

# Correlation Analysis of Customer Satisfaction and Loyalty in Carlito Peña Reyes Hospital

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**Abstract** - This study evaluated the patient satisfaction and present evidences for quality services and identified the level of satisfaction of patients to hospital services in different hospital areas such as the front liners, ward/ICU, support businesses and business office: The study also determined the loyalty of patients; and established the extent of relationship of patient satisfaction and loyalty. The descriptive research design was utilized in conducting the study. The researcher used a survey questionnaire as the data gathering instrument supported by interviews and observation.

Results showed that the patients at CP Reyes Hospital were very satisfied to the quality medical services they received. Complaints were also identified at CP Reyes Hospital. The researcher proposed an action plan that medical service providers must focus on how to create attractive elements that increase customer satisfaction levels and gain customer. The overall recommendation is that CP Reyes Hospital should strive to maintain the high standard in order to keep patients satisfied with the services they received.

**Keywords** – Correlation Analysis, Customer Satisfaction, Health Care Institution

## I. INTRODUCTION

Measurement of customer satisfaction in behavioral health services has received increasing emphasis due to clinicians' and researchers' desire to measure outcomes that reflect the patient's unique perspective. Likewise, assessment of customer satisfaction serves as a strong basis for future revenues and action plans to improve quality service.

The customer is in the best position to evaluate in terms of judging the quality of a product or service. With the fast changing, fierce market conditions prevalent within the service trade, improvements in terms of competitiveness and yield rates rely on effective, active and improved service quality. Thus, service quality directly affects customer satisfaction. The same holds true for the medical service industry. Medical administrative departments in hospitals must focus on customer demands for consistency and meeting needs, for clear policies regarding service quality and for up-to-date medical treatment and service quality. Further, all of the above can help to improve and increase the loyalty of both customers and hospital staff members. Moreover, health professionals must

improve on the quality of service offered in order to compete.

The trend of world markets has changed noticeably from agricultural to service markets. All of the service businesses are trying their best to improve their service quality in order to make their customers satisfied with their services, especially the hospital industry. Hospital administration now focuses more on the quality standards in order to meet the basic needs and expectations of the customers. Once customer requirements are clearly identified and understood, hospital management is more likely to anticipate and fulfill their customers' needs and wants. The more satisfied the customers are, the more likely they are to return.

The study of customer satisfaction has been broadly considered by the social psychologists, marketing researchers and the field of consumer behavior. Throughout the past few decades, service quality has drawn a tremendous consideration from researchers and practitioners due to its significance contribution on business performance, customer satisfaction, customer loyalty and profitability (Santouridis & Trivellas, 2010).

Many empirical studies have shown that customer satisfaction secures future revenues, reduces future transaction costs, decreases price elasticity and minimizes the likelihood of customers defecting if quality falters. Customer satisfaction regarded how customers can get more benefits than their cost. Customer satisfaction plays the most important role in total quality management. In comparison with other traditional performance measures, customer satisfaction is probably less sensitive to seasonal fluctuations, changes in costs or changes in accounting practices (Lee, 2006).

Customer satisfaction is still met as reflected in the customer loyalty (Sunto et al., 2013). Customer loyalty may be a one-time program or incentive, or an ongoing group of programs to entice consumers. Buy-one-get-one-free programs were very popular, as purchases that come with rebates or free gifts. Another good incentive for achieving customer loyalty is offering a risk free trial period for a product or service. Also known as brand name loyalty, these types of incentives are meant to ensure that customers will return, not only to buy the same product again and again, but also to try other products or services offered by the company (Kiran, 2010).

Finally, patients are unlikely to be satisfied with the quality of medical service they receive if general quality is lacking, and they are also unlikely to be satisfied with the quality of their medical service if it does not include some form of must-be quality, even if a form of general quality is present. A lack of some attractive qualities is not necessarily a big concern, but if forms of attractive qualities were provided, it may possibly be a patient's favorite service. Therefore, medical service providers must focus on how to create attractive elements that increase customer satisfaction levels and gain customer loyalty.

