IMPLEMENTATION OF AN EFFECTIVE WEB BASED CUSTOMER CARE TO IMPROVE HOSPITALS' SERVICE LEVELS AND PROFITABILITY

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ABSTRACT

Customer service initiative increase patient satisfaction and loyalty and overall hospital quality, and many hospitals have found that patient demands can be met through initiating and maintaining customer service program. The main objectives of this study are to streamline Query Management System and track number of queries, nature of queries and their conversions and increase it to two times the current monthly conversions.

In this paper, the existing process flows were studied and identified the various lapses in the current procedures using FMEA and accordingly suggested the measures to provide better patient satisfaction and also generate revenue to the hospital. The paper also focuses on having an effective web or campaign tracking strategy which contributes for retention of the patients. Efficient web services and customer care not only help in creation and success of businesses but also contribute in significant growth of existing enterprise. The implementation of an effective web based customer care is a proven revenue generating source that can help to drive internal and external facets of hospitals growth and profits.

KEYWORDS: Customer Care, CRM, FMEA, MHC, QCGR

INTRODUCTION

Internet is starting to change the way companies interact with their customers. The mandate besides cutting costs is to provide a richer, more productive experience than telephone communications for everything from picking mutual funds to tracking packages. Until now, most web-based customer service systems have been used in industries that serve highly connected constituencies, such as technology, financial services, and telecommunication firms. The goal of web-based service should be to enhance the customer's experience.

Customer service is the provision of service to customers before, during and after a purchase. According to Turban et al."Customer service is a series of activities designed to enhance the level of customer satisfaction – that is, the feeling that a product or service has met the customer expectation." A Customer value proposition is a business or marketing statement that describes why a customer should buy a product or use a service. Studies have determined that it is sixteen times more costly to attract new customers than it is to retain existing customers. With better information about the customer, service provider can provide better service and can retain the customers. According to Pareto Principle 80 percent of business income comes from 20 percent of customers, thus it is imperative that organizations keep the critical 20 percent of existing customers happy. Hospitals have turned to e-business to improve customer service and to lower the costs.

CUSTOMER SERVICE IDEA FOR HOSPITALS

- **Having a Website:** Good customer service can start before a patient walks through the hospital doors. Hospitals can create user-friendly websites for patients to browse to get a sense of what the facilities look like, what services are offered, what kinds of specialists are employed there and even what their visiting hours are.

- **Electronic Billing Systems:** Providing billing systems that are made simple for the patient shows a hospital's commitment to providing good customer service. Electronic billing systems let patients manage and pay their hospital bills by a web-based system that they can access from a computer.

- **Valuing the Customer:** Hospital staff is providing services to a vulnerable population of people. As such, it is imperative that hospital staff perform their duties in a way that shows the patients they are valued.

- **Hospitality in the Hospital:** Being hospitable in the hospital can be a nice initiative that patients will appreciate. According to the May 2009 article in "Ravenwerks -- Global Ethics, Etiquette and Effectiveness," being hospitable shows proper etiquette and good customer service and doing whatever can be done to make their stay as comfortable as possible can enhance the customer service experience.

- **Feedback Management Systems:** Hospitals can offer good customer service by having a complaint management system in place to respond to complaints that are filed by customers. Complaint management systems show a hospital's commitment in ensuring best practices and good customer service.

With a greater customer focus, a firm may discover greater profitability within the existing customer base. Hospitals can boost profits by 100% by retaining just 5% more of their customers. Customer service enables customer segmentation.

REVIEW OF LITERATURE

Having an effective query management system to track sales has become an essential part of a successful business plan. The Quantitative impact is to increase the revenue generated by the process whereas qualitative impact is to increase the customer satisfaction, to retain the customers, for faster delivery of service and to increase the customer loyalty.

Solomon Negash et al. have studied about Quality and effectiveness in web-based customer support systems The quality of a web-based customer support system involves the information it supplies, the service it provides, and characteristics of the system itself; its effectiveness is reflected by the satisfaction of its users.

