

# The Presence of the Doctor is the Beginning of the Cure: Moderator-Mediator Effect of the Physician in Customer Service Experience in Private Hospitals

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### Abstract

The relationships and processes of determining customer loyalty have been investigated under various contexts with different predictors. Customer/patient experience in healthcare services is considered unique in terms of the nature of the diseases, treatments, and emotions. Despite the fact that the overall patient experience is likely to be influenced by several important interacting agents of the healthcare system, the influence of physicians on patients' experience is critical. Nevertheless, researches carried out previously appeared to disregard the interacting role of the physician in the customer service experience in the healthcare sector to a greater extent. Therefore, the study aims at investigating how customer experience, behavior of the physician, and customer satisfaction interact to bring about loyalty in customer/patient. Using a survey strategy, data were collected from a conveniently selected sample of 412 encompassing outdoor and in-house patients underwent treatments from hospitals located in the Colombo district. Regression and Hayes's Process Macro were used as the main technique of analysis. The results confirm that physician behaviour moderates the relationship between customer service experience with hospitals and customer satisfaction. Moreover, customer service experience influences customer loyalty through customer satisfaction. The overall moderator-mediator effect that illustrates customer service experience with the hospital, associated with physician's behaviour and this influences customer loyalty through customer satisfaction, and the findings show that the impact is significant. Based on the findings, it is recommended to design the service processes in a way to provide a unique experience to the customer/patient. In addition, the usage of formal feedback on physician's behaviour introspectively is recommended. Further, the limitations and areas to be considered in future research studies are also discussed.

*Keywords:* Service Experience, Customer Satisfaction, Customer Loyalty, Physician's Behaviour, Moderator-Mediator Effect

### Introduction

Recently customer experience has become a focal point of discussion in the field of marketing as modern day organizations place a greater emphasis on consumer behaviour. The concept of customer experience has emerged after going through several economic offerings, such as commodities, goods and services and finally to customer experience (Pine & Gilmore, 1999).

Customer experience is referred to as short- or long-term interaction(s) and the resulting relationships between a customer and the organization that provides services, this in turn brings about satisfaction and loyalty in customers (Havir, 2017). The customer experience is predominant especially in the context of the services, since the services offered are experienced by the customers. The value of experience in any of the services is unique, and the satisfaction is determined by the customer who is participating.

In modern society, goods and services have become commoditized, and therefore the experience of a customer during a service has to be unique, making him/her see and feel differently to achieve an edge over competitors (Havir, 2017). Marketing practitioners have been appraising customer experience as one of the vital aspects in marketing and this has helped the organizations to successfully overcome the marketing challenges in the past few decades (Homburg et.al, 2015). A substantial body of empirical research demonstrated that a good customer experience brings about desirable outcomes in the marketing process, making the customers loyal and spread positive word of mouth (Kranzbühler et al., 2018; Klaus & Maklan, 2013). Havir (2017) concluded that ensuring customers gain a positive experience would improve customer satisfaction, thus the loyalty. Further, the author noted that such customer behaviour enhances the relationship with the brand, improves trust, and enhances the financial performance of the organization. Thus, while customer experience is becoming a central marketing concept, various studies have examined similar areas and came up with new theories and dimensions (Becker & Jaakkola, 2020).

Studies on the impact of customer experience on customer satisfaction and retention have been carried out in relation to various fields such as airlines, hospitality, education, healthcare, etc. (Kumah, 2019). Customer experience is not only connected with the nature of the service organization, but also with customer knowledge about the service (Kashif, Zakiah Melatu Samsi, Awang, & Mohamad, 2016). Despite the fact that all organizations from diverse fields are involved in providing services, service interaction and customer expectations of the service experience are likely to differ from one business field to another (De Meyer, Petzer, Svavi, & Svensson, 2013). Particularly, experiences of customers receiving services from healthcare organizations (patient experiences) are unique considering the differences in the treatments received for their diseases, and emotions (Lee, 2019). A substantial body of empirical research on customer experience in healthcare has focused narrowly either on specific branches of hospitals and patients with specific kinds of diseases/ conditions or in developing models encapsulating physical resources, technology and human-to-human interactions (Kennedy, Caselli, & Berry, 2011; Lee, 2019; Schiavone, Leone, Sorrentino, & Scaletti, 2020; Sreejesh, Sarkar, & Sarkar, 2021). Concerning the human-to-human interaction, Ozcelik, Varnali, and Burnaz (2021) revealed that the overall patient experience is likely to be influenced by several critical interacting agents of the healthcare system, namely the provider, patient, physician, personnel and periphery (The 5Ps of the patient experience). Though the roles played by these interacting agents are equally significant in ensuring that the customer/patient gains a positive experience, the authors argued that physicians play a critical role in the process. The importance of the physicians' role is such that patients tend to follow the physician from hospital to hospital. Nevertheless, prior researches appeared to disregard this fact in examining customer experience in the healthcare sector to a greater extent (Kashif et al., 2016; Gill et al., 2011). In this study, the researchers expect to bridge this knowledge gap in the context of the Sri Lankan private healthcare sector. However, there is a paucity of work examining customer experience in healthcare sector, specifically focusing on human-to-human interaction.

