A Cognitive-Affective-Behavioral Responses of Customer Experience (CAB-CE) Model for Service Delivery Improvement in the Healthcare Industry

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***Abstract*— The healthcare industry is shifting towards customer-focused similar to other service industries. The healthcare service providers and theorists have developed various measurement tools of customer experience (CE) to sustain the business. However, there are still unresolved issues related to CE measurement tools in the healthcare context need to be addressed. First, CE measurement tools still fail to capture the customers' journey towards healthcare service experiences truly. Second, the relevant variables representing each phase of CE, as well as their interrelationships, have rarely been explored and examined in the healthcare service industry. Thus, this research aims to develop and validate a CE measurement model by considering the relevant variables by representing three phases of customers' journey towards healthcare service delivery, namely cognitive, affective, and behaviour responses (CAB-CE). This research was conducted at Malaysian public hospitals. The customers who experienced service delivery at Malaysian public hospitals were selected as the respondents. The data were gathered via a questionnaire sent to the respondents using the convenience sampling technique. In total, 215 completed questionnaires were then proceeding to the data analysis stage. The structural equation modelling (SEM) using AMOS was performed to test the applicability of the model developed. SEM was also performed to simultaneously test the relationships among the variables of CE in a single model. The results revealed the validity and applicability of the CAB-CE model in measuring the CE in the healthcare service industry. Besides, the structural analysis has proven the relationships among the variables of customers' journey phases. Developing a CAB-CE model is hoped to contribute to the improvement of the existing CE measurement tools, both practically and theoretically, within the context of healthcare service.**

Keywords*— *Customer experience, service delivery, healthcare service industry.

1. Introduction

In the Eleventh Malaysia Plan (2016-2020), the service sector will continue to be the primary driver of economic growth. The service sector is expected to grow at 6.8% per annum and contribute 56.5% to the GDP in 2020, providing 9.3 million jobs. Under the framework for the New Economic Model, several service industries including education and training services, healthcare, tourism, telecommunication and mobile services, financial services, green technology, and creative industries have been targeted to serve as the engine of growth to propel and sustain the economy. As a result, this scenario creates a considerable challenge among service providers, especially the healthcare industry, to deliver world-class service experiences to customers. Healthcare is a high contact service industry in which the measurement of customer experience is challenging and scarce [1], [2], [3], [4].

The concept of customer experience (CE) has become increasingly important as a generic strategic tool for attracting and retaining the customers with the company [5]. Service providers have utilized various tools to measure CE in healthcare service delivery. The Net Promoter Score (NPS) is the most popular tool applied in healthcare companies and the National Health Service (NHS) to gauge the loyalty of companies' patient relationships. Next, the Customer Experience Index (CEI) has been used to measure how customers assessed the ease of service experiences. Academic theorists have also developed models, indicators and scales to evaluate customers' experiences in a service context, including healthcare. Models such as SERVQUAL [6], [7], [8], SERPERF [9], the Grönroos Model [10], and most recently the Customer Experience Quality (EXQ) [2] used to measure customers' experiences with service delivery based on tangible and intangible service attributes.

Although various tools have been developed to gauge CE in the healthcare context, a vital issue needs to be highlighted; they still lack in their ability to capture the customers' journey with service delivery truly. The criticism of CE measurement tools, including NPS, SERVQUAL and SERVPERF have been discussed among practitioners and

academicians. For instance, [11] researched the CE across service industries in Malaysia. The research concluded that the service companies need to design their CE approach by looking at different stages of customers' journey, such as the purchase and post-purchase stages. More precisely, the academic scholars concluded that a significant problem of CE measurement tools in service contexts including healthcare is failed to measure the phases of customers' journey, which supposedly involves three phases of interaction, namely cognitive, affective and behavioural responses [12], [13], [14], [15], [16], [17], [18]. Thus, there exists a need to develop and validate a comprehensive model to measure CE towards healthcare service delivery throughout the real phases of customers' journey, namely cognitive, affective and behavioural responses, or the CAB-CE model. Moreover, the developed CAB-CE model would specify the relevant variables to represent each phase of CE towards healthcare service delivery and examine the interrelationships among them.