The study presents the results of quality and effectiveness in web-based customer support systems. Data from a survey of 726 Internet users were used to test theoretically expected relationships. The results of this study indicate that information and system quality determine effectiveness while service quality has no impact.

Howard of James Madison University, USA, conducted the study on Hospital customer service in a changing healthcare world. Customer service initiatives increase patient satisfaction and loyalty and overall hospital quality, and many hospitals have found that consumer demands can be met through initiating and maintaining a customer service program.

This article describes how the administrator can create, implement, and manage customer service initiatives within the hospital. Nodira Khoussainova et al. have conducted study on Collaborative Query Management System. Over

the past 40 years, database management systems (DBMSs) have evolved to provide a sophisticated variety of data management capabilities.

At the same time, tools for managing queries over the data have remained relatively primitive. One reason for this is that queries are typically issued through applications. The results of the study specify upon the need and the ability to analyze the data by issuing exploratory queries.

OBJECTIVES OF THE STUDY

The healthcare industry is undergoing a rapid transformation to meet the ever-increasing needs and demands of the patient population. To address this present study is conducted with the following objectives

- To find out the number of patient queries, type of patient queries and number of queries which has a potential to generate revenue for the hospital and

- To streamline the query management system.

RESEARCH METHODOLOGY

The study is conducted in a hospital which has several websites though which patients or customers can contact the hospital. The scope of this study is to analyze the queries which have been received during twelve month period that is from February, 2011 to January, 2012. One year data is used and analyzed to make a critical evaluation of purpose.

Data Collection

The primary and secondary data required for the study has been collected from the Customer care, Quality department and I.T. department records of the hospital for the year 2011-2012. Further the required information is also collected through interviews with the employees of the Customer care and Quality departments to know about difficulties they are facing and suggestions for improvement in services.

Tools of Analysis

Process flow of web queries and that of call centre have been studied. Process mapping of Web and Call centre has been done. The failure modes have been identified and analysed using Failure mode effect analysis tool and accordingly Risk Priority numbers have been calculated. Month wise types of queries have been collected and   percentage of queries capable of generating revenues have also been analysed for the purpose of the study.

Analysis of the Data

There is a Customers Relations management department in the hospital. This department is headed by Customer Relations Manager (CRM). Main functions of this department is to prepare in-patient and out-patient feedback forms, distribute feedback forms to patients, collect the filled feedback forms, analyze the feedback forms, redressal of complaints of patients.

Quality personnel sends web based customer queries to CRM. CRM segregates the mails based on their category and sends them across to respective departments based upon the type of queries.

A Call centre is also there in the hospital. A call centre is a centralized office used for the purpose of receiving and transmitting a large volume of requests by telephone.

The call centre administers incoming inquiries from patients. Outgoing calls for telemarketing, clientele, product services, and debt collection are also made. In addition, collective handling of letters, faxes, and e-mails is also handled at the contact centre located in the call centre.

