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Digital Technology Factors Influencing Medical Tourists' Technology Engagement and Adoption Intention

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Abstract: This study aimed to examine the digital technology factors influencing medical tourists' technology engagement and their subsequent technology evaluation and adoption intention during medical travel and treatment. The study examined five digital technology factors, namely Digital Information Seeking, Navigation Usability, Digital Interactivity, Technology Accessibility, and Health Tracking. The study was conducted among 384 international medical tourists who visited five selected JCI-accredited private hospitals in Delhi. Regression analysis revealed that Digital Information Seeking, Navigation Usability, Technology Accessibility, and Health Tracking positively and significantly influenced Technology Engagement, whereas Digital Interactivity did not have a significant effect. The results further demonstrated that Technology Engagement had a positive and significant effect on Technology Evaluation and Technology Adoption Intention, while Technology Evaluation also positively and significantly influenced Technology Adoption Intention. These findings highlight the important role of digital technology factors in enhancing medical tourists' engagement with technology-enabled healthcare services and shaping their future technology adoption intentions. The study contributes to the medical tourism literature by providing empirical evidence on the role of digital technology factors in influencing medical tourists' technology-related behaviour. The findings may assist healthcare providers and other medical tourism stakeholders in implementing effective digital technologies to enhance medical tourists' experience and encourage the adoption of technology-enabled healthcare services.

Keywords: Digital Technology, Medical Tourism, Technology Engagement, Technology Evaluation, Technology Adoption Intention.

1. Introduction

Technology has had a significant impact on the healthcare sector in recent years, and the integration of emerging digital technologies has contributed to the development of medical tourism (Wong & Sa'aid Hazley, 2020). The increasing use of digital technologies has transformed the way medical tourists search for information, access healthcare services, communicate with healthcare providers, navigate medical destinations, and monitor their health during the medical travel journey.

Digital technologies have resulted in significant changes in areas such as health applications, data gathering and analysis, reporting, follow-up scheduling, data storage, and big data (Pesapane *et al.*, 2018). They can also support medical tourist monitoring, simplify healthcare information workflows, and improve the delivery of healthcare services (Uzir *et al.*, 2021). From a consumer perspective, digital technologies assist users in obtaining relevant information, improving mobility, supporting decision-making, and enhancing the overall travel experience (Gretzel, 2011; Tussyadiah & Miller, 2019). Sifolo (2023) further highlighted that digital technology has emerged as an important component of sustainable tourism by improving resource management and visitor experiences. Digital technologies, mobile applications, and big data analytics continue to transform the ways in which tourism destinations operate, communicate, and interact with tourists and other stakeholders.

Medical tourists increasingly use digital technologies for navigating medical tourism facilities and obtaining information about medical tourism facilitators (MFTs), healthcare providers, and medical destinations (Parekh *et al.*, 2021). Similarly, Nazir *et al.* (2019) highlighted the potential of telehealth technology to facilitate direct and interactive communication between potential medical tourists and physicians through videoconferencing before travel. The development of smart healthcare systems has further expanded the use of mobile health, telehealth, Internet of Medical Things (IoMT), wearable devices, and other digital technologies in medical tourism (Dar & Kashyap, 2022). These developments provide medical tourists with greater opportunities to access healthcare information and services before, during, and after medical travel.

The existing literature has examined the role of individual technologies in tourism and healthcare; however, limited empirical research has examined how different digital technology factors collectively influence medical tourists' technology engagement and subsequent technology-related intentions. Therefore, the present study addresses this gap by examining five digital technology factors, namely Digital Information Seeking, Navigation Usability, Digital Interactivity, Technology Accessibility, and Health Tracking, and their influence on medical tourists' Technology Engagement, Technology Evaluation, and Technology Adoption Intention during medical travel and treatment.

The study was conducted among international medical tourists visiting selected JCI-accredited private hospitals in Delhi, an important medical tourism destination in India. The findings are expected to provide useful insights for healthcare providers and other medical tourism stakeholders in developing and implementing digital technologies that can enhance medical tourists' engagement with healthcare services and encourage the adoption of technology-enabled medical tourism services.

2. Literature review

2.1 Medical Tourism and Smart Healthcare System

Wong and Sa'aid Hazley (2020) described medical tourism as a collection of activities in which individuals travel, often over long distances or across national borders, to obtain medical treatment while also participating in leisure or other activities. Collins et al. (2019) referred to individuals who travel to foreign countries for medical treatment as medical tourists and identified factors such as the high cost of healthcare and long waiting lists in their home countries as important motivations for medical tourism. Yamin (2018) highlighted the growing importance of technological advancements in medical tourism management and procedures, particularly in improving diagnostic accuracy and providing real-time information. Uzir et al. (2021) further indicated that technological applications have significantly influenced the global healthcare system, particularly following the COVID-19 pandemic, contributing to the growing importance of technology-enabled medical tourism.