2. Literature Review

There are growing numbers of organizations that implement the principles of customer experience (CE) including healthcare companies as a strategic tool to generate customer loyalty [1], [5], [19]. Reviews of the related literature indicated that the conceptualization of CE involves three different phases of customers' interaction namely cognitive, affective and behavioural responses [12], [14], [20], [15], [16]. For instance;

'A customer experience is defined as the customer's direct and indirect experience of the service process, the organization, the facilities, and how the customer interacts with the service firm's representatives and other customers. These, in turn, create the customer's cognitive, emotional and behavioural responses and leave the customer with memories with the experience' ([12], p. 238).

However, there is a little attempt to understand CE from the aspects of cognitive, affective and behavioural responses [21]. The need for understanding CE phases leads this literature search to the attitude model. The concept of attitude has provided a significant contribution in explaining the consumer behaviour in service context [22], [23], [24], [25], [26]. Attitude is defined as *'learned predisposition to behave in a consistently favourable or unfavourable way concerning a given object'* ([27], p. 281). The first view of human behaviour indicates that attitude model consists of three components, namely cognitive, affective, and conative. The cognitive component refers to knowledge or beliefs about the attitude object. The effect is a technical term of positive or negative feelings. Thus, the affective component reflects feeling regarding the attitude object. The conative component reflects the behavioural tendencies towards the attitude object.

2.1 Theories Underpinning the Customer Experience Phenomenon

The theoretical perspective is required to explain a more systematic view of CE phenomenon within a service context. The following discusses the underpinning theories of CE phenomenon.

i. The MEC Theory

[28] adapted the MEC model [29] to understand the customer's cognitive structure in the service context. Service information is retained in the customer's memory at four levels of abstraction. At the lowest level, service attributes refer to functional benefit or service offered [30], [31]. At the second level of abstraction is service quality. Service quality is defined as the discrepancy between customer's perceptions of services offered and their expectations about firms offering such services [7]. The customer assesses the service quality through a variety of attributes encompassing intangible and tangible elements [32]. At the third level, service value is defined as a cognitive trade-off between perceptions of quality and sacrifice made by the customers [33]. [29] stated that service value could be referred to as the perception of customer towards service rendered between what is received (get) and given. Finally, at the fourth level, personal service values refer to the customers' beliefs or conceptions about end-goals or desirability [34].

ii. The Value-Percept Disparity Theory

According to value-percept disparity theory, affective phase of customers' journey is known as emotional satisfaction, which is conceptualized as the pleasurable emotional state resulting from the evaluation of service as leading or achieve individual values [35]. This theory also claims the causal sequence of post-purchase cognitive-affective processes. The emotional satisfaction is triggered by a cognitive, evaluative process in which the perceptions of services are compared to individual values. Although the value-percept disparity theory has not received much attention, its theoretical standpoint has guided researchers to extend the understanding on the customer behaviour regarding two crucial concepts, namely emotional satisfaction and values [36], [37], [38]. [39].

iii. The Fishbein Model

The Fishbein model postulates that behaviour can be predicted from the intentions that correspond in term of action, target, time and context) directly to that behaviour [40]. Researchers have pointed out that the behavioural intentions are the most accurate

indicators to predict the actual customers' behaviour towards the services [41], [42], [43]. Behavioural intentions are conceptualized as the strength of one's willingness to try while performing certain behaviours [44].

2.2 Conceptualization of the Customer Experience (CE) Variables

Based on the theoretical point of view, service delivery in the healthcare service industry is measured throughout the real phases of customers' journey, namely cognitive, affective, and behavioural responses. Each phase of customers' experiences is explained by the relevant variables. The variables are SPV, SV and SQ (cognitive phase); E-SAC (affective phase); and FBI (behavioural responses phase). Table 1 discusses the definition of the CE variables.