A contact centre, also known as customer interaction centre is a central point of any hospital from which all patients' contacts are managed. Through contact centers, valuable information about hospital is routed to appropriate people. It is generally a part of hospitals CRM. The following figures show the process flows in web queries and call centre.
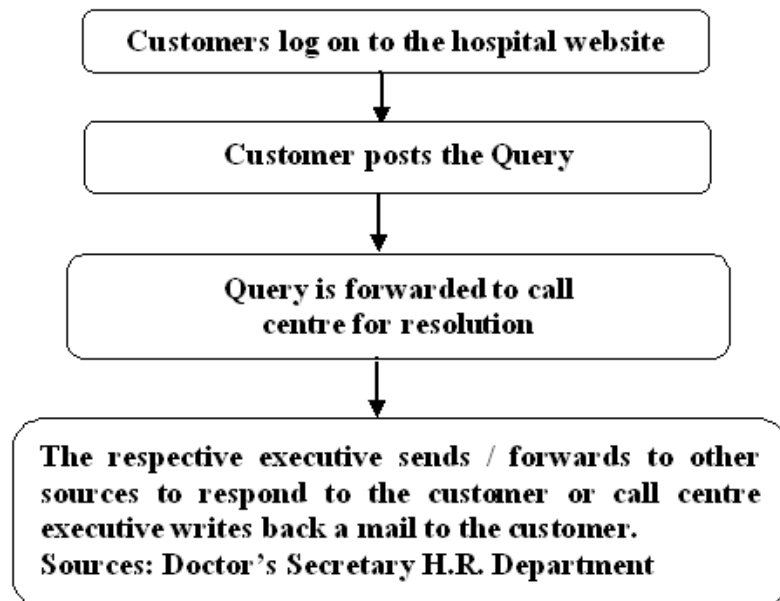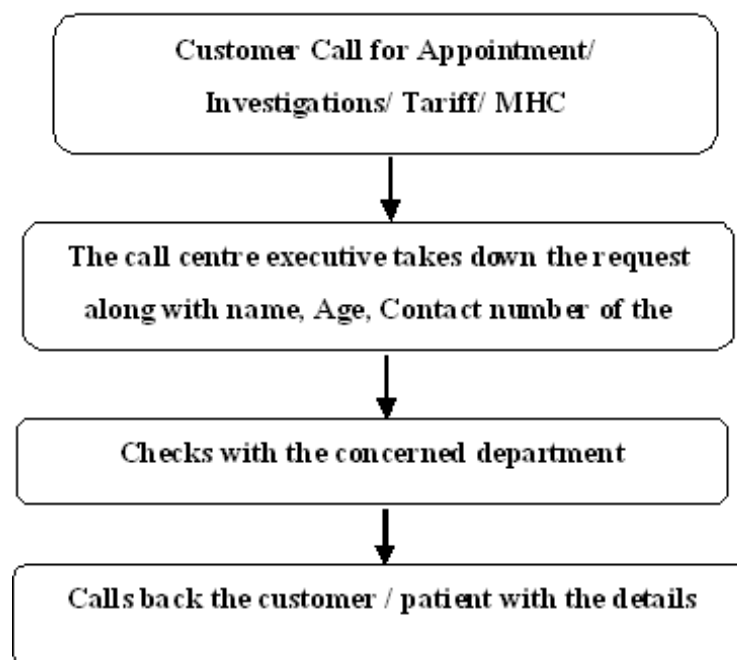

Figure 1: Process Flow of Web Queries

Figure 2: Process Flow of Call Centre

Failure Mode Effect Analysis

Failure Mode Effect Analysis methodology is designed to identify potential failure modes for a product or process. It assesses the risk associated with those failure modes, to rank the issues in terms of importance and to identify and carry out corrective actions. Original process flow was probed and various loopholes were found at every step. These loop holes were found using the failure mode effect analysis.

The following figures and table shows the process mapping of web and call centre along with their failure modes. The table 1 shows the failure modes along with their effect their likeliness of failure, their detect ability and severity of failure. Likeliness of failure range between 1-5 with 5 representing most likely.

