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WILL BRANDING ENGAGE PERPETUAL BONDING IN HEALTHCARE?

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ABSTRACT

A brand is the promise of value and is imperative in all aspects of the industry. Retaining existing customers and attracting new customers has always been the challenge faced by service-based industries, which include private healthcare, primarily in hospitals. As a niche sector, private hospitals' tasks address demanding customer expectations. Based on the past reviews of the literature, this study proposes a few aspects to be investigated in the context of private hospitals in Malaysia. Data was collected and distributed using an online survey. The model was validated using Smart PLS (version 3.3.2) software and SPSS for data analysis. The sampling technique used was non-probability. The analysis revealed that brand trust significantly correlates with customer brand engagement which subsequently influences brand equity in private hospitals and is moderated by service quality for critical incidence. These findings give insight to policymakers, the healthcare industry, mainly private hospitals and academic fields to discover the influences to contemplate in this sector and remain competitive strategically.

Keywords: Brand trust, customer brand engagement, brand equity, service quality critical incidence, healthcare industry.

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1. INTRODUCTION

Healthcare in Malaysia has a hybrid delivery system, including the government and private healthcare providers. Most of the population ensures reasonable access to health care services through public and private hospitals. The healthcare industry is gaining extensive attention in developing countries. The changes in Malaysia's healthcare system are due to urbanization that elevated greater clientele demand for efficient and quality services. The dynamics of healthcare demand and supply in developing countries favour private hospitals to grow tremendously (Bedir,2016; Nah & Osifo-Dawodu, 2007). Treatments in private hospitals in Malaysia balance the

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people's needs in the country (Piaralal & Tan, 2015). Therefore, the greater focus on private practices in urban areas is due to the affluent community demand. As such, the services provided by private hospitals are remedial and selective, mainly for the high-income society that can afford high out-of-pocket payments (Thomas, Beh & Nordin, 2011). Therefore, to be in a competitive position that might ultimately boost brand equity, hospitals need to influence customers via their attitudinal and behavioural processes to understand their requirements and create strong relationships.

Nowadays, middle-class citizens are also going to private hospitals for treatment, and this is made possible due to the advancement in private health insurance or medical insurance provided to their employees by employers that allow them to choose and engage with their preferred private hospitals. As a result, there is a higher demand from consumers. Therefore, private hospitals take this opportunity to promote their services to cater to the needs of consumers from various socioeconomic segments (Rasiah, et al., 2017). However, government rules and regulations, on the other hand, limit the direct advertising that private hospitals may carry out in Malaysia. As a result, private hospitals must devise a strategy for marketing their services. So, one of the subtle methods of marketing is branding. It will ensure that a consistent message is delivered, and, more significantly, the message attracts, engages, and motivates consumers to accept it. Knowing today's customers will change tomorrow as they have endless choices like never before will drive private hospitals to continually align with shifting market trends by communicating new values to the consumer needs. Undeniably, branding in a private hospital is different from other industries because it primarily relies upon consumers' trust (Ackovska et al., 2020). It helps private hospitals ensure they are perceived the way they want to, such as trusted, caring, knowledgeable, and experienced, to make a lasting impression, which builds up a relationship with consumers and creates loyalty.

As such, customer brand engagement becomes the focus for private hospitals to sustain in competitive situations in the market. Several works done by (Lee et al., 2020; Sharp 2011; Keeling et al., 2018) have proven customer brand engagement to be crucial for the service-based industry in the context of hospitals. Meanwhile, a study carried out in the hospitality sector by Rather et al. (2018) has shown that highly engaged customers will participate dynamically if offered new services. Aligning with that, fostering customer brand engagement in private hospitals can be integral to maintaining a continuous relationship with customers that builds brand equity. Likewise, a recent study by Ho and Huang (2020) revealed that brand equity plays a pivotal role as one of the most intangible assets in a service-based industry. Past research has been carried out by (Chahal & Bala, 2012; Altaf et al., 2018) related to brand equity in healthcare contexts. More research should be carried out on brand equity prudently, as this will contribute to the pool of literature on healthcare branding and benefit the healthcare industry simultaneously (Altaf et al., 2018). Thus, this study examines various brand elements, including brand trust, customer brand engagement and brand equity, which prominently affect private hospitals in Malaysia. By having all these, the hospitals can subtly market their services to attract more customers.

