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Analysis on Factors Influencing Medical Health Tourism Behaviour of Generation X

Pawit Yuangngoen[1]

Kasetsart University, Thailand

Naksit Sakdapat[2*]

University of the Thai Chamber of Commerce, Thailand

Pannika Ngamcharoen

Srinakharinwirot University, Thailand.

This quantitative study aimed to examine the determinants influencing medical health tourism behaviour among Thailand's Generation X population. The research was based on two theoretical models: the Health Belief Model and the Theory of Planned Behaviour. These frameworks formed the conceptual foundation of the investigation. The findings offered enhanced insights into the behavioural patterns associated with medical health tourism and facilitated the identification of critical variables affecting individual decision-making processes. The outcomes provide valuable input for both national and regional policy formulation aimed at encouraging health-promoting behaviours through medical tourism initiatives tailored to Generation X. Additionally, the results serve as a basis for crafting effective strategies across marketing, healthcare provision, and health communication sectors. The study sample comprised 518 Thai participants born between 1965 and 1980, representing Generation X. Sample size was calculated using G*Power, ensuring a 95% confidence level. A multi-stage quota random sampling technique was utilised for participant selection. Data collection was conducted using a structured questionnaire based on a six-point Likert scale, encompassing 10 constructs and comprising 118 items. Instrument validity and reliability were confirmed through Confirmatory Factor Analysis, with an average reliability coefficient of 0.804. All five

Correspondence concerning this article should be addressed to Naksit Sakdapat Associate Professor, Faculty of Humanities, University of the Thai Chamber of Commerce, Thailand.
E-mail: Naksit_sak@utcc.ac.th

hypotheses tested in the study were supported by the data. Key results included: 1. The measurement model demonstrated satisfactory convergent validity, indicating that the construct structure was appropriate for prediction, with significant alignment among all indicators. 2. The individual factors (IF) construct exhibited the strongest positive association with medical health tourism behaviour (MHTB), with a correlation coefficient of $r = 0.735$, $p < .01$. 3. The integrated model accounted for 53.27% of the variance observed in MHTB. The most influential predictors, ranked by standardised regression weights, were: perceived quality of medical services ($\beta = 0.47$), social influence ($\beta = 0.34$), accessibility of health information ($\beta = 0.32$), perceived image of health tourism destinations ($\beta = 0.29$), perceived improvement in quality of life ($\beta = 0.25$), and attitudes towards health tourism ($\beta = 0.12$). 4. Within specific subgroups, government employees exhibited the highest explained variance in MHTB at 55.83%. For this group, the strongest predictors were: perceived enhancement of quality of life ($\beta = 0.44$), perceived quality of medical services ($\beta = 0.42$), attitudes towards health tourism ($\beta = 0.32$), and social influence ($\beta = 0.21$). Confidence in the quality of medical services emerged as the most robust predictor of MHTB across the overall sample and all examined subgroups. Social influence was consistently the second most significant predictor in numerous subpopulations, including females, younger and older individuals, those with lower income levels, and private sector employees. The study underscores Generation X's prioritisation of trust in medical service quality and the importance of social cues in shaping behaviour. Furthermore, the findings suggest that facilitating access to health-related information and enhancing perceived quality of life are crucial for promoting medical tourism engagement, as these factors significantly affect behavioural intentions across diverse demographic groups.

Keywords: Factor Analysis, Behavioural Influence, Medical Health, Tourism, Generation X

Introduction

In contemporary times, the orientation of healthcare systems is progressively evolving from a predominantly curative focus to one that prioritises disease prevention and health enhancement. Within this context, health and medical tourism has emerged as a prominent alternative, particularly among middle-aged populations who are becoming more aware of their declining health status and are increasingly inclined towards services that blend therapeutic care with leisure and rejuvenation (Connell, 2006). This sector has grown to become a major economic contributor, reshaping the hospitality and tourism industries by incorporating health-centric activities aimed at safeguarding long-term well-being and life security. A notable target group in this domain is Generation X—individuals born between 1965 and 1980—who are currently transitioning into late adulthood and nearing retirement. This cohort displays distinct patterns of consumer behaviour,

maintains defined lifestyle expectations, generally enjoys financial stability, and places high value on health awareness. As such, Generation X represents a pivotal segment for the formulation of health tourism policies and strategic development.

Furthermore, statistics concerning ageing preparedness, as reported by Harris and Thaiprayoon (2025), reveal that merely 46% of individuals aged 45 to 60 possess sufficient readiness for ageing. Additionally, 59.10% of this group report experiencing moderate levels of stress. One of the key stressors is their dual responsibility of caring for both elderly parents and dependent children—a phenomenon commonly referred to as the "Sandwich Generation"—which exacerbates their mental strain and contributes to sustained psychological pressure. Upon further examination, this demographic is found to exhibit lifestyle-related health issues, such as excessive intake of foods high in sugar, fat, and salt, thereby increasing their vulnerability to non-communicable diseases (NCDs). These conditions are typically rooted in unhealthy habits and progress gradually, often becoming symptomatic later in life, particularly during the latter part of the working-age phase.

Therefore, proactive health promotion is vital for this group. Key strategies should include initiatives that foster nutritious dietary practices, promote physical activity, and introduce accessible stress mitigation programmes to support individuals during the shift from employment to retirement (Aung et al., 2025). Investigating health tourism behaviour also contributes to the advancement of sustainable development objectives, specifically Goal 3 (Good Health and Well-being) and Goal 8 (Decent Work and Economic Growth), by reinforcing the development of a preventive health framework and promoting the long-term viability of the national health tourism industry (Assembly, 2015).

Understanding the determinants of health and medical tourism behaviour among Generation X is essential for systematically exploring the motivations, decision-making processes, and contextual factors that underlie such behaviours. This understanding is particularly significant because the use of medical services and engagement in health-related behaviours are shaped by both intrinsic factors—such as individual attitudes, beliefs, knowledge, and experiences—and extrinsic elements including environmental contexts, prevailing social norms, and the perceived reputation of service providers. To comprehensively analyse these dynamics, the present study adopts a conceptual model that integrates two well-established theoretical perspectives: the Health

Belief Model Rosenstock (1974) and the Theory of Planned Behaviour (Ajzen, 1991). These frameworks collectively emphasise the roles of perception, health self-assessment, and behavioural intention, offering a multidimensional explanation of health tourism engagement.