This study highlights the role of medical service in building an organization's competitive advantage. For organizations to survive and prosper, creating competitive advantage through customer loyalty is the strategic imperative. The effort to deliver excellent service begins with finding out what your customers want and expect from one's company and recommends some means for doing so. At CP Reyes Hospital, service quality is not the magniloquence of the today's business enterprise but also occupies a towering position in every business. Without providing accurate level of satisfaction to customer with good levels of service quality no business can survive; they are the key point to the organization nowadays. Better service

quality of CP Reyes Hospital improves the relationship between customers and their loyalty to the organization. Private hospitals like CP Reyes Hospital are more profit oriented than other public hospitals. Revenue generating of the firm largely depends upon the attraction of the customer and retain them. A satisfied customer is always an asset for an organization and their loyalty comes from within.

Therefore, customer satisfaction and loyalty can be an emotional post consumption response that may occur as the result of comparing expected and actual performance or it can be an outcome that occurs without comparing expectations and will facilitate service quality improvement. It is in their premise that the researcher as one of the managers needs the baseline data to recommend the best for customer satisfaction.

## II. OBJECTIVES OF THE STUDY

This study correlated the patient satisfaction and loyalty in CP Reyes Hospital. Specifically, the study assessed the level of satisfaction of patients on hospital services in the following areas: front liners, ward/ICU, support services and business office; determined the loyalty of patients; established the extent of relationship between customer satisfaction and loyalty of the respondents; proposed an action plan to improve the services of CP Reyes Hospital.

**Ho:** This study will test the null hypothesis, that there is no significant relationship between customer satisfaction and loyalty of patients of CP Reyes Hospital.

## III. METHODS

### Research Design

Descriptive research, also known as statistical research, describes data and characteristics about the population or phenomenon being studied. This type of research describe what exists and may help to uncover new facts and meaning. The purpose of descriptive research is to observe, describe and document aspects of a situation as it naturally occurs.

This involves the collection of data that will provide an account or description of individuals, groups or situations. The researcher made use of questionnaires, interviews and observation in order to obtain data. There was no experimental manipulation or any random selection to the groups. A focused group discussion was also used in this study among patients and the services rendered by the hospital. Patients are those who are already in the hospital and having services. The

interrelationships between what the hospitals are doing and how they are going to achieve their goals and aim appears to be one of the most important. Therefore, this paper verified the relationship and the factors affecting the customers' satisfaction and loyalty of CP Reyes Hospital.

**Participants**

A total of 98 patients, who were admitted at CP Reyes Hospital from November 12 to 25, 2012 were the respondents of the study who were selected using the random sampling method so that all the samples of the same size have an equal chance of being selected from the entire population.

**Instrument**

A questionnaire was used as an instrument for data collection. The researcher explored customer's expectation and perception level towards service quality of CP Reyes Hospital medical staff and personnel. The questionnaire was distributed to 98 patients on their stay and experiences at CP Reyes Hospital. These patients were requested to complete the questionnaire at the commencement of their stay. The degree of satisfaction towards service quality of CP Reyes Hospital medical staff and personnel was set from 1 to 5, (5 being the highest and 1 being the lowest). 5 Excellence (E), 4 Very Good (VG), 3 Satisfactory, 2 Needs Improvement and 1 Poor (P). The questionnaire was generated to ask the customer patients about the service quality of the hospital and was translated in Filipino language for a more and better understanding of the customers.

**Procedure**

The researcher sought the permission of the hospital management through the board of directors with a formal letter and personal appearance. After the approval of the board the researcher distributed the questionnaires to the respondents.