Although branding is a new way for marketers to market their services, the efficacy of this method is yet to be proven. No perfect hospital conditions have ever existed for consumers. Hence, even with all these branding fundamentals, unexpected critical incidents in hospitals cannot be avoided. Past studies by Paulssen and Sommerfeld (2015) and MacDonald (2013) relating to critical incidence show that the significance of consumers relationship has been affected. Hospitals have

realized the need to focus on service quality to improve their competitive positioning (Kandampully,1998; Tuzkaya et al., 2019; Abu-Nahel et al., 2020). Therefore, service quality for critical incidence was studied as a moderator to deepen the understanding of consumers' decisions which can predict the success of the healthcare industry in sustaining a long-term relationship.

This study will make a significant contribution to the development of private hospital branding concepts by testing relatively new relationships that are critical and timely to explore in order to develop substantial brand equity that will outperform other competitors in the Malaysian marketplace. Furthermore, branding helps private hospitals to achieve significant standards and service consistency. The findings from this study will help private hospitals achieve significant standards and service consistency as a foundation by opening an opportunity for private hospitals to break through as a medical tourism hub to serve a broader market segment.

2. LITERATURE REVIEW

2.1. Theoretical Underpinning

"Stimulus Organism Response" (SOR) was developed by Mehrabian and Russell (1974). S stands for Stimulus, O for organism and R for Response. The S-O-R theory states that the stimulus triggers a response based on an internal evaluation of the organism. This internal evaluation can be conscious or unconscious. An effective stimulus develops engagement that other competitors cannot easily replicate. Thus, it builds an identity for a brand that makes it easy for consumers to engage and promote it to develop brand equity (Wheeler, 2013) for effective brand building (Tan, 2020).

Moreover, several past studies represented the brand as a stimulus (Othman et al., 2016; Park & Lennon, 2009), engagement as an organism and brand equity as the response (Ho & Chung, 2020; Xi & Hamari, 2020). Thus, this study utilizes the S-O-R theory as the theoretical basis to link brand trust, customer brand engagement and brand equity to enhance customers' long-term relationships with private hospitals. Besides, according to Baron and Kenny (1986), the moderator functions as an independent variable between the two other variables. Similarly, Phan and Pilík (2018) also explained that interactions between mediating and moderating variables are commonly employed in analyzing variables based on the stimulus–organism–response paradigm.

2.2. Brand Equity

From a customer-based view, Keller (1993) considers brand equity as the "differential effect of brand knowledge on customer's response to a brand's marketing". Given the intense competition among Malaysian private healthcare players and coupled with increasing consumer demand, it is essential for hospitals to influence them through their attitudinal and behavioural processes to understand their needs to create a solid relationship to build a competitive position that could consequently improve the brand equity (Kumar et al., 2018; Kumar et al., 2013; Martínez & Nishiyama, 2019; Molinillo et al., 2017; Voorhees et al., 2006) of the hospital in achieving a competitive advantage, and is considered to be the critical factor for increasing the market share and building a sustainable environment (Wisker & Kwiatek, 2018). An organization with positive brand equity provides various advantages. In Malaysia, several studies (Fong & Goh, 2021; Piaralal

& Tan, 2015; Baharun et al., 2019) demonstrated the significant role of brand equity in private healthcare. Thus, specific branding strategies adopted by companies may leave a lasting impact on customers' minds (Keller, 2009). To achieve this, companies need to understand how brand equity can be leveraged to enhance profitability (Girard, Trapp, Pinar, Gulsoy & Boyt, 2017; Ghodeswar, 2008). However, understanding brand equity impacts on service brands has been complex (Huang & Cai, 2015). Therefore, there is a need to investigate and understand deeper and clearer brand equity roles from the healthcare perspective.