This research is designed to identify the primary predictors influencing the medical wellness tourism behaviour of Generation X in Thailand. The outcomes are expected to yield practical implications for public policy formulation, inform tourism marketing strategies, and serve as motivational tools to enhance Generation X's participation in health-promoting travel. Moreover, the findings aim to support the establishment of a sustainable and adaptive health system that benefits all population segments, thereby contributing to overall life quality improvement. These objectives are aligned with the goals outlined in Thailand's National Strategy (2018–2037), which underscores the significance of advancing health-related research and innovation.

Literature Review

Medical Health Tourism Behaviour (MHTB) refers to the engagement in travel undertaken primarily for leisure, combined with the intention of accessing services related to health care, treatment, prevention, or rehabilitation. Such travel destinations typically provide a wide range of health-promoting and medical services, including but not limited to physical detoxification, meditation, physiotherapy, rehabilitative care, comprehensive medical examinations, screenings for critical illnesses, cosmetic procedures, weight control programmes, metabolic and hormonal regulation, alternative medicine, Thai therapeutic massage for muscular recovery, herbal treatments, resorts offering nutritious cuisine, anti-ageing medicine, and integrative wellness approaches (Connell, 2006). These services may be sought within one's own country or abroad. In the case of Generation X—individuals currently in a phase characterised by stable employment yet progressing toward early stages of ageing—there is an increasing need to address health concerns associated with the gradual emergence of chronic diseases and physiological decline. According to Chirawatkul and Manderson (1994), this demographic is becoming more attentive to structured, preventive health care systems and holistic treatment planning, often facilitated through participation in health-oriented tourism services.

The behaviour associated with medical health tourism can be effectively analysed through the integration of two principal theoretical frameworks: the Theory of Planned Behaviour (TPB) and the Health Belief Model (HBM). Health tourism is also linked to recreational travel that includes visiting natural and cultural sites, where time is allocated to activities promoting physical and psychological well-being. Many health tourism programmes are designed around the concept of retreating into natural environments to engage in practices that utilise nature's restorative energy, thereby enhancing both mental and physical health. In the study by Han and Lee (2018), which examined the interplay between attitudes, intentions, and behavioural patterns in the selection of medical tourism destinations, findings indicated that positive attitudes and behavioural intentions significantly influenced the decision to engage in health-focused travel. This aligns with Ajzen (1991) TPB, which identifies attitude as a central determinant of individual behaviour.

Similarly, the study conducted by Wongkit and McKercher (2016) explored health tourism decision-making among Asian travellers and found that variables such as perceived benefits, perceived susceptibility and severity of health risks, and prior personal experience played key roles. These findings are consistent with the core constructs of the HBM, which posits that an individual's engagement in health behaviour is largely shaped by their risk perceptions. Additionally, research by Chuang et al. (2015) highlighted that, within middle-aged populations, the perceived seriousness of health conditions and the anticipated value of potential outcomes strongly influence behavioural decisions. This underscores Rosenstock (1974) assertion that perceptions of risk and outcome efficacy are central to the HBM. Furthermore, elements of perceived behavioural control and subjective norms, as articulated in TPB, were found to significantly affect the intention to pursue health tourism services, reaffirming that both self-efficacy and social expectations are critical predictors of behavioural intention and actual engagement.

This study focuses on investigating the determinants of medical health tourism behaviour among Thailand's Generation X cohort, a segment of the working population transitioning into the early ageing stage. The analysis is guided by the identification and predictive assessment of variables based on an extensive review of relevant academic literature and empirical studies from both domestic and international contexts. Through a systematic process of data synthesis and evaluation, the researchers categorised the independent variables influencing MHTB into three overarching domains: (1) individual factors, (2)

environmental conditions, and (3) health tourism decision-making. The subsequent section elaborates on each of these variable groups in greater detail.

Individual Factors (IF) constitute a fundamental aspect in the examination of medical health tourism behaviour, as personal behaviours are shaped by distinctive psychological and cognitive traits, including values, beliefs, motivation, knowledge, and attitudes. These attributes significantly influence one's perception and decision-making in accessing health-related services. This is particularly salient for members of Generation X, typically aged between 45 and 60, who are navigating the transition from middle age to the early stages of retirement. During this period, individuals tend to become increasingly attentive to physiological changes and health-related concerns, leading to a greater emphasis on health preservation and the pursuit of improved life quality. A review and synthesis of the relevant academic literature has identified three primary psychological constructs that serve as influential variables within this domain.

1. Health Awareness pertains to the extent to which individuals recognise the importance of safeguarding and maintaining their health. It involves an understanding of health-related behaviours and the motivation to either prevent disease or promote holistic well-being (Chen & Lin, 2010). This construct is consistent with Becker (1974) Health Belief Model, which posits that awareness is closely linked to perceived susceptibility and perceived severity—factors that prompt individuals to seek out health interventions, including medical and wellness tourism. This framework is further supported by the Protection Motivation Theory, which suggests that the recognition of health threats can stimulate the motivation necessary for preventive action (Prentice-Dunn & Rogers, 1986). Accordingly, this explains why individuals may be driven to pursue medical tourism as a proactive strategy for health enhancement.

2. Access to Health Information is defined as an individual's capacity to locate, comprehend, and apply relevant health knowledge in order to make informed decisions regarding personal healthcare (Nutbeam, 2019). This element is directly associated with the Theory of Planned Behaviour Ajzen (1991), which posits that both attitude and perceived behavioural control—factors significantly influenced by the accessibility and quality of information—play a vital role in shaping health-seeking intentions and behaviours. Supporting this notion, Petty et al. (2009) observed that persuasive outcomes are notably affected by the availability of credible and high-quality information

sources, underscoring the pivotal role of information access in behavioural decision-making.