Table 1 Conceptualization of the Customer Experience Variables

Variables	Conceptualization
Cognitive Phase: Drawing on the MEC theory, customers evaluate the service information at three cognitive levels, namely SPV (the highest level), SV (intermediate level) and SQ (the lowest level).	
i) Service Personal Values (SPV)	Service personal values are conceptualized as a customer's overall assessment of the use of a service based on the perception of what is achieved in terms of his/her values [28].
	Personal values are conceptualized as cognitive representations of universal human requirements, which include social interaction requirement and social, institutional demands experienced by the individual [45].
	Personal values are defined as characteristics of psychographic customer segmentation system [46].
	RVS defined personal values as an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence [34].
ii) Service Value (SV)	Service value is conceptualized as an overall assessment of the utility of product or service based on perceptions of what is received and what is given. It needs a tradeoff between benefits (quality) and sacrifices [29].
	Customer value is defined as the result of a cognitive trade-off between benefit and sacrifices [47].
iii) Service Quality (SQ)	Service quality is conceptualized based on the outcome (what was delivered) and the process (how the service was delivered) of service delivery [10].
	Service quality is conceptualized based on an expectancy disconfirmation paradigm, which compares the perceptions of service received with expectations [6], [7], [8].
	Service quality is conceptualized as customer assessments of actual service experience [9].
Affective Phase: Drawing on value-percept disparity theory, affective is viewed as the emotional responses that have been generated from a customers' cognitive evaluation process.	
Emotional Satisfaction (E-SAC)	Affective is conceptualized as the customer emotional-based resulting from the evaluation of service [39].
	Affective is conceptualized as the emotional consumption response to one's perceptions of the series of an attribute that compose the product or service performance [48], [49].
Behavioural Phase: Drawing on the Fishbein model, favourable behavioural intentions are crucial indicators that signal whether customers remain with or defect from the company (behaviour of the customers).	
Favourable Behavioral Intentions (FBI)	Favourable behavioural intentions can be defined as the strength of customer willingness to try while performing certain behaviours [50].

3. Developing the CAB-CE Model

The cognitive-affective-behavioural responses model has been widely used to explain the causal sequence of CE phases within the service context [51], [52]. However, this model still lacks the theoretical foundation to specify the relevant variables that represent each phase of CE as well as their interrelationships [53], [21], [14], [54], [55]. Thus, as illustrated in Figure 1, CAB-CE model was developed by integrating the theories and knowledge across multiple research in service areas.

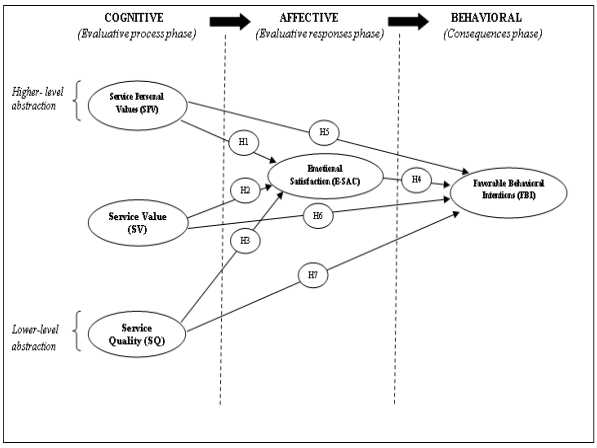

Figure 1 CAB-CE Model for Improving Service Delivery in the Healthcare Industry

The MEC theory postulated that service information is retained and evaluated in customer's memory at several levels of abstraction, including personal service values, service value, service quality, and service attributes [28], [29]. Each cognitive level evaluates different types of service information. In this research, the customers' cognitive phases are represented by three abstraction levels, namely SPV, SV and SQ. As illustrated in Figure 1, SPV is the highest level of customers' cognitive structure. SPV refers to customers' beliefs or conceptions about end goals or desirability [34]. At the intermediate level, SV is defined as a cognitive trade-off between the customers' perceptions of quality and sacrifices [47]. SQ is the lowest level of customers' cognitive structure. SQ is conceptualized as a customer's evaluation of an excellent or superior service offered [29]. Drawing upon the value-percept disparity theory, the customers' cognitive evaluation precedes emotional satisfaction (E-SAC) [35].