Further, the concept of customer experience is seldom given due consideration in the healthcare industry of developing countries, contrary to what is prevalent in the developed Western world (Kashif et al., 2016). Thus, empirical work exploring the healthcare sector in developing countries is a timely necessity since the rapid growth of the private has created a highly competitive environment within the healthcare industry in countries like Sri Lanka.

Healthcare organizations in Sri Lanka, where collectivist cultural traits are dominant (Madurapperuma, Kim, & Dharmadasa, 2016), can bring the customer experience into the business process to manage the word-of-mouth in favour of the organization (Kashif et al., 2016). However, the researchers found that the application of customer satisfaction to increase customer loyalty in the private healthcare sector has not been examined explicitly in the researches carried out. Thus, filling this empirical lacuna, the current study attempts to generate a debate by stressing the importance of embedding customer service experience in the health care services sector towards ensuring customer/patient satisfaction. The research question addressed in this study is how customer experience, physician's behaviour, and customer satisfaction interact to bring about customer/patient loyalty. Objectives are two folds: (a) to examine the role of customer satisfaction as a mediator on the relationship between customer service experience and customer loyalty and (b) to evaluate the moderating effect of physician's behaviour on the relationships between service experiences of the customers and customer satisfaction.

## **Literature review**

### **Customer Service Experience**

In the area of marketing behaviour, Abbot (1955) and Alderson (1957) found that the genuine desire of the customer is not the product but to gain a satisfactory experience. The Oxford English Dictionary literally defines experience as "Active participation in events or activities, leading to the accumulation of knowledge or skill" (OUP, 2006). However, the operational definition of experience encompasses cognitive and emotional outcomes of a consumer that result from an interaction with the elements of an event or an activity. For instance, Pareigis, Echeverri, and Edvardsson (2012) define customer experience as "The customer's cognitive, emotional and behavioural responses that result in a mental conception" (p. 679). According to Lemke et al. (2011) customer experience could be preconceived as the customer's subjective response to the holistic direct and indirect encounter with the firm and the quality of customer experience is based on how the customer perceives the service, whether the service provided is excellent or superior or otherwise.

Moreover, Klaus & Maklan, (2013) describe customer experience as the cognitive and affective assessment of all indirect and direct movements between customers and organizations relating to the purchasing behaviour. Customer experience is an ongoing cycle of repurchase and consumption behaviour for instrumental service categories such as banking, hotels, pharmacies etc., where customers tend to be loyal to one brand. Whereas recreational service categories such as Diving clubs, Fast fashion, Music discovery etc., customers are adventurers, and they tend to use multiple brands at once and are likely to adhere to spiral involvement (Siebert, Gopaldas, Lindridge, & Simões, 2020).

The customer as well as contextual characteristics play a vital role in shaping customer experience (Jain, Aagja, & Bagdare, 2017). Therefore, the nature of the service as well as customer knowledge about the service would bring about either an anticipated behaviour of a customer, an outcome of a planned learning process or unexpected behaviour that is associated with learning processes, novel to the customer (Palmer, 2010). Owing to the complicated

nature of customer conception of experience, quite a larger number of scholars have made noteworthy attempts to understand how customer experience is being adapted to marketing concepts. In line with this, even though, frameworks, concepts, topologies and methods have been developed by several researchers to understand customer service through customer's language in the management context (Parasuraman et al., 1988; Haviar, 2018; Verhoef et al., 2009, Klaus & Maklan, 2013), organizations do not view customer experience properly in their business processes (Klaus & Maklan, 2013; Maklan & Klaus, 2011). In analyzing customer experience, the prime necessity is to get into the role of the customer, nevertheless the organizations still struggle to effectively meet this pre-request (Havir, 2017).