Detectability of failure also ranges between 1-5 with representing most difficult to detect. While severity of failure being 1-5 with 5 representing most severe failure. The respective calculations have been done by calculating Risk Priority Number (RPN) which is the product of severity, occurrence and detection.
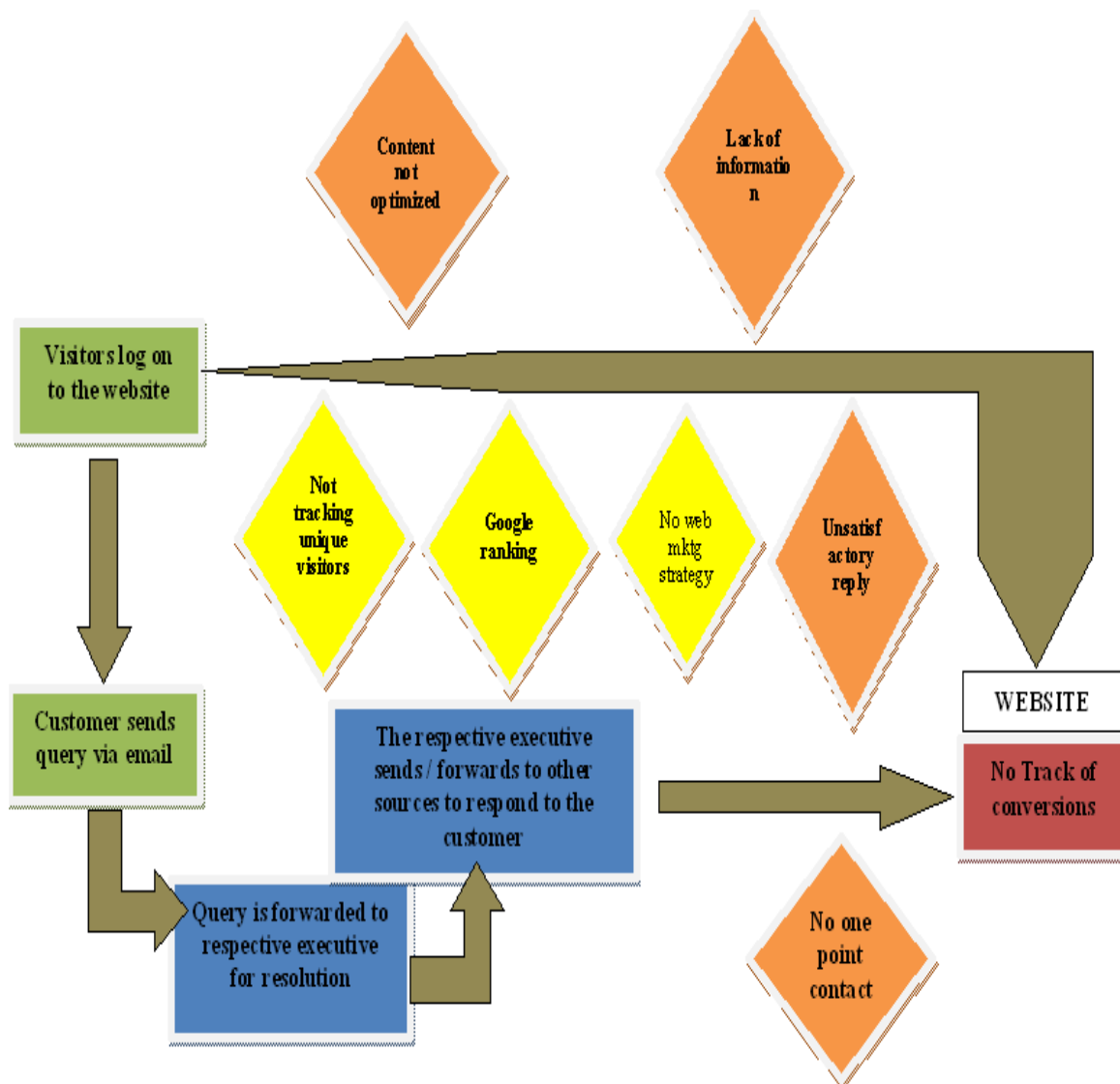