3. Improving the Quality of Life refers to the degree of satisfaction individuals experience across various domains, including health, interpersonal relationships, financial stability, and general well-being. It also encompasses lifestyle choices oriented toward achieving balance and enhanced living standards (Bonomi et al., 2000). According to the Organization (2003), quality of life is understood as an individual's perception of their position within the context of cultural norms and value systems, and in relation to personal goals, expectations, and concerns. Key dimensions include physical and mental health, autonomy, social connectedness, and environmental conditions. These aspects correspond with Maslow's Hierarchy of Needs, wherein individuals who have satisfied fundamental needs pursue higher-level aspirations, such as self-fulfilment and mental well-being (Chopra, 2022; Maslow, 1943). The concept is also aligned with Self-Determination Theory Deci and Ryan (1985), which explores how intrinsic motivation—such as the drive to enhance one's quality of life—encourages individuals to engage in health-promoting behaviours and self-development activities.

Environmental Conditions (EC) encompass the physical, social, and cultural settings in which individuals reside, directly shaping their beliefs, actions, and decision-making behaviours. Within the sphere of medical health tourism, the environment functions not merely as a background context but also as a motivational factor encouraging engagement with health-related services. It plays a pivotal role in generating psychological value within the consumer experience (Shahin, 2008). Aspects such as the physical setting, accessibility of services, perceived safety, and compatibility with local cultural and societal norms all contribute to destination choices and the perceived quality of medical services. Drawing from literature reviews and an analysis of relevant empirical studies, three psychological variables have been identified as particularly influential in health tourism behaviour.

1. Social Influence denotes the extent to which individuals' decisions and actions are shaped by the perspectives, advice, and conduct of others within their social environment. Influential parties may include family, friends, peer networks, or medical professionals. This influence may take various forms, including direct recommendations, implicit social pressure, or behavioural modelling (Goldstein & Cialdini, 2011). In the realm of medical wellness tourism, such social inputs significantly affect perception, belief formation, and

service utilisation decisions. This is especially pertinent for Generation X, who often place substantial trust in personal referrals, credible endorsements, and the observed actions of social role models. According to Ajzen's Theory of Planned Behaviour (1991), normative beliefs—or perceptions of social expectations—play a decisive role in shaping intentions. When individuals sense that their social circle endorses a particular course of action, they are more likely to conform to align with these expectations. Additionally, Bandura's Social Cognitive Theory (2013) highlights the importance of observational learning, particularly from respected or experienced individuals. Observing peers or influencers engaging in medical tourism or health-promoting programmes can stimulate analogous behaviour among observers.

2. Trust in Medical Services reflects the degree of confidence individuals place in the professionalism, safety, and reliability of the health services they receive. This encompasses faith in medical practitioners, the use of advanced technologies, healthcare facility standards, and past users' satisfaction (Doney & Cannon, 1997). Within the framework of medical wellness tourism, trust constitutes a critical determinant of service uptake, particularly among Generation X, who often prioritise physician competence, treatment efficacy, and overall safety. This trust dynamic aligns with the Expectancy-Confirmation Theory Ayanso et al. (2015), which asserts that customer satisfaction and continued service usage emerge when expectations are confirmed or exceeded by actual experiences. Strong consumer trust in service quality leads to optimistic expectations and a greater likelihood of repeat engagement. This view is further supported by both the Theory of Reasoned Action and the Theory of Planned Behaviour, which argue that attitudes and intentions stem from individuals' beliefs about the consequences of their actions. When people believe health services will be safe and beneficial, such beliefs foster positive attitudes and actual health-seeking behaviour.

3. Image of Health Tourism refers to the set of beliefs, emotional responses, and attitudes that Generation X individuals associate with destinations offering medical and wellness services. This perception encompasses views on service quality, environmental appeal, safety, credibility, and the overall experience associated with the destination (Gallarza et al., 2002). From the consumer's standpoint, these perceptions heavily influence the selection of a health tourism destination—particularly significant in a context often regarded as involving high personal risk and requiring substantial trust. This construct corresponds with Destination Image Theory, as articulated by

(Hosany et al., 2006), which categorises destination image into two core dimensions: the Cognitive Image, which relates to evaluations of concrete characteristics such as cleanliness, technological advancement, and safety; and the Affective Image, which encompasses emotional responses such as feelings of serenity, friendliness, and warmth. A positive image of a health tourism site can strongly influence decision-making processes and positively affect the intention to revisit the destination.

Health Tourism Decisions (HTD) refer to the process through which individuals evaluate, select, and commit to travelling to destinations that provide medical or wellness-related services. These services may include treatment, rehabilitation, or the promotion of general health. The decision-making process is shaped by a range of internal and external influences, with psychological factors such as attitudes, perceived advantages, and prior experiences playing a central role (Ajzen, 1991; Crompton, 1992). A synthesis of the literature highlights three primary variables that elucidate the determinants of health tourism decision-making:

1. Attitudes of Health Tourism variable concerns individuals' psychological dispositions, particularly the satisfaction or dissatisfaction they associate with healthcare-related stimuli. These attitudes are shaped by evaluative knowledge and reflect an individual's predisposition to respond positively or negatively based on their prior beliefs and affective evaluations (Ajzen, 1991). In the health tourism context, consumer attitudes embody their expectations, satisfaction, and perceived value regarding wellness-oriented travel activities. The Theory of Planned Behaviour posits that attitudes are foundational to the development of behavioural intentions. Consequently, a favourable attitude towards health tourism increases the probability that an individual will opt for such services.

2. Perceived Benefits of Health Tourism refer to an individual's belief about the potential gains associated with engaging in health tourism (Dökme et al., 2018). Within the framework of the Health Belief Model, perceived benefits represent a core determinant of health-related decision-making. Individuals are more likely to undertake medical travel when they believe that such action will lead to meaningful improvements in health or well-being. These benefits may be associated with access to high-quality care, faster treatment, or combined health and leisure experiences (Habibi et al., 2018).