Gulati and Oldroyd (2005) in their quest for customer focus, re-designed customer experience from the customer perspective. According to Libai et al., (2010) consumer to consumer interactivity will broaden the horizon of word-of-mouth research, resulting in the post-purchase behavior dimension of consumer collaboration. Customer-customer and customer-staff interaction in a conducive physical setting delivers a delightful experience to customers, leading to their satisfaction (Ali, Kim, Li, & Jeon, 2018). Further, the authors stress that the interplay between customer experience and emotions creates satisfied and loyal customers in the entertainment industry. According to Worlu, Kehinde, and Borishade (2016), ensuring that the customer gains a positive experience will bring about a long-lasting impression in the mind of customers, ensuring their loyalty towards the respective hospitals.

Attempts by Kashif et al. (2016) and Worlu et al. (2016) to set up customer experience elements and apply them in the health care context have provided positive results. They have also linked customer satisfaction and loyalty to create a positive perception over customer experience. The scholars such as Ponsignon (2018) have revealed that the quality of the service experienced by patients will have an impact not only on their satisfaction and loyalty behaviours, but also on their quality of life, clinical effectiveness, and overall well-being. Therefore, patients' satisfaction plays a substantial part in determining the health care service experience. Moreover, Worlu et al. (2016) highlighted the value of customer experience to boost loyalty and apply the notion to the health care sector in developing countries.

This line of research attempts to establish a directional relationship between constructs such as service experience, satisfaction, and loyalty to explain the antecedents of repeat purchasing of services. Further, Kashif et al. (2016) introduced new dimensions to measure customer experience that better explain satisfaction, leading to a loyal customer base. According to De Meyer et al. (2013), concerning the healthcare sector, the experience customer gains in the healthcare sector seems to be different, because of its complex nature. As there are several critical service delivery points in this sector, greater consumer involvement is required, compared to other industries like hospitality and tourism.

### **Customer Experience, Satisfaction and Loyalty in the Context of Customer Service Experience**

Cognitive and emotional behaviours are significant outcomes of a customer experience in the product/service purchase process. Since most of the services are personalized in nature, interactions of the customer with the actors in the service delivery process play a more crucial role when compared with the product purchase process. Researches carried out in the past have examined the relationship between consumer experience and complex behavioural outcomes such as word of mouth, satisfaction, loyalty and customer engagement and advocacy (Kashif et al., 2016; Moliner-Tena, Monferrer-Tirado, & Estrada-Guillén, 2019). Further, loyal customers tend to recommend their respective service providers and engage in repurchasing behaviour (Brunner, Stöcklin, & Opwis, 2008).

Service quality and customer experience have been investigated as antecedents of satisfaction and loyalty. Even though service quality influences satisfaction and loyalty, the customer experience is a better predictor of the relationship (Cetin, 2020). Sudirman and Patwayati (2021) concluded that customer experience has a direct influence on satisfaction and loyalty. Further, as a result of the hedonic experience, the delighted customer becomes satisfied and loyal (Ali et al., 2018). With regard to the healthcare sector, dimensions of a patient's experience, such as functional clues, mechanic clues and humane clues, contribute to customer satisfaction (Worlu et al., 2016). The customer experience of quality service substantially contributes to satisfaction and loyalty (Kashif et al., 2016). Findings of many of the prior researches suggest that customer experience directly influences satisfaction and loyalty in a similar fashion. Thus, this research postulates that healthcare service experienced by the customer is associated with satisfaction and loyalty.

H1: Customer service experience with healthcare services (hospitals) has a relationship with customer satisfaction.

H2: Customer service experience with healthcare services (hospitals) has a relationship with customer loyalty.

In their work, Brunner et al. (2008) revealed that satisfaction is associated with brand image and this in turn, influences customer loyalty. Moreover, Sudirman and Patwayati (2021) concluded that satisfaction mediates the relationship between customer experience and loyalty. In a similar vein, Moliner-Tena et al. (2019) revealed that satisfaction as an outcome of customer experience influences attitudinal loyalty through customer engagement. According to Kashif et al. (2016), customer satisfaction mediates the relationship between the experience of quality service and loyalty. Moreover, dimensions of patient's experience, such as functional clues, mechanic clues and humane clues, influence loyalty through customer satisfaction (Worlu et al., 2016). Thus, in this, the researchers postulate that healthcare service experienced by the customer makes the respective customer to be loyal to the healthcare service provider, determined by the satisfaction he/she gains.

H3: Customer satisfaction mediates the relationship between healthcare services (hospitals) experience and customer loyalty.