**Data Analysis**

The data gathered were tabulated, interpreted and analyzed using the following tools: Frequency distribution was used to analyze and interpret the profile, Weighted mean was used to analyze the respondent's satisfaction and loyalty on the hospital's quality service and Pearson correlation was used in determining the correlation between the profile of the patients and their satisfaction on the services offered by CP Reyes Hospital. To interpret the level of satisfaction the following scale was used: 4.5 - 5.0 = Excellent; 3.5

- 4.49 = Very Good; 2.5 - 3.49 = Satisfactory; 1.5 - 2.49 = Needs Improvement; 1.0 - 1.49 = Poor

**IV. RESULTS AND DISCUSSION**

Table 1. Level of Satisfaction of Patients on Hospital Services In the Admitting Section (N = 98)

Admitting Section	Mean	Rank	Interpretation
a. Information Section	3.81	1	Very Good
b. ER Personnel	3.76	3	Very good
c. Industrial Clinic Staff	3.22	6	Satisfactory
d. Security Staff	3.35	5	Satisfactory
e. Telephone Operator	3.79	2	Very Good
f. Admitting Staff	3.60	4	Very Good
g. Janitorial Services	3.21	7	Satisfactory
<b>Composite Mean</b>	<b>3.53</b>		<b>Very Good</b>

Table 1 shows the satisfaction of the respondents in relation with the hospital services in the admitting section. At CP Reyes Hospital, the admitting section is responsible for providing a systematic and orderly process of admitting patients to the center by securing all information pertinent to the patient's purpose of going to the hospital and ensuring the accurate reporting of admissions and discharges. It also provides accurate and complete information on admission requirements, hospital rules and regulations and other hospital activities.

There are four departments wherein respondents gave a very good score such as the information section which obtained a weighted mean of 3.81. At the information section of CP Reyes Hospital, the staff usually entertains frequently asked queries such as the room number of patients, clinic hours of the doctors and the availability of locations of different diagnostic ancillary services and other important matters within the hospital. Telephone operator, (3.79) does provide information by accessing alphabetical and geographical directories.

According to the conducted survey, most customers looked for assistance with special billing requests such as charges to a third party and credits or refunds for incorrectly dialed numbers or bad connections. They may also handle emergency calls and assist children or people with physical disabilities to make telephone calls. However, the emergency room personnel with a weighted mean of 3.76 are those of the busiest persons.

According to the survey, they attended patients who were present without prior appointment, either by own means or ambulance. Due to the unplanned nature of patient attendance, the department must provide initial treatment for a broad spectrum of illnesses and injuries of which may be life threatening and require immediate action. Lastly, the admission section got a weighted mean of (3.60). Other hospital services under the admitting section where the respondents gave satisfactory score were the security staff (3.35). According to the study, some security officers on duty may not be aware of their job for some complaints were raised. Industrial clinic staffs obtained a weighted mean of (3.22) who are officers in charge of the clients coming from different companies also got satisfactory. Few of the respondents commented that some clients were waiting longer time due to high number of being entertained. Lastly, the janitorial services that got the lowest weighted mean of (3.21). Most respondents said that the complain of most patients arise due to insufficient number of janitor and general service officers to carry out all the duties versus the total number of rooms and toilets to clean, unsoil and sanitize.

Overall customer satisfaction had a significantly negative direct association with customer complaints. That is, as the customer satisfaction increased, customer complaint would decrease. Therefore, customer complaint would be seen as an immediate response of customer satisfaction, it is embedded opportunities to improve.

Table 2. Level of Satisfaction of Patients on Hospital Services At the ward/ ICU (N= 98)

At the Ward/ ICU	Mean	Rank	Interpretation
Nurse	3.59	1	Very Good
Food	3.50	2	Very Good
Facilities	3.46	3	Satisfactory
<b>Composite Mean</b>	<b>3.52</b>		<b>Very Good</b>

In terms of the level of satisfaction of patients on hospital services at the Ward/ICU, the nursing service ranked on top with a mean of (3.59) and was interpreted as very good. Nurses often work in hospitals or outpatient facilities, where they provide hands on care to patients by administering medications, managing intravenous lines, observing and monitoring patients' conditions and maintaining records and communicating with doctors. They were also relied upon to give direction and supervision to nurse aids and home health

aides. They also provide emotional support to patients and patients' family members. Nurses play a very important role in the field of healthcare.