The relationships between the customers' cognitive variables (SPV, SV and SQ) and E-SAC are rarely addressed in service literature. Previous studies indicated that SPV positively correlated with customer satisfaction that defines satisfaction as a cognitive construct [56], [28]. Although there is still limited research on the relationship between SPV and E-SAC, the researchers postulated that customers' values strongly influence the customers' emotions [57], [39]. The customers will be satisfied when service performance they experienced is fulfilling their values, such as self-orientation and social-orientation [58]. Consequently, this leads to the first research hypothesis, as follows:
H1: SPV has a significant effect on E-SAC

Service value can be viewed as a cognitive-based construct, which affects the customers' affective responses [59]. Several previous empirical studies have indicated the positive relationship between SV and E-SAC [60], [61]. However, the concept of E-SAC as an affective construct needs further

operationalization. This leads to the second research hypothesis, as follows:
H2: SV has a significant effect on E-SAC

In the previous studies, the conceptualization of SQ and customer satisfaction (CS) has been criticized because both constructs have been derived from the same theoretical source, namely Expectancy Disconfirmation Paradigm (EDP) [43]. Thus, investigating the concept of E-SAC might distinguish SQ and CS. Although there is still limited study on the relationship between SQ and customers' emotional satisfaction, the previous study has highlighted that SQ is positively associated with E-SAC [21]. As a result, this leads to the third research hypothesis, as follows:
H3: SQ has a significant effect on E-SAC

The Fishbein model postulated that behavioural intentions are the most accurate indicators to measure customer behaviour [40]. In this research, the behavioural phase is viewed as the consequence of customers' service evaluation, and it occurs during the post-purchase experience [27], [62]. The previous service research has shown that customers' emotions affect their behaviour [63], [64]. The customers' positive emotions will affect the customers' favourable behavioural intentions (FBI), such as loyalty, positive word of mouth and willingness to pay more [63]. This leads to the fourth research hypothesis, as follows:
H4: E-SAC has a significant effect on FBI

Researchers affirmed that personal values lead to customers' favourable behavioural intentions [65], [66]. The previous empirical research in service sector revealed that SPV positively affects the FBI [67], [68]. Consequently, it is hypothesized that:
H5: SPV has a significant effect on FBI

Researchers claimed that SV is a crucial driver that leads to customers' behavioural intentions [69]. Although research on this topic is still limited, the researchers asserted that SV positively affects favourable outcomes such as loyalty [70], [36]. Thus, this leads to the sixth research hypothesis, as In follows:
H6: SV has a significant effect on FBI

[62] in seminal research, asserted that improving SQ might increase customers' favourable behavioural intentions. The previous empirical research has indicated that SQ has a positive effect on FBI, including a willingness to recommend to others and positive word-of-mouth communications [71], [72]. As a result, this leads to the following research hypothesis:
H7: SQ has a significant effect on FBI

4. Methodology

4.1 Population and Sample

This research was conducted at Malaysian public hospitals. To date, there are about 139 registered public hospitals in Malaysia [73]. The public hospitals are accessible to all legal residents of Malaysia, funded by the government, to provide low-cost universal and comprehensive services. This research involves customers who experienced service delivery at Malaysian pubic hospitals. According to the data released by the United Nations in 2018, the total population of Malaysia residents is 32,042,458. Thus, referring to [74], 384 respondents is the best sample size to generalize a considerable number of populations. The convenience sampling technique was employed due to the vast population where it is impossible to include each respondent.

4.2 Instrumentation

In this research, the variables including SPV, SV, SQ, E-SAC and FBI were measured based on the adapted scales with appropriate modifications relevant to the healthcare setting. This research adopted the SERPVAL scale by [28] to measure personal service values. SERPVAL is a multidimensional scale developed to measure the customers' cognitive evaluation of their service experience based on their values. SERPVAL was operationalized using three dimensions, namely personal values, peaceful life (SVPL), personal values, social recognition (SVSR), and personal values social integration (SVSI). Twelve adapted SERPVAL items were used to assess the customers' experience with healthcare service delivery in term of individual personal values. In this research, SV was operationalized as a cognitive trade-off between the benefits customers obtain from services such as quality, and the sacrifices in obtaining the services such as price, time, and efforts. Four adapted items were used to assess the SV [29], [33]. These items were modified for the healthcare context.

