

Impact of CRM strategies towards customer loyalty; with special reference to the customers of private hospitals in Colombo.

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Abstract

The study is aimed to understand the impact of customer relationship management (CRM) practices and strategies on Customer loyalty. Many research work being carried out in Asia and Middle East on several service sectors, such as Banking, Telecommunication, beauty culture etc. Researchers selected the topic and given special reference to the private hospital sector is due to (a) increase in private hospital facilities in Sri Lanka (b) increasing purchasing power of people and (c) growing healthcare insurance schemes. The research attempt to examine the relationship between Customer Relationship management practices and strategies and the customer loyalty. The research area had to be limited to Colombo area as the majority of leading private hospitals available in Colombo area.

Researchers adopted five CRM practices and strategies selected from previous studies to find the relationship with customer loyalty. Namely (a) Service access, (b) Interactive management, (c) Understanding customer, (d) Handling complaints and (e) Relationship development. 395 customers have responded either on Google questionnaire or hard copy of questionnaire. It included 53 personal interviews of patients who has gone through various major operations and mix of all age groups between 18 to over 60 years range.

Findings of the study, confirm that there is a positive relationship between selected CRM practices and strategies towards customer loyalty, It is identified that the tested components, Service access, Interactive management, Understanding customer, Handling complaints and relationship development are having positive relationship with the dependent variable, Customer Loyalty within the private hospital services in Colombo area.

Keywords: *Customer relationship management, Loyalty, Service access, Interactive management, Understanding customer, Handling complaints, Relationship development, Private hospitals.*

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1.0 Introduction

This study is aimed to understand the impact of customer relationship management (CRM) strategies on Customer loyalty in the service sector. Many research work being carried out in Asia and Middle East on several service sectors related to this topic, such as Banking, Telecommunication, beauty culture etc.

Researchers selected the topic and given special reference to the private hospital sector is due to (a) Increased private hospital facilities in Sri Lanka, (b) Improved purchasing power of people, (c) Growing healthcare insurance schemes. The sampling area limited to Colombo district as the majority of leading private hospitals are located in this area.

It is interesting to start the study with the findings of Friedman (2005), in his award winning book world is flat. Friedman believes the world is flat in the sense that the competitive playing field between industrial and emerging market countries is leveling; and that individual entrepreneurs and organizations, despite of large and small, are becoming part of a large, complex, global supply chain extending across oceans. In this context, it is clear the competitions are intensifying and facing to it is the key of success.

In popular quotes on customer, Indian nationalist leader Mohandas Karmchand Gandhi, honorific Mahātmā of great India has quoted in 1890 customer as “A customer is the most important visitor on our premises. He is not dependent on us. We are dependent on him. He is not an interruption of our work. He is the purpose of it. He is not an outsider of our business. He is part of it. We are not doing him a favor by serving him. He is doing us a favor by giving us the opportunity to do so.” In the 21st century, American business magnate and entrepreneur, Steve Jobs, quote on customer “Get closer than ever to your customers. So close, in fact, that you tell them what they need well before they realize it themselves.” (<https://www.mainstreethost.com/blog/17-customer-service-quotes-every-business-live/>) The two quotes shows the care to be taken on customer is intensifying. In today's competitive market environment, the number of competitors and intensity of competition to retain customers are

increasing. Organizations greatly focus on various strategies to satisfy the customer and strengthen the relationship for long term sustainability.

Kotler (2016) suggest in order to succeed in the future, holistic marketing strategies need to be implemented than departmental, strive for customer insight by treating them differently by appropriately. Report of McKinsey & Company, Gordon & Perrey (2015) claims that the dawn of marketing's new golden age soon, in which marketing's adaptation to the confluence of many of these changes will yield increasing spending on efficiencies, gaining greater customer engagement with fullest satisfaction, and thus higher marketing ROI. In addition, per Kotler (2016) fading of mass marketing replaced by precision marketing is expected to inforce within coming years.

Per Goldsmith (2017) customers will shape the marketing environment of the near future. What remains are the goals traditional to the marketing concept: customer satisfaction, profit, and integration of strategic elements into a seamless process. To overcome, Management Practice Understanding the Changing Consumer, Research, and Digital Management will be vital. (Lancefield et al., 2015).

To overcome changes to become truly holistic, Kotler (2016) has suggested new set of skills and competencies for marketing such as (a) Customer relationship management (CRM), (b) Partner relationship management (PRM) (c) Integrated Marketing communication (IMC) (d) Data base marketing and data mining (e) Digital marketing and social media etc.

Customer Relationship Management (CRM) is one of the marketing strategies used to bond the customer through a managerial approach which works on customer driven strategies. (Diasz, 2017) CRM is aimed at building strong long term relationships that keep customers using the organization repeatedly. It aims to help organizations building individual customer relationships in such a way that both the organization and the customer get mutually benefitted. (Shaon, 2015)

Customer satisfaction and loyalty is the main element in a successful CRM implementation for retaining customers (Long et al., 2013). Customer relationship management (CRM) ensures the relationships with customers to increase the organization's market share by integrating technology, procedures and people. CRM is to maintain the customers and increase their satisfaction and the organization's profit. Customer satisfaction and loyalty is the main element in a successful CRM implementation for retaining customers (Long et al., 2013).