Following the highest is the food services with a weighted mean of (3.50). The dietary service of CP Reyes Hospital is one of the important support services of the hospital unlike any other services. It is headed by a licensed dietician. The objective of the dietary service of CP Reyes Hospital is to make provision for clean, hygienic and nutritious diet for the admitted patients as per their calorie requirement.

Lastly, the facility of the hospital garnered the lowest rate of 3.46 as satisfactory. Based on the recent inspection conducted by the PHIC (Philhealth) officers, CP Reyes Hospital was classified as Center of Excellence. The Center of Excellence award was granted to accredited hospitals that have met the stringent criteria articulated in the Benchbook which has become the standards for accreditation. In particular, the health care facility is able to comply with quality standards in the areas of patients' rights, organizational ethics, patient care, safe practice and environment, leadership and management, human resource management, information management, and improving performance. They recognized the efforts of the hospitals and encouraged them to continue with their best practices on clinical and quality assurance and aim for excellence in the delivery of health care.

The healthcare facilities of CP Reyes Hospital were inspected to determine if certain standards of care are being met. The engineers and medical technician of CP Reyes Hospital performed inspections, as part of the ongoing improvement process. Inspections may also become necessary based on complaints received by the property custodian through the Human Resource Department. Once inspection took place, the human resource department should be ready for deficiencies and compliance if it is found to provide substantial care. The said inspection conducted by the Philhealth officers was done annually to continuously improve performance of the facility and its staff and personnel. It also aims to consistently perform the best practices on medical management towards excellence in the delivery of healthcare.

Table 3 shows the level of satisfaction of patients on hospital Support Services. The respondents strongly agreed that when it comes to hospital support services, the laboratory technologist (4.10), x-ray technologist (3.67), pharmacy staff (3.60), ultrasound/CT scan staff (3.55) and heart station (3.53) received a very favorable response from the respondents.

Table 3. Level of Satisfaction of Patients on Hospital Support Services (N= 98)

Support Services	Mean	Rank	Interpretation
a. Heart station	3.53	5	Very Good
b. Ultrasound/CT Scan	3.55	4	Very Good
c. X-ray Technologists	3.67	2	Very Good
d. Lab Technologists	4.10	1	Very Good
e. Pulmonary Unit Staff	3.31	6	Very Good
f. PT/Rehab Therapists	2.94	8	Very Good
g. OR Staff	3.31	7	Very Good
h. Pharmacy Staff	3.60	3	Very Good
<b>Composite Mean</b>	<b>3.48</b>		<b>Very Good</b>

The laboratory technologists of CP Reyes Hospital are the bread and butter of the hospital since more than fifty percent of the income of company came from the laboratory department. They are involved in a variety of lab based investigation within biological, chemical and physical life sciences.

They may carry out sampling, testing, measuring, recording and analyzing results of different body fluids. They are the health professional who performed laboratory in order to produce reliable and precise data to support scientific investigation. The respondents also agreed with services supported by the x-ray technologist, CT scan, ultrasound personnel support patients, doctors and nurses through a variety of tasks related to the medical field of radiology: Working under the orders of the radiologist in charged, the x-ray technologists captures necessary radiology images and maintain diagnostic imaging equipments. Pharmacy staff dispenses medications and related supplies using accepted pharmaceutical techniques to fill written and oral prescription issued by physicians and qualified prescribers whilst heart station staff of CP Reyes Hospital does perform cardiac laboratory procedures such as the ECG, 2d echo and many others.

The Department of Health (DOH) is the principal health agency in the Philippines. It is responsible for ensuring access to basic public health services to all Filipinos through the provision of quality health care and regulation of the providers of health goods and services. They conduct quarterly visit to hospitals to assure the quality and performance.

