

# The Influence of Motivational Factors on Tourists' Intention for Medical Treatment in Sarawak: The Mediating Effect of Consumption Value

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## Abstract

The COVID-19 pandemic has significantly affected the medical tourism sector. This study examines the evolution of medical tourists' expectations, specifically emphasizing the impact of consumer value variables on these expectations and the determinants influencing their propensity to visit to Kuching, Sarawak, Malaysia. The research elucidates the decision-making processes of medical tourists through the application of push and pull motivational theory. It utilizes partial least squares approach, based on a comprehensive literature analysis and data gathered from 708 medical tourists. The findings yield significant theoretical insights concerning consumption value, augment the current literature on healthcare services by reinforcing a health service framework, and present pragmatic recommendations for healthcare providers, policymakers, and other stakeholders striving to establish Sarawak as a leading medical tourism destination in the post-pandemic era.

**Keywords:** Brand, Consumption Value, Price, Medical Tourism, Push and Pull, Long Wait Time.

## Introduction

Medical tourism, characterized as the act of visiting abroad for medical treatment (Lunt et al., 2010), has transformed global healthcare since the 1990s. Countries like Malaysia, Singapore, Thailand, and India have emerged as premier destinations owing to their superior healthcare facilities and cost efficiency (Chandran et al., 2018). Malaysia, especially Sarawak, has experienced substantial expansion in its medical tourism industry, drawing over one million visitors in 2017, predominantly from neighboring Indonesia (Purba, 2017; Saragih & Jonathan, 2019). This expansion has favorably influenced the local economy (Mattoo & Rathindran, 2006), since the industry provides a diverse array of cost-effective, high-caliber healthcare services, encompassing cardiothoracic surgery and reproductive therapies. The COVID-19 epidemic, however, precipitated unparalleled upheavals in Malaysia's medical tourism industry. The sector has adopted rigorous health protocols and improved its digital

healthcare and wellness offerings, preparing for recovery. With the sector's recovery, there is an increased focus on comprehending the determinants that affect visitors' choices to pursue medical treatment overseas.

This study examines the impact of motivating factors on visitors' willingness to pursue medical care in Sarawak, emphasizing the mediating function of consumer value. Previous research frequently examines the motivations for pursuing medical treatment abroad, emphasizing attitudes, social influences, and perceived behavioral control as predictors of travel intentions (Martin et al., 2011; Khan et al., 2016). However, studies on medical tourism using the push-and-pull motivational framework offer a comprehensive understanding by analyzing both internal psychological drivers (push factors), such as dissatisfaction with local healthcare and long wait times, and external influences (pull factors), such as advanced medical technologies, cost efficiency, and cultural appeal. The push-and-pull variables significantly influence the decisions and expectations of medical tourists (Lee & Tan, 2023; Mas'od et al., 2020). Moreover, consumer value and cultural habits, especially among medical tourists, influence marketing techniques designed to improve medical tourism experience (Lu et al., 2016). Therefore, a comprehensive understanding of this mediation effect is essential for stakeholders to formulate effective strategies aimed at attracting international patients and revitalizing the medical tourism industry in the post-COVID-19 context.

### **Research Objectives**

This study seeks to examine the evolving dynamics of medical tourism by analyzing the push and pull motivational elements that affect medical tourists' choices in the post-COVID-19 context.

- Examine the evolving incentives of medical tourists in the post-COVID-19 context of Sarawak, Malaysia.
- Analyze the relationship between internal push forces, including discontent with local healthcare systems (Lunt et al., 2016).
- Analyze external pull forces, such as technical innovations and economic benefits (Lee & Tan, 2023).
- Examine the intricate relationship between recognized push and pull factors and the broader notion of consumption value (Drinkert, 2015), extending beyond the conventional emphasis on treatment quality and cost.
- Evaluate the extent to which contemporary research prioritizes the quality and expense of medical therapies (Manaf et al., 2015; Cham et al., 2020), while neglecting perceived value and psychological factors.
- Examine the relationship between driving forces and consumer value within the realm of medical tourism, especially in the post-pandemic environment.
- Present a detailed framework for comprehending the primary factors that affect medical tourists' decisions regarding healthcare in Sarawak.

These research aims thus establish a comprehensive basis for understanding the key factors that affect medical tourists' choice of Sarawak for their treatment needs.

### **Literature Review**

Medical tourism, an expanding sector, involves patients seeking medical treatment in foreign countries, including Costa Rica, Brazil, Germany, Hungary, India, Malaysia, Singapore, South Korea, Taiwan, Thailand, and Turkey. These countries are chosen due to inadequate

local healthcare services, high medical costs, long waiting times, and favorable currency exchange rates (Akter et al., 2011; Alnakhi et al., 2019; Capar & Azlan, 2020). The United States also aims to establish a significant presence in Southeast Asia's medical tourism market (Chen & Flood, 2023; Kim et al., 2019).