In this research, the SERVQUAL model was operationalized to measure service quality [6], [7], [8]. Twenty-two items extracted from the SERVQUAL scale were used to measure different aspects of the healthcare service industry. These items were categorized into five dimensions, namely tangibles, assurance, empathy, responsiveness, and reliability. Modifications were made as the items were generated and validated within the healthcare context. This research adopted the positive emotional scales developed by [39] and [49]. Emotional satisfaction (E-SAC) was conceptualized as the positive customer feeling (pleasurable emotional stated) towards the experience provided

by healthcare services. The adapted emotional satisfaction items include happy, hopeful, positive surprised, pleasant, satisfied, and enjoyable. In this research, four adapted items from [62] were used to assess the customers' willingness to behave favourably as a result of service experience. The wording of these items was modified for the healthcare context.

4.3 Pilot Test

A total of 100 customers who experienced service delivery at Malaysian public hospitals were selected non-randomly to participate in the pilot test. Cronbach's alpha was assessed to determine the internal consistency of each scale. A commonly used threshold for reliability acceptance is Cronbach's alpha values $\geq$ 0.70 [75]. The results revealed that all investigated variables, namely SPV, SV, SQ, E-SAC, and FBI, achieved internal consistency with Cronbach's alpha values $\geq$ 0.70.

4.4 Data Collection

In this research, data collection was conducted in three Malaysian public hospitals, namely Hospital Kuala Lumpur, Hospital Tengku Ampuan Afzan, and Hospital Melaka. This research was targeted to select 384 customers from the vast population of Malaysian residents who experienced service delivery at Malaysian public hospitals. The questionnaires were distributed at locations in the hospitals with a lot of customers passing by, such as lobby and cafeteria, where it would be easy to invite them to take part in the research. The customers were invited to take part in this research until the targeted sample size was reached. After conducting the Exploratory Data Analysis (EDA) and removing the incomplete questionnaires, about 215 completed questionnaires were proceed to data analysis.

4.5 Data Analysis

The structural equation modelling (SEM) was performed to empirically test the developed hypotheses [76], [77], [78]. The following discusses the steps of SEM applied in this research.

i. The Measurement Model Analysis

SEM is a confirmatory technique that assesses whether the items measure their underlying latent construct using Confirmatory Factor Analysis (CFA). CFA can assess the validity and reliability of a measurement model. The following discusses the requirement for validity and reliability:

i. The requirement for validity

- Convergent Validity: AVE $\geq$ 0.50
- Construct Validity: All Fitness indices for the model must meet the required level as shown in Table 2

ii. The requirement for reliability

- Internal Reliability: Cronbach's Alpha $\geq$ 0.70

$$AVE = \sum K^2 / n$$

$$CR = \left(\sum K\right)^2 / \left[\left(\sum K\right)^2 + \left(\sum 1 - K^2\right)\right]$$

Notes: K = factor loading of every item; n= number of items in a model

Table 2 Index Category and Level of Acceptance

Name of category	Name of Index	Level of acceptance
1. Absolute fit	Chisq (χ^2)	P > 0.05
	RMSEA	RMSEA < 0.08
2. Incremental fit	CFI	CFI > 0.90
	TLI	TLI > 0.90
3. Parsimonious fit	Chisq/df (χ^2 / df)	χ^2 / df < 5.0

i. The Structural Analysis

The structural model tests the relationship between investigated variables [77]. It specifies how particular latent variables directly or indirectly influence changes in the values of certain other latent variables in the model. As illustrated in Figure 1, seven direct paths connect two latent variables that linked theoretically by a hypothesis. Two steps involved in analyzing the structural model. First, the structural model fit is assessed to ensure that the model fits the data well. Second, the structural relationships are examined to assess whether the hypotheses are supported with theoretical expectation [78].

5. Results

5.1 Demographic Profile of Respondents

The descriptive analysis revealed that 59.5% of customers who participated in this research were female, and 40.5% were male. This indicated the female customers have higher participation as compared to male customers. Most of the customers who participated in this research were in the 31-40 years age group. 59.5% of customers were married. The detailed demographic results also revealed that 21% of customers who participated in this research had completed at least secondary education. Besides, 66% of customers who participated in this research were government servants

5.2 Pooled CFA result

The of pooled CFA model was performed to assess the validity and reliability of all investigated variables in a single model [79]. Besides, this

method can address the issue of the model that has less than four items, also known as 'identification issue'.