2.3. Brand Trust

Trust is viewed as one of the most appreciable qualities in any relationship. From a branding perspective, brand trust refers to the beliefs and willingness of consumers to depend on a brand despite the uncertainties related to the brand (Delgado-Ballester, Munuera-Alemán & Yagüe-Guillén, 2003; Becerra & Korgaonkar, 2011; Chaudhuri & Holbrook, 2001). A study by Chiu, Chang, Cheng, & Fang (2009) noted that trust induces positive feelings and increases revisit intention. Findings supported by (Kemp, Jillapalli & Becerra, 2014; Berry, 2000) studies revealed that brand trust is a significant element in building a relationship with clients in the healthcare industry. It enhances customer intimacy, and such bonding helps hospitals maintain long-term relationships with their customers (Zheng, Hui, & Yang, 2017; Kim, Kim, Kim, Kim & Kang, 2008; Bradach & Eccles, 1989). Moreover, trust is a driver of customer brand engagement, creating support and connections in fostering long-term customer relationships (Agyei, Sun, Abrokwah, Penney & Ofori-Boafo, 2020). In line with that, several past studies pointed out that trust and engagement are closely related and suggest that the more significant the trust, the stronger the engagement (Krot & Lewicka, 2012; Perry & Mankin, 2004; Nguyen et al., 2018; Swarnalatha & Prasanna, 2013; Alfes, Shantz & Alahakone, 2016). Moreover, a recent work by Håvold et al. (2020) asserted that the previous studies' findings are relevant to a trust-engagement relationship. The more one trusts a brand, the more expectation grows higher based on the promises the brand fulfils to its customers. It is associated with social exchange theory; when one provides benefits, the other acknowledges with appreciation (Nunkoo & Ramkissoon, 2012). Thus, it is necessary to establish the importance of trust as a fundamental element when one is engaging in social exchange relationships. Several branding works of literature (Sheth & Parvatiyar, 1995; Luo, 2002) have highlighted the significance of brand trust theoretically, yet brand trust needs more exploration, especially in the service-based industry, to build a strong relationship with organizations. Therefore, a pertinent line of enquiry is necessary to investigate how brand trust affects customer brand engagement in private hospitals.

H1: There is a relationship between brand trust and customer brand engagement.

2.4. Customer Brand Engagement

Customer Brand Engagement is a consumer's positive cognitive, emotional and behavioural activity related to focal consumer–brand interactions (Hollebeek et al., 2014). Customer Brand Engagement has received increasing attention in the marketing literature over the last decade (Hollebeek et al., 2014). Despite this considerable interest, consumer brand engagement seems to lack consensus on what it is about (Dessart et al., 2015). A plethora of existing studies on consumer brand engagement focus on the psychological process that occurs due to a consumer's experience with an object (e.g., a brand) (Brodie et al., 2011; Hollebeek, 2011; Hollebeek et al., 2014) and

behavioural aspects of the relationship (van Doorn et al., 2010; Bruneau et al., 2018). Besides that, numerous studies have proven that engagement favourably influences brand evaluations to build a significant relationship to create brand equity (Tsai & Men, 2013; Beukeboom et al., 2015; Naylor et al., 2012). Highly engaged consumers help the organization by providing reliable information to others. The consumers will be more loyal towards the brand, which leads to brand favour. Loyal consumers will share positive word-of-mouth, eventually increasing the brand's equity (Kuvykaite & Piligrimiene, 2014).

Moreover, the evolution of customer brand engagement takes a deeper analysis of why consumers engage in a brand or entity. Although there are numerous past studies discussed immensely on customer brand engagement, there is still no clear understanding in this area. Kuvykaite and Tarute (2015) agree that when consumers search for a product and if the consumer engages with a brand, it will strongly influence their decision-making. A work by Chahal and Rani (2017) in India provides a significant relationship between customer brand engagement and brand equity. In brief, engagement is beyond the degree of satisfaction and commitment that varies from one customer to another from different perspectives. Owing to previous studies' discussion, an engaged customer consecutively would remain in long-term relationships that build brand equity.

H2: There is a relationship between customer brand engagement and brand equity.

2.5. Customer Brand Engagement as Mediator

In order to define the nature of the study more accurately and functionally, mediating variables may explain the type and consequences of the relationship between independent and dependent variables (Baron & Kenny, 1986). In a mediational model, it is assumed that the dependent and independent variables have no direct relationship. Therefore, the reason for assessing mediation is to learn more about how the causal variable affects the outcome (Kenny & Judd, 2014). Succinctly, the relationship between the independent (predictor) and dependent (criterion) variables is explained by a mediating variable. It explains how or why two variables have a relationship. Thus, a mediator is a possible process by which an independent variable can influence a dependent variable. As such, in the business environment, mainly in-service industry (i.e., healthcare), customer and organization interactions hinge on trust and engagement accomplishment (Kumar et al.,1995; McFarlin & Sweeney,1992; Wang & Hsieh,2013). Studies also have shown that customer brand engagement has been used as a mediator in banking services, telecommunications, uber services, and the cosmetics sector (Li & Wei, 2021; Machado et al., 2019; Ramly & Omar, 2016; Yen et al., 2020). Findings from all these researches revealed to have a significant relationship. In line with that, this study predicts that when a consumer trusts a private hospital and delivers best practices, it will help establish engagement with the private hospitals. Eventually, this continuous engagement, in turn, will enhance the private hospital brand equity. Similarly, preceding studies on customer brand engagement as a mediating variable by (Samala & Katkam, 2019) and the recent work by (Ho & Chung, 2020) indicated that customer engagement could increase brand equity. Thus, the current study would like to extend this line of research by hypothesizing that customer brand engagement mediates the relationship between brand trust and brand equity.

