of customer relationship management in hospitals and present an efficient model for CRM implementation in hospitals**

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### **Abstract:**

Today, as a business unit, health care organizations are more requiring high standards of customer relationship management from other industries. This study formed by organizational perspective to identify factors affecting customer satisfaction in medical centers .The study sample in this research is all the people who are somehow connected with hospitals for treatment and the sample size is 303 patients. In this study our aim is to introduce a model of customer relationship management which consists of seven components and the relationship between them. The model is the result of more than 40 models introduced and validated in the field of customer relationship management that presented since 1996 to the present. In the analysis done on data, we proved the new introduced model.

**Keywords:** customer relationship management, customer relationship model, customer relationship component, hospitals

### **1. Introduction:**

A strong relationship with customers is the key to success in business. Root concept of "customer relationship management" is the old axiom that "the customer is always right." In recent years, academics, software vendors and consultants have been involved in this field of business and developed the concept of customer relationship management, which means the efforts of organizations to create and deliver higher value to the customer. [1]

Organizations recognize that their customers are the most important asset and known the relation with them as an exchange and mutual benefit and opportunities that require management. [2]

Customer relationship management is a business strategy that pays on recruitment, retention and improved of customer. With proper implementation of customer relationship management, Organizations will be able to mentioned three tasks by paying a lower cost. This in an era of globalization and when an organization may have millions of customer would not be possible

without the use of Information and Communication Technology. IT is a tool to implement CRM by which organizations can communicate with individual customers in such a way that the client is the only client Nations. Today, only the organizations are successful and can continue their activities that can attract and retain more loyal customers.

**2. Literature and background study:**

Paying attention to the expected customer value, leading to satisfaction and loyalty and frequent visits to the organization, will be provided. In the field of health care although a patient may be treated but there is no guarantee that person is not sick again. Furthermore, some cases require continuous treatment and rehabilitation. For example, in some diseases such as hypertension and diabetes, with one therapy, health can not be achieved but it does require ongoing care and treatment. The CRM in the healthcare industry is a tool to gain customer loyalty and lifetime value provided for him. Now we have said it that what are the factors which influenced in customer satisfaction in the field of health care and which plan can meet the expectations of customers In order to implement customer relationship management.

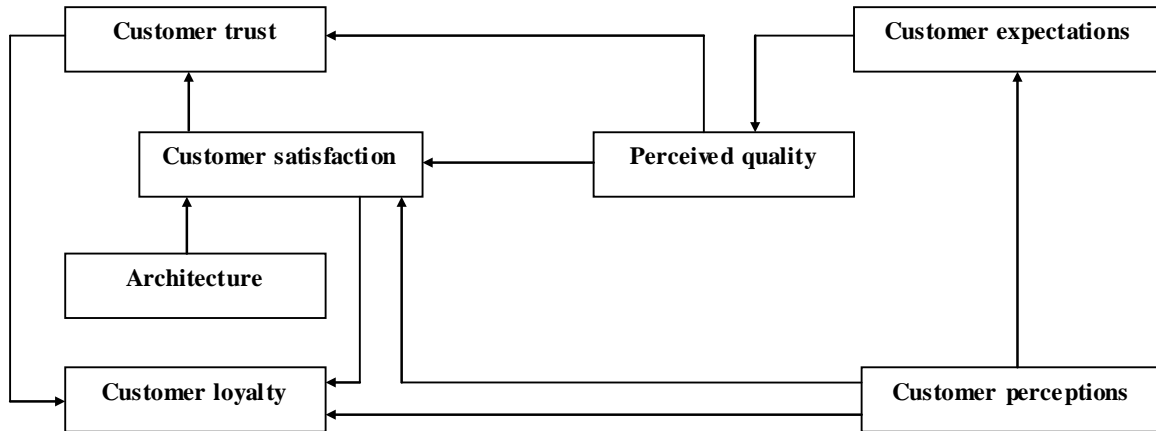
With numerous reviews and detailed case studies Since 1992 to present and With more than 40 models offered in the field of customer relationship management that have come in table 1 We have attempted to provide a new pattern In the field of customer relationship management in health centers.

**Table 1:** Model presented in the field of customer relationship management

source	Researcher	Year	source	Researcher	year	Source	researcher	year
[31]	Roh	2005	[17]	Fornell	1994	[3]	Forensell	1992
[32]	Liu	2006	[18]	Estas	1997	[4]	Fornell	1996
[33]	Kassim	2010	[19]	Soderland	1998	[5]	Bruhn	1998
[34]	Chang	2009	[20]	Hackle	2000	[6]	Eklof	2000
[35]	Kwan	2009	[21]	Juhance	2001	[7]	Chan	2003
[36]	Yap	2012	[22]	Andressen	1998	[8]	Vilares	2003
[37]	Jiao	2012	[23]	Dimitriades	2006	[9]	Hellier	2003
[38]	Mohsen	2011	[24]	Li	2006	[10]	Wang	2004
[39]	Kumar	2011	[25]	Hsu	2006	[11]	Brelly	2004
[40]	Hoq	2010	[26]	Turkyilmaz	2007	[12]	Gue	2004
[41]	Moreno	2014	[27]	Hafiz	2010	[13]	Heydarzade	2005
[42]	Sebjan	2014	[28]	Hsu	2008	[14]	Ball	2004
[43]	Harical	2015	[29]	Bai	2011	[15]	Aydin	2005
[44]	Santoso	2015	[30]	Kim	2012	[16]	Redondo	2005
						[45]	Martin	2016

## 2.1. Research model:

After evaluating the previous models, we have attempted to present, a new model that have come in figure 1.