Customer loyalty is such a kind of valuable situation where an organization ultimately gains profitability. (Shaon et al., 2015) To build positive relations with a customer, to fulfil a customer's needs and want, to manage customer expectations are the main goals of achieving loyalty. (Tharanga et al., 2018)

Health care industry has become fasted growing service economy in Sri Lanka due to the increase in purchasing power, either personal or insurance cover and aging population. (Tharanga et al ., 2018) Sri Lanka's population is one of the oldest in South Asia and is also one of the fastest ageing

Populations in the world being demographically on par with developed countries. The ageing population is required to be more health conscious and is engaged in more on health checkups on a regular basis as a preventive action, implying a growing demand for healthcare.

The private hospital in Sri Lanka caters to substantial segments of the population, but little references are available on customer satisfaction and loyalty (Perera, 2004). Private health providers in the country are expected to benefit from this demographic trend as a result of the expected increase in demand for inpatient and outpatient care services as well as laboratory and other support services. We expect the above industry drivers to create a strong demand for private healthcare services in Sri Lanka The private health expenditure to record 11 percent average annual growth for the next three years and thus private service providers to benefit with strong financial performance. (PWC, 2014)

Aforementioned facts has led researchers to design and conduct the study on impact of CRM practices and strategies on customer loyalty on private hospitals in Sri Lanka. This study is an attempt to identify the CRM practices and strategies towards customer loyalty; with special reference to the customers who obtain services from private hospitals in Colombo.

2.0 Scope of the study

With the increase of competition within the market segments, saturation of competitors, new entrants and demographics, all organizations are facing the severe competition and struggle to survive. Organizations are workout their strategies to differentiate by creating competitive advantage (Kotler, 2016). A close relationship between the business organization and customer is the key factors towards the profitable relationship between

both parties (Sulaiman, 2014). All organizations treat their customer base as most valuable asset and to retain them. Retaining old customers and attracting new ones are within all the marketing strategies (Karsalari, 2017). Practicing Customer relationship strategies and practices within the organization help to keep the existing customers and new customers. It need to practice the right relationship with the customer base (Pengwei, 2011). Study by Kesuma (2013), in Denpasar, Indonesia, has provided strong evidence that elements of CRM positively affect the customer loyalty in hospital industry and suggest further studying on Customer relationship management (CRM) has become vital for scholars and management.

Taking one step further, this study intend to evaluate the services at private hospitals in Colombo. Colombo is the commercial capital and largest city of Sri Lanka by population. Colombo District's population was 2,309,809 in 2012, and additional daily visitors who are coming to Colombo for work, studies and other work is recorded over 500,000 (Census, 2012). The selected sample size is 384 (Three hundred and eighty four) (Krejcie & Morgan, 1970), (Sekaran 1999). Study was expected to complete within 3 months including data collection, analysis and final draft preparation, evaluation and reporting which were in par with the schedules.

3.0 Objectives of the Study

Specifically, the study is expected to cover following objectives.

- a) To identify the existing strategies of Customer relationship management and Understand the existing levels of customer loyalty,
- b) To identify the relationship between Customer relationship management and Customer loyalty with special reference to the services of private hospitals

4.0 Literature Review

Contemporary marketing is relaying on developing long term relationship with customers by providing them complete satisfaction and building loyalty to maintain a sustainable relationship (Tauni et al., 2014). Concept, Customer Relationship Management (CRM) has been cited widely by marketers and marketing scholars over last 35 years. CRM is derived from the word “contact management” which emerged in the 1980s about preserving customer details for further contact with customers (Shaon, 2015). In a discussion by Dowling (2002) CRM is in important component of strategic business and process rather than a technical one. This shows the importance of CRM being identified throughout. Taking the fading away of traditional marketing concepts in to consideration, Kotler (2016) has included new set of skills and competencies for marketing including Customer relationship management (CRM) for the 21st century. Differentiation between Traditional marketing and CRM is cited by Saleh et al., (2018) as below:

Traditional Marketing	Customer Relationship Management
Transaction focus	Customer focus
Short term focus	Lifetime focus
One transaction	Multiple transaction
Broadcast approach	Sniper approach
One way & one time communication	Two way & continuous dialog
Segment of many	Segment of one

Source : Picolu et al., (2003) P62, cited by Saleh et al., (2018)

4.1 Customer Relationship Management (CRM)

Kotler (2016) explains Customer Relationship Management (CRM) is the process of carefully managing detailed information about individual customers and customer touch points to maximize the loyalty, A Customer touch point is any occasion when a customer encounters the band and product from actual experience to personal or mass communication to casual observation. Diasz (2017) further explains CRM as a conscious effort to manage the customer life cycle involved with attracting profitable customers (acquisition strategy), retaining top customers (retention strategy), activating inactive customers (activation strategy), and finally to save the good customers (Customer anti attrition churn strategies). Kesuma (2013) identify CRM is an approach to manage interactions of an organization with customers, and related stake holders to grow sales and optimize the profits or achieve gains to the organization. Organizations get technology involved to organize, automate, and synchronize business processes. The objectives of CRM are to enhance profitability, income, and customer satisfaction (Long et al., 2013). To attain CRM, many organizations use set of tools, technologies, and procedures to support the relationship with the customer to enhance sales. Per Saleh (2018) implementing a CRM strategy is an integrated task and customer loyalty for an organization leads to improve the business models and escalate the business relationships with existing customers as well as attract new customers.