The rapid development of information and communication technologies (ICT) has transformed conventional tourism into smart tourism and has contributed to the emergence of smart health tourism (Nazir et al., 2019). Friedland (2020) referred to patients participating in technology-enabled healthcare services as smart medical tourists. Ghosh et al. (2022) suggested that digital connectivity within smart tourism has created a foundation for smart healthcare services and acts as an important facilitator of smart healthcare systems (SHS). Balandina et al. (2015) explained that smart healthcare is supported by technological developments associated with smart tourism.

Dar (2022) stated that smart healthcare utilises mobile internet, the Internet of Things (IoT), and wearable devices to connect healthcare resources, people, and institutions, enabling greater responsiveness within the healthcare ecosystem. Baggio et al. (2020) further highlighted that smart tourism facilitates the digital delivery and consumption of services by different users. Kelly et al. (2020) described smart healthcare systems as networks of interconnected wearable devices equipped with sensors, software, and communication technologies for collecting, storing, and sharing data. Dar and Kashyap (2022) highlighted mobile health, telehealth, blockchain, cloud technology, Internet of Medical Things (IoMT), virtual reality, and artificial intelligence as important technological applications supporting medical tourism. Molina et al. (2020) stated that smart healthcare systems consist of hardware, platforms, and interfaces that support diagnosis, consultation, and treatment, thereby improving the efficiency of medical tourism destinations.

2.3 Digital Technology in Medical Tourism

The increasing integration of digital technologies into healthcare and tourism has created new opportunities for medical tourists to access information, healthcare services, communication, and health-related support. Gretzel (2011) and Tussyadiah and Miller (2019) highlighted the role of digital technologies in helping tourists obtain relevant information, improve mobility, and support decision-making. Law (2019) further identified websites and digital search platforms as important points of interaction between consumers and service providers. Such technologies can facilitate information seeking and improve the accessibility of services throughout the medical tourism journey.

Digital technologies also support navigation and interaction among medical tourists and healthcare providers. Benckendorff et al. (2019) noted that personalised technological features can assist tourists in unfamiliar destinations, while automated translation can facilitate navigation and participation. Sustacha et al. (2023) found that smart technologies can enhance tourism experiences through improved information provision and interaction. Luxton (2016) further highlighted the potential of digital technologies to facilitate communication between healthcare professionals and patients across geographical distances.

Technology accessibility and health monitoring are also becoming important components of technology-enabled healthcare. Pradhan et al. (2021) explained that the Internet of Medical Things (IoMT) connects healthcare information systems, medical devices, and software applications, enabling the exchange and management of healthcare information. Jangra et al. (2021) demonstrated the usefulness of IoT-based health-monitoring systems for medical tourists, while Uzir et al. (2021) examined AI-enabled smartwatches that support continuous self-monitoring of health. These developments indicate that digital technologies can provide medical tourists with greater access to information and healthcare services while supporting continuous health monitoring.

Overall, the literature indicates that digital information seeking, navigation usability, digital interactivity, technology accessibility, and health tracking represent important digital technology factors within medical tourism. These technologies can facilitate medical tourists' interaction with healthcare and tourism services and may consequently influence their Technology Engagement, Technology Evaluation, and Technology Adoption Intention. However, further empirical investigation is required to understand how these digital technology factors influence medical tourists' engagement and subsequent technology-related intentions.

3. Hypotheses Development

3.1 Effect of Digital Technology Factors on Medical Tourists' Technology Engagement

Previous research in tourism, healthcare, and related service settings has increasingly highlighted the role of artificial intelligence and digital technologies in shaping users' engagement with technology-enabled services. Goel (2019) noted that AI-enabled digital health tools can enhance medical tourism by facilitating communication between patients and healthcare providers, improving access to transparent information, and supporting patients during the rehabilitation period following medical treatment. Similarly, Sustacha et al. (2023) demonstrated that smart technologies can positively influence travel experiences, particularly through their capacity to provide relevant information and facilitate interaction. These findings suggest that the ability of digital technologies to support information access, communication, interaction, and healthcare-related activities can encourage medical tourists to engage more actively with technology-enabled services.

Digital information seeking constitutes an important digital technology factor in medical tourism, as international patients increasingly rely on digital platforms to obtain information throughout their medical travel journey. Tussyadiah and Miller (2019) suggested that AI-supported technologies enable users to access more relevant information while enhancing their mobility, thereby contributing to improved tourism experiences. Elsoud and Morsy (2022) similarly observed that artificial intelligence can simplify travel arrangements and assist tourists in making decisions regarding their future trips, consequently influencing their engagement with tourism services. Law (2019) identified websites and other digital search platforms as important initial points of contact between consumers and service providers. The availability of relevant and accessible information through these platforms can foster favourable attitudes, trust, and satisfaction, which may subsequently encourage users to engage further with digital services. Thus, the effectiveness of digital information-seeking facilities can play an important role in shaping medical tourists' engagement with technology.