3. Previous Experience factor encompasses memories, knowledge, and emotional responses derived from earlier participation in health tourism

activities. Such experiences inform critical thinking, shape perceptions, and influence subsequent decision-making approaches (Baker & Crompton, 2000). For instance, individuals who have previously travelled for health check-ups, rehabilitation services, or medical procedures may rely on these past encounters when making future travel decisions. Positive experiences—such as excellent care quality, professional staff, effective treatment outcomes, and overall satisfaction—tend to foster intentions to return or recommend the services to others (Baker, 2015). In contrast, unfavourable experiences may lead to negative attitudes and avoidance of similar choices. This dynamic aligns with the Expectancy–Confirmation Theory, which asserts that consumer satisfaction results from a comparison between initial expectations and actual outcomes (Pizam & Milman, 1993). When experiences align with or surpass expectations, individuals are more inclined to engage in supportive behaviours such as word-of-mouth endorsement, service repurchase, or repeat visitation (Chou et al., 2012).

Demographic Characteristics represent foundational data about participants, reflecting both their individual circumstances and broader socio-psychological contexts. The collection of such data serves two primary purposes: to profile the structural composition of the sample population and to investigate how personal attributes correlate with behaviours and perceptions associated with medical health tourism. Within this study, the biosocial characteristics of the Generation X cohort were gathered across several domains and employed as baseline variables in subsequent statistical analyses. These domains included gender, age, marital status, educational level, professional role and occupational status, residential location, monthly earnings, frequency of engagement in health tourism, prior experiences with medical treatments or examinations, presence of chronic conditions, and the degree of life-related stress or anxiety.

These attributes are instrumental in evaluating patterns of behaviour relevant to medical health tourism, providing insights consistent with respondents' biological and social realities. Furthermore, the data support the segmentation of potential health service users by identifying target populations based on principles drawn from consumer behaviour theories within health-related contexts. Through a comprehensive analysis and integration of pertinent literature, conceptual frameworks, and theoretical models, the researchers have synthesised a structured approach to examining medical

health tourism. This synthesis culminated in the development of a conceptual framework designed to guide the study's methodology, as depicted in Figure 1.

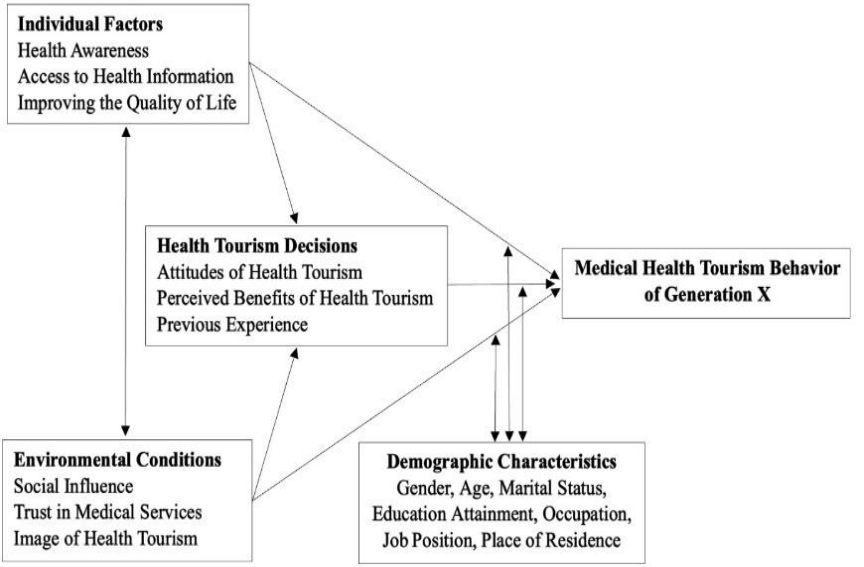

Figure 1: Conceptual Framework

Hypotheses

1. All 10 sets of questionnaires must meet the criteria of Confirmatory Factor Analysis in analysing five key components, with no fewer than 10 items per questionnaire. Each item must have a t-value greater than 2.00 and a factor loading (r) of no less than 0.20.
2. The factor loadings and convergent validity of the variables within the formal scales used for prediction must be consistent and aligned.
3. Personal factors, environmental conditions, and health tourism decision-making are significantly and positively correlated with medical health tourism behaviour.
4. The prediction results for both the overall group and subgroups can explain more than 40% of the variance in medical health tourism behaviour.
5. The prediction of medical health tourism behaviour among Generation X individuals, based on three variable groups, personal factors, environmental conditions, and health tourism decision-making shows at least a 5% difference in predictive power.

Methodology

Research Design and Ethical Considerations

This study employs a quantitative research approach with the objective of examining the determinants influencing medical health tourism behaviour among Generation X individuals in Thailand. The results aim to identify the principal factors shaping such behaviour and to facilitate the development of a robust predictive model tailored to this demographic. Additionally, the insights gained from this investigation may provide a foundational basis for policy development and the creation of promotional strategies intended to sustainably promote medical health tourism within the Generation X cohort. The research has received ethical approval under certification number HREC0078 and complies rigorously with established ethical guidelines at every stage of the study. The investigators have implemented thorough measures to ensure the utmost protection of participants' rights. Prior to participation, all individuals were required to provide voluntary informed consent, thereby guaranteeing that involvement was free from coercion or undue influence. Furthermore, the confidentiality and anonymity of participants are rigorously maintained throughout the research process. Personal information will not be accessed without explicit consent, and all collected data will be utilised exclusively for research purposes.

Sample

The findings suggested that a minimum sample size of 500 participants was suitable (Faul et al., 2009). To mitigate the risk of incomplete responses, the researchers increased this number by 5%. A multi-stage quota random sampling method was utilised, applying proportional allocation to ensure comprehensive and systematic representation across the broad population (Hossan et al., 2023). The sampling procedure involved the following steps: 1) Geographic Region: Thailand was segmented into six regions—Northern, North-eastern, Western, Central, Eastern, and Southern—with approximately 90 respondents selected from each to guarantee nationwide coverage. 2) Gender: The sample was categorised into male and female participants. 3) Age Range: Participants were further subdivided into two groups, those born between 1965 and 1972, and those born between 1973 and 1980, ensuring a total sample size of at least 500 individuals. Participants were required to have engaged in medical health tourism at least twice annually or to possess

foundational knowledge and understanding of health tourism. Prior to completing the main questionnaire, all participants underwent an initial screening via a brief self-assessment, allowing researchers to confirm that respondents met the specified criteria and had relevant experience related to the research subject.