### **Influence of Physician's Behavior in Customer Service Experience and Customer Satisfaction**

While research findings show that the customer service experience leads to satisfaction and loyalty, various studies have further revealed that patients receive a unique experience at different service encounters through their interactions with medical staff (Lee, 2019). According to the five dimension (5P) framework, the interaction of the patient with provider, physician, personnel and periphery delivers an exclusive experience in healthcare service (Ozcelik et al., 2021). Patients expect to have warm and comfortable interactions with a physician who has professional competency and the ability to provide adequate information about the illness (Ryu et al., 2003; Manzoor et al., 2019).

However, since doctor-shopping is influenced by greater distance from the healthcare facility, younger age, longer duration of the disease and poor patient satisfaction (Małgorzata, Vanessa, & Mondher, 2019), the role of the physician appears to moderate the relationship between patient experience and satisfaction. Manzoor, Wei, Hussain, Asif, and Shah (2019) revealed that physician's behaviour moderates the relationship between healthcare services (laboratory and diagnostic care, preventive healthcare and prenatal care) and patient

satisfaction. In their work, Manzoor et al. (2019) concluded that the physician's behavior moderates the effect on healthcare services and patient satisfaction. Thus, in this study the researchers hypothesize:

H4: Physician's behavior is likely to moderate the relationship between customer service experience with the hospitals and customer satisfaction.

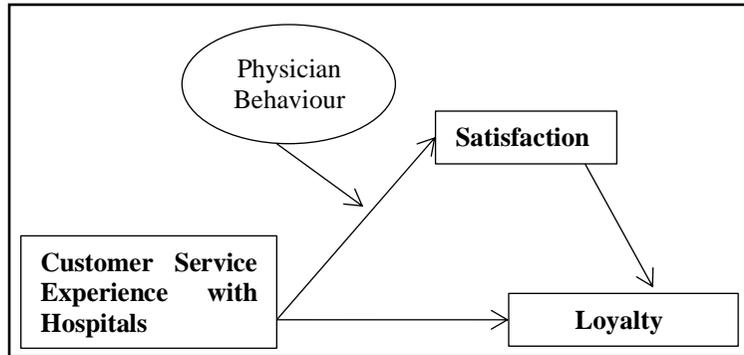


Figure 1: The conceptual framework  
Source: Developed by Researcher

## **Methodology**

Using survey design, data were collected from a conveniently selected sample encapsulating both outdoor and inhouse patients. The total number of valid respondents is 412 of which 242 (59%) are in-house patients, and the remaining is outdoor patients. The self-administrative questionnaire developed initially in English and translated to Sinhala and Tamil to increase the reachability of respondents. One of the authors translated it to Sinhala, and crossed checked by another author while seeking the help of a professional translator to translate it to Tamil. Regression and Hayes process which is embedded in SPSS were used as the main technique of analysis. Figure 1 depicts the conceptual framework of the study.

## **Operationalization**

The questionnaire comprised a series of questions that focused on soliciting information on demographic factors (Part I) and constructs in the conceptual model (Part II). Customer experience, Physician's behaviour, Customer Satisfaction and Customer Loyalty were captured using scale items adapted from various sources (see Table 1) and measured on a five-point scale ranging from strongly disagree to strongly agree. While independent and dependent variables were customer experience and Customer loyalty, respectively, physician's behaviour and Customer satisfaction were treated as moderator and mediator variables.

**Table 1:** Operationalization of Variables

<b>Constructs</b>	<b>Sub Variables</b>	<b>Sources of Literature</b>
<b>Customer experience with the hospital</b>	Peace in mind Outcome focus	Maklan & Klaus (2011); Klaus & Maklan (2013); Kashif et al.,(2016).
	Moment of truth Hospital service experience	
<b>Physician's behaviour</b>	Physician's behavior	Manzoor (2019);Biernikiewicz (2019), Williams (1998)
<b>Customer satisfaction</b>	Satisfaction	Manzoor (2019); Biernikiewicz (2019); Williams (1998)
<b>Customer loyalty</b>	Favorable choice Delight customer	Gonçalves,(2012); Gallan, (2012); Lonial (2015)
	Repeat visits	
	Word of Mouth	