Navigation usability is another significant factor that can facilitate medical tourists' engagement with digital technologies. Parekh et al. (2021) reported that medical tourists use digital technologies to navigate medical tourism facilities and locate healthcare service providers. Benckendorff et al. (2019) further demonstrated that personalised technological features can assist tourists in discovering unfamiliar destinations, while automated translation functions can simplify navigation and facilitate participation in various activities. Cobos and Shapoval (2024) examined consumers' psychological responses to mobile technologies and health-related applications, identifying factors such as self-efficacy, personalisation, perceived benefits, privacy risks, and trust as relevant to consumers' technology-related decisions during a global health crisis. Rivera et al. (2016) likewise found that tourists appreciate a certain level of personalisation when using services delivered through mobile technologies. These findings indicate that digital platforms that are easy to navigate and responsive to users' requirements can facilitate greater engagement with technology-enabled tourism and healthcare services.

Digital interactivity represents another important factor influencing medical tourists' engagement with technology. Sustacha et al. (2023) found that interaction through AI-based technologies has a significant effect on users' experiences. Luxton (2016) similarly highlighted the potential of AI to facilitate interactions between healthcare professionals and patients across geographical distances. In technology-supported consultations, information such as images, speech, text, videos, and clinical data can be collected, transmitted, and stored through blockchain-based systems (Ali et al., 2022). These data can subsequently be used to support disease prediction and diagnosis through explainable artificial intelligence models. Telehealth also enables the virtual delivery of healthcare services by facilitating interaction with physicians and providing information related to treatment and destination options (Senbekov et al., 2020). Molina et al. (2020) further noted that medical tourists can receive follow-up care after returning home through telemedicine technologies, enabling access to medical records and health-related information through medical tourist portals. Virtual reality (VR) can additionally provide medical travellers with immersive representations of destinations and familiar environments and can be used to communicate information about treatment alternatives and medical procedures (Wong & Hazley, 2020). Such applications provide medical tourists with multiple opportunities to interact with healthcare and tourism providers through digital technologies, potentially strengthening their engagement with these systems.

Technology accessibility also plays an important role in enabling medical tourists to engage with digital healthcare services. Pradhan et al. (2021) explained that the Internet of Medical Things (IoMT), supported by AI-based approaches, integrates healthcare information technologies with interconnected physical infrastructure, medical devices, and software applications. These interconnected systems enable medical devices to communicate through the internet and facilitate the efficient management and exchange of healthcare information. Greater accessibility to such technologies can provide medical tourists with opportunities to obtain healthcare-related services and information irrespective of geographical boundaries, thereby facilitating their engagement with technology-enabled services.

Health tracking provides another mechanism through which digital technologies can support medical tourists' engagement with healthcare services. Jangra et al. (2021) examined an IoT-based health-monitoring framework and demonstrated its usefulness in enabling medical tourists to monitor their health status, identify potential health conditions, and access online healthcare services. Baker et al. (2017) examined on-body IoMT devices and smart wearable monitors that can be used by individuals and shared with healthcare professionals. Similarly, Uzir et al. (2021) investigated AI-enabled smartwatches that facilitate continuous self-monitoring of health. Their findings indicated that such technologies can assist patients in monitoring their healthcare and contribute positively to user experience and satisfaction. The availability of continuous and technology-supported health information can therefore encourage medical tourists to interact with and engage with digital healthcare services.

Overall, the literature indicates that digital information seeking, navigation usability, digital interactivity, technology accessibility, and health tracking represent important digital technology factors that can facilitate medical tourists' engagement with technology-enabled tourism and healthcare services. Accordingly, the following hypotheses are proposed:

H1a: Digital information seeking significantly impacts medical tourists' technology engagement.

H1b: Navigation usability significantly impacts medical tourists' technology engagement.

H1c: Digital interactivity significantly impacts medical tourists' technology engagement.

H1d: Technology accessibility significantly impacts medical tourists' technology engagement.

H1e: Health tracking significantly impacts medical tourists' technology engagement.

3.2 Association of Technology Engagement, Technology Evaluation and Technology Adoption Intention

The existing literature indicates that users' engagement with technology can influence how they evaluate the technology and, subsequently, their intention to adopt it. Habibi and Rasoolimanesh (2021) demonstrated that technology experience can significantly influence customers' perceived value as well as their behavioural intentions. This suggests that the manner in which users engage with technology can shape their subsequent evaluation of its usefulness and value, which may then influence their willingness to use the technology.