Data Collection

The study was carried out among Generation X individuals from May to December 2024, yielding a total of 518 respondents. Of these, 274 were male (52.90%), with a mean age of 53 years and 3 months (standard deviation = 4.24 years). Single participants numbered 265 (51.16%), while 305 respondents (58.88%) had attained at least a bachelor's degree. A total of 267 participants (51.54%) were employed within government organisations. The average monthly income was 39,358 baht. On average, participants engaged in health tourism twice per year and attended medical check-ups or treatments three times annually. In relation to life concerns, the most commonly reported issues included accumulated stress (32%) and financial problems alongside the cost of living, which was the predominant concern at 39%. These results highlight notable economic and psychological pressures impacting the quality of life within this demographic group.

Instruments

The research instrument employed in this study was a questionnaire designed by the researcher, grounded in a comprehensive review of academic literature, pertinent theories, and conceptual frameworks. The aim was to ensure the questionnaire's precision, completeness, and alignment with the research objectives. It comprised five primary sections: 1) Biopsychosocial background information; 2) Items relating to individual factors; 3) Items pertaining to environmental conditions; 4) Items concerning factors influencing decision-making; and 5) Items addressing medical health tourism behaviour. All items were measured using a six-point Likert scale, ranging from "strongly true" to "not true at all." Positive statements were scored from 6 to 1, while negatively worded items were reverse-coded from 1 to 6. To enhance response accuracy and reliability, and to mitigate response bias, the order of questions was randomized (Joshi et al., 2015).

To ensure the questionnaire's quality, a rigorous validation process was undertaken. First, content validity was assessed Khazaee-Pool et al. (2024), including language accuracy and clarity of content, through evaluation by a

panel of five experts specialising in health behaviour research and tourism. Subsequently, revisions were made based on expert feedback, particularly regarding question wording, clarity, and interpretive difficulty. The refined version underwent a second expert review, yielding Item-Objective Congruence scores ranging from 0.80 to 1.00 for each item (Turner & Carlson, 2003). A pilot test was then conducted with a comparable sample of 120 participants, and the data were analysed using confirmatory factor analysis. Acceptance criteria required that at least three out of five model fit indices were satisfactory, particularly when the chi-square (χ^2) test was not statistically significant (Browne & Cudeck, 1993; Hair Jr et al., 2010). The overall reliability coefficient (Cronbach's alpha) for the questionnaire was 0.804, providing confidence that the instrument possessed acceptable validity and reliability levels, rendering it academically robust and appropriate for the study (see Table 1).

Table 1

Quality of Measurement Instruments

Variable Code	Items	α	T-value	R-value	Confirmatory Factor Analysis						
					χ^2	df	P-value (>0.05)	RMSEA (≤0.06)	CFI (≥0.95)	TLI (≥0.95)	SRMR (≤0.08)
1	14	0.79	3.42-7.64	0.22-0.38	59.05	51	0.23	0.04	0.97	0.96	0.06
2	13	0.82	2.83-7.47	0.23-0.42	60.49	50	0.22	0.04	0.96	0.96	0.05
3	12	0.81	2.67-8.41	0.22-0.41	58.86	49	0.24	0.03	0.97	0.97	0.05
4	11	0.83	3.14-6.53	0.24-0.43	62.74	52	0.25	0.04	0.97	0.96	0.06
5	11	0.76	3.27-8.12	0.24-0.33	54.90	48	0.26	0.04	0.97	0.97	0.05
6	12	0.77	2.43-6.45	0.23-0.35	52.79	49	0.22	0.03	0.96	0.97	0.05
7	13	0.82	2.36-8.90	0.21-0.31	61.64	50	0.21	0.03	0.96	0.97	0.06
8	11	0.81	2.39-6.76	0.23-0.45	59.37	51	0.20	0.04	0.96	0.96	0.06
9	10	0.80	3.45-7.93	0.25-0.33	60.34	53	0.23	0.03	0.96	0.96	0.05
10	11	0.83	2.39-7.14	0.23-0.32	59.45	52	0.22	0.04	0.95	0.95	0.06

Variable Codes: 1: Medical Health Tourism Behaviour, 2: Health Awareness, 3: Access to Health Information, 4: Improving the Quality of Life, 5: Social Influence, 6: Trust in Medical Services, 7: Image of Health Tourism, 8: Attitudes of Health Tourism, 9: Perceived Benefits of Health Tourism, 10: Previous Experience

Note: *This research prioritizes the t-value over the correlation coefficient (r). **The item selection criteria are: t-value ≥ 2.00 and r ≥ 0.20. ***The 10 measurements used to measure the sample in this study were created by the researcher's own team.

Data Analysis

This study utilised inferential statistics, primarily to test five hypotheses and analyse the statistically significant relationships between independent and dependent variables. The specific statistical techniques applied were: 1) the

Pearson Product-Moment Correlation Coefficient, employed to investigate the relationships between pairs of independent variables, with an emphasis on determining the direction and strength of these correlations (Cohen, 2008); and 2) Multiple Regression Analysis, utilised to evaluate the impact of multiple independent variables on the prediction of the dependent variable, applying statistical significance criteria to assess differences and predictive accuracy (Stolzenberg, 2004).

Results

Data were collected from 546 individuals belonging to Generation X in Thailand. Following a screening process to ensure completeness and data quality, 518 questionnaires were retained for analysis. The quality assessment of all ten questionnaire sets, encompassing 118 items in total, demonstrated compliance with the criteria for Confirmatory Factor Analysis across five principal components, with t-values exceeding 2.00 and R-values not falling below 0.20. These results indicate that the developed questionnaire adheres to acceptable academic quality standards (Browne & Cudeck, 1993; Hair Jr et al., 2010), with an average reliability coefficient of 0.804. This evidence supports Hypothesis 1, confirming the questionnaire's suitability for investigating medical health tourism behaviour among Generation X.