4.2 Customer Satisfaction and Loyalty

The complete study, positive approach of CRM leads to win the market competition (Rajesh & Manivannan, 2013). Customer satisfaction and loyalty is the core of the customer relationship management. Sometimes, high customer satisfaction causes low profit because enterprises do not realize that strengthening the loyalty of the aimed customer is the key of customer relationship management (Pengwei, 2011). The significance of customer satisfaction cannot be dismissed while happy customers are like free advertising for any organization. It is necessary to put the customer at the center of the business according to its strategies, events and processes. It is easier and more profitable to sell to present customers than to find new ones. Organizations are setting themselves strategies to ensure customer retention, and changing their employees to be more customer-focused and service-oriented (Mohsan et al., 2011). It is possible to secure the customer loyalty through customer satisfaction. However, the fact that there are many organizations that offer products and services of the same quality and at the same price interval makes it difficult for the enterprises to secure customer satisfaction. It may even be easy to let the satisfied customer go to the rival enterprises. (Kocoglu, 2012) The most important goal of an organization is to maintain customer loyalty and focus on customer centric approach in their organizational and marketing strategies (Jain & Singh, 2002). Bowen and Chen (2001) argue that having satisfied customers is not sufficient. This is because customer satisfaction needs to have direct impact to customer loyalty (Sivadas & Baker-Prewitt, 2000). By understanding and identifying the profile of individual customers, the service providers can suggest appropriate products to meet their needs. Since satisfied customer is too loyal to the company, as a competitive organization (Karunanithi, 2013). Per Christopher (2008) loyal customers will escalate profits to the organization by repeating the visits for business. Therefore to measure the customer's loyalty, organizations should use measuring customer's willingness to repeat visits and providing positive review on business. Customers are having several motivations to choose a service, service provider or product; based on the quality and variety of services and products, location, convenience, price and quality of the customers service prior to choose to patronize the organization. (Sulaiman, 2014) In a study by Adhikaram et al., (2016) on private higher institutions in Sri Lanka, has identified strong relationship between CRM practices and customer satisfaction and loyalty in Sri Lankan context.

4.3 CRM Strategies

Per Wanninayake et al., (2019), there is a considerable amount of body literature on CRM concerns, which covers different kinds of practices and strategies to attract and retain customer. Study conducted by Laohasirichaikul et al., (2010) has identified (a) Staff concerns and (b) Service quality has significant effect on Customer loyalty. Long et al, (2013) identified (a) Behavior of employees (b) Quality services (c) Relationship development (d) Interaction management is having positive impact on Customer loyalty. Saleh et al., (2018) identify components of CRM as (a) Customer experience (b) Employee behavior (c) Value proposition (d) Relationship development. Nashwan et al., (2017), research team who has done a systematic review of 35 articles published between 2005 and 2015 identify CRM strategies as CRM is conceptualized with (a) Service quality (b) Service access (c) Handling Complaints. Wanninayake, et al., (2019) selects five major components (a) Relationship with customers (b) Interactive management (c) Understanding customer expectations (d) Empowerment and (e) Personalization.

In the study of Impact of CRM factors on customer loyalty, Laohasirichaikul et al., (2010) defining customer loyalty (a) Strong commitment to repurchase (b) Re-patronize a preferred service and (c) resistance to switch. Per Nashwan et al., (2017), after reviewing 35 articles on CRM, Customer satisfaction and loyalty, (a) Relationship length, (b) Customer trust (c) Customer commitment are leading to the loyalty. Wanninayake et al., (2019) identify customer loyalty as (a) Repurchase intention (b) Recall effectiveness (c) Willingness to recommend.

Discussion of CRM and its effect on customer loyalty has been a focus of previous studies in various countries. Annex 1, summarize the most important studies carried out recently to understand the relationship between CRM and customer loyalty. Special attention was paid to the research work done in Sri Lanka related to CRM process.

4.4 Healthcare services

The health care has reached one of the fast growing service industry widely in past decade. Increases are due to growth in aging population, increase in buying power with the influence of health care insurance, advanced technologies, emerging new treatments are influencing the growth (Tharanga, 2018). Similarly health care in Sri Lanka also experiencing a growth and question arisen whether the private health care sector is addressing the opportunities to increase the customer loyalty. (Tharanga, 2018). The state sector under the Ministry of Health operates and manages the most number of hospitals, 593 units in Sri Lanka patients tend to bypass their nearest primary and secondary public facilities in preference for tertiary public institutions and in some cases private hospitals 55% of total healthcare expenditure was accounted for by the private sector 60% of the outpatients and one tenth of the inpatients are catered to by the private sector. The private healthcare sector is characterized by the propensity of healthcare seekers to purchase services commensurate with increasing disposable income

(RVO.nl ,2016). As per the economic and social statistics of Sri Lanka, Colombo district of Western province has the highest number private hospitals in the country (Central Bank, 2014). Therefore People from Colombo area were considered into the sample.