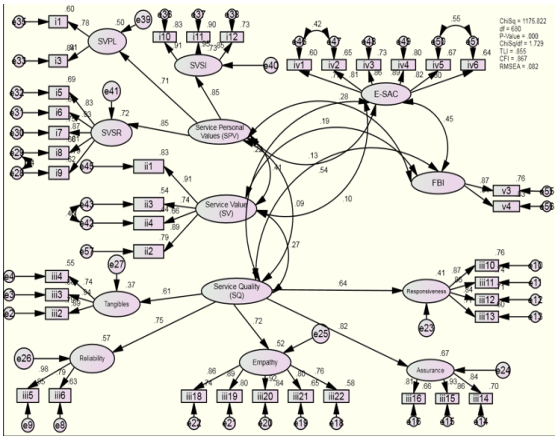

Figure 2 Pooled CFA Measurement Model

As shown in Figure 2, the result of fitness indices of the pooled CFA model are as follows: χ^2 =1175.822; χ^2/df =1.729; TLI=0.855; CFI=0.867 and RMSEA=0.082. Although TLI=0.855 ≈ 0.90 and CFI=0.867 ≈ 0.90 were approximately reached the required level (TLI > 0.90 and CFI > 0.90), these indices are categorized in good fit indices. According to [80], for a complex model, the index values such as TLI and CLI between 0.80 and 0.90 is categorized in a good fit index. Table 3 reports the results of validity and reliability of pooled CFA model. All investigated variables had achieved the requirement of validity and reliability. In conclusion, the developed CAB-CE model is valid and capable to measure the customer experience towards service delivery in the healthcare industry.

Table 3 Validity and Reliability Results

Construct	Cronbach Alpha (Above 0.70)	CR (Above 0.60)	AVE (Above 0.50)
Service Personal Values (SPV)	0.901	0.917	0.601
Service Quality (SQ)	0.892	0.883	0.589
Service Value (SV)	0.897	0.814	0.550
Emotional Satisfaction (E-SAC)	0.933	0.835	0.560
Favorable Behavioral Intentions (FBI)	0.902	0.893	0.591

5.3 Structural Model

The specific objective of this research is to examine the causal effects among variables of customer experience with service delivery at Malaysian public hospitals. Based on the theoretical perspectives, seven direct hypotheses were developed and subsequently tested using the structural analysis. The structural analysis was performed to test the direct hypotheses simultaneously in a single model. Figure 3 illustrates the result of standardized regression estimates for the structural model.

The fit indices had achieved the required level, as follows: χ^2 =1175.822; χ^2/df =1.729; TLI=0.855 ≈ 0.90; CFI=0.867≈ 0.90, and RMSEA=0.082. This indicates that the data fits the developed model well. The following discusses the results of hypotheses testing.

- *H1: SPV has a significant effect on E-SAC.* This hypothesis was supported.
- *H2: SV has a significant effect on E-SAC.* This hypothesis was supported.
- *H3: SQ has a significant effect on E-SAC.* This hypothesis was supported.
- *H4: E-SAC has a significant effect on the FBI.* This hypothesis was supported.
- *H5: SPV has a significant effect on the FBI.* This hypothesis was not supported.
- *H6: SV has a significant effect on the FBI.* This hypothesis was not supported.
- *H7: SQ has a significant effect on the FBI.* This hypothesis was not supported.