### *Background of Medical Tourism in Malaysia*

Since achieving independence, Malaysia has become a prominent participant in the medical tourism industry (Ormond et al., 2014), experiencing substantial growth throughout the 9th Malaysia Plan (2006-2010). The formation of the Malaysia Healthcare Travel Council (MHTC) established the nation as a cost-effective medical tourism hub, drawing patients mostly from adjacent Indonesia and outpacing regional rivals such as Singapore and Vietnam (Bong, 2023; MHTC, 2024). In 2019, Malaysia was acknowledged for possessing the "Best Healthcare in the World" (Marita, 2020). Key centers such as Penang, Kuala Lumpur, and Malacca have propelled the industry's growth, bolstered by governmental policies and efforts such as the "Visit Malaysia Year" promotions. These initiatives have been enhanced by superior air travel services and reduced airfares, rendering travel more accessible (Ramli, 2015). Malaysia's dedication to provide cheap healthcare, especially through programs designed to lower the expenses associated with treatments such as hepatitis C, highlights its emphasis on accessibility (Rusman & Fiona, 2018). From 2012 to 2022, the nation's medical tourism earnings steadily increased from RM 727 million to RM 1.3 billion (Singh, 2021). Early 2023, Malaysia had received more than 1 million international patients, with Indonesians comprising 70% to 80% of the total medical tourists (Saragih & Jonathan, 2019; Angela et al., 2020).

The healthcare system in Sarawak has experienced substantial improvements due to technological advancements and partnerships between hospitals and hotels. The effort of the Sarawak government in actively pursuing the reopening of its borders, with the objective of attracting 1.2 million visitors by April 2022 to further stimulate economic growth. Kuala Lumpur and Penang have traditionally been Malaysia's main medical tourism centers, but recent years have witnessed a growing influx of medical tourists to Johor, Malacca, and Sarawak (IMTJ, 2020). Sarawak has witnessed a significant increase in visitors, with 56.76% coming from Indonesia (Saragih & Jonathan, 2019), and an increasing number of patients from Peninsular Malaysia are pursuing specialist treatments at private hospitals in Sarawak (Goh, 2022). The region's connectivity via road and air, coupled with its closeness to adjacent nations, augments its attractiveness to medical tourists (Jais, 2017). Similarly, the state government's recent infrastructural enhancements have further amplified the influx of medical tourists (Galileo, 2022).

### **Theoretical Foundation**

The COVID-19 pandemic which significantly affected the worldwide tourism industry (Rasoolimanesh, 2021), is currently undergoing a recovery phase, offering prospects for a more sustainable and resilient future. Comprehending the dynamics of medical tourism necessitates an analysis of both motivation and perceived value, which equilibrates the effort and reward involved (Kim & Ritchie, 2012). This study utilizes Dann's (1977), push-and-pull theory as the foundation for understanding why individuals choose to travel for medical treatment. Similarly, a recent study on the service industry also discussed the importance of

consumption value on purchase intentions. (Ilyas et al., 2021). The below further discuss both the push and pull theory and consumption value influence on medical tourism.

### *Push and Pull Motivational Theory*

Dann's (1977) push and pull motivational theory provides a fundamental framework for comprehending the motivations behind individuals' decisions to seek medical treatment abroad. Push factors, as delineated in this theory, encompass the lack of sufficient local medical services and discontent with domestic healthcare alternatives. Conversely, pull factors denote external attractions, like advanced medical facilities, financial benefits, and high-quality infrastructure at the location (Yeoh et al., 2013; Yusuf & Rosnan, 2020). According to Ilyas et al (2021), research specifically addressing perceived value in medical tourism is scarce, therefore investigations into consumer value to elucidate the determinants affecting medical service selection. Furthermore, Lu et al (2016), and Mas'od et al (2020), underscoring the necessity of providing services that correspond with the preferences and requirements of medical tourists. In agreement with the findings of Santharen et al (2019), the preceding discussion underscores the significance of this theory in the examination of medical tourism. Push factors elucidate the psychological motivations prompting patients to pursue treatment overseas, whilst pull variables delineate the attractions of locales, including the accessibility of preferred treatment alternatives.

### *Theory of Consumption Value*

Ko (2011), and Sung & Ozuem (2015), assert that the notion of consumer value, frequently neglected in medical tourism research, includes not just financial considerations but also more extensive value dimensions. Research conducted by Cohen et al. (2014) and Abdul-Raji (2016), underscores the importance of psychological elements, particularly perceived value, in shaping client decisions within the healthcare sector, notwithstanding the considerable emphasis on service quality (Cohen et al., 2014; Kim et al., 2011). Sinha and Desabo (1998), elaborated on this concept, characterizing value as a synthesis of components including benefits, costs, price, and quality.

Sheth et al (1991), classified consumption value into five dimensions: social, emotional, epistemic, functional, and conditional, each distinctly affecting consumer decision-making. Moreover, Zeithaml's (1998), research emphasized the correlation between perceived sacrifices and benefits, influencing the comprehensive assessment of worth. In medical tourism, value judgments significantly influence location selection. Nevertheless, investigations into value perception in medical tourism are still scarce. Ilyas et al (2021), elucidated the significance of perceived value in decision-making, whilst Wahyuningsih (2013), and Yap et al (2024), illustrated the pivotal impact of consumption value on purchase intentions. Due to the multitude of choices accessible to medical tourists, additional investigation is required to comprehend the factors that affect the decision to pursue medical treatment internationally.

### **Intention, Push and Pull Factors in Medical Tourism**

In marketing, "intention" refers to a consumer's intended decision to purchase a product or service, serving as a vital indicator of buying behaviour (Tjiptono, 2015). Marketers employ purchase intentions to evaluate the probability of consumer purchases and their subsequent satisfaction or dissatisfaction. Nonetheless, recommendations are more likely to

be accepted when consumers have no prior experience with the product or service (Tjiptono, 2015; Tan & Wu, 2016).