4.5 Conceptual frame work

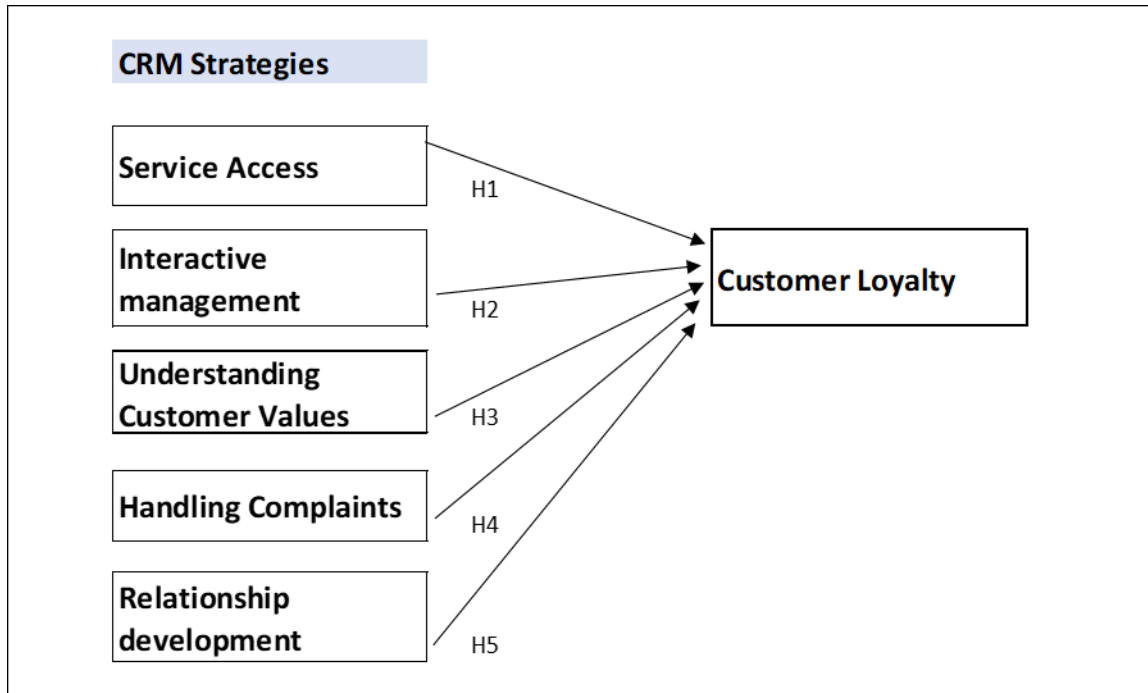


Diagram 1 : Conceptual framework – Developed by researcher

Hypothesis

Based on the conceptual frame work, researches developed five hypothesis to identify the relationship between independent and dependent variables.

- H1 : Service Access has positive impact on customer loyalty
- H2 : Interactive management has a impact on customer loyalty
- H3 : Understanding customer value proposition has a positive impact on customer loyalty
- H4 : Handling Complaints has a positive impact on customer loyalty
- H5 : Relationship development has a positive impact on Customer loyalty

5.0 Research Methodology and Data base

The study being carried out using descriptive method, Quantitative process, and pure research. Adopted the survey method in order to understand the relationship between components of customer relationship and the customer loyalty. The literature review explored there are many strategy components involved in setting up the customer relationship (CRM) process. Based on those components and arguments, researchers selected five CRM components naming (a) Service Access (b) Interactive management (c) Understanding customer value proposition (d) Handling complaints (e) Relationship development. Components for Customer Loyalty was identified as (a) Choice (b) Satisfaction (c) Recommendation and (d) Repeat visits for this study.

5.1 Research Design

5.11 Sample Size:

Researchers used simple random sampling method, targeted the maximum coverage of sample lot represent the customers who are using private hospitals in Colombo district. The type of study is correlational and researchers developed to explain the influence of independent variable on dependent variable. (Sekaran,1999)

As per the economic and social statistics of Sri Lanka, Colombo district of Western province has the highest number private hospitals in the country (Central Bank, 2014). Therefore customers who got the services from Colombo area were considered into the sample.

5.2 Instrument/Measures

A printed and electronic questionnaires were the survey instruments for the study. Primary data required to the study was collected through a self-completion questionnaire from customers who has got the services of a private hospitals in Colombo. Questions were developed based on previous studies carried out in Asia and Middle East. Five CRM practices and strategies are selected as independent variables and Customer loyalty as dependent variable. Questionnaire contained 33 questions where 7 questions for demographic, 21 questions for independent variables and 5 questions for dependent variable. All questions are positive open ended and answers were on five point Likert scale from 1 (Strongly disagree to 5 (Strongly agree). The convenience sampling technique was used as the sampling technique for the study. Convenient sampling technique is a non-probability sampling technique where sample selects purely based on the convenience of recruiting. The actual respondent sample lot is expected to reach over 384 to cover the population over one Million (Krejcie & Morgan, 1970), (Sekaran, 1999). This study was conducted in the natural environment with less interference of the researchers. Distributed 300 questionnaires in all three official languages in Sri Lanka, namely Sinhala, Tamil and English in order to reach all possible customers equally without discrimination. Printed questionnaire was the primary media and Google Survey also used as secondary media to reach customers. Open invitations via Gmail, Social media, personal contacts, and mass contacts such as office and factory employees, referral patients/guardians contacts who has under gone critical treatments used to get the questionnaires answered manually and electronically.