H3: Customer Brand Engagement mediates the relationship between brand trust and brand equity.

2.6. Service Quality Critical Incidence as a Moderator

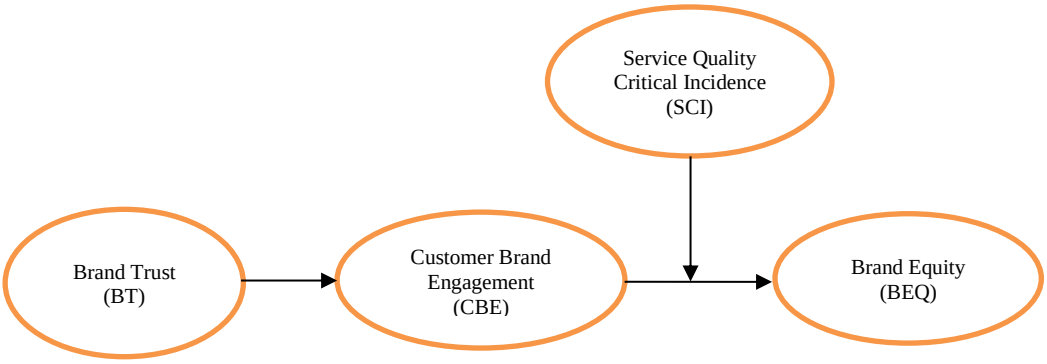
A moderator variable is a specification variable which could modify either the strength and/or the form of the relationship between a set of predictor variables or criterion variables (Namazi & Namazi, 2016; Ying et al., 2012). In this study, the predictor variable is customer brand engagement, the criterion variable is brand equity, and the specification variable is service quality critical incidence. Generally, critical incidents create a stressful environment for people involved in tense situations, and they may need support to reduce the risk of exhaustion. Any incidence that happens suddenly and beyond the expected range or significantly deviates from customers' expected aspects of the service provided and in terms of how the hospital managed the situation during the plight will increase stress in an individual experience is known as critical incidence (Gabbott & Hogg, 1996; Mitchell & Everly, 1995; Paulssen & Sommerfeld, 2015; Roos, 2002). In the healthcare industry, the outcome of service quality for critical incidence (SCI) potentially affects the families, friends and, more intensely, the immediate patients (Tontini et al., 2019). A previous study by MacDonald (2013) stated that any error or mistake in healthcare, especially in hospitals, can be immensely devastating and risk the affected individuals' quality of life. In emergency services, unexpected human errors, personal loss or injury that leads to death or severe injury are critical incidents (Rothschild et al., 2005). Human error is one of the contributors to the majority of critical incidents. A prompt and fair investigation in the healthcare industry is ultimately crucial. Subsequently, a study by Gurses and Carayon (2007) revealed severe patient safety and service quality problems in the healthcare industry that requires fundamental change.

Moreover, (Chaudhury et al., 2006; Ahmed et al., 2013) also found that healthcare processes could be better designed and have unnecessary duplication of services, long waiting times and caused patient delays. Increasing the duration of the relationship and the growing frequency of interactions between customer and organization will eventually lead to destructive acts and unpleasant behaviour, whether in personal or customer–firm relationships (Rusbult et al., 1991). The investigation process carried out during or after the critical incident influences consumer perception of an organization (Ahluwalia & Marriott, 2005). Notably, harm caused to the patient through service quality critical incidents is about 10% of hospital admissions annually (Ahluwalia & Marriott, 2005). Based on the above arguments, the focus is to test whether service quality critical incidence plays a role in moderating the customer brand engagement-brand equity relationship. In line with this, it is hypothesized:

H4: Service Quality Critical Incidence moderates the relationship between customer brand engagement and brand equity.