Convergent validity of the latent variables employed to analyse factors influencing medical health tourism behaviour was evaluated Kline (2016) using factor loadings, composite reliability (CR), and average variance extracted (AVE) (Fornell & Larcker, 1981). Overall, the measurement model was deemed appropriate and reliable for predictive analysis (see Table 2). Additionally, all indicators exhibited statistically significant internal consistency within their respective latent variable groups, demonstrating an acceptable level of convergent validity and thus supporting Hypothesis 2. All standardised factor loadings for the latent variables met or exceeded the recommended threshold of 0.70 Hair Jr et al. (2010). Furthermore, all CR values surpassed the minimum standard of 0.70, and all AVE values exceeded 0.50. Each item's Z-score was statistically significant at $p < .001$. Specifically, IF presented factor loadings ranging from 0.717 to 0.762, indicating strong indicator consistency, with CR and AVE values meeting the established thresholds (≥ 0.70 and ≥ 0.50, respectively). EC indicators all demonstrated factor loadings above 0.70, with CR and AVE confirming a high degree of convergent validity. For HTD, factor loadings ranged between 0.720 and 0.795, and the CR and AVE values reflected

robust measurement quality for decision-related constructs. Although MHTB was measured using a single indicator, both the factor loading and AVE were found to be high.

Table 2

Load Factor and Convergent Accuracy Tests of Formal Scales of Groups of Variables used to Predict

Variable Groups		Ustd	S.E.	Z	p	Std. F.L.	C.R.	AVE
Individual Factors (IF)	IF1	1	-	-	-	0.762	0.957	0.532
	IF2	1.136	0.07	16.258	***	0.725		
	IF3	1.082	0.06	15.434	***	0.717		
Environmental Conditions (EC)	EC1	1	-	-	-	0.783	0.942	0.526
	EC2	1.141	0.06	16.627	***	0.735		
	EC3	1.029	0.06	14.546	***	0.701		
Health Tourism Decisions (HTD)	HTD1	1	-	-	-	0.720	0.901	0.517
	HTD2	1.285	0.06	17.228	***	0.724		
	HTD3	1.014	0.06	15.394	***	0.795		
Medical Health Tourism Behaviour (MHTB)	MHTB	1	-	-	-	0.862	0.913	0.546

Note: *p<.05; **p<.01; ***p<.001

The correlation coefficient analysis (Table 3) revealed that the IF variable exhibited a statistically significant positive correlation with MHTB, with the highest correlation coefficient observed ($r = 0.735$, $p < .01$). This suggests that individual characteristics substantially influence the decision-making process and participation in health tourism among Generation X individuals. Specifically, personal attributes such as age, income, occupation, and educational attainment play a crucial role in shaping MHTB. Furthermore, the HTD variable demonstrated a strong correlation with MHTB ($r = 0.719$, $p < .01$), indicating that an individual's intention or predisposition to select health tourism services significantly affects their actual behaviour. In other words, decisions related to the choice of services or health tourism destinations directly impact individual behaviour. EC were also found to exert a statistically significant influence on both HTD and MHTB. This indicates that the environment—comprising three primary factors: social influence, trust in the quality of medical services, and the reputation of health tourism destinations—has a meaningful effect on MHTB. Collectively, these results provide robust empirical support for Hypothesis 3.

Table 3

Relationship Between Groups of Variables used in Prediction

Variable Groups	Individual Factors (IF)	Environmental Conditions (EC)	Health Tourism Decisions (HTD)	Medical Health Tourism Behaviour (MHTB)
Individual Factors (IF)	1			
Environmental Conditions (EC)	0.608**	1		
Health Tourism Decisions (HTD)	0.677**	0.616**	1	
Medical Health Tourism Behaviour (MHTB)	0.735**	0.672**	0.719**	1

Note: *p<.05; **p<.01

This study utilised multiple regression analysis (Enter method) to examine the factors influencing medical health tourism behaviour. The analysis considered nine variables associated with IF, EC, and HTD. Drawing on data from 518 participants, the findings indicated that factors impacting medical health tourism behaviour differed across various population subgroups (see Table 4). For the entire sample, the model accounted for 53.27% of the variance in medical health tourism behaviour, thereby supporting Hypothesis 4. The most influential predictors, ranked in descending order, were: Trust in the quality of medical services ($\beta = 0.47$), Social influence ($\beta = 0.34$), Access to health information ($\beta = 0.32$), Image of health tourism destinations ($\beta = 0.29$), Improvement in quality of life ($\beta = 0.25$), and Attitudes towards health tourism ($\beta = 0.12$). These results demonstrate that Generation X individuals place considerable importance on the credibility of medical services, social encouragement, and access to health information. Such factors are closely linked with confidence in the health service system and social influence, both of which considerably shape decisions regarding engagement in medical health tourism. Furthermore, the study provided additional support for Hypothesis 4 within 11 subgroups, where each regression model explained over 40% of the variance in behaviour (Breiman & Friedman, 1997). These outcomes align with constructs found in the Health Belief Model Rosenstock (1974) and the Theory of Planned Behaviour (Ajzen, 1991).

Analysis across 12 subgroups revealed that predictive power varied by more than 5% in five categories: gender, age, marital status, education level, and type of employing organisation, thereby supporting Hypothesis 5. The subgroup with the greatest predictive power comprised participants employed in government agencies (n = 267), where the regression model explained 55.83%

of the variance in medical health tourism behaviour, exceeding the threshold by over 5%. The primary predictors for this group, ranked strongest to weakest, were Improvement in quality of life (β = 0.44), Trust in the quality of medical services (β = 0.42), Attitudes towards health tourism (β = 0.32), and Social influence (β = 0.21). In comparison, for the subgroup employed in private sector organisations, the model accounted for 50.24% of variance, with key predictors being Trust in the quality of medical services (β = 0.39), Social influence (β = 0.22), and Perceived benefits of health tourism (β = 0.18).