Figure 3: Process Mapping of Web Conversions and the Repsective Failure Modes
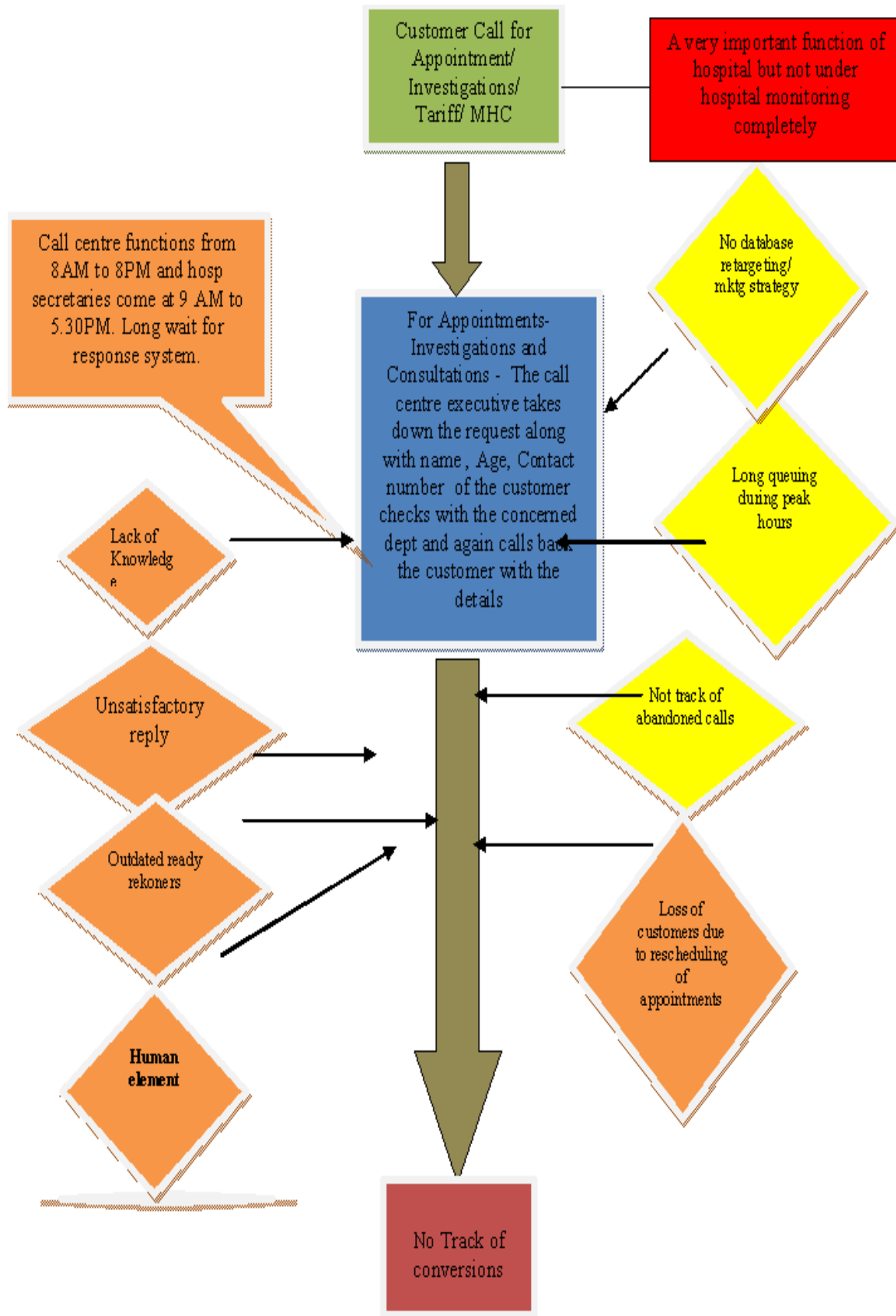
Customer Call for Appointment/ Investigations/ Tariff/ MHC

A very important function of hospital but not under hospital monitoring completely

Call centre functions from 8AM to 8PM and hosp secretaries come at 9 AM to 5.30PM. Long wait for response system.

No database retargeting/ mktg strategy

For Appointments- Investigations and Consultations - The call centre executive takes down the request along with name , Age, Contact number of the customer checks with the concerned dept and again calls back the customer with the details