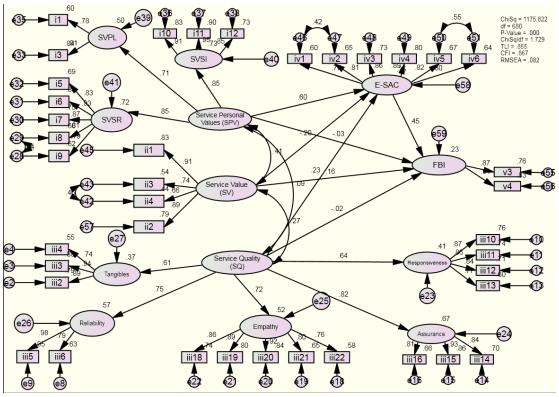

Figure 3 the Structural Analysis

6. Discussion and Conclusion

The general objective of this research was to develop a model of cognitive, affective and behavioural response of customer experience (CAB-CE) for measuring service delivery in the healthcare industry**.** The results of the structural model demonstrated that fit indices achieved the required level. This indicates the validity of the model developed that comprises the relevant variables representing three phases of customer interaction, including cognitive, affective and behavioural responses. The cognitive phase is represented by three relevant variables, including Service Personal Values (SPV), Service Value (SV) and Service Quality (SQ). The affective phase is represented by Emotional Satisfaction (E-SAC), and behavioural phase is represented by Favorable Behavioral Intentions (FBI).

The specific objective of this research is to test the causal relationships among the customer experience variables, including SPV, SV, SQ, E-SAC and FBI. The direct hypotheses were simultaneously tested through structural analysis. The results revealed that

H1, H2, H3, and H4 were supported. However, H5, H6, and H7 were not supported. Concerning the effect of customers' cognitive levels on E-SAC, SPV had the highest effect on E-SAC as compared to other levels (SV and SQ). As stated by [39] and [57], the customers' values have a substantial effect on their emotions. The customers who experienced the service delivery at Malaysian public hospitals believed that the personal values able to trigger their positive emotions, such as the ability of service delivery allows the customers to achieve amity in life and gain more respect from others.

The findings of this research revealed that SQ also plays an essential role in evaluating the customers' emotional satisfaction towards healthcare service delivery. According to [81], customers who experienced higher SQ tend to experience more positive emotions. Thus, the Malaysian public hospitals must deliver quality services that meet the customers' standards and demands. This research uncovers the aspects of service quality in which the service providers at Malaysian public hospital need to concentrate on, including the ability in delivering the quality of infrastructure, assurance in providing the knowledgeable and skilled employees, concerns with disabling patients, giving fast response to the customers. However, the effect of SV on E-SAC postulated a contradictory result. The result revealed that SV has a negative effect on E-SAC. This means the higher the sacrifices made by the customers, the more negative their emotions is towards service experience.

The result of hypothesis testing indicated that E-SAC has a positive and significant effect on the FBI. This suggests that customers' positive emotions lead to favourable behavioural intentions. The customers who experienced positive emotions with healthcare service delivery tend to say positive things about the service provided, recommend the present public hospital to others, and remain loyal to the public hospital. Therefore, the service providers at Malaysian public hospitals should focus on the customers' positive emotions, such as the extent to which they feel happy, pleasant, and enjoyable with the service experiences. The findings of data analysis demonstrated that the customers' cognitive levels, namely SPV, SV, and SQ, had no direct effects on the FBI. This finding is strongly supported by the theoretical perspective, where the customers' cognitive levels have the significant effects on FBI through E-SAC, as suggested by the cognitive-affective-behavioral model [51], [52]. It would be more valuable if the future researchers can investigate the mediator role of E-SAC in explaining the relationship between the customers' cognitive levels and FBI.

Research Limitations and Suggestions for Future Research

This research has some limitations that could suggest directions for future research. This research was conducted in the selected Malaysian public hospitals. Consequently, the generalizability of the data to represent the customers in the Malaysian healthcare industry institutions is somehow limited. The customer experience model developed in this research could serve as a base to understand how the customers are experiencing the healthcare service. Therefore, it is suggested that for future research to expand the scope of the research and increase the sample size, which covers all Malaysian public hospitals. In this research, customers who experienced service delivery at Malaysian public hospitals were selected as the sample. However, past literature has claimed that different groups of respondents may experience the service in different ways [1], [26], [82], [83], [84]. Although all patients undergo the same service processes, evidence suggests that the customers who experienced the service at private hospitals place higher demands compared to public hospitals. Therefore, it is recommended to conduct comparative research between the customer experience at public and private hospitals to highlight similarities and differences between customer groups. The specific objective of this research is to examine the direct relationships among customer experience variables, namely, SPV, SV, SQ, E-SAC and FBI. In addition to direct relationships, this research revealed the role of E-SAC as a mediating variable in explaining the path between the customers' cognitive levels (SPV, SV and SQ) and FBI. Therefore, future research should investigate this particular issue.

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