The study variables relationships are shown in Figure 1.

Figure 1: Conceptual Framework



3. METHODOLOGY

This study uses a quantitative approach that adopts a self-administered questionnaire. The questionnaire was adopted based on previous studies. As for data collection, consideration is given to the respondent's willingness to participate in this survey. The questionnaire was distributed through Google Forms online. Respondents are assured of the data protection and confidentiality of their information. It consists of a demographic profile, and it also has coded the respective constructs as brand trust (BT), customer brand engagement (CBE), brand equity (BEQ) and service quality critical incidence (SCI). The sampling technique employed is non-probability sampling. A total of 114 questionnaires were received from respondents. The sample size was determined using the rule of thumb (Hair, Black, Babin, Anderson, and Tatham,2010), i.e., the 5 to 1 ratio in which each indicator variable requires five responses to determine the optimum sample size. The number of items is 20. Thus, the sample size required in this study should be at least 100 (20x5). The total sample of 111 respondents is deemed sufficient to analyse the data. Before analysing the data using PLS (version 3.3.2), the data were checked for outliers, which are the values that deviate significantly from other values using SPSS Version 21. Three outliers were detected and removed from the data set. Therefore, the remaining 111 questionnaires were used to proceed with the analysis. The data analysis mainly used SmartPLS to run the construct reliability and bootstrapping analysis.

There are three sections in the questionnaire. The first section collected respondents' general information, such as the visited private hospital. The second section measured Brand Trust (BT), Customer Brand Engagement (CBE), Brand Equity (BEQ), and Service Quality Critical Incidence (SCI), and the final section was on demographic data. Cover notes in the questionnaires clarified the study's importance and objectives to ensure the confidentiality of respondents' information. The scales were adapted from past studies, and slight changes were made to relate to this study's setting. The questionnaire was validated through content validation and face validation. Opinions from private healthcare practitioners and academic experts were sought to provide relevant feedback. Their critical comments on the questionnaire were amended, reworded and rectified accordingly. Brand Trust was borrowed from Delgado-Ballester and Munuera-Alemán (2001), Customer Brand

Engagement from Bruneau et al. (2018), Brand Equity was generated from Voorhees et al. (2006) and Molinillo et al. (2017) and Service Quality Critical Incidence from Tontini et al. (2019). All the items were measured using a five-point Likert scale where 1= "strongly disagree" to 5 = "strongly agree" to reflect participants' agreement or disagreement with each question.

4. RESULTS AND ANALYSIS

4.1. Profile of Respondents

The descriptive analysis of the respondents' profiles is presented in Table 1. Most of the respondents were female, accounting for 50.5%, and the male respondents accounted for 49.5%. As for the age group, 35.1% were in the age range of 21-30 years old, followed by 32.4% in the 31-40 years old category. About 22.5% of respondents were 41-50 years old, and 9.9% were above 50. Regarding ethnicity, 7.2% were Malays, 40.5% were Chinese, 48.6% were Indians and 3.6% other races. In terms of marital status, 45% were single, 50.5% married, followed by 3.6% divorced and 0.9 % widow/widower. Besides, the majority of professions were from the administrative and managerial sectors; 31.5% from sales, 20.7% from service and 14.4% from technical, respectively. Most of them (35.1%) were from the income category below RM3,000, followed by 33.3% from RM 3,001 – RM 6,000 and only 1.8% from the income category of RM 12,001 - RM 15,000. Finally, the hospitals they had visited recently were Columbia Asia Hospital (19.8%) and KPJ (18.9%), and Prince Court Medical Centre was the least visited hospital, with only 0.9%. Most of the hospitals visited are located in Klang Valley, which accounts for 82%, and the remaining 18% are hospitals from other states such as Perlis, Penang, Perak, Malacca, Negeri Sembilan, Johor and Sabah in Malaysia.