Long queuing during peak hours

Lack of Knowledge

Unsatisfactory reply

Not track of abandoned calls

Outdated ready rekoners

Loss of customers due to rescheduling of appointments

Human element

No Track of conversions

Figure 4: Process Mapping of Call Centre and Their Respective Failure Modes

Table 1

No	Failure Mode	Specific Cause	Effect of Failure	Likeliness of Failure	Detectability of Failure	Severity of Failure	Risk Priority No.
1	Information given to the patient is not uniform	Lack of coordination between quality, CRM, call centre	Patient dissatisfaction	4	4	5	80
2	Delay in forwarding the queries to the respective department /unable to divert patients to edoc	Lack of training and knowledge on web query management system of the employees concerned	loss of customers seeking web appointments	3	4	5	60
3	Delay in sending replies to customers	Too many middlemen: call centre cannot access the patient mails directly; during peak hours call centre personnel are busy responding to inbound calls. No automated messages.	loss of customers	4	5	4	80
4	No time limit set for writing back a answer to a patient	Lack of coordination between quality,CRM, call centre; call centre will not have any idea as when mail from patient was received	loss of customers due to delay in response or may be because of rescheduling	3	4	5	60
5	Patient database is not available	No one point contact. Nobody is given responsibility to look after these mails.	As type of patients is not known hence their needs and wants are also unknown. Thus a good marketing strategy cannot be formulated.	3	4	4	48
6	International patient database not maintained	Proper authority is not given to either call centre or CRM	Loss of unique customers and revenue as well.	2	4	2	16
7	problems with the format of enquiry box	Review of enquiry box was not done. There is no difference between user profile and patient profile. Though all fields are marked compulsory, a mail can be sent without filling all the columns	It is very difficult to find out whether the patient has come to hospital or not. Thus, effectiveness of web enabled customer care cannot be measured.	4	5	5	100

There are some failure modes noticed, causes and effects of which are also mentioned in the above FMEA table. Risk priority number is highest for tracking the patient data this is because of the flaws in Enquiry box module. Delay in sending mails back to patients has next risk priority number it is because of involvement of middlemen and failing to

assign responsibility to any one department. Failure of having proper performance indicators in place is also one of the reasons for the delayed response.

Data Interpretation

The following table and figure shows the number of queries from February 2011, to January 2012, number of patients turned up number of queries capable of generating revenue and the projected and actual income for that respective months and the number of patients who turned up.

Table 2: Month Wise Queries

Month	No. of. Queries	No. of QCGR*	% of QCGR	No. of Patients Turned Up	% of Patients	Projected Income/ Month	Actual Income/ Month
FEBRUARY, 2011	43	36	83.7	13	36.1	210381	75971
MARCH	43	37	86.0	17	45.9	195272	89720
APRIL	58	50	86.2	24	48.0	174000	83526
MAY	64	46	71.9	19	41.3	271630	112195
JUNE	56	45	80.4	10	22.2	1023358	227413
JULY	87	63	72.4	10	15.9	1152837	182990
AUGUST	72	58	80.6	10	17.2	393849	67905
SEPTEMBER	80	59	73.8	13	22.0	332170	73190
OCTOBER	74	62	83.8	12	19.4	403000	78000
NOVEMBER	61	51	83.6	18	35.3	246046	86840
DECEMBER	52	43	82.7	14	32.6	233428	76000
JANUARY, 2012	66	50	75.8	9	18.0	480555	86500
TOTAL	**756**	**600**	**961**	**169**	**354**	**5116526**	**1240250**
AVERAGE	**63**	**50**	**79.4**	**14.0%**	**29.5**	**426377**	**103354**

*QCGR: QUERIES CAPABLE OF GENERATING REVENUE.   **Source:** Primary Data
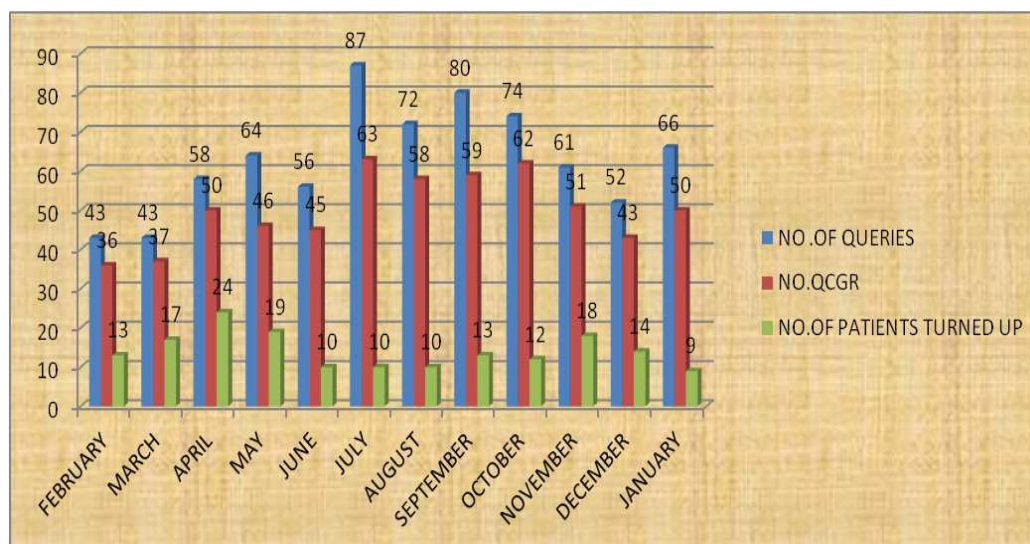