5.3 Procedure

Researchers personally met 53 (fifty three) customers and completed the questionnaire either using printed questionnaire or Google survey tool. Interviewed Participants were keen in answering using the Google survey than filling the paper. Mainly it was observed within the elderly customers. Resulting 159 (one hundred and fifty nine) answered through Google and 236 (Two hundred and thirty six) answered on paper questionnaire. A total of 395 valid questionnaires (Printed and via Google) was taken for data processing. 22 (twenty two) respondents answered on paper questionnaires had to exist due to non using private hospitals in Colombo and 42 (Forty two) questionnaires were not returned.

Primary data required to the study was collected mainly through a self-completion questionnaire from customers visiting private hospitals in Colombo. People who are visiting a private hospital to get the service were considered as the population of this study. The actual respondent sample lot is expected to reach over 384 to cover the population over one Million (Krejcie & Morgan, 1970), (Sekaran, 1999). The convenience sampling technique was used as the sampling technique for the study. Convenient sampling technique is a non-probability sampling technique where sample selects purely based on the convenience of recruiting. As per the economic and social statistics of Sri Lanka, Colombo district of Western province has the highest number private hospitals in the country (Central Bank, 2014). Therefore People from Colombo area were considered into the sample.

5.4 Hypothesis testing

5.41 Reliability Analysis

Table 1, Cronbach’s reliability analysis of independent variables for CRM

Variables	Cronbach's Alpha	No of Items
Service Access	0.733	4
Interactive Management	0.878	8
Understanding customer value	0.777	5
Handling complaints	0.701	2
Relationship development	0.640	2

Cronbach’s alpha results on independent variables show a minimum value of 0.640 on Relationship management and highest value of 0.878 on interaction management. Per Sekaran, (1999) reliability coefficient gets to the 1.0 is good and reliabilities less than 0.6 are poor, those in the .70 range is acceptable and 0.80 range is good. Results indicates the Cronbach’s Alpha values of five items between 0.640 and 0.878. Thus, the internal consistency reliability of the measures used to test the independent variables are considered to be good.

Table 2, Cronbach’s reliability analysis of dependent variable Customer Loyalty

Variables	Cronbach's Alpha	No of Items
Customer loyalty	0.935	5

Per Sekaran (1999), reliability coefficient gets closer to the 1.0 is good and the results on analysis shows 0.935. Therefore the internal consistency of reliability of the measures used to test the dependent variable considered as good.

5.42 Profile of the respondents.

Frequency distributions were obtained for the respondent’s personal data. Collection of demographic data was to understand the status of the respondents and to identify the sampling process is balanced and spread evenly. The gender spread is 46.33% and 53.67% between male and female. The sample lot represents all age groups. Age group below 18 was not considered in this survey as they are dependents of parents or guardians. Age 31-45 had 38.75% which could be the reason of having young children, who needs frequent medical treatment. Age groups 46-60 and above 60 also having participation of 24.56% and 12.15%, where it has balanced response percentage. Table 3, Profile of respondents, Samples size 395.

Information	Category	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Gender	Male	183	46.33	46.33	46.33
	Female	212	53.67	53.67	100.00
Age Group	18-30 Years	97	24.56	24.56	24.56
	31-45 Years	153	38.73	38.73	63.29
	46-60 Years	97	24.56	24.56	87.85
	above 60 years	48	12.15	12.15	100.00
Educational Level	Primary	2	0.51	0.51	0.51
	Secondary	105	26.58	26.58	27.09
	Graduate	151	38.23	38.23	65.32
	Post graduate	71	17.97	17.97	83.29
	Professional	66	16.71	16.71	100.00
Monthly income	less than 50,000	77	19.49	19.49	19.49
	50,001-80,000	75	18.99	18.99	38.48
	80,001-100,000	94	23.80	23.80	62.28
	100,001-150,000	91	23.04	23.04	85.32
	over 150,000	58	14.68	14.68	100.00
Customer of Colombo Hospital ?	Yes	395	100.00	100.00	100.00
	No	0	0.00	0.00	0.00
Visiting sequence	Regularly	80	20.25	20.25	20.25
	Modarate	170	43.04	43.04	63.29
	Seldom	145	36.71	36.71	100.00

5.5 Results

Table 4, Descriptive statistics of Customer relationship management (CRM) strategies and customer Loyalty.

		Service Access	Interactive Management	Understanding customer	Handling complaints	Relationship development	Customer loyalty
N	Valid	395	395	395	395	395	395
	Missing	0	0	0	0	0	0
Mean		3.7861	3.5769	3.5949	3.4532	3.5823	3.7514
Std. Deviation		0.56477	0.56808	0.60217	0.67475	0.70455	0.65831
Skewness		-1.156	-0.657	-0.661	-0.838	-0.820	-0.980
Std. Error of Skewness		0.123	0.123	0.123	0.123	0.123	0.123
Kurtosis		2.915	0.381	1.301	0.704	0.638	1.819
Std. Error of Kurtosis		0.245	0.245	0.245	0.245	0.245	0.245

Based on the results of descriptive statistics, mean value of all variables are closer to the Likert scale 4. It interprets the responses with regard to the variables are positive and are in agreeable level. Relationship development has highest Standard deviation of 0.704, while minimum Standard deviation is with service access of 0.564. It indicates service access has minimum variance. All coefficients of skewness are approximately between -1 and +1 with the interpretation of data are normally distributed.