Dissatisfaction with local healthcare systems compels many to pursue medical treatment overseas. Dissatisfaction is attributed to protracted wait times, high treatment expenses, restricted access to expert care, and apprehensions over privacy and security. According to Adhikari (2015), patients frequently articulate frustration regarding these matters. Likewise, governmental policies, such as China's and Singapore's one-child policies (Mathijssen, 2019; Ye et al., 2011), have influenced patients to pursue medical care abroad. Furthermore, insufficient infrastructure, obsolete equipment, and inferior hospital conditions exacerbate this tendency (Nielsen et al., 2012; Cham et al., 2020).

Concurrently, pull factors—such as cost-effective treatments, leisure opportunities, and branding—entice medical tourists to locations. Asia, specifically, provides economical medical treatments, reduced wait times, and government-supported healthcare networks (Singh, 2013). Medical tourists emphasize professional credentials, safety, and medical expertise (Wang et al., 2020; Singh, 2013), while political stability and service quality further augment their attractiveness (Chia et al., 2019). Likewise, proficient communication, particularly in the patient's language, enhances their comfort (Moghavvemi et al., 2017). Hospital branding, travel efficiency, and marketing techniques significantly impact decisions related to medical travel (Santharen et al., 2019; Cham et al., 2020). Sarawak's unspoiled natural environments varied cultural legacy, and closeness to significant Asian markets augment its appeal as a tourism hub. Furthermore, the integration of contemporary treatments with vacation prospects (Fadda & Sorensen, 2017) enhances the appeal for this demographic of patients.

### **The Relationship between Push and Pull Factors and Consumption Value**

Research in the hospitality sector underscores the crucial influence of consumer emotions on the perceived value of experiences. Research (Lin & Mattila, 2010; Han & Jeong, 2013) indicates that perceived value directly influences customer demand, satisfaction, and subsequent behavior (Nejati & Moghaddam, 2012; Wang et al., 2019). Anjum et al (2017), contend that providing superior service or generating value via cost reduction, without compromising quality, improves customer happiness. Consumer emotions significantly impact customer satisfaction and subsequent behavior (Han & Jeong, 2013; Song & Qu, 2017). Emotions facilitate the connection between service fairness and satisfaction (Su & Hsu, 2013), whereas utilitarian value influences satisfaction and behavior (Song & Qu, 2017). Favorable tourist experiences enhance the probability of return visits (Jang et al., 2012).

Research correlates consumer value with variables such as waiting periods, cost-effectiveness, service quality, and the attractiveness of medical treatment overseas (Prebensen et al., 2012, 2013; Qomariah, 2018). Consequently, consumer value, shaped by product characteristics and incentives, is crucial for satisfaction and behavioral intentions (Wahyuningsih, 2013; Ha & Jang, 2010). According to Damijanac & Luk, (2017) & Cavusoglu & Avcikurt, (2021), travel motivations and the perceived worth of consumer experiences further connect this value. In the medical tourism industry, service quality and perceived value are crucial for patient satisfaction, with purchasing decisions influenced by cognitive and emotional variables (Sheth et al., 1991; Hallem & Barth, 2011).

**The Mediating Role of Consumption Value on Intention to Travel**

The COVID-19 epidemic profoundly affected worldwide travel, and as the sector recuperates, consumer value has emerged as a crucial determinant in the travel decisions of medical tourists (Sung & Ozuem, 2015). Following the pandemic, medical tourists meticulously evaluate the advantages and disadvantages, particularly concerning safety and the quality of healthcare. Safety protocols, service quality, and emotional reassurance have become significant factors in travel decisions (Nakabul et al., 2017; Wang et al., 2019). Cognitive aspects, such as cost-benefit analysis, and emotional elements, including fear of infection and the necessity for reassurance, affect travelers' decisions.

Multiple studies emphasize the pivotal role of value in influencing consumer views of products and services (Sung & Ozuem, 2015). Zauner et al (2015), noted that the paucity of research on medical tourism may stem from the industry's pronounced emphasis on value. Consumption value links external influences, such as unhappiness with local healthcare (push factors) and the allure of greater services abroad (pull determinants), which inform their decisions. A significant perceived consumer value promotes medical tourism, highlighting the necessity to improve both functional and emotional dimensions of healthcare services (Yap et al., 2024). Comprehending this mediation is essential for stakeholders seeking to rejuvenate medical tourism following the pandemic. Stakeholders must meticulously evaluate ways to accommodate the preferences of medical tourists, enhance perceived advantages, and alleviate perceived concerns.

**Post-Pandemic Considerations**

In the post-pandemic period, safety has emerged as a critical concern for medical tourists. Despite ongoing global quality and regulatory issues, Malaysia's international standing as a premier medical service provider (Dahlui & Aziz, 2012; Ee, 2023; MHTC, 2023) and its robust healthcare safety standards have established it as a favored destination. The nation's diminished infection rates following the epidemic enhance its attractiveness. As evidence of its dedication to accessibility, Malaysia places a high priority on healthcare affordability, especially through initiatives to lower the cost of treatments like hepatitis C (Rusman & Fiona, 2018). The positive momentum of medical tourism in 2023 is evident, with revenues surpassing \$190 million in the first half, positioning Malaysia to exceed pre-pandemic levels (MHTC, 2023).