Source: Developed by Researcher

### **Sample and Sampling Procedure**

The economic and social statistics of Sri Lanka indicate that Colombo district of the Western province has the highest number of private hospitals in the country (Central Bank, 2014). According to Dayaratne and Madurawala (2010), 133 private hospitals were operating in 2008, of which “53 were located in the Western Province, mainly in the Colombo district” (p. 02). Private hospitals provide in-house patients care with 4,210 beds, of which 50% are in the Colombo district (Ramesh, 2014). Therefore, it reveals that the private hospitals in the Colombo district have played a vital role in treating a larger number of patients seeking treatments for various health related issues. A substantial proportion of services in the private hospitals are delivered by the medical professionals employed in the government hospitals, and the increasing number of in-house patients and outdoor patients showcase the business and marketing orientation of the private health care sector (Dayaratne & Madurawala, 2010). Hence, the scope of the study is limited to the patients in the Colombo district who sought treatments from private hospitals. The unavailability of systematic information about patients precluded using random sampling technique and thus the researchers were relied upon a convenient sampling technique. Moreover, the respondents were not contacted at the hospital premises due to ethical reasons, and their medical conditions might influence the issue of the validity of their answers. The sample included patients/consumers who obtained treatment (outdoor or in-house patients) three months prior to the survey (i.e. March to May 2021).

Using paper and digital mode, four hundred and fifty-nine (459) questionnaires were collected (English: 313, Sinhala: 104 and Tamil: 42), and forty-seven questionnaires could not be considered due to the absence of answers for some questions (36 respondents) and outlier issues (11 respondents). Four hundred and twelve (412) responses were considered valid for further analysis. A two-sample *t*-test was applied to compare the mean values of the study variables for early and late responses as well as paper and digital responses. However, no statistically significant differences were reported. The gender composition of the valid responses were male (51%) and female (49%). Age groups and income groups of the sample are shown in table 2.

**Table 2:** Age Groups and Income Groups in the Sample

<b>Age Group</b>	<b>Respondents</b>	<b>Percent</b>	<b>Income Level LKR</b>	<b>Respondents</b>	<b>Percent</b>
20-30 years	38	9.2	Below 50,000	27	6.6
31-40 years	117	28.4	50,001-100,000	112	27.2
41-50 years	57	13.8	100,001-150,000	155	37.6
51-60 years	111	26.9	150,001-200,000	102	24.8
61-70 years	68	16.5	Above 200,000	16	3.9
71 above	21	5.1			
<b>Total</b>	<b>412</b>	<b>100</b>	<b>Total</b>	<b>412</b>	<b>100</b>

Source: Developed by Researcher

## **Analysis and Finding**

### **Preliminary Analysis**

A normality test was conducted using the numerical (skewness and kurtosis values) and graphical methods (Q-Q Plots) for Customer experience (skewness: -0.058 SE: 0.12; kurtosis:-0.283, SE: 0.24), Physician's behaviour (skewness:-0.061, SE: 0.12 ; kurtosis: -0.254, SE: 0.24), Satisfaction (skewness: -0.061, SE: 0.12; kurtosis: -0.282, SE: 0.24) and Loyalty (skewness: -0.124, SE: 0.12 and kurtosis: -0.228, SE: 0.12) to ensure the normal distribution of the data. The results demonstrated a satisfactory level of level of normality.

### **Reliability Analysis of Variables**

A reliability test was carried out to verify the internal consistency of variables prior to testing hypothesizes. Cronbach's alpha values were considered to measure internal consistency and to explain how closely the test items are related when it is in a group. Cronbach's alpha values of the variables in this study vary from 0.789 (the lowest) to 0.896 (the highest), showing a substantial level of reliability (See table 3).

**Table 3:** Reliability Analysis of Variable

<b>Variable</b>	<b>Cronbach's Alpha</b>	<b>No of Items</b>
<b>Independent (Customer Service Experience)</b>		
Service perception	0.835	6
Service expertise	0.815	4
Moment of truth	0.896	6
Hospital service experience	0.789	4
<b>Moderator</b>		
Physician's behavior	0.892	8
<b>Mediator</b>		
Customer satisfaction	0.852	4

**Dependent**

Customer loyalty	0.895	4
<b>Total Items</b>		<b>36</b>

Source: Based on Data Analysis

**Mediator Effect of Customer Satisfaction**

**Influence of Customer Experience on Customer Satisfaction**

Initially, the four dimensions of the independent variable were indexed to a single variable (i.e., customer service experience with the hospital) to test hypothesized. Subsequently, a simple linear regression was executed to test the extent to which customer service experience with the hospital (CSE) explains the variation in satisfaction (H1). The results of the regression indicated the predictor explained 68% of the variance ( $R^2 = .681$ ,  $F(1,410) = 876.62$ ,  $p < 0.001$ ). CSE ( $\beta = .82$ ,  $p < .001$ ), thus significantly explaining the level of loyalty (see table 4). Thus,  $H_1$  is accepted.