Research in the hospitality and tourism sectors provides further support for the relationship between technology engagement and subsequent evaluations and intentions. Dianawati *et al.* (2024) examined perceptions of smart hotel technologies and identified their implications for guest satisfaction, loyalty and revisit intention. Morosan and Jeong (2018) found a positive relationship between users' perceptions of hotel reservation websites and their behavioural intentions towards self-service technologies. Rivera *et al.* (2015) similarly reported that customers' experiences with mobile technologies can positively influence their propensity and intention to use such technologies. Their findings further indicated that technology-use intentions can be influenced by users' perceptions of usefulness and their attitudes towards the technology.

The role of technology evaluation in shaping adoption intentions has also been established across different technological contexts. Verma *et al.* (2018) identified a positive relationship between the perceived usefulness of big-data analytics systems and users' behavioural intentions towards using such systems. Chang *et al.* (2012) likewise reported a positive relationship between perceived usefulness and users' purchase intentions in the context of website quality. Previous research has also indicated that the perceived usefulness of hotel information systems positively influences employees' behavioural intentions to use such technologies (Meuter *et al.*, 2000; Varol & Tarcan, 2009).

Drawing from these findings, it can be argued that sustained engagement with digital technologies may shape how medical tourists evaluate the technologies they encounter during their healthcare and tourism journeys. A favourable evaluation of these technologies may subsequently strengthen their intention to adopt and use technology-enabled services. In addition, technology engagement may have a direct influence on adoption intention, as positive interactions with digital technologies can encourage users to continue or expand their technology use. Therefore, the following hypotheses are proposed:

H2: Medical tourists' technology engagement has a significant positive impact on technology evaluation.

H3: Medical tourists' technology evaluation has a significant positive impact on technology adoption intention.

H4: Medical tourists' technology engagement has a significant positive impact on technology adoption intention.

Figure 1 represents the proposed hypothesis and conceptual framework of this research study