Table 4

Multiple Regression Analysis on Medical Health Tourism Behaviour

Groups	Cases	Prediction	Significant Predictors	β
Total	518	53.27%	5, 4, 2, 6, 3, 7	.47, .34, .32, .29, .25, .12
Male	274	52.63%**	4, 3, 5, 2, 6, 7	.45, .35, .21, .20, .19, .14
Female	244	43.78%**	5, 4, 3, 7	.39, .24, .16, .13
Older (>53 Years)	262	41.45%**	5, 4, 8, 2, 3, 6, 7	.34, .26, .24, .22, .19, .14, .12
Younger (≤52 Years)	256	35.24%**	5, 4, 8	.35, .32, .15
Single	265	52.89%**	1, 5, 4, 7, 6, 3	.47, .45, .38, .33, .13, .10.
Married	253	46.21%**	5, 7	42, .39
Educational Level Lower than Bachelor's Degree	218	43.59%**	3, 4, 7, 9	.45, .23, .21, .14
Education Level of Bachelor's Degree or Higher	305	51.73%**	4, 2, 6, 9, 5, 1	.46, .45, .43, .41, .26, .15
Government Agency	267	55.83%**	3, 5, 7, 4	.44, .42, .32, .21
Private Agency	251	50.24%**	5, 4, 8	.39, .22, .18
High Income (>40,000 Baht)	253	52.57%	5, 4, 3, 6	.34, .24, .19, .15
Low Income (≤40,000 Baht)	265	54.63%	5, 4, 2, 6, 3, 1	.35, .32, .21, .19, .17, .13

Note:

*All beta values were statistical significance at 0.05

**had a percentage difference of 5% or higher

***Significant Predictors: 1: Medical Health Tourism Behaviour, 2: Health Awareness, 3: Access to Health Information, 4: Improving the Quality of Life, 5: Social Influence, 6: Trust in Medical Services, 7: Image of Health Tourism, 8: Attitudes of Health Tourism, 9: Perceived Benefits of Health Tourism, 10: Previous Experience

When examined by gender, the model explained 52.63% of variance for males, with the most significant predictors being Social influence (β = 0.45), Improvement in quality of life (β = 0.35), and Trust in medical services (β = 0.21). This suggests that males exhibit a stronger response to social stimuli and enhancements in personal quality of life. For females, the predictive power was 43.78%, with key predictors being Trust in medical services (β = 0.39) and Social influence (β = 0.24), indicating that females place relatively greater

emphasis on confidence in medical services, showing less responsiveness to personal factors. Regarding age, the sample was categorised into two groups. The older cohort (> 53 years) demonstrated a predictive power of 41.45%, with the principal predictors being Trust in medical services (β = 0.34), Social influence (β = 0.26), and Perceived benefits of health tourism (β = 0.24). These findings imply that older individuals are motivated by multiple factors, particularly the perceived advantages of medical health tourism. The younger cohort (≤ 52 years) exhibited a predictive power of 35.24%, with key predictors being Trust in medical services (β = 0.35), Social influence (β = 0.32), and Perceived benefits of health tourism (β = 0.15). This segment of results further corroborates the applicability of variables derived from the HBM, which was utilised in this study (Champion & Skinner, 2008).

Discussion and Conclusion

The analysis of the collected data provided empirical support for all five proposed hypotheses, thereby affirming the robustness of the theoretical model employed. The findings offer significant insights into the dynamics influencing MHTB, particularly among Generation X, and contribute meaningfully to the academic discourse in this domain.

The first major outcome pertains to the confirmatory factor analysis (CFA) conducted on ten separate questionnaire sets. Each set met the five established CFA criteria, validating the reliability and quality of the measurement instruments used. These results suggest that the developed instruments are not only fit for the current study but may also serve as a reliable basis for future academic investigations. Specifically, the CFA confirmed that the measurement model coherently represented both the conceptual framework and empirical observations. Each item demonstrated statistical adequacy, evidenced by t-values exceeding 2.00 and correlation coefficients (r) above 0.20. This rigorous evaluation process refined the original 250 items to a validated set of 118. This approach aligns with the instrument development procedures outlined by Ghosh and Mandal (2019), who emphasised the importance of constructing comprehensive and psychometrically sound scales in the context of medical tourism. Similar validation efforts are observed in Fetscherin and Stephano (2016) and in the MEDTOUR instrument devised by Martin et al. (2011), grounded in Ajzen (1991) Theory of Planned Behaviour, which includes consumer attitudes, social norms, perceived behavioural control, and behavioural intention.

The second key finding highlights the strength of the MHTB construct, as evidenced by high composite reliability (0.913) and average variance extracted (0.546), indicating internal consistency and robust explanatory capacity. The factor loading value of 0.862 further validated the precision of the MHTB measurement. Remarkably, MHTB accounted for 55.83% of the variance among public sector respondents, reflecting informed decision-making influenced by IF, EC, and HTD as conceptualised by Ajzen (1991), Champion and Skinner (2008), and Anuar et al. (2020). The results also identified two dominant predictors: confidence in the quality of medical services and social influence. These outcomes are in concordance with previous literature, including Han and Hyun (2015), who demonstrated the impact of service quality on satisfaction and trust; Vovk et al. (2021), who associated revisit intentions with perceptions of trust and safety; and Rahman (2019), who identified quality, communication, and staff competence as pivotal determinants in the Malaysian context. These findings are also mirrored in the systematic review by Torabipour et al. (2017), which emphasised the role of accessibility and cultural communication. Shabankareh et al. (2025) further validated the critical importance of service quality and patient confidence in driving health tourism.

Further analysis of the correlation matrix established that IF and EC exert both direct and indirect influences on MHTB. Personal factors demonstrated the highest correlation ($r = 0.735$), suggesting that enhancing health-related knowledge, attitudes, and perceptions is essential for fostering medical tourism engagement among Generation X. These insights underline the need for effective promotional strategies that disseminate relevant and accessible health information, with a particular emphasis on the affordability of services. Practical measures may include structured health education campaigns, targeted digital communication strategies, and collaboration with healthcare providers and medical tourism agencies to deliver preventive health content online. Leveraging social media platforms, user-generated reviews, and patient narratives may reinforce trust and motivation. Additionally, the design of marketing environments should be aligned with Generation X's preferences, integrating health services with wellness-oriented experiences. These recommendations are consistent with Eriş and Kemer (2020), who linked awareness to work-life quality; Lee et al. (2012), who observed the influence of treatment outcomes and peer recommendations; and Shaygani et al. (2023), who identified knowledge and attitudes as predictors of wellness travel

behaviour.