**Influence of Customer Experience on Customer Loyalty**

A simple linear regression was run to measure the extent to which CSE explains customer loyalty. The results of the regression indicated the predictor explained 70% of the variance ( $R^2 = .709$ ,  $F(1,410) = 997.73$ ,  $p < 0.001$ ). CSE ( $\beta = .84$ ,  $p < .001$ ), thus significantly predicting the level of customer loyalty (see table 4). Thus,  $H_2$  is accepted.

**Mediator Effect**

Multiple linear regression was executed as the final step of testing the mediator effect of customer satisfaction between CSE and customer loyalty. The results indicated the two predictors explained 79% of the variance ( $R^2 = .790$ ,  $F(2,409) = 772.67$ ,  $p < 0.001$ ). The findings show that CSE ( $\beta = .42$ ,  $p < .001$ ) and customer satisfaction significantly ( $\beta = .53$ ,  $p < .005$ ), predict the level of customer loyalty (see table 4).

**Table 4:** Regression Analysis of Variable

	<i>Constant</i>	<i>R<sup>2</sup></i>	$\Delta R^2$	<i>F</i>	$\beta$	<i>N</i>
<b>Model 1</b>	0.315	.681	.681	876.62***		411
CSE					0.825***	
<b>Model 2</b>	0.107	.709	.709	997.73***		411
CSE					0.842***	
<b>Model 3</b>	-0.061	.791	.791	772.67***		411
Satisfaction					0.507***	
CSE					0.423***	

**Note:** Model 1: DV= Satisfaction; Model 2 & 3: DV=Loyalty;  
 $P < 0.001$ \*\*\*,  $P < 0.01$ \*\* ,  $P < 0.05$ \*

Source: Based on Data Analysis

In the mediator effect, the direct effect of CSE on customer loyalty ( $R^2 = .709$ ,  $F(1,410) = 997.73$ ,  $p < 0.001$ ). CSE ( $\beta = .84$ ,  $p < .001$ ) and customer satisfaction ( $R^2 = .681$ ,  $F(1,410) = 876.62$ ,  $p < 0.001$ ). CSE ( $\beta = .82$ ,  $p < .001$ ), are statistically significant. Further, the coefficient value of the direct path between the independent and dependent variables attenuated to  $\beta = .42$  (Before:  $\beta = .84$ ) after adding the mediator to the model. However, since both direct and indirect paths were still significant, it indicates the existence of partial mediation between customer experience and customer loyalty (Baron & Kenny, 1986; Hair, et al., 2014). Since the sample size is large and the overall fitness of the model is tested using "PROCESS macro" (Abu-Bader & Tiffanie, 2021; Koopman, et al., 2014; Hopkins & Weeks, 1990), a Sobel test was conducted to see whether the mediator effect is significant, and the results of the test indicated that Z values of B value were positive and statistically significant ( $p < .001$ ) (See table 5) Therefore, the results confirmed that customer satisfaction is acting as a mediator between customer service experience with hospitals and customer loyalty. Thus,  $H_3$  is accepted.

**Table 5: Sobel Test Results Using B Value**

a	b	sa	sb	Z Value	Standard Error	P Value
0.928	0.897	0.031	0.027	22.239	0.037	0.000

Source: Based on Data Analysis

#### **Moderator Effect of Physician's Behaviour**

At first, to construct the interaction variable, physician's behaviour (moderator) was split into a dichotomous variable (low and high) using the median split technique. Thereafter, a hierarchical regression analysis was executed to test whether physician's behaviour interacts with customer service experience to determine the level of customer satisfaction. Customer service experience with hospital and physician's behaviour in the first level and the interaction variable (CSE  $\times$  physician's behaviour) in the second level were sequentially entered into the model to see the explanatory power of the dependent variable (customer satisfaction). Since the multicollinearity measured by Variance Inflation Factor (VIF) was greater than the rule of thumb ( $VIF > 10$ ), the values of all independent variables were standardized (Z-scores). Finally, with standardized value, hierarchical regression was repeated and the results of the analysis are presented in Table 06.