### Hypothesis Development

Various factors drive patients to seek medical treatment in alternative locations. The lack of focused treatment in their home countries may cause anxiety; however, effective overseas options could alleviate these concerns and improve overall health and confidence (Corte et al., 2015; Hsu & Tseng, 2017). Furthermore, extended waiting times at home may compel patients to pursue quicker options in regions like Southeast Asia. Nonetheless, social connections are essential, since patients often bring companions for support (Pinkus, 2017). Medical tourists generally have a positive outlook and value their travel experiences, which can enhance self-confidence (Xu & Wang, 2015; Moynihan et al., 2015; Ginting et al., 2019). Many people engage in medical tourism to get insights into the destination and its medical services, hence augmenting the value of their visit (Moynihan et al., 2015). Moreover, individuals seek personal achievement and access to prestigious healthcare facilities, so improving on their self-perception (Hallem & Barth, 2011; Ginting et al., 2019). Privacy concerns also affect the decision to get medical treatment abroad (Md-Zain et al., 2022). Consequently, prompting the formulation of relevant hypotheses below.

H1a: Physiological security significantly influences medical tourists' intentions to seek treatment in Kuching, Sarawak.

H1b: Love and belonging significantly influence medical tourists' intentions to seek treatment in Kuching, Sarawak.

H1c: Self-esteem significantly influences medical tourists' intentions to seek treatment in Kuching, Sarawak.

H1d: Self-actualization significantly influences medical tourists' intentions to seek treatment in Kuching, Sarawak.

H1e: Knowledge acquisition significantly influences medical tourists' intentions to seek treatment in Kuching, Sarawak.

H3a: Physiological security significantly influences the perceived consumption value among medical tourists.

H3b: Love and belonging significantly influence the perceived consumption value among medical tourists.

H3c: Self-esteem significantly influences the perceived consumption value among medical tourists.

H3d: Self-actualization significantly influences the perceived consumption value among medical tourists.

H3e: Knowledge acquisition significantly influences the perceived consumption value among medical tourists

Overseas healthcare is becoming increasingly appealing to medical tourists due to its cost-effectiveness and high quality. Patients from wealthy nations, including the US, UK, Australia, Europe, and Southeast Asia countries, often experience long waiting times, restricted access to treatments, and regulatory issues within their healthcare systems (Akter et al., 2011; Corte et al., 2015; Mathijssen, 2019). This leads them to seek treatment in countries like Malaysia and Thailand, motivated by factors such as advanced medical facilities, political stability, favorable healthcare policies, bilingual medical staff, and convenient transportation (Angela et al., 2020; Chen & Flood, 2023). The ability to combine medical care with leisure activities and explore local attractions further enhances these destinations' appeal (Corte et al., 2015; Chandran et al., 2018). Additionally, the affordability of treatments

and medications, along with high-quality care, adds value for medical tourists (Chandran et al., 2018). Many individuals also prefer international travel to ensure privacy and confidentiality while avoiding substandard local healthcare (Alnakhi et al., 2019; Angela et al., 2020; Md-Zain et al., 2022). Thus, the image of safety and security internationally fosters the expansion of medical tourism.

The study's alpha and composite reliability values support the measurement's validity, prompting the formulation of relevant hypotheses below.

H2a: Availability of treatment security significantly influences medical tourists' intentions to seek treatment in Kuching, Sarawak.

H2b: Vacation option significantly influences medical tourists' intentions to seek treatment in Kuching, Sarawak.

H2c: Price influences medical tourists' intentions to seek treatment in Kuching, Sarawak.

H2d: Branding significantly influences medical tourists' intentions to seek treatment in Kuching, Sarawak.

H2e: Security and privacy significantly influence medical tourists' intentions to seek treatment in Kuching, Sarawak.

H4a: Availability of treatment significantly influences the overall consumption value perceived by medical tourists

H4b: Vacation option significantly influences the overall consumption value perceived by medical tourists

H4c: Price significantly influences the overall consumption value perceived by medical tourists

H4d: Branding significantly influences the overall consumption value perceived by medical tourists

H4e: Security and privacy significantly influence the overall consumption value perceived by medical tourists

Similarly, the research by Corte et al (2015), underscored the substantial impact of travel motives on consumer value dimensions, accentuating the essential role of consumption value in decision-making. Comprehending the interaction of push and pull variables, along with the influence of consumer value, is essential for medical tourists' travel choices to Sarawak, Malaysia. Based on these insights, the following hypotheses have been formulated:

H5: There is a mediating role of consumption value linking the push factors with medical tourists who have the intention to seek treatment in Sarawak.

H6: There is a mediating role of consumption value linking the pull factors with medical tourists who have the intention to seek treatment in Sarawak.

Therefore, in the competitive business environment of the millennium, comprehending consumer wants and preferences is crucial for survival. This study employs a research approach that synthesizes variables from Dann's (1977) Push and Pull motivational theory and Sheth et al.'s (1991) Consumption Value theory. The conceptual framework (as illustrated in Figure 1 below) seeks to offer pragmatic insights into the medical tourism intentions of Sarawak, hence enhancing its relevance to the medical tourism sector.