Figure 5: Types of Queries Month wise

Nature of queries includes Consultation, Health Checks, Enquiries, Educational courses related queries, request for online reports or bills. Enquiries include the queries related to availability of doctors, presence of a particular investigation or a procedure and cost of procedure. Consultations, Health checks and enquiries constitute the queries

capable of generating revenue. The following table and figure shows the percentage of various types of queries received

From February 2011, to December, 2012 and the percentage of QCGR

Table 3: Percentage of Types of Queries

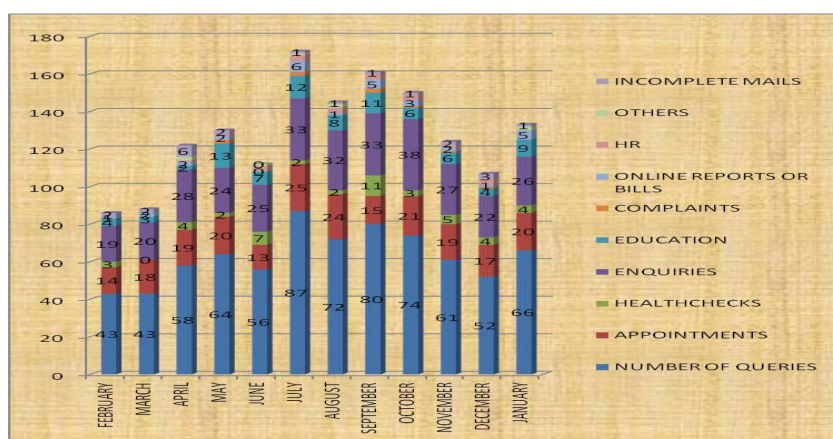| Month	Consul-tation	Health Checks	Compl-aints	Online Reports or Bills	HR	Educ-ation	Enqu-ires	Incomp-lete Mails	Others	% of QCGR
Feb, 11	33	7	0	2	0	9	44	5	0	84
Mar	40	0	0	4	0	7	45	4	0	85
April	30	6	0	3	2	3	44	9	3	80
May	30	3	3	3	2	20	36	3	0	69
June	23	14	0	0	3	13	45	0	2	82
July	30	2	2	7	4	13	39	1	2	71
Aug	33	3	0	1	4	11	44	1	3	80
Sept	18	14	2	1	4	14	41	1	5	73
Oct	28	4	1	4	4	8	50	1	0	82
Nov	30	8	2	3	2	9	43	3	0	81
Dec	31	7	2	2	6	7	40	5	0	78
Jan, 12	30	6	0	7	0	13	39	2	3	75