Predictors of the model 1, explain 72% ( $R^2 = 0.72$ ,  $F(2,409) = 507.97$ ,  $p < 0.001$ ) of the variance while predictors of the model 2 explains 72% ( $R^2 = 0.72$ ,  $F(2,409) = 9.04$ ,  $p < 0.001$ ). (see CSE ( $\beta = .70$ ,  $p < .001$ ), and physician's behaviour ( $\beta = .21$ ,  $p < .001$ ) significantly predict the level of customer satisfaction (table 6). The impact of the interaction variable on consumer satisfaction is illustrated in model 2. In addition to CSE ( $\beta = .64$ ,  $p < .001$ ) and physician's behaviour ( $\beta = .31$ ,  $p < .001$ ), the interaction variable ( $\beta = -0.12$ ,  $p < .01$ ) significantly determines the consumer satisfaction. Even though, insertion of the interaction term to model 2 caused a relatively small change in  $R^2$  value, it remained significant ( $\Delta R^2 = 0.006$ ,  $p < .01$ ). Therefore,  $H_4$  is accepted.

**Table 6:** Hierarchical Regression Analysis of Variable

	<i>Constant</i>	<i>R<sup>2</sup></i>	<i>ΔR<sup>2</sup></i>	<i>F</i>	<i>β</i>	<i>VIF</i>	<i>N</i>
<b>Model 1</b>	3.749	0.713	0.713***	507.97***			411
CSE					0.70***	1.43	
Physician's behaviour					0.21***	1.43	
<b>Model 2</b>	3.803	0.719	0.006**	9.043**			411
CSE					0.64***	2.04	
Physician's behaviour					0.31***	3.18	
CSE× physician's behaviour					-0.12**	2.22	

**Note:** Model 1 and 2: DV= Satisfaction; P<0.001\*\*\*, P<0.01\*\*, P<0.05\*

Source: Based on Data Analysis

**Fitness of Overall Moderated Mediation Model**

The hypothesized moderated mediation model (see Figure 2) was tested in a single model using a bootstrapping approach (Hayes, 2013). Customer Service Experience (CSE) and customer loyalty were treated as the predictor and outcome variables, respectively. While satisfaction mediates the above relationship, physician's behaviour has been proposed as the moderator between CSE and satisfaction.

The "PROCESS macro", model 7, v3.4 (Hayes, 2018) in SPSS ver 22 with bias-corrected 95% confidence intervals (n = 5000) was used to test the significance of the indirect (i.e., mediated) effects moderated by physician's behaviour, i.e., conditional indirect effects. This model explicitly tests the moderating effect on the predictor to mediator path (i.e., path a). An index of moderated mediation was used to test the significance of the moderated mediation (Hayes, 2015). According to Hayes et al. (2017) though there are pros and cons of using Structural Equation Modeling (SEM), the results obtained through PROCESS macro and SEM were substantially identical.

Physician's behaviour was found to interact with CSE to influence satisfaction (b = -.11, t = -2.86, p = .004). The first stage of the mediation model (CSE → Satisfaction) was moderated. After controlling the interaction between CSE and physician's behaviour, satisfaction had a significant impact on loyalty (Satisfaction → loyalty; b = .53, t = 12.66, p < .001). When satisfaction was controlled, still there was a significant direct effect of interaction between CSE and physician's behaviour (b = .49, t = 11.28, p < .001[CI: .40, .59]). However, coefficient of the direct effect of CSE on loyalty, without interaction effect, is substantially higher, reflected through a higher significant value (b = 1.19, t = 8.84, p < .0001 [CI: .92, 1.44]). The overall moderated mediation model was supported with the index of moderated mediation = -.06 (95% CI = -.10, -.02). As zero is not within the CI, this indicated a significant

interaction effect of physician's behaviour and CSE via satisfaction on loyalty (Hayes, 2015). The conditional indirect effect was strongest in those higher in physician's behavior (1 SD above the mean of NFC; effect = .135, SE = .035, 95% CI = .067; .204) and weakest in those lower in physician's behavior (1 SD below the mean, effect = .208, SE = .038, 95% CI = .136; .283) (see Shen et al., 2016). In other words, customer service experience with hospitals and high physician's behaviour (native CSE and positive physician's behaviour) brings about strong customer loyalty through higher customer satisfaction. And also, customer service experience with hospitals associated with lower physician's behaviour (positive CSE and negative physician's behaviour)) brings about weaker customer loyalty through lower customer satisfaction.