Table 5, Pearson Correlations data on each Independent variable.

Pearson Correlations		N = 395	Dependent variable
Independent variables			Customer Loyalty
Service Access	Pearson Correlation		.533**
	Sig. (2-tailed)		0.000
Interactive Management	Pearson Correlation		.682**
	Sig. (2-tailed)		0.000
Understanding customer	Pearson Correlation		.741**
	Sig. (2-tailed)		0.000
Handling complaints	Pearson Correlation		.542**
	Sig. (2-tailed)		0.000
Relationship development	Pearson Correlation		.665**
	Sig. (2-tailed)		0.000

***. Correlation is significant at the 0.01 level (2-tailed).*

According to the Pearson correlation analysis, all the probabilities are highly significant between the dependent variable Customer Loyalty and independent variables. Understanding customer is highly significant with a value of .741 and other components are in average with values between 0.533 to 0.682. Above results interprets the (a) Service access, (b) Interactive management, (c) Understanding customer, (d) Handling complaints and (e) Relationship development are having positive relationship with the dependent variable, Customer Loyalty.

Table 6, Modal summary of the analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.811a	0.657	0.653	0.38786	2.171

In the modal summary analysis, multiple correlations “R” is 0.811. It interprets a strong joint relationship between CRM strategies and the customer loyalty. R square is 0.657, interpreting that 65.7% of dependent variable, Customer loyalty has been covered by the model. Since the value is more than 60%, the regression model shows a nice fitting. Adjusted R square value provide that a figure of 65.3% of the dependent variable has been covered by the model. Durbin Watson result is 2.171 and between the values of 1.5 to 2.5. Therefore the residuals are independent and model is valid. Since there is a slight difference between R Square and Adjusted R Square, there are no unnecessary variables in the regression model. (Adjusted R square is less than R squared)

Table 7, Anova analysis information

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	112.228	5	22.446	149.206	.000 ^b
Residual	58.519	389	0.150		
Total	170.747	394			

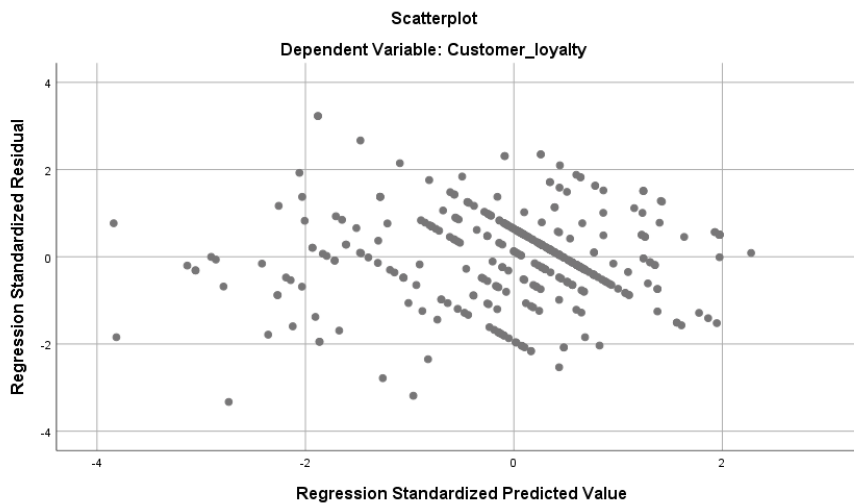
Probability of F test statistics of the regression ANOVA is highly significant. This means that the model is jointly significant. Therefore, independent factors are jointly influence on customer loyalty.

Table 8, Coefficients data

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	0.082	0.149		0.555	0.579		
Service Access	0.092	0.045	0.079	2.027	0.043	0.585	1.711
Interactive management	0.192	0.056	0.166	3.438	0.001	0.380	2.632
Understanding customer	0.440	0.048	0.402	9.087	0.000	0.450	2.223
Handling complaints	0.038	0.039	0.039	0.975	0.330	0.555	1.802
Relationship development	0.258	0.039	0.276	6.547	0.000	0.496	2.018