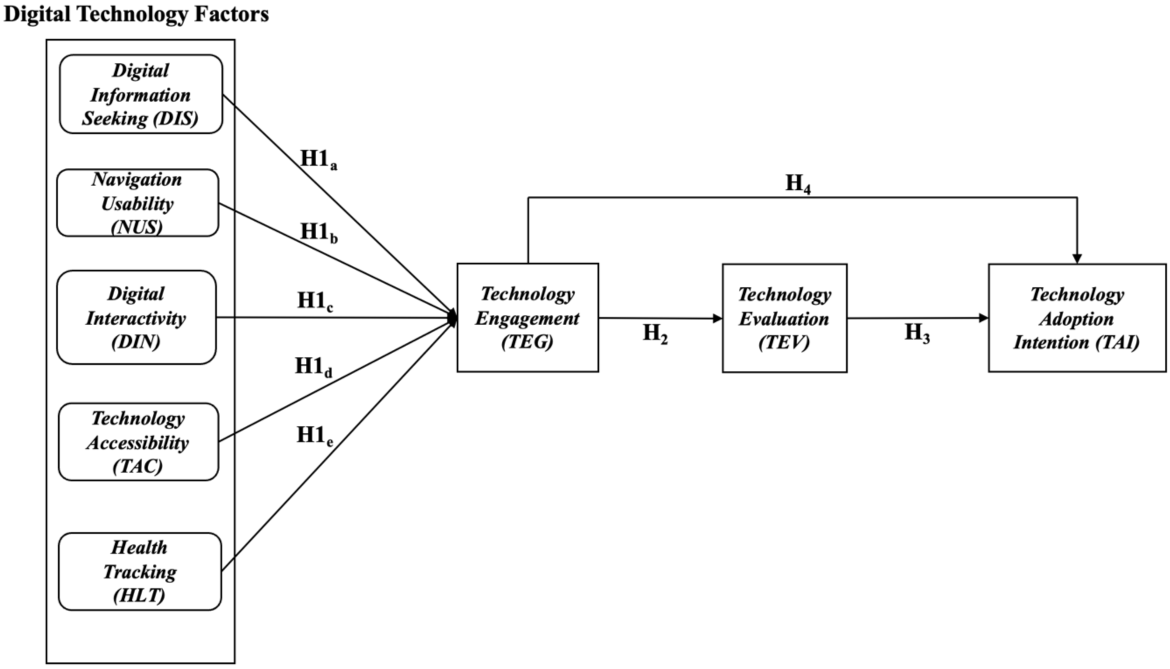

Figure 1. Conceptual framework

Source: Author's Own elaboration

4. Research methodology

In this study, a quantitative research method was adopted, emphasising objective measurement and empirical assessment. Delhi, being a prominent medical tourism destination in India (Malhotra & Dave, 2022), was selected as the study area. The target population comprised international medical tourists visiting any of the five NABH and JCI-accredited private hospitals in Delhi**,** namely Dr. B.L. Kapur Memorial Hospital (New Delhi), Indraprastha Apollo Hospital (New Delhi), Max Super Speciality Hospital (A Unit of Devki Devi Foundation), New Delhi, Max Super Speciality Hospital (A unit of Max Healthcare Institute Limited, New Delhi), and Moolchand (New Delhi)**.** These hospitals, being JCI-accredited, provide advanced healthcare facilities and utilise modern medical technologies, making them relevant settings for examining international medical tourists' engagement with digital technologies. The exact number of international medical tourists visiting these hospitals was unknown. Therefore, the population for the present study was considered unknown. Accordingly, the study followed the Krejcie and Morgan table (Krejcie & Morgan, 1970), which recommends a sample size of 384 for an unknown population. Thus, 384 international medical tourists constituted the final sample of the study and were surveyed across the selected hospitals in Delhi

4.1 Questionnaire Design

The study employed a structured questionnaire to collect the primary data required to examine the proposed relationships among the study constructs. The research instrument was developed with reference to the theoretical framework and relevant previous literature. The questionnaire was divided into two sections. The first section collected the demographic characteristics of the respondents. These demographic measures were adapted from Medhekar and Wong (2020).

The second section comprised 27 measurement items designed to assess the digital technology factors, technology engagement, technology evaluation, and technology adoption intention of medical tourists. The digital technology factors were represented by five constructs, namely Digital Information Seeking (DIS), Navigation Usability (NUS), Digital Interactivity (DIN), Technology Accessibility (TAC), and Health Tracking (HLT). Each of these five constructs was measured using three items, resulting in a total of 15 items. The items representing the digital technology factors were adapted from previous studies, including Solakis *et al.* (2022), Hung-Che *et al.* (2016), Tiwari *et al.* (2021), Alrahbi *et al.* (2019), Jeong and Shin (2019), Azis *et al.* (2020), and Papa *et al.* (2018).

The sixth construct, Technology Engagement (TEG), was measured using four items adapted from Alrahbi *et al.* (2019), Jeong and Shin (2019), Kamboj and Joshi (2020), and Azis *et al.* (2020). The seventh construct, Technology Evaluation (TEV), was assessed using four items adapted from Hung-Che *et al.* (2016), Jeong and Shin (2019), and Kamboj and Joshi (2020). The eighth construct, Technology Adoption Intention (TAI), was measured using four items adapted from Hung-Che *et al.* (2016), Jeong and Shin (2019), Kamboj and Joshi (2020), and Pai *et al.* (2020). Thus, the second section consisted of 27 measurement items across eight constructs.

All the measurement items were assessed using a five-point Likert scale, ranging from 1 = Strongly Disagree to 5 = Strongly Agree. The scale enabled respondents to indicate the extent to which they agreed or disagreed with each statement concerning their engagement with and evaluation of digital technologies and their intention to adopt such technologies.

5. Results of the Study

5.1 Descriptive statistics

Table 1 results indicate that most of the respondents are from the 21 to 35 years of age group. 41.66 % are postgraduates, 68.3% are males, 47.6% are students, and 62.5% are married.

Table 1. Respondents Demographics

Age	**F**	**%**	**Education**	**F**	**%**
21 to 35	201	52.3	Graduate	120	31.25
36 to 50	110	28.6	Post Graduate	160	41.66
51 to 65	13	3.3	Others	50	13.0
Up to 20	60	15.6	Up to +2	54	14.0
Total	**384**	**100**	**Total**	**384**	**100**
Occupation	**F**	**%**	**Gender**	**F**	**%**
Studying	183	47.6	Male	224	68.3
Employee	140	36.4	Female	160	41.6
Business	41	10.6	**Total**	**384**	**100**
Others	20	5.2	**Marital status**	**F**	**%**
Total	**384**	**100**	Married	240	62.5
			Unmarried	125	32.55
			Others	19	4.94
			Total	**384**	**100**

F= Frequency, %= Percentage

5.2 Data analysis

Table 2 indicates the exploratory factor analysis (EFA) results. Factor loadings range from 0.703 to 0.987 across the items. From EFA, 8 factors are identified as DIS, NUS, DIN, TAC, HLT, TEG, TEV, and TAI, respectively.

Cronbach's alpha results revealed that all factors were found reliable as α values ranged between 0.7 to 0.9. The CR value for factors DIS, NUS, DIN, TAC, HLT, TEG, TEV, TAI, is > 0.70, hence completely reliable. The AVE value for all the factors is >0.50, hence providing an acceptable level of convergent validity.