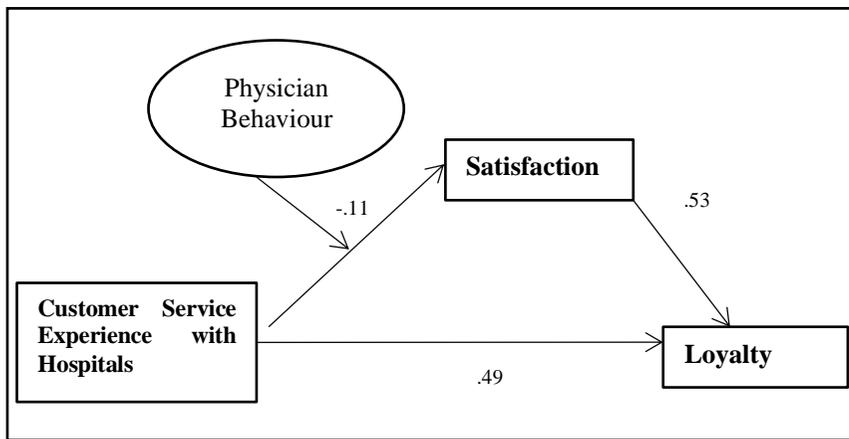


Figure 2: Moderator Mediator Effect  
Source: Based on Data Analysis

## **Discussion, Conclusion, Recommendations and Limitation**

The analysis results strongly supported the conceptual model, illustrating a solid association between customer service experience, customer satisfaction, and customer loyalty. Consistent with the findings of the prior researches (Havir,2017; Sudirman and Patwayati, 2021; Kashif et al., 2016), it was found that CSE with hospitals directly influences customer satisfaction and loyalty. The indirect influence of CSE with the hospitals through satisfaction on customer loyalty converged with similar prior findings of Kashif et al. (2016) and Sudirman and Patwayati (2021). Interestingly, the physician's behaviour in interacting with CSE with the hospitals to bring about customer satisfaction was aligned with the similar findings of Manzoor et al. (2019). Importantly, the prior researches have validated mediation and moderation effects in isolation in different industries (Kumah, 2019; Kashif et al., 2016; Manzoor et al.,2019), whereas this study has validated the moderator-mediator effect on a single model. Thus, the study advances the knowledge of consumer service experience by understanding a process wherein the combined effect of customer experience and physicians' behaviour leads to customer satisfaction and, in turn, customers become loyal to a health service provider.

In conclusion, physicians' behaviour in the customer service experience process plays a pivotal role that leads to customer satisfaction and loyalty towards institutions that provide healthcare. This demonstrates the positive behaviour of physicians, for example, in relation to listening, understanding, provisioning of clear instruction etc. attenuates the negative aspects of

CSE with the hospitals and this in turn results in higher customer loyalty via strong satisfaction. Therefore, the healthcare industry practitioners should pay stronger attention in designing healthcare services processes (laboratory and diagnostic care, preventive healthcare and prenatal care) by taking into account the concerns of the actors at every service delivery point (De Meyer et al., 2013; Ali, Kim, Li, & Jeon, 2018). Importantly, physicians could act positively in every aspect of patients (Ryu et al., 2003; Manzoor et al., 2019) and be concerned about their behaviour introspectively from the feedback given by the patients, taken through proper channels.

Growing demand for health services, curtailed expenditure on expanding public health services, and poor interpersonal relationships of public medical professionals have created massive opportunities for private health service providers (Kmar, 2019; Russell, 2005). Meanwhile, policy directions of the government to facilitate the private sector by attenuating barriers (Ramesh et al., 2014; Kmar, 2019) indicate a sign of being the health service sector more competitive. Relative flexibility of the private health sector, quality of care, convenient service environment and freedom to choose the doctor and continue with the same have provided room to attract patients from the public sector (Salgado, 2012). However, since the private sector mostly depends on public medical professionals whose interpersonal skills are weak (Russell, 2005), gaining competitive advantage and making loyal customers appears challenging unless they are concerned about their behaviour introspectively to improve interpersonal skills.

Two factors limit the use of findings of this study. First, using indoor and outdoor patients (outdoor patients are less likely to go through internal service delivery points and mostly appear to follow respective physicians) as the sample and obtaining information on CSE and physician' behavior with a time lag might have limited the usability of these findings. Next, the data collection was carried out between March-May 2021, when COVID 19 pandemic had severely affected the country. During this period, patients were reluctant to visit hospitals and service process arrangements were also different from normal conditions. Responses would have been slightly different if the questionnaire had been administered during normal conditions (Birkmeyer et al., 2020). However, since COVID 19 is a health-related issue, patients' experiences and physician's behavior were less likely to be abnormal. In future, similar research can be carried out by considering only the indoor patients.

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