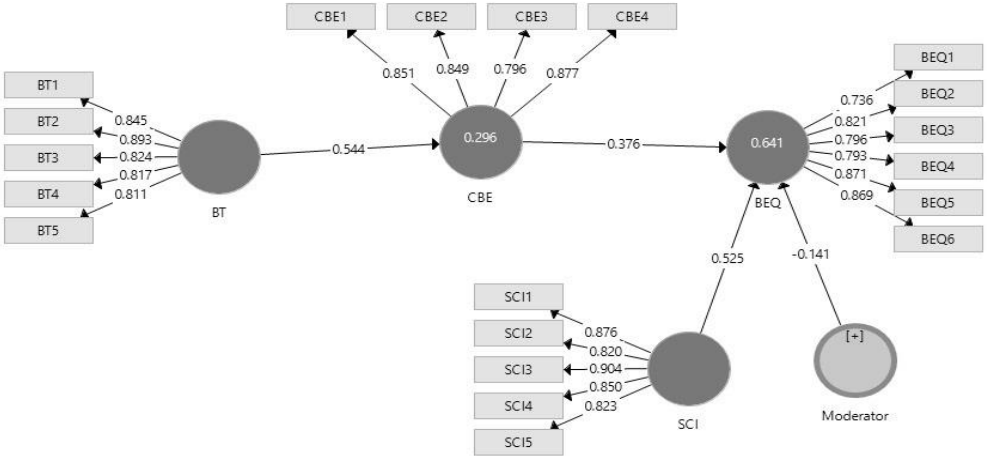
Table 1: Profile of Respondents

Demographic Variables	Category	Frequency	Percentage (%)
Gender	Male	55	49.5
	Female	56	50.5
Age	21-30 years	39	35.1
	31-40 years	36	32.4
	41-50 years	25	22.5
	50 and above	11	9.9
Ethnicity	Malay	8	7.2
	Chinese	45	40.5
	Indian	54	48.6
	Others	4	3.6
Marital Status	Single	50	45
	Married	56	50.5
	Divorced	4	3.6
	Widow/Widower	1	0.9
Profession	Administrative and Managerial	35	31.5
	Technical	16	14.4
	Sales and service	23	20.7
	Non-Executive	1	0.9
	Educator	9	8.1
	Student	8	7.2
	Entrepreneur	6	5.4

	Others	13	11.7
Income	Below RM3,000	39	35.1
	RM 3,001 – RM 6,000	37	33.3
	RM 6,001 – RM 9,000	18	16.2
	RM 9,001 – RM 12,000	12	10.8
	RM 12,001 - RM 15,000	2	1.8
	Above RM 15,000	3	2.7
Hospital	Sunway Medical Centre	16	14.4
	Subang Jaya Medical Centre	13	11.7
	Pantai Medical Centre	14	12.6
	Gleneagles Hospital	3	2.7
	Assunta Hospital	5	4.5
	Prince Court Medical Centre	1	0.9
	KPJ Hospital	21	18.9
	Columbia Asia Hospital	22	19.8
	Others	16	14.4
Location	Klang Valley	91	82
	Other States	20	18

The hypothetical model developed in this study (Figure 1) was examined using partial least squares path modelling (PLS-SEM). It is particularly suitable for prediction (Urbach & Ahlemann, 2010) and Hair et al. (2014) recommended it to examine both the reflective and formative models. It is also known as a superior method for exploratory methodology, as stated by Mohammad et al. (2016). As recommended by (Hair et al., 2014), bootstrapping strategies with 5,000 resampling should be applied to look at the centrality of the loadings and path coefficient (Figure 2).

Figure 2: Measurement Model



4.2. Measurement Model Assessment

Table 2 demonstrates the construct reliability assessment and the variable's convergent validity of this study. Similarly, the measurement model was evaluated using convergent and discriminant validity (Mohammad et al., 2019). All the respective construct items are highly loaded and have confirmed high levels of internal consistency with the composite reliability (CR) values of 0.922 (BEQ), 0.922 (BT), 0.908 (CBE), and 0.932 (SCI). Thus, the variables demonstrate good convergent validity (Ting et al., 2016). All the constructs achieved an average variance extracted (AVE) value with a minimum threshold of at least or more than 0.500 (≥ 0.500), which depicts that the constructs averagely explained more than half of the construct's variances (Hair et al. 2014) that are considered as satisfactory. The results of this study indicate that all the constructs of AVE surpassed the threshold values of more than 0.500 (≥ 0.500), in which the values lie between 0.665 to 0.732.