Table 2. Measurement Model Evaluation (EFA)

Construct	Label	FL	Mean	S. D	Cronbach's α	CR	AVE
Digital Information Seeking (DIS)	DIS1	0.865	3.73	0.973	0.873	0.874	0.784
	DIS2	0.849					
	DIS3	0.856					
Navigational Usability (NUS)	NUS1	0.968	3.37	0.924	0.882	0.893	0.764
	NUS3	0.843					
	NUS3	0.938					
Digital Interactivity (DIN)	DIN1	0.969	3.43	0.953	0.823	0.713	0.682
	DIN2	0.948					
	DIN3	0.735					
Technology Accessibility (TAC)	TAC1	0.946	3.93	0.887	0.845	0.784	0.684
	TAC2	0.937					
	TAC3	0.759					
Health Tracking (HLT)	HLT1	0.957	3.74	0.982	0.774	0.871	0.895
	HLT2	0.847					
	HLT3	0.756					
Technology Engagement (TEG)	TEG1	0.978	3.63	0.917	0.910	0.883	0.771
	TEG2	0.847					
	TEG3	0.894					
	TEG4	0.756					
Technology Evaluation (TEV)	TEV1	0.903	3.74	0.893	0.883	0.854	0.772
	TEV2	0.864					
	TEV3	0.774					
	TEV4	0.785					
Technology Adoption Intention (TAI)	TAI1	0.883	3.81	0.918	0.882	0.965	0.881
	TAI2	0.794					
	TAI3	0.793					
	TAI4	0.774					

Note: FL=Factor *loading, SD=Standard deviation,* CR=*Composite reliability, AVE=Average variance extracted,*

In table 3, by meeting the Fornell and Larcker criterion, the study confirmed the discriminant validity of the constructs. This means that each construct measures a unique and distinct aspect of the phenomenon under examination, further supporting the reliability of the outer model.

Table 3. Discriminant Validity Results

Construct	DIS	NUS	DIN	TAC	HLT	TEG	TEV	TAI
DIS	**.613**							
NUS	.413	**.657**						
DIN	.340	.220	**.725**					
TAC	.681	.537	.293	**.736**				
HLT	.590	.336	.510	.352	**.689**			
TEG	.385	.382	.583	.264	.562	**.727**		
TEV	.309	.393	.445	.573	.345	.710	**.841**	
TAI	.410	.511	.482	.610	.483	.363	.587	**.735**

5.3 Regression Analysis and Hypotheses testing

5.3.1 Effect of DIS, NUS, DIN, TAC, HLT on TEG

In Table 4, the R value (0.789) indicates a high degree of correlation of *DIS*, *NUS*, *DIN*, *TAC*, *HLT* with *TEG*. The R^2 value (0.647) indicates 64.7% of variation for *TEG* by *NUS*, *NUS*, *DIN*, *TAC*, *HLT* which is greater than 0.5 and good**.** Besides, the adjusted R^2 value (.639) is less than R^2 (647) which is good for model fitness.

Table 4. Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the estimate	Change Statistics F change df1 df2 Sig. F
1	.789[a]	.647	.639	.521	97.618 8 389 .000

a. **Predictors:** (Constant): *CHM, TRE, NUE, DAS, INS, AC, IN*

b. **Dependent Variable**: *EXP*

As per table 5 , the P value is less than .05 and equal to 0.000, and the F value (95.921) is greater than 1, which indicates the model applied is significantly good enough in predicting the outcome variable, TEG, in the study.

Table 5. ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig. a
Regression	186.131		26.311		
Residual	110.325	7	.277	95.921	.000
Total	287.345				
		390			
		397			

a. **Predictors:** (Constant): *DIS,NUS,DIN,TAC,HLT,*

b. **Dependent Variable:** *TEG*

The regression output, reproduced in Table 6, shows that *DIN* has a significance level greater than 0.05 which reflects that this variable does not have any significant impact on the *TEG* of medical tourists while using digital technologies. However, *DIS*, *NUS*, *TAC and HLT* with significance values less than 0.05 which denotes these factors have a positive effect on *TEG.* Therefore, *H1c* isn't supported; on the other hand, *H1a*, *H1b H1d*, *H1e* hypotheses are supported.

Table 6. Variable Coefficient Results

Model	Un-standardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
Constant	.809	.120	--	6.749	.000
DIS	.086	.050	.243	1.776	.000
NUS	.097	0.49	.348	-.039	.000
DIN	.003	.046	.002	1.176	.213
TAC	.095	.045	.354	1.175	.000
HLT	.198	.056	.289	2.973	.000

Dependent Variable: *TEG*

5.3.2 Effect of TEG on TEV

In Table 7, the R value (0.868) indicates a high degree of correlation of *TEG* with *TEV*. The R^2 value (0.738) indicates 73.8% of variation for *TEV* by *TEG*, which is greater than 0.5 and good**.** Besides, the adjusted R^2 value (.722) is less than R^2 (.738) which is good for model fitness.