The findings further revealed that, among the 518 participants, confidence in medical service quality emerged as the most influential predictor of MHTB across all demographic categories, including gender, age, income, and employment sector. This variable was consistently ranked highest among females, single individuals, and those in lower income brackets, corroborating the strong factor loading reported in Table 2. The observed demographic variations suggest that tailored strategies are required to address group-specific needs and concerns. These findings are consistent with earlier studies by Horowitz et al. (2007), who associated positive health tourism attitudes with destination image; Wongkit and McKercher (2013), who highlighted older adults' health consciousness and travel planning behaviours; and Herrick (2007), who emphasised the significance of trust and perceived quality in achieving long-term health objectives. Accordingly, recommended strategies to enhance public confidence may include personalised care through effective patient experience management, the implementation of telemedicine services and mobile applications to ensure continuity of care, culturally competent pre-consultation services, the production of service manuals in local languages, and transparent communication of physician credentials, success rates, and patient feedback.

Finally, the regression analysis confirmed that confidence in service quality had the strongest predictive power ($\beta = 0.47$), followed by social influence, which demonstrated significance across nearly all subgroups. Access to health information was found to be especially critical for males, older individuals, and participants with higher educational attainment, highlighting the pivotal role of health communication in shaping MHTD-related decisions. These findings reinforce those of Henson et al. (2015), who pointed to the relevance of motivation, decision-making, and information availability; Gill and Singh (2011), who highlighted the significance of medical research, service quality, and cross-cultural communication; and Cohen (2008), who documented socio-cultural motivations among middle-aged medical tourists in Thailand. To sustain long-term engagement, the study recommends disseminating culturally sensitive health messages through diverse communication channels, bolstering healthcare system credibility and standardisation, and facilitating community-based initiatives such as nutrition workshops aimed at chronic disease management and preparation for healthy ageing.

Recommendations

1. This study utilised a comparative correlational research design with the objective of examining and identifying relationships between independent variables and medical health tourism behaviour among Generation X, a late working-age cohort increasingly conscious of long-term well-being. The research offers an initial framework for understanding the principal factors influencing the decision-making processes within this demographic. To enhance the comprehensiveness and depth of knowledge in this field, future research should consider expanding the sample to incorporate other generational cohorts, including Baby Boomers, Generation Y, and Generation Z. Conducting intergenerational comparative studies would facilitate meaningful analysis of differences in values, attitudes, and lifestyle behaviours across age groups, which substantially affect patterns of health tourism service utilisation. Such analyses would provide a robust evidence base to inform public policy development and the creation of targeted marketing strategies.

2. Active support from relevant government bodies, such as the Ministry of Public Health and the Ministry of Tourism and Sports, is essential, particularly through collaborative efforts to design strategic plans for health tourism development. The findings of this research can serve as predictive tools to identify trends and health-related demands among Generation X, thereby informing policy formulation that addresses their specific requirements, especially regarding service quality, safety, and the trustworthiness of healthcare facilities. Furthermore, initiatives should focus on promoting the branding of health tourism destinations, cultivating a professional and attractive image that corresponds with the expectations of this demographic by utilising multi-channel media strategies.

3. The promotion of social participation warrants emphasis, particularly the engagement of family members, peer groups, and community networks, which play crucial roles in supporting and disseminating health and wellness concepts. This is especially pertinent for individuals within the late working-age group, as prior studies consistently recognise social influence as a significant determinant of health behaviours and decision-making. Therefore, incorporating social networks into health promotion policies or interventions may enhance the sustainability and effectiveness of behaviour change efforts.

4. There is a pressing need to develop reliable and accessible health and medical tourism databases founded on certified medical standards. Such systems should be tailored to the characteristics of middle-aged to older adults,

who frequently engage in comparative information seeking prior to health-related decision-making. This group also places considerable importance on socially shared information, often consulting peers or community networks for opinions and advice. Consequently, the design of health communication systems should prioritise clarity, user-friendliness, and alignment with the information-processing and decision-making preferences of the target population. Implementing such systems could enhance accessibility and motivation, thereby encouraging increased engagement in health and wellness tourism activities.

Limitations

1. This study utilised a large-scale sample selected through multi-stage quota random sampling to represent the target population effectively. However, the substantial sample size may increase the chance of statistically significant results, potentially complicating the interpretation of some findings. To improve clarity, conducting interaction effects and subgroup analyses is recommended, as these approaches can identify distinct predictors within specific groups and support the development of targeted, nuanced strategies.

2. The questionnaire was newly developed based on relevant theories and prior research, with careful consideration of the Thai socio-cultural context. While some questions may have caused cultural misunderstandings, efforts were made to enhance clarity and construct validity. The instrument included ten clearly defined variables, refined linguistically and reviewed by experts to ensure content validity and appropriateness. The questionnaire demonstrated strong reliability and validity, making it suitable for similar research and contributing to the advancement of standardised tools in this field.

Future Research Directions

1. Future research should employ experimental designs to rigorously test variables identified as significantly related to medical health tourism behaviour, such as trust in medical service quality, peer influence, and attitudes towards health tourism. Quasi-experimental or true experimental approaches, including pre- and post-test comparisons, will help establish causal relationships rather than mere correlations, providing valuable insights for health promotion policies and targeted marketing strategies.

2. Longitudinal studies are recommended to observe behavioural changes over time and detect emerging trends. Tracking variables such as attitudes,

access to health information, and trust in healthcare facilities through panel studies will enhance data validity and minimise sampling errors.

3. Further exploration of psychological factors related to health and preventive care is needed. A mixed-methods approach combining quantitative analysis with qualitative techniques, such as phenomenological interviews or focus groups, can provide a deeper understanding of motivations and experiences. This triangulation strengthens the credibility of findings and supports the development of more accurate behavioural models. Case studies focusing on specific hospitals or consumer segments could also offer detailed contextual insights.

4. Questionnaire instruments should be regularly updated to maintain academic rigour, contemporary relevance, and applicability across different generations, enabling precise cross-generational comparisons and informed policy recommendations.

5. The study's findings should be developed into practical toolkits or guidelines for policymakers and industry stakeholders. These resources should integrate academic knowledge, statistical data, and service delivery strategies tailored to health tourism, addressing physical, mental, and spiritual well-being to enhance the quality and competitiveness of medical health tourism in Thailand.

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