**Figure 1:** Research proposal model

## 2.2. Sampling survey:

Like many ways readiness assessment, a questionnaire was used In this study . On the first page we appreciate the people and explained a brief description of the customer relationship management process with its indicators for the interviewee. in the following we asked 30 questions about CRM implementation that number of three questions related to demographic and 27 questions are about the main variables. the questions are in Likert spectrum and Includes five options as very high, high, medium, low and very low that Rank them in order of 1,2,3,4,5 . The number of returned questionnaires are 324 that because of impaired completion of some questionnaires, 21 questionnaires were eliminated and Total questionnaires that were involved in the analysis was 303 number.

## 2.3. hypothesis:

First hypothesis: customer perceptions affect on customer expectations.

The second hypothesis: customer's perceptions affect on customer satisfaction.

The third hypothesis: customer perceptions affect on customer loyalty.

The fourth hypothesis: customer expectations affect on quality influences.

Fifth hypothesis: perceived quality affect on trust.

Sixth hypothesis: perceived quality affect on customer satisfaction.

The seventh hypothesis: Trust affect on customer loyalty.

Eighth hypothesis: the architectural affect on customer satisfaction.

Ninth hypothesis: customer satisfaction affect on trust.

Tenth hypothesis: customer satisfaction affect on loyalty.

### 3. Results:

By examining the assumptions and Computing Pearson correlation coefficient of Components, the results shows in Table 2.

**Table 2:** The results of the data analysis

Type of Relationship	Relationship	Number	Significant	Pearson coefficient	dependent variable	independent variable
Direct	Yes	303	0.002	0.304	Customer expectations	Customer perceptions
Direct	Yes	303	0.004	0.282	Customer satisfaction	Customer perceptions
Direct	Yes	303	0.001	0.326	Customer loyalty	Customer perceptions
Direct	Yes	303	0.005	0.276	Perceived quality	Customer expectations
Direct	Yes	303	0.014	0.244	Customer trust	Perceived quality
Direct	Yes	303	0.001	0.318	Customer satisfaction	Perceived quality
Direct	Yes	303	0.027	0.221	Customer loyalty	Customer trust
Direct	Yes	303	0.023	0.181	Customer satisfaction	Architecture
Direct	Yes	303	0.000	0.587	Customer trust	Customer satisfaction
Direct	Yes	303	0.000	0.491	Customer loyalty	Customer satisfaction

The results can show the proposed new model is true.

### 4. Conclusion:

#### Customer perceptions affect on customer expectations:

As it was shown, with 0.304 Pearson correlations and having 95% Confidence level, there is a direct, positive and significant relationship between customer expectations and perceptions of customers. In other words, with the increase in the perceptions of customers, we have increased in customer expectations.

**Customer perceptions affect on customer satisfaction:**

As it was shown, with 0.282 Pearson correlations and having 95% Confidence level, there is a direct, positive and significant relationship between customer satisfaction and perceptions of customers. In other words, with the increase in the perceptions of customers, we have increased in customer satisfaction.

**Customer perceptions affect on customer loyalty:**

As it was shown, with 0.326 Pearson correlations and having 95% Confidence level, there is a direct, positive and significant relationship between customer loyalty and perceptions of customers. In other words, with the increase in the perceptions of customers, we have increased in customer loyalty.

**Customer expectations affect on quality influences:**

As it was shown, with 0.276 Pearson correlations and having 95% Confidence level, there is a direct, positive and significant relationship between quality influences and expectations of customers. In other words, with the increase in the expectations of customers, we have increased in quality influences.

**Perceived quality affect on trust:**

As it was shown, with 0.244 Pearson correlations and having 95% Confidence level, there is a direct, positive and significant relationship between trust and Perceived quality. In other words, with the increase in the Perceived quality, we have increased in trust.

**Perceived quality affect on customer satisfaction:**

As it was shown, with 0.318 Pearson correlations and having 95% Confidence level, there is a direct, positive and significant relationship between customer satisfaction and Perceived quality. In other words, with the increase in the Perceived quality, we have increased in customer satisfaction.

**Trust affect on customer loyalty:**

As it was shown, with 0.221 Pearson correlations and having 95% Confidence level, there is a direct, positive and significant relationship between customer loyalty and Trust. In other words, with the increase in the Trust, we have increased in customer loyalty.

**The architectural affect on customer satisfaction:**

As it was shown, with 0.181 Pearson correlations and having 95% Confidence level, there is a direct, positive and significant relationship between customer satisfaction and architectural. In other words, with the increase in the architectural, we have increased in customer satisfaction.

**Customer satisfaction affect on trust:**

As it was shown, with 0.587 Pearson correlations and having 95% Confidence level, there is a direct, positive and significant relationship between trust and Customer satisfaction. In other words, with the increase in the Customer satisfaction, we have increased in trust.

**Customer satisfaction affect on loyalty:**

As it was shown, with 0.491 Pearson correlations and having 95% Confidence level, there is a direct, positive and significant relationship between loyalty and Customer satisfaction. In other words, with the increase in the Customer satisfaction, we have increased in loyalty.

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