## **Methodology**

The researchers employed the Statistical Package for the Social Sciences (SPSS) to examine the features, frequency, trends, and categories of medical tourists seeking treatment



in Sarawak, namely in Kuching, the capital city, and conducted a descriptive analysis of the data. The analysis concentrated on three cohorts: prospective patients seeking medical attention in Sarawak, those who had previously attended clinics or hospitals in the area, and individuals aged 17 and above who had expressly pursued treatment in Kuching. A total of 45 samples were collected for a pre-test. Given that Sarawak attracted 28,000 medical tourists in 2023 (Bong, 2023), a minimum of 425 samples will be gathered. Data was collected using a self-administered questionnaire in English and Malay, aimed at medical tourists aged 17 and above who received treatment in Kuching from January to March 2024. We administered questionnaires at four prominent hospitals, clinics, and strategic places, including Kuching International Airport, concentrating on accessible areas such as lobbies and waiting rooms to reduce disruptions. Gender and citizenship were irrelevant to inclusion, and participants were unacquainted with the researcher.

A total of 390 male respondents (60.19%) and 258 female respondents (39.81%) engaged in the study. We assessed the data using Cronbach's alpha and composite reliability and conducted Fornell-Larcker tests to verify discriminant validity. We employed the Sobel test (Z test) and bootstrap method to examine the mediating effect of consumption value on the travel intentions of medical tourists.

**Findings And Discussion**

The results for respondents participating in the medical tourists’ study are described and discussed below.

*Respondents Participation in Medical Tourism Study*

Out of 781 distributed questionnaires, 708 (91%) were completed, exceeding the 50% response rate deemed acceptable by Mellahi & Harris (2016). The largest group of respondents was from Pontianak, Indonesia (58.95%), followed by other Indonesian provinces (21.45%), and respondents from Sarawak (18.67%). A small number came from West Malaysia and other foreign countries (0.31%).

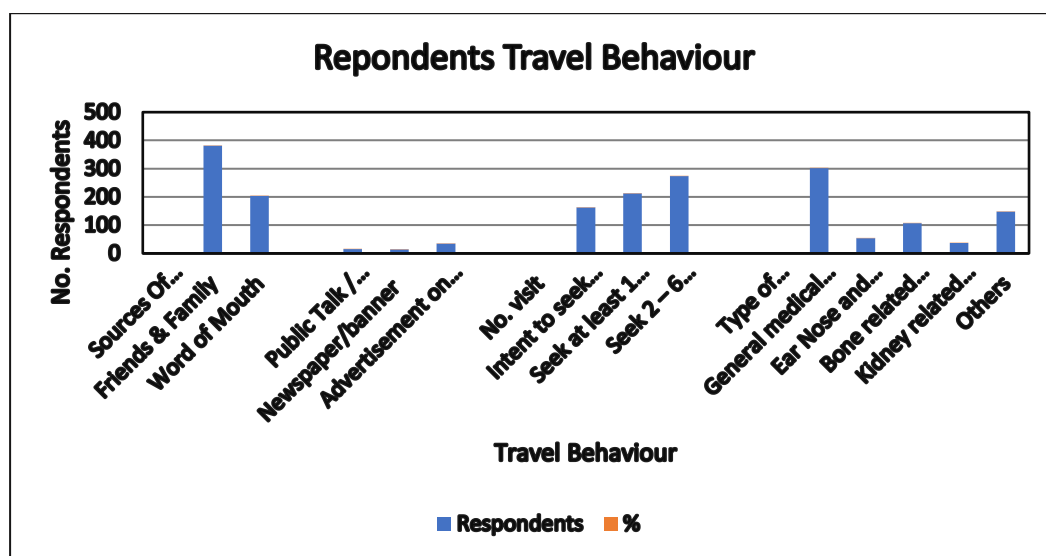


Figure 1: Travel Behavior of Respondents

Referring to Figure 1 above, 40.68% of respondents made 2-6 visits per year, 32.77% made at least one annual visit, and 26.55% intended to seek treatment. The most common treatments were medical check-ups or follow-ups (46.6%), general treatments (22.84%), bone-related treatments (16.51%), ENT treatments (8.33%), and kidney-related treatments (5.71%).

#### *Evaluation of the Structural Model and Measurement Model*

The evaluation of the structural model assessed its explanatory and predictive capabilities using the Chi-square ( $X^2$ ) goodness-of-fit test, achieving a Goodness of Fit (GoF) value of 0.492, indicating a strong model fit. The model demonstrated reliability, convergent validity, and discriminant validity, confirming its overall robustness. Additionally, Cronbach's Alpha and composite reliability values for all variables were within the acceptable range of 0.6 to 0.7, indicating good internal consistency (Akter et al., 2011).

#### *Cronbach's alpha and Composite Reliability Analysis*

In this work, we employed Cronbach's alpha (Cronbach, 1951) to assess the internal consistency of the variables on a summated scale. We regarded the computed value of Cronbach's alpha as a correlation coefficient, which varied from 0 to 1. Taber (2018) identified Cronbach's alpha ( $\alpha$ ) and composite reliability (CR) as the primary metrics of internal consistency utilized in the study. Hair et al. (2010) assert that a variable is deemed dependable if its Cronbach's alpha value lies within the acceptable range of 0.6 to 0.8. The values for ( $\alpha$ ) and (CR) for the study's items are as follows:

- Physiological Security ( $\alpha = 0.927$ , CR = 0.676)
- Love and Belonging ( $\alpha = 0.795$ , CR = 0.939)
- Self-esteem ( $\alpha = 0.796$ , CR = 0.929)
- Self-actualization ( $\alpha = 0.613$ , CR = 0.942)
- Acquisition of Knowledge ( $\alpha = 0.759$ , CR = 0.945)
- Availability ( $\alpha = 0.737$ , CR = 0.845)
- Vacation ( $\alpha = 0.859$ , CR = 0.809)
- Price ( $\alpha = 0.778$ , CR = 0.780)
- Branding ( $\alpha = 0.848$ , CR = 0.929)
- Security & Privacy ( $\alpha = 0.817$ , CR = 0.895)
- Consumption Value for Push Factors ( $\alpha = 0.812$ , CR = 0.740)
- Consumption Value for Pull Factors ( $\alpha = 0.849$ , CR = 0.708)
- Intention ( $\alpha = 0.821$ , CR = 0.679)