Table 2: Assessment of Measurement Model

Constructs	Items	Loading	AVEs	CRs
BEQ	BEQ1	0.736	0.665	0.922
	BEQ2	0.821		
	BEQ3	0.796		
	BEQ4	0.793		
	BEQ5	0.871		
	BEQ6	0.869		
BT	BT1	0.845	0.703	0.922
	BT2	0.893		
	BT3	0.824		
	BT4	0.817		
	BT5	0.811		
CBE	CBE1	0.851	0.712	0.908
	CBE2	0.849		
	CBE3	0.796		
	CBE4	0.877		
SCI	SCI1	0.876	0.732	0.932
	SCI2	0.82		
	SCI3	0.904		
	SCI4	0.85		
	SCI5	0.823		

Notes: * AVE = average variance extracted; CR = composite reliability.

Theoretically, discriminant validity demonstrates that each construct in the conceptual model used different criteria to evaluate, and there are differences from one another (Mohammad et al.,2019). Likewise, based on Fornell and Larckers (1981) criteria, the AVE square root should have a greater value in the correlation between the constructs in rows and columns. About the criterion, the diagonal values shown in Table 3 have AVEs square root values larger than the vertical and horizontal correlation between other constructs.

Table 3: Assessment of Discriminant Validity Using Fornell and Larcker

Constructs	BEQ	BT	CBE	SCI
BEQ	**0.816**			
BT	0.710	**0.839**		
CBE	0.619	0.544	**0.844**	
SCI	0.730	0.724	0.487	**0.855**

Heterotrait–Monotrait (HTMT) represents the ratio of within-construct correlations to the between-construct correlation (Henseler et al., 2015) and the values must be less than 0.85 (Gold et al., 2001). Also, HTMT was used to test the null hypotheses (H0: HTMT $\geqslant$ 1) against the alternative hypothesis (H1: HTMT< 1), to confirm if the confidence interval includes 1, then it is not possible to reject H0, which indicates a lack of discriminant validity. Table 4 output reveals for all the constructs the HTMT values are less than 0.85. Thus, this verify the discriminant validity was achieved as the confidence interval for all HTMT values did not include the value of one. Therefore, the measurement model has reached a satisfactory level in terms of validity and reliability which allows to move forward to evaluate the structure model.

Table 4: Assessment of Discriminant Validity Using Heterotrait-Monotrait (HTMT)

Constructs	**BEQ**	**BT**	**CBE**	**SCI**
BEQ				
BT	0.787			
	CI97.5:0.682 - 0.87			
CBE	0.686	0.611		
	CI97.5:0.525-0.826	CI97.5:0.459-0.752		
SCI	0.804	0.808	0.549	
	CI97.5:0.693-0.894	CI97.5:0.702-0.894	CI97.5:0.362-0.721	

4.3. Structural Model Assessment

The structural model's goodness is determined by the significance level of path coefficients and values of coefficient of determination (R^2) (Hair et al., 2014; Ringle et al., 2012). Also, Falk and Miller (1992), stated that the R^2 value should be greater than 0.10 to reach the least level of explanatory power. Next is PLS algorithm, followed by PLS bootstrapping was run on the full model with 5,000 resamples to generate the path coefficient and their corresponding t-values (Hair et al., 2014). All the hypotheses in this study are developed in the same direction and a one-tailed test was applied. Based on Table 5, it reveals that BT (β = 0.544, t = 8.722, p < 0.01) and CBE (β = 0.376, t = 5.466, p < 0.01) provide support for H1 and H2. The model's predictive ability was decided based on Stone-Geisser's Q^2 (Geisser,1975; Stone, 1974). Q^2 values greater than zero indicate that the model has predictive relevance (Fornell and Cha, 1994). In this study, the Q^2 values of BT and CBE are 0.202 and 0.407 (Table 5). Since the values are greater than zero, thus the structural model has predictive relevance (Fornell and Cha, 1994).

Table 5: Structural Model Result for Direct Relationship

Hypotheses	Path Coefficient	t-value	Decision	R^2	f^2	Q^2
H1: BT→CBE	0.544	8.722	Supported	0.289	0.42	0.202
H2: CBE→BEQ	0.376	5.466	Supported	0.631	0.29	0.407

In this study, the role of CBE as a mediator was examined using bootstraps with the indirect effect with 5,000 resamples as recommended by Preacher and Hayes (2008). The result of bootstrapping procedures in Table 6 shows the indirect effect of $\beta 1$=0.205 (0.544×0.376) with *t*-values of 4.197. Therefore, H3 is supported. As for the moderation effect, the values of $\beta 2$, *t* and *p* were $\beta 2$ = -0.14, t = 2.206, $p < 0.05$, respectively. The result indicates H4 is supported with a negative interaction term. The higher SCI level entails a weaker relationship between CBE and BEQ, while lower SCI leads to a stronger relationship between CBE and BEQ.