Table 4. Level of Satisfaction of Patients on Hospital Services in the Business Office (N= 98)

Business Office	Mean	Rank	Interpretation
Billing Officers	3.59	2	Very Good
Cashiers	3.61	1	Very Good
HMO Staffs	3.57	3	Very Good
PHIC Staffs	3.52	4	Very Good
<b>Composite Mean</b>	<b>3.57</b>		<b>Very Good</b>

With regard to the business division of CP Reyes Hospital, the cashier section got a composite mean of 3.61. Because of the Bizbox hospital system, the patients were very satisfied with the procedure and never devote more time paying the bills and other statement of accounts. The BisBox is a comprehensive and reliable Internet Server that will provide clients with all the functionality they need to utilize the power of the Internet, from remote access; to the effective management and control of Internet resources within a secure environment. The BisBox 's combination of technological enhancements and cost effective solutions made it a necessity in any organization or business. It is an Internet Gateway Server that is used to connect an enterprise or organization to the Internet and control all Internet activity. It includes components like a Firewall, Proxy Server, VPN Server, Email Server with Webmail and Virus scanning functionality, a FTP Server and Traffic Monitoring utilities. The BisBox was supplied and maintained by Network & Computing Consultants (Pty) Ltd and supported by NCC's NOC (Network Operations Centre) , which is comprised of highly skilled and efficient senior consultants ready to assist should any problem or query arise. All components of the BisBox were managed through a Web Interface, which made the BisBox a highly efficient, cost effective and easy to use business tool.

This is followed by the billing officers (3.59) whom are very organized and systematized and showed respect and high regards to the clients. They do the billing of the accounts of the patients to be discharged. At Health Maintenance Office section, (3.57) respondents were well entertained although some discrepancies were sometimes encountered with respect to their health cards being used. The Health Maintenance Office officer approves the procedures requested by the physicians with the health card's principal permission through phone calls and letter of authorization. At the PHIC section, (3.52) where most patients ought to have, the respondents were also pleased and gratified. A patient with PHIC are automatically granted special discounts and mandatorily

paid by the Philhealth to the hospital and are spontaneously deducted to their hospital bill. Philhealth section features the different membership categories as well as details on benefit coverage, premium payment, data amendment and other procedures that each type of member must know. Respondents must be informed that Philhealth custom-fit the information to ensure specific concerns of each of the member. Philhealth forge partnerships with only the best in the industry for them to fulfill and mandate their objective of providing all Filipinos accessible, available, acceptable and affordable healthcare service that will lead to a better outcome and improved quality of life.

Table 5. Level of Loyalty of Patients (N= 98)

Items	Mean	Rank	Interpretation
a. CPRH compared to other hospitals	2.43	1	Better
b. Service compared to previous experience	2.13	2	Better
c. Recommendation of CPRH	1.98	3	Same
<b>Composite Mean</b>	<b>2.19</b>		<b>Better</b>

Legend: Poor: 1.5 – 1.99; Same: 1.1 – 2.0; Better: 2.1 – 3.0

After tabulating down the surveys, CP Reyes Hospital was found better compared to other hospitals. CP Reyes Hospital's legacy of excellence and compassionate care surpassed most expectations. With astounding success, anchored on provisions of expertise, - expert doctors, state of the art technology, patient safety and security, admirable reputation, and compassionate care and service, CP Reyes Hospital continuously innovates and makes it one of the best hospitals in the region. According to the present study, CP Reyes Hospital has been rated better with the current service level compared to previous experiences since most patients were satisfied and contented with the medical services and hospital facilities and equipments. And most respondents preferred to recommend CP Reyes Hospital to their family and friends who need medical and healthcare assistance. In relation with patient satisfaction, the level of loyalty of patients was tested and considered with a composite mean of 2.19, it was verbally interpreted as Better. Patients cited some of the reasons why they are loyal with the hospital. The top response was that CPRH employees showed that they care to patients. The staff and personnel's extraordinary service gave smile to the

patient's face and made them feel what they deserved. CP Reyes Hospital employees treat people on how they want to be treated.