All variables satisfied the necessary reliability levels, with values surpassing 0.60, demonstrating convergent validity. Cronbach's alpha, although frequently employed for reliability evaluation, faces criticism for potentially breaching the tau-equivalency assumption. Taber (2018) and Hussain (2019) frequently advocate for composite reliability as a superior option, especially in confirmatory factor analysis (CFA), due to its contemporary methodology for assessing the reliability of measurement scales.

#### **Discriminate Validity Analysis**

We performed a discriminant validity analysis to assess the relationships among the study's variables. The average variance extracted (AVE) was utilized to evaluate convergent validity. The Fornell-Larcker criterion was utilized to compare Average Variance Extracted

(AVE) values with the squared correlations between components. The research investigated the correlations between push elements (such as physical security, love and belonging, self-esteem, and information acquisition) and pull ones (including accessibility, cost, and safety) within the framework of medical tourism in Sarawak. In our investigation, all AVE values exceeded the 0.50 threshold (Hair et al., 2010) and exhibited correlations with other variables, so affirming robust relationships between constructs and their respective underlying variables. This demonstrates that the model met the statistical requirements for both convergent and discriminant validity.

### **Mediation Analysis, Regression Analysis and Bootstrap**

The research utilized mediation analysis via the Sobel test to elucidate the intermediary mechanisms (mediators) that convey impacts between independent and dependent variables (Gonzalez & MacKinnon, 2021). It examined the mediating roles of pull and consumption value, together with push and consumption value, in the relationship between push and pull variables and patients' intents, as suggested by Wood et al. (2008). Regression analysis was performed using a macro script from Hayes (2019) and employed bootstrapping with 5,000 samples to evaluate the following hypotheses. Result of analysis as shown in Table 1, Appendix A below.

- H1: While push factors did not markedly influence treatment-seeking intentions overall, the Physiological Security (PHY) factor exhibited a strong correlation (t-value = 10.806, p-value < 0.001).
- H2: Although pull factors had a minimal overall impact, the availability (AVA) factor was significant (t-value = 4.000, p-value < 0.001).
- H3: Consumption value was established as a mediator between push factors and intention, exhibiting substantial impacts for love and belonging (t-value = 8.983), self-esteem (t-value = 6.552), self-actualization (t-value = 6.308), and knowledge acquisition (t-value = 5.768). The physiological security component did not demonstrate significant mediation (t-value = 3.728).
- H4: Consumption value mediated the relationship between pull factors and intention, with significant mediation noted for all pull factors: availability (t-value = 6.836), vacation (t-value = 5.267), price (t-value = 4.880), branding (t-value = 5.322), and security & privacy (t-value = 5.461).

In conclusion, consumption value was recognized as a crucial mediator in the intentions of medical tourists pursuing treatment in Kuching, Sarawak, consistent with previous studies by Wahyuningsih (2013), and Lee & Tan (2023).

### *Importance of the Conceptual Model*

Figure 2 in Appendix B illustrates the proposed conceptual framework, which seeks to create a practical model for medical tourism that corresponds with the research objectives and is relevant to studies in this field. This framework provides a theoretically robust and intuitively attractive method for establishing and accomplishing objectives in medical tourism.

**Conclusion**

This research, conducted within the realm of post-pandemic medical tourism, revealed that medical tourists' judgements of consumption value are influenced by a blend of push and pull forces. The principal push element is the lack of essential medical treatments in their own countries, frequently attributed to inadequate service quality and constrained budgets. Conversely, pull factors include branding, superior medical services, and access to specialized treatments abroad entice medical tourists to Sarawak. The interrelated and powerful aspects substantially foster the expansion of medical tourism in the region. The study demonstrated a direct association between self-esteem and the intention to seek medical treatment in Sarawak. The availability of a varied array of treatments in Kuching significantly contributes to a favorable perception among medical tourists.

*The Effect of Pull Factor on Travel Intention*

According to MHTC, (2022), AVA (the accessibility of medical supplies internationally) and BRD (the prestige of hospitals) as significant attractors. Nonetheless, medical visitors generally acquire knowledge about diverse medical tourism locations through personal referrals, suggestions from acquaintances, and promotional materials (Pike, 2015).

According to Angela et al (2020), medical tourist from West Kalimantan, Indonesia, migrate to Kuching, Sarawak, in pursuit of economical medical care. The hospitable personnel and medical practitioners enhance Sarawak's favorable reputation as a medical tourism locale (Angela et al., 2020). Despite pricing and security being less influential elements, the enhancement of a nation's image, coupled with safety and security, is crucial for attracting medical tourists (Wang et al., 2020; Singh, 2013; Cham et al., 2020). Moreover, the quest for safety among tourists impacts their selection of travel destinations. Pike (2015) and Komari & Djar (2016) discovered that this feature substantially influences the probability of patients pursuing treatment from a specific destination brand.

*Implication of the Study*

The study conducted in Kuching, Sarawak, on medical tourism had practical implications for both theoretical and managerial perspectives. These implications are discussed in detail in the following section.