Table 6: Structural Model Result for Indirect Relationship

Hypotheses	Indirect effect	*t*-value	Decision	Mean	SD	*p*-value
H3: BT → CBE → BEQ	beta = 0.205	4.197	Supported	0.213	0.049	0.000*
H4: SCI → CBE → BEQ	beta = -0.14	2.206	Supported	-0.139	0.064	0.027*

Note: * $p < 0.05$.

5. DISCUSSION

This study examines the mediating role of customer brand engagement between brand trust and brand equity. It further analyses the presence of service quality critical incidence as the moderator. Brand trust in private hospitals is seen as a valuable intangible asset that plays a significant role in delivering products or services to meet customer expectations. In this study, the relationship between brand trust and customer brand engagement shows a significant result parallel with a past study by Alfes et al. (2016), which also indicates that brand trust has a direct relationship with customer brand engagement. A study in Norway & Finland by Håvold et al. (2020) in the healthcare sector also shows a significant relationship between trust and engagement. Likewise, the relationship between customer brand engagement and brand equity shows a significant result in this study. It is concurrent with the study of Chahal and Rani (2017) in India that shows a significant relationship impact between these two constructs. As for the mediation effect among brand trust, customer brand engagement towards brand equity indicates a significant relationship. It is in line with a study by Samala and Katkam (2019) and Ho and Chung (2020), which explained that when trust is higher, the relationship between customer brand engagement and brand equity is stronger.

On the other hand, the results of the moderation effect of service quality critical incidence possibly explain that the quality of services rendered to the customers/patients in a time of need is up to their expectations. It is similar to previous research findings (Tontini et al., 2019). The moment of truth in the time of need reflects the turning point for most patients/visitors of private hospitals as they provide similar services in general. In this study, service quality critical incidence shows a negative relationship between customer brand engagement and brand equity. Thus, this clarifies that the high impact of service quality critical incidents on patients/visitors will lead to the relationship between customer brand engagement and brand equity demanding more competence. Through branding, private hospitals build brand trust and customer brand engagement towards brand equity and exhibit concerns about service quality critical incidence by providing good services. Hence, the theoretical contributions confirm that customer brand engagement as a mediator will enhance the relationship between brand trust and brand equity preferential services in the private hospital's context.

6. CONCLUSION

This study reflects a comprehensive involvement between brand trust, customer brand engagement, brand equity and the moderating role of service quality critical incidence. Furthermore, it implies the preference for private hospitals which is highly dependent on the services rendered with genuineness towards the complexity of personal situations when getting treatment. Likewise, this current study presents practical implications that will assist healthcare administrators focused on private hospitals by creating more coordinated ways to build brand equity. It will also give the private hospitals' administrators clear guidelines on the various marketing paradigms that may influence consumers' brand fascination. Competitiveness allows for thoughtful decisions as private hospitals must perform their best services as part of their central branding strategy. Branding is an indirect marketing method that private hospitals may consider since rules and regulations prevent private hospitals in Malaysia from advertising their services and expertise more rigorously. Generalizing this precept, branding puts forward a new approach to invoke the notion that private hospitals share their core competency. Similarly, it is essential for the competitiveness of private hospitals to identify unique opportunities for differentiation and capitalize on those opportunities in which the brand should reflect as a lens for consumers to view and enact changes in the industry's competitive landscape.

This current study also adds more valuable understanding to the existing body of knowledge for customer brand engagement as a mediator predicted to be conclusively constructive in determining brand equity for service-based industries (e.g., hospitals). This study contributes to branding literature and service-based industry such as a hospital. The measurement model results confirmed the validity and reliability of the items of constructs adapted from past literature. Besides, this study's outer loadings, internal consistency, composite reliability, and convergent and discriminant validity are significant. The limitations refer to the limited number of constructs used to examine private hospitals' brand equity in this study. Furthermore, a more significant number of respondents could yield a reliable result. A cross-sectional study using a longitudinal type is recommended to be considered by future researchers.

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