Table 6. Correlations Between Patient Satisfaction and Loyalty (N= 98 Alpha = 0.05)

Patient satisfaction (x)	r <sub>xy</sub>	p-value	Interpretation
Information Section	0.052	0.61	Not Significant
ER Section	0.076	0.457	Not Significant
Industrial Clinic Staff	-0.015	0.884	Not Significant
Security Staff	-0.116	0.257	Not Significant
Telephone Operator	0.079	0.442	Not Significant
Admitting Staff	0.025	0.808	Not Significant
Janitorial Services	0.173	0.088	Not Significant
Nurse	0.181	0.074	Not Significant
Food Facilities	0.017	0.866	Not Significant
Heart Station	0.066	0.516	Not Significant
Ultrasound Staff	0.009	0.930	Not significant
X-ray Technologists	0.041	0.687	Not Significant
Lab Technologists	-0.015	0.880	Not Significant
Pulmonary Unit Staffs	0.073	0.478	Not Significant
PT/ Rehab Therapists	0.064	0.534	Not Significant
OR Staffs	-0.002	0.981	Not Significant
Pharmacy Staffs	0.075	0.461	Not Significant
Billing Staffs	0.159	0.119	Not Significant
PHIC Staffs	0.050	0.662	Not Significant
	0.208	0.039	WC but Significant

WC- weak correlation

Based on the table 6, it shows the relationship between patient satisfaction and loyalty of CP Reyes Hospital. As shown, there was no significant relationship between patient satisfaction and loyalty in respect to the different divisions and sections of the hospital, except for the PHIC which was the only section with weak correlation but significant relationship.

One significant and poorly understood reason for under-utilization of healthcare services is a poor patient experience. For instance, if scheduling an appointment for a hospital service at CP Reyes Hospital is a hassle, patients will be deterred from using the service. Boosting patient satisfaction can increase patients'

consumption and thus their loyalty to the hospital. Patient satisfaction is determined by multiple factors in order to determine what is most important to patients' healthcare experience. If a hospital understands its customers, knows where those individuals live, knows their needs are and what value can be expected from serving them maybe the basis of forming a strategic plan. Another way to build loyalty among patients is to ensure easy access to the organization's services. Patients' low consumption of healthcare services may be due to difficult access to those services rather than poor satisfaction. If a hospital's physical network isn't conveniently located for patients to be able to access it, loyalty is going to be lost over time.

#### **Proposed Action Plan to Identified Services that Needs Improvement to CP Reyes Hospital**

In order to improve CP Reyes Hospital's medical service quality, achieve permanent and sustainable operation and deliver the best service for the common people, supervisors of various departments shall strengthen administrative management and promote executive force. CP Reyes Hospital must establish a systematic management culture guided by a principle that focuses on patients and give priority to common people and emphasizes good service quality.

As can be seen on the table, to achieve the quality of service of the janitorial services, the CP Reyes Hospital Management must conduct monthly meetings to monitor the entire operation of the general services. Likewise, to improve the marketing strategies of the hospital, provision of different signages and other promotional activities will be provided to strengthen its promotion. And in case patients require the use of Philhealth, Philhealth officers shall explain in details based on patient conditions to allow them to achieve their purpose and receive their expected health care service.

#### **V. CONCLUSIONS AND RECOMMENDATIONS**

The customers were very satisfied with the service of CP Reyes Hospital. The customers were found to be loyal to CP Reyes Hospital. Loyalty is not dependent on customer satisfaction. A proposed action plan to improve the quality service of CP Reyes Hospital was formulated.

CP Reyes Hospital may continuously maintain and reach the highest standard of quality services offered to its customers. CP Reyes Hospital may aim more to encourage the staff treat patients with courtesy and respect in line with the customer loyalty of patients at CP Reyes Hospital. CP Reyes Hospital may intensify marketing programs to encourage customer loyalty. Future research about CP Reyes Hospital using other variables of importance may be conducted.

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