*Implication for Theoretical Perspective*

The study significantly enhances the medical tourism literature by identifying critical elements that affect the travel decisions of medical tourists. It illustrates that service quality, hospital branding, self-esteem, and accessibility to diverse treatments significantly influence travel intentions to Kuching, Sarawak, through the push and pull theory. While prior research has emphasized the significance of consumer value in enhancing travel intention, this study demonstrates a significant connection between consumer value and behavioral intention within Sarawak's medical tourism sector, thereby enriching our comprehension of how medical tourists assess hospital service quality and brand image.

This groundbreaking study in Southeast Asia examines consumer value as a fundamental component of medical tourism marketing. The findings hold theoretical relevance by creating a study framework that incorporates the mediating role of consumer value between push and pull forces, thereby addressing a gap in empirical validation.

### *Implication for Practical Perspective*

The research revealed that service quality (LOVE) plays a crucial role in driving medical tourism, with its impact being amplified when combined with consumer value. The research highlights the importance of service quality and consumer value in driving medical tourism. Integrating consumer value into healthcare services enhances patient satisfaction and brand reputation. The study also provides insights for relationship marketing, emphasizing the role of consumer value in influencing patients' travel intentions. Government collaborations with tourism boards and tax incentives are suggested to further promote medical tourism. By applying these strategies, Malaysian hospitals can effectively attract and engage potential medical tourists, positioning the country as a top destination for medical care.

### *Key Contributions to Knew Knowledge.*

The study highlights the significance of the consumption value component and its mediating function, demonstrating its favorable impact on the push and pull factors that influence medical tourists' travel intentions (Lujun et al., 2015; Sapheri et al., 2018). This association enhances the probability of visitors choosing Malaysia for medical treatment, as evidenced by prior research. Malaysia, as a prominent medical tourism destination, should capitalize on these findings by creating products and services that highlight consumption value to draw in additional patients. Providing medical treatments focused on consumption value would generate unique experiences, essential for recruiting tourists from neighboring nations such as Indonesia, Brunei, and the Philippines. The research establishes that consumption positively influences the travel intentions of medical tourists.

### *Medical Tourism Contributions to Sarawak Economy*

The diverse strategic money-saving behaviors outlined in this study highlight the necessity for more sophisticated analyses, enabling the medical tourism sector and its management to evaluate various categories and forms of accommodation, transportation, medical and non-medical products, and service utilization (Seow et al., 2016; Seow et al., 2017). This study delineates the essential factors that facilitate the expansion of the Sarawak medical tourism industry and its associated enterprises (Sarantopoulos & Demetris, 2015). Moreover, the study by Ormond & Sulanti (2014) highlights the socioeconomic diversity of South-South travelers and elucidates the local and national economic impacts and leakages.

### *Limitations of the Study*

The respondent cohort predominantly comprises adults aged over 50 years. They are not entirely illiterate, which necessitates time to read and respond to the questionnaire, or the student must provide a more detailed explanation, which is quite time-consuming. Secondly, this study did not incorporate interviews or focus groups to augment the survey methodology. This is because answering "close" questions, which are solely quantitative, would have impeded respondents' capacity to provide accurate feedback, as they would have been unable to articulate their ideas on the topic freely. Ultimately, managing medical tourists from diverse nations, cultures, and language barriers during the data gathering process proved to be more challenging and time-consuming than expected.

### *Recommendation for Future Research*

The principal constraint of the study was its concentration on data collecting in Kuching, Sarawak. To enhance generalizability, subsequent research should encompass a more

extensive sample from hospitals throughout Malaysia engaged in medical tourism. Broadening the scope in this manner might augment the study's relevance and rigor across many circumstances. The research employed a survey questionnaire to gather data, a prevalent quantitative technique. It is recommended that future study employ mixed-method approaches to more effectively capture respondents' feelings and insights. A mixed-method approach, integrating qualitative and quantitative methodologies, is advised to augment the study's validity and yield more comprehensive results. Furthermore, subsequent studies may investigate the prediction of medical tourism demand (Yuaner & Jabar, 2022) to facilitate sector expansion.

### Conclusion and Discussion

The push and pull motivational framework reveal both internal and external factors shaping medical tourism in Sarawak. While earlier studies focused on healthcare quality, recent research emphasizes consumer value and cultural influences (Cavusoglu & Avcikurt, 2021). Applying the Push-Pull Motivation Theory provides new insights into patient motivations and decision-making, moving beyond infrastructure and policy to focus on consumer value, contrasting with the more limited scope of the theories and models. This understanding is vital for enhancing Sarawak's competitiveness in the global market, where medical tourism boosts economic growth, job creation, and healthcare standards, and promotes international recognition and cultural exchange. The sector's growth is driven by digital technology and demand for authentic experiences. According to Anon, (2024), Malaysia is projected to become a leading destination by 2025.