Table 7. Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the estimate	Change Statistics F change	df1	df2	Sig. F
1	.868[a]	.738	.722	.468	1043.688	7	392	.000

Predictors: (Constant): *TEG,* **Dependent Variable**: *TEV*

According to table 8 results, the P value is less than .05 and equal to 0.000, and the F value (1066.654) is greater than 1, which indicates the model applied is good enough and significantly predicts the outcome variable, *TEV*, in the study.

Table 8. ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig. a
Regression	233.162		25.312		
Residual	86.973	1	.234	1066.654	.000
Total	321.137				
		390			
		397			

a. Predictors: (Constant): *TEG,* **b. Dependent Variable:** *TEV*

The regression output, reproduced in Table 9, *TEG* has a significance level less than 0.05, which reflects that this variable has a significant impact on the *TEV* of medical tourists while using digital technologies. Therefore, H_2 hypothesis is supported.

Table 9. Variable Coefficient Results

Model	Un-standardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
Constant	.394	.104	--	3.807	.000
EXP	.898	.028	.853	32.507	.000

a. **Predictors: (Constant):** *TEG*, b. **Dependent Variable**: *TEV*

5.3.3 Effect of TEV on TAI

In Table 10, the R value (0.782) indicates a high degree of correlation of *TEG* with *TAI*. The R^2 value (0.588) indicates 58.8% of variation for *TAI* by TEV, which is greater than 0.5 and good**.** Besides, the adjusted R^2 value (.584) is less than R^2 (.593) which is good for model fitness.

Table 10. Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the estimate	Change Statistics F change	df1	df2	Sig. F
1	.782[a]	.593	.584	.574	565.174	1	394	.000

Predictors: (Constant): *TEV*, **Dependent Variable**: *TAI*

According to table 11 results, the P value is less than .05 and equal to 0.000, and the F value (583.187) is greater than 1, which indicates the model applied is good enough and significantly predicts the outcome variable, *TAI*, in the study.

Table 11. ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	193.521	1	193.523	583.187	.000
Residual	121.834	397	.343		
Total	343.397	398			

a. Predictors: (Constant): *TEV,* **b. Dependent Variable:** *TAI*

The regression output, reproduced in Table 12, shows that *TEV has* a significance level of less than 0.05, which reflects that this variable has a significant impact on the TAI of medical tourists while using digital technologies. Therefore, the *H3* hypothesis is supported.

Table 12. Variable Coefficient Results

Model	Un-standardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
Constant	.921	.124	--	7.543	.000
EXP	.774	.022	.767	25.134	.000

a. **Predictors: (Constant):***TEV*, b. **Dependent Variable**: *TAI*

5.3.4 Effect of TEG on TAI

In Table 13, the R value (.843) indicates a high degree of correlation of *TEG* with *TAI*. The R^2 value (0.723) indicates 72.3% of variation for *TAI* by TEG, which is greater than 0.5 and good**.** Besides, the adjusted R^2 value (.701) is less than R^2 (.723) which is good for model fitness.

Table 13. Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the estimate	Change Statistics F change	df1	df2	Sig. F
1	.843[a]	.723	.701	.443	929.221	1	387	.000

a. Predictors: (Constant): *TEG* ,***b.*** *Dependent* Variable: *TAI*

According to table 14 results, the P value is less than .05 and equal to 0.000, and the F value (931.133) is greater than 1, which indicates the model applied is good enough and significantly predicts the outcome variable, TAI, in the study.

Table 14. ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig. a
Regression	234.343				
Residual	93.003	1	234.356	931.133	.000
Total	354.367		.253		
		394			
		396			

a. Predictors: (Constant): *TEG,*

b. Dependent Variable: TAI

The regression output, reproduced in Table 15 TEG, has a significance level less than 0.05, which reflects that this variable has a significant impact on the *TAI* of medical tourists while using digital technologies. Therefore, the H4 hypothesis is supported.

Table 15. Variable Coefficient Results

Model	Un-standardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
Constant	.524	.123	--	4.865	.000
TEG	.876	.025	.823	30.476	.000