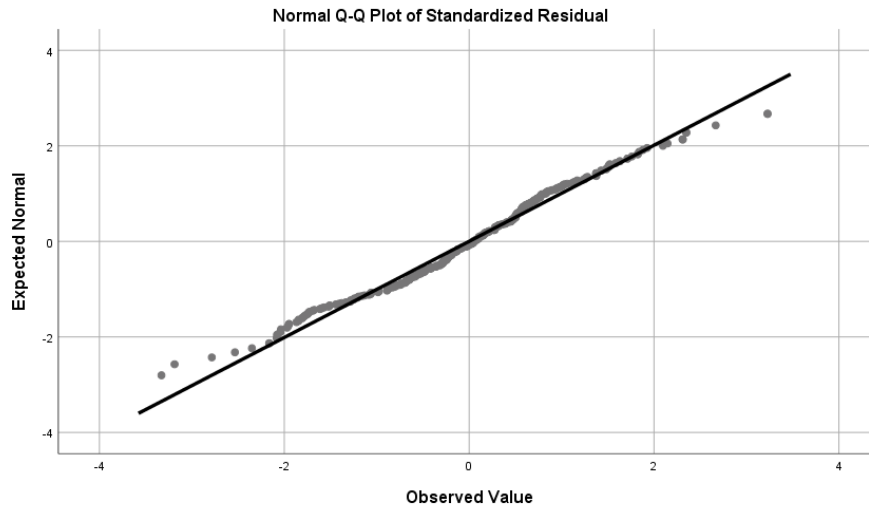
CRM strategies, Understanding customer, Relationship development and Interactive management are highly significant with positive beta values. Their probabilities are less than 0.01. It interprets those three strategies are significantly influence positively on customer loyalty. CRM strategies Service access is significant and positively influence on customer loyalty. While handling complaints is individually insignificant as the p value is more than 5%. It interprets Handling complaints does not have individual influence on customer loyalty. But it influence jointly.

Graph 1, Scatterplot – Behavioral pattern of residuals.



In this above graph, standardized residuals are plotted with standardized predicted values. Residuals are distributed without any methodical pattern. No heteroscedasticity matter, scatter diagram not a funnel shape. Therefore the regression result is accepted as valid.

Graph 2, Normal Q-Q plot of Standardized Residual



Normal Q-Q plot of data, majority of residuals are distributed very close to the linear line. It interprets that graphical approach indicates the residuals are normally distributed. According to all tests carried out, regression results are confirmed with high validity.

6.0 Limitations

Four limitations were identified while the research was progressing, (a) The study was conducted on the customers who has used private hospitals in Colombo area, due to the Objectives of the study is limited to the private hospitals in Colombo District. (b) Researcher used the questionnaires as a tool for data gathering and collection. The reliability, validity and accuracy was depend on respondent’s truthfulness, honesty and positive approach. The results depend on the respondent’s perception and opinion. (c) The research was carried between August – October 2019 period where no seasonal diseases spreading was noted. Results may change if the samples were collected during a seasonal diseases spread such as Dengue, Viral fever etc., due to inflow of large number of patients and service levels may drop. (d) Respondents were limited to the conscious patients, guardians of critical ill patients or parents of children below age 18.

7.0 Findings and suggestions

7.1 Findings

The table below summarizes the results of the Hypothesis testing, as a reflection H1, H2,H3, H5 are accepted and H4 is rejected. The H4 Hypothesis Handling complaints does not have individual influence on Customer loyalty but influence jointly to the model.

Hypothesis	Results
H1 : Service Access has positive impact on Customer Loyalty.	Accepted
H2 : Interactive management has a positive impact on Customer Loyalty.	Accepted
H3 : Understanding customer values has a positive impact on Customer Loyalty.	Accepted
H4 : Handling Complaints has a positive impact on Customer Loyalty.	Rejected
H5 : Relationship development has a positive impact on customer loyalty.	Accepted

Therefore the results of the study claims to have positive findings of previous studies done. Such as (a) Long et al., (2013), CRM has a positive relationship on customer satisfaction and loyalty. (b) Adhikaram et al., (2016) Strong relationship between CRM and Customer satisfaction leading to loyalty (c) Nashwan et al., (2017) CRM is conceptualized by service quality, service access, handling complaints having significant effect to customer satisfaction and loyalty. (d) Saleh et al., (2018) CRM presents the tools to create lasting relationship with customers. (e) Wanninayake (2019) CRM strategies, relationship with customers, understanding customer expectations and personalization having positive impact on Customer loyalty.

7.2 Suggestions

Researchers would like to include three recommendations; (a) while carrying out the study, researches realized that there is a growth of private sector hospitals in other major cities and expansion of Colombo based private hospitals making a growth in private hospital service customers, the research can be extended to island wide or major cities other than Colombo. Therefore the study can be extended to Island wide or to Western province. (b)

Conduct an enhanced survey with additional CRM practices and strategies than the five components selected for this study. (c) Further study can be carried out to compare government and private owned hospitals. The attempt will help to generalize the CRM practices within two entities. Further enhancement of CRM practices and strategies will play a positive role on customer loyalty and improve the organizational growth. (d) Further researchers can have additional measuring questions such as grading of the hospital they have used such as A grade, B grade or Outpatient unit to identify the impact on service levels. (e) For the Hospital management in particular can be recommended that, The results of the study show the strong relationship between the CRM Strategies and practices, Service access, Interactive management, Understanding customer values, Handling complaints and Relationship development with customer loyalty. Therefore Management of private hospitals need continuous focus on the tangible and intangibles boost the service qualities, such as hospital hygiene, attitudes and appearance of medical personnel, responsiveness, up to date hospital facilities etc.

8.0 Conclusion

Derived from aforementioned details of tests and results, the conclusion can be listed as follows: (a) The CRM Practices and strategies listed in the hypothesis in this study is significantly affecting the Customer loyalty. (b) The customer relationship management (CRM) practices and strategies can play a positive role to increase customer loyalty. (c) The limitations mentioned previously opens paths for additional and different avenues for the research. The variables used in this study can be re-adopted or divided for improved research components and look in to specific key areas. (d) Researchers has used only quantitative techniques for this research analysis and further research can be carried out with combination of qualitative and quantitative techniques for better validity of the future research.