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**Appendix A**

Table 1

*Summary of Regression Analysis and Hypothesis Testing Result with Consumption Value as Mediating Role and The Intention of Medical Tourists to Seek Treatment in Sarawak in this study.*

Hypotheses	Correlation with CV (X → M)	Mediation (X – M – y)	Correlation with INT (X → Y)
<b>Push Factors</b>			
H1a: Physiological security significantly influences medical tourists' intentions	Supported	Not Supported	Supported
H1b: Love and belonging significantly influence medical tourists' intentions	Not Supported	Supported	Not Supported
H1c: Self-esteem significantly influences medical tourists' intentions	Not Supported	Supported	Not Supported
H1d: Self-actualization significantly influences medical tourists' intentions	Not Supported	Supported	Not Supported
H1e: Knowledge acquisition significantly influences medical tourists' intentions	Not Supported	Supported	Not Supported
<b>Pull Factors</b>			
H2a: Availability of treatment security significantly influences medical tourists' intentions	Supported	Supported	Supported
H2b: Vacation option significantly influences medical tourists' intentions	Not Supported	Supported	Not Supported
H2c: Price influences medical tourists' intentions	Not Supported	Supported	Not Supported
H2d: Branding significantly influences medical tourists' intentions	Not Supported	Supported	Not Supported
H2e: Security and privacy significantly influence medical tourists' intentions	Not Supported	Supported	Not Supported
<b>Mediator</b>			
H5: There is a mediating role of consumption value linking the push factors with medical tourists' travel intention	-	-	Not Supported
H6: There is a mediating role of consumption value linking the pull factors with medical tourists' travel intention	-	-	Not Supported

\*\* Correlation is significant at the 0.01 level (1-tailed)

Notes:

- a) (t-value >1.96)\*; (p-value < 0.005)\*\*
- b) Bootstrapping = 5000, Confident level = 95%
- d) X = Push or Pull factors, M = Mediator (Consumption Value, CV), Y=Intention (Int)

Appendix B

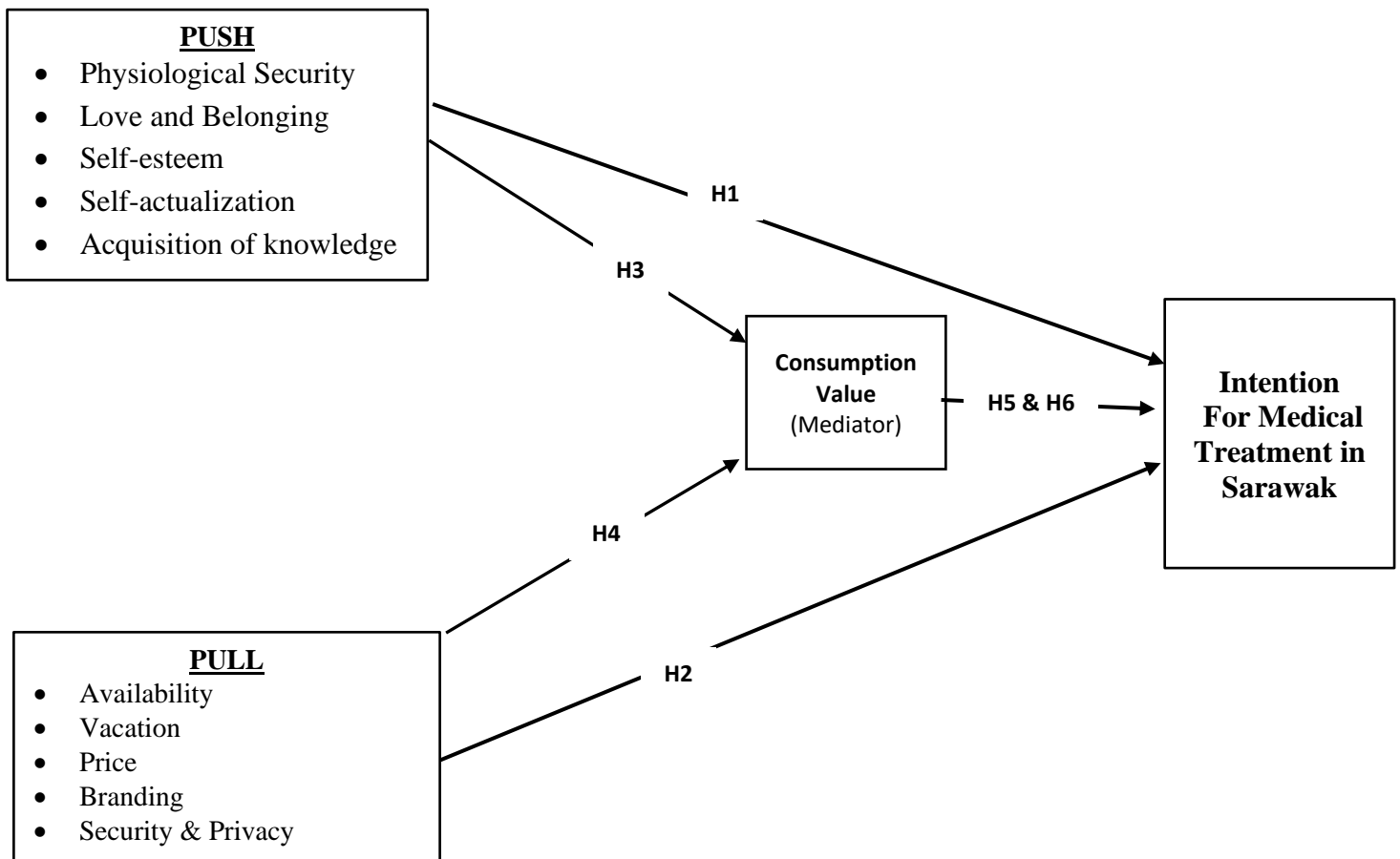


Figure 2: Conceptual Framework of Intention to Travel for Medical Treatment