a. Predictors: (Constant): TEG, b. Dependent Variable: *TAI*

5.4 Hypothesis path model

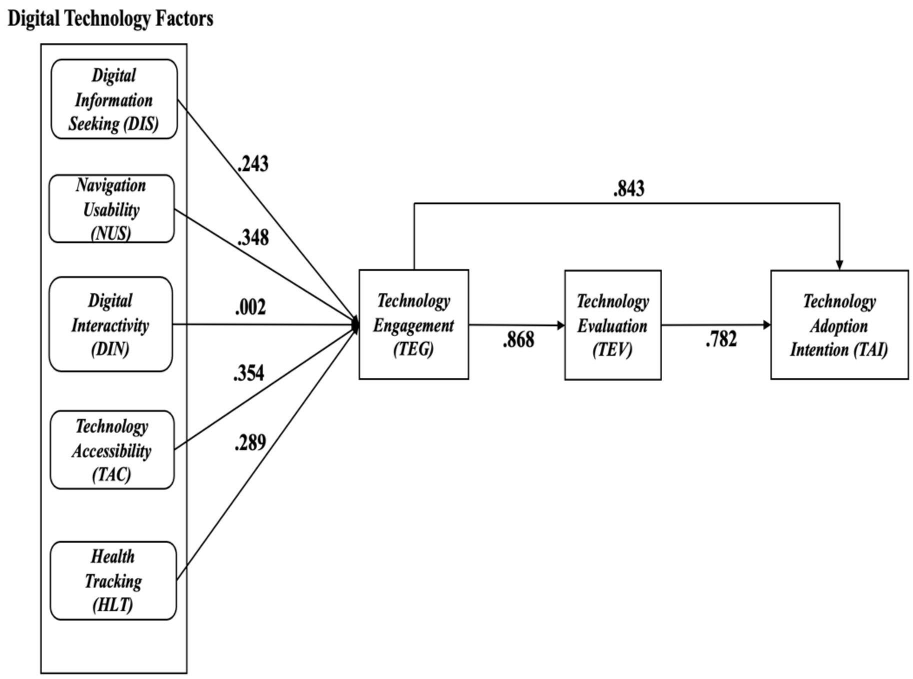

Figure II *: Hypothesis path model*
Source: Authors' own elaboration

6. Discussion and conclusion

Eight constructs were developed through the research model, with satisfactory factor loadings and reliability values, indicating that there was no major problem with the exploratory factor analysis (EFA) procedure. Regression analysis was subsequently conducted to identify the digital technology factors that significantly influence medical tourists' technology engagement.

The present study attempted to identify the digital technology factors that influence medical tourists' Technology Engagement (TEG) during medical travel and treatment. The results identified five digital technology factors: Digital Information Seeking, Navigation Usability, Digital Interactivity, Technology Accessibility, and Health Tracking. Regression analysis demonstrated that Digital Information Seeking, Navigation Usability, Technology Accessibility, and Health Tracking had a significant positive effect on medical tourists' Technology Engagement, whereas Digital Interactivity did not have a significant effect. These findings indicate that medical tourists particularly engage with digital technologies for obtaining information, navigating healthcare services, accessing technology-enabled services, and monitoring their health.

Regression analysis further established a strong and positive association between Technology Engagement and Technology Evaluation, indicating that greater engagement with digital technologies contributes to favourable evaluations of their usefulness and value during medical travel.

The results also demonstrated a positive and significant relationship between Technology Evaluation and Technology Adoption Intention. This indicates that favourable evaluations of digital technologies strengthen medical tourists' intentions to adopt and continue using technology-enabled healthcare services.

Furthermore, Technology Engagement was found to have a positive and significant effect on Technology Adoption Intention. This suggests that positive engagement with digital technologies during medical travel can encourage medical tourists to use such technologies in future medical travel and healthcare activities.

Collectively, the present study results support the proposed conceptual model. It can therefore be concluded that selected digital technology factors positively influence medical tourists' Technology Engagement, while Technology Engagement and Technology Evaluation significantly contribute to Technology Adoption Intention.

7. Limitations and implications

This research, like any other study, is not without limitations. One important limitation is that the data were collected only from Delhi. Therefore, the findings may not be applicable to other medical tourism destinations or populations. Data were collected from selected NABH and JCI-accredited private hospitals in Delhi, and no responses from government or semi-government hospitals were included. The study also considered only international medical tourists, while other medical tourism stakeholders were not approached for their views.

The present study contributes to the existing literature by examining the relationship between digital technology factors, Technology Engagement, Technology Evaluation, and Technology Adoption Intention among international medical tourists.

The findings provide useful implications for healthcare providers and medical tourism service providers. Hospitals can invest in digital technologies that improve information access, navigation, accessibility, and health tracking. Mobile health applications, patient portals, telehealth, telemedicine, and health-monitoring technologies can be used to enhance medical tourists' engagement with technology-enabled healthcare services.

8. Scope for future research:

Based on the findings and limitations of the present study, several areas can be considered for future research. The present study was conducted in Delhi with a limited sample; therefore, future studies may replicate the model in other prominent medical tourism destinations with a larger sample size. Longitudinal studies may also be conducted to examine changes in medical tourists' technology engagement and adoption intentions over different stages of medical travel.

Since the present study focused on international medical tourists, future research may examine domestic medical tourists as well. Further studies may also include other medical tourism stakeholders, such as medical tourism facilitators and healthcare providers.

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