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Annex 2 – Operationalization of Independent variables:

Variables	Sub Variables	Sources of Literature
CRM Strategies and CRM Practices	Service Access	Wanninayaka et al., (2019), Saleh et al., (2018)
	Interactive management	Saleh et al., (2018) ,Choi et al.,(2013), Laohasirchaikul et al., (2010)
	Understanding customer Values	Wanninayaka et al., (2019), Saleh et al., (2018) Laohasirchaikul et al.,(2010)
	Handling Complaints	Saleh et al., (2018)
	Relationship development	Saleh et al., (2018) ,Kesuma et al.,(2013)

Annex 3 – Operationalization of Dependent variable:

Variables	Sub Variables	Sources of Literature
Customer Loyalty	Favorable choice	Saleh et al., (2018) ,Kesuma et al.,(2013)
	Customer Satisfaction	Saleh et al., (2018) ,Kesuma et al.,(2013)
	Customer Retention	Saleh et al., (2018) ,Kesuma et al.,(2013)
	Delighted customer	Kesuma et al.,(2013)
	Repeat purchase	Kesuma et al.,(2013)

Annex 4 – Questionnaire (English)

Dear Sir, Madam,
 We are a group of MSc students of University of Colombo, studying Services Management at Institute of Human Resource Advancement (IHRA). We are currently involved in preparing a research paper on Impact of CRM Strategy on Customer loyalty; with special reference to patient of few selected private. We kindly invite you to complete this questionnaire in order to successfully carry out our research work. We assure you that all information provided by you will be treated strictly confidential and the results will only used for our research purpose.

Guide to answer this questionnaire
 The aim is to understand your experience in visiting a private hospital in Colombo and the outcome. Part A contains Demographical information and part B contains your experience at the hospital **Please concentrate to single hospital services when answering.** We greatly value your support.

Part A - Demographical information

1 **Your Gender**

Male	<input type="checkbox"/>
Female	<input type="checkbox"/>

2 **Your age group**

18 to 30 years	<input type="checkbox"/>
31 to 45 years	<input type="checkbox"/>
46 to 60 Years	<input type="checkbox"/>
Above 60 Years	<input type="checkbox"/>

3 **Your Educational Level**

Primary	<input type="checkbox"/>
Secondary	<input type="checkbox"/>
Graduate	<input type="checkbox"/>
Postgraduate	<input type="checkbox"/>
Professional	<input type="checkbox"/>

4 **Monthly income**

Less than Rs. 50,000	<input type="checkbox"/>
Between Rs. 50,001 to Rs. 80,000	<input type="checkbox"/>
Between Rs.80,001 to Rs. 100,000	<input type="checkbox"/>
Between Rs. 100,001 to Rs. 150,000	<input type="checkbox"/>
Above Rs. 150,000	<input type="checkbox"/>

5 **Are you a user of the services of private hospitals in Colombo**

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

If you are not a user of the services of private hospitals in Colombo, you can skip answering questionnaire. Thank you.

6 **How often you visit the hospital**

Regularly	<input type="checkbox"/>
Moderate	<input type="checkbox"/>
Seldom	<input type="checkbox"/>

7 **Your tretments are covered by health care insurance**

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

PART B: Research Information
Please tick(X) most suitable answer ranging from 1-5 which represent;
1- Strongly disagree, 2- Reasonably disagree, 3- Neutral, 4- Reasonably agree, and 5- Strongly agree

	1	2	3	4	5
8 The hospital warmly welcomes me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 Hospital atmosphere provides comfortable zone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 Behavior of employees in the hospital instils confidence on me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 It was easy to find way to care facilities (Laboratories, medical examinations room, consultation rooms etc.) and amenities (Canteens/ Toilets etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1	2	3	4	5
12 Hospital staff I was consistently courteous to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 Hospital employees were willing to respond my queries even though they are busy with routine work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 Staff understand my needs and actions were taken to attend those.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 Staff is clear with my preference and attended without hesitation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16 Hospital perform the services right at the first time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17 Employees had good knowledge to answer on my questions related to medical procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18 I did not had to wait a long for my medical procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19 There was a very good co-ordination between staff members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1	2	3	4	5
20 Prices were reasonable for medical procedures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21 Based on my experience with the hospital, I am satisfied with the services provided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22 Hospital has up to date care facilities (Medical equipment, laboratories, Medical examination rooms etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23 I felt safe with the procedures (laboratory, medical examinations, conclusions and treatment)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24 My needs of visiting the hospital was fulfilled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1	2	3	4	5
25 Complaints were handled promptly and attended for best solution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26 Employees are given authority to attend patient's special needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	1	2	3	4	5
The staff adequately explained my condition, examination results and 27 treatment process.					
28 My medical reports and information were recorded for future use					
	1	2	3	4	5
29 My choice on using this hospital was a wise decision					
30 I am satisfied with the medical procedures					
31 On my overall evaluation of the services, rated good					
32 I will recommend the hospital for my friends and relatives					
33 I will continue to use this hospital for my future medical needs					

End of the questionnaire