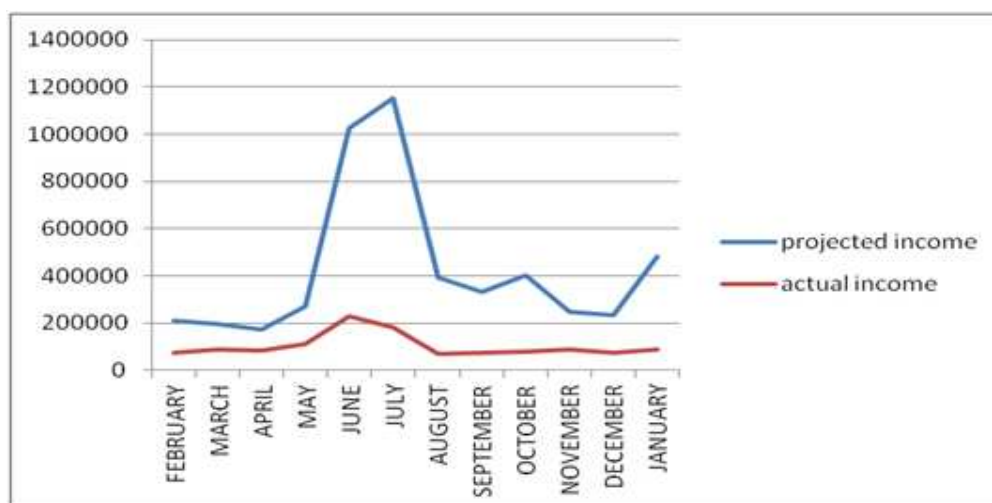**Source:** Primary Data

Figure 6

Figure 7: Income Projections

There is a wide disparity between actual income and projected income, which is on account of a lot of loop holes found in the query management system.

Findings of the Study

Basic pattern of enquiry box was studied. Patients log on to hospital website and write their queries in enquiry box. These mails can be accessed only by Quality executives. As soon as they receive a mail they would be sending it to customer relations manager (CRM). CRM segregates the patient mails into appointments (for consultation, health check), enquiry (cost of treatment, 2nd opinion, doctors mail), Academic courses related mails, HR related mails and sends them to the respective departments. Appointments and enquiries will be generally forwarded to call centre.

Call centre personnel receives the mail. If it is an appointment they see the duty roaster of doctors and fix an appointment accordingly. If the query is related to 2nd opinion, cost of the treatment, availability of a particular doctor or investigation in the hospital, they would consult the doctor and then would forward the mail to the patient.

Thus, there is no one point of contact. Multiple points of contact are there at Quality, CRM and Call Centre. There is no coordination between these three departments. Call centre personnel does not know the time when mail was received and Quality and CRM departments have no idea whether a mail was sent back to patients and when the mail was sent.

Suggestions Emerging from the Study

- To modify the inquiry box. The inquiry box may be re-modified so that the patient database can be maintained and tracking of patients also becomes easy.

- To provide FAQ's in the website. When customers are given the resources to find an answer to their query around the clock, customer satisfaction will be enhanced. Segregation of queries can be done automatically with the help of modified enquiry box format.

- Should be able to direct the appointments to e-doc so that the work load on employees may be reduced.

- There are many middlemen in the process. Task of accessing the mails and responding to may be assigned to any one department.

- Any two process associates may be given the task of responding to patient mails. One associate may handle the morning mails and other may handle the evening mails. So that mails can be sent at a proper time and customers can be retained.

- Standard time limit for responding mails must be set separately for Local and International patients. Performance indicators must be set to measure the conversions and time taken to respond to the mails.

- Patient database may be maintained, this might be helpful in formulating the web marketing strategy.

This web based customer care has high potential to generate revenue to the organization and hence employees must be properly oriented in handling the queries and responding to the mails.

Effective tools must be adopted to maintain the patient database which may be helpful in understanding the patient needs and wants based upon an effective marketing strategy can be formulated. This helps in not only retaining the present customers but also helps in attracting new patients/customers.

CONCLUSIONS

The new paradigm for competitive advantage in the future will be customer service. The key to unlocking its potential is in how quickly company will be responsive in both changing and adapting their ways to take advantage of value proposition that customer service offers. Customer service applications built upon the web offer companies the opportunity to move in the direction of unlocking the limitless capabilities of the customer service advantage. Direct interaction over the web is where the future of customer service will take place. The self-service web-based applications integrated into a global framework for workflow is going to be the catalyst to create the more responsive organization. Participants in the new customer service web workflow will not be defined by the process itself. Any company willing to invest, develop, and understand the necessary tools required to unleash the power of customer service will gain a new source of competitive advantage for the next millennium.

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