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A CONCEPTUAL STUDY ON INTEGRATION OF TAM AND TPB MODEL FOR EVALUATING THE EFFICACY OF COIMBATORE MEDICAL TOURISM

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ABSTRACT

Medical tourism has emerged as a significant driver of healthcare and tourism economies in India, with Coimbatore gaining recognition for its advanced hospitals, cost-effective treatments, and strong tradition of wellness practices. However, assessing the efficacy of medical tourism in this region requires an integrated understanding of both technological adoption and behavioural determinants influencing patient decisions. This study proposes a conceptual framework that combines the Technology Acceptance Model (TAM) and the Theory of Planned Behaviour (TPB) to evaluate the efficacy of Coimbatore's medical tourism sector using secondary data sources. The research is conceptual in design, relying on scholarly articles, government reports, and industry publications. TAM constructs Perceived Ease of Use and Perceived Usefulness are examined in the context of digital health platforms, hospital websites, and teleconsultations, while TPB constructs Attitude, Subjective Norms, and Perceived Behavioural Control are analyzed to understand social, cultural, and psychological influences on medical tourists' behavioural intentions. The integrated TAM–TPB framework offers a holistic perspective, addressing the limitations of using either model in isolation. The findings suggest that Coimbatore's medical tourism efficacy is shaped by an interplay of digital readiness and behavioural dynamics. While technological access increases trust and convenience, patient choices are equally influenced by social referrals, cultural perceptions, and logistical ease. The study contributes theoretically by synthesizing TAM and TPB into a unified model for medical tourism research and practically by highlighting strategies for healthcare providers and policymakers. Strengthening digital platforms, enhancing international branding, and improving facilitation services are identified as critical factors for positioning Coimbatore as a competitive medical tourism destination. This conceptual framework provides a foundation for future empirical studies and offers actionable insights into advancing Coimbatore's role as a sustainable hub in global medical tourism.

KEYWORDS: Technology Acceptance Model (TAM), Theory of Planned Behaviour (TPB), Healthcare Technology Adoption, Patient Behavioural Intention, Coimbatore Medical Tourism.

INTRODUCTION

Medical tourism has emerged as one of the fastest-growing sectors of global healthcare and travel, enabling patients to cross borders in search of affordable, advanced, and specialized medical treatments. India, with its strong healthcare infrastructure, cost advantages, and reputation for

skilled professionals, has positioned itself as a leading medical tourism hub. In India, Coimbatore, often referred to as the "Manchester of South India," has emerged as a major medical tourism destination due to its state-of-the-art hospitals, specialized treatments, wellness centers, and comparatively lower costs. The city is gaining prominence for traditional healthcare services as well as holistic wellness practices that combine modern medical expertise with cultural and traditional healing approaches. Measuring the true efficacy of Coimbatore's medical tourism offerings requires a robust conceptual framework that incorporates both technological adoption and behavioural intention.

The increasing role of technology in medical tourism ranging from teleconsultations, hospital websites, mobile health apps, digital payment systems, to online reputation management makes it essential to evaluate how patients and medical tourists accept and use these innovations (Debata, 2013). The Technology Acceptance Model (TAM), developed by Davis (1989), provides insight into how perceived ease of use (PEOU) and perceived usefulness (PU) influence an individual's acceptance of technology. In the context of medical tourism, TAM helps in understanding how tourists perception of the reliability effectiveness of digital health platforms and online medical information before making travel decisions (Dash, 2021).

The Theory of Planned Behaviour (TPB), proposed by Ajzen (1991), explains how attitudes towards behaviour, subjective norms, and perceived behavioural control shape an individual's intention and ultimate behaviour. Blending TPB into the study of medical tourism encourages researchers to learn about psychological and social dimensions of decision-making, including cultural influences, peer recommendations, and personal control over access to medical care abroad (Raman et al., 2024).

This conceptual study seeks to evaluate medical tourism in Coimbatore and its effectiveness using technological and behavioural measures, integrating the TAM and the TPB. This combination broadens the understanding of technology use and the motivational, cultural, and attitudinal aspects of their home countries, as articulated by Vinodan and Meera (2025). This deeper understanding will help the region identify opportunities and gaps in strategies aimed at strengthening Coimbatore's position in the global medical tourism market. The study will use secondary data to synthesise current literature and conceptualise the interrelationship between patient satisfaction, trust, and technology acceptance on the effectiveness of medical tourism in Coimbatore (Raman et al., 2024).

In doing so, the research will contribute to both theoretical development and practical implications. It bridges the gap between healthcare technology adoption and tourism behaviour studies, providing policy makers, healthcare providers, and tourism stakeholders with valuable insights for sustainable growth in the medical tourism sector.

REVIEW OF LITERATURE

Medical tourism has increasingly gained global attention as a dynamic sector where healthcare services intersect with international travel. Scholars widely acknowledge that affordability, quality of healthcare, technological advancement, and destination image are crucial determinants in shaping the success of medical tourism (Connell, 2013; Heung, et al., 2010). In the Indian context, destinations such as Chennai, Bengaluru, and Delhi have been studied for their ability to attract international patients, while Coimbatore, with its advanced multi-specialty hospitals and integrative wellness services, is gradually emerging as a promising hub. The literature reveals a gap in systematic frameworks that can evaluate the efficacy of Coimbatore's medical tourism ecosystem.

Technology plays a vital role in modern medical tourism, especially in an era where patients rely on digital platforms for information, consultations, and bookings. The Technology Acceptance Model (TAM), first proposed by Davis (1989), has been one of the most influential frameworks for explaining how individuals adopt and use new technologies. Numerous studies demonstrate that perceived ease of use and perceived usefulness strongly influence acceptance of digital healthcare tools, ranging from telemedicine to online appointment systems (Holden &

Karsh, 2010). In tourism research, TAM has been applied to e-tourism platforms, demonstrating how users' perceptions of digital systems shape destination choice and service use (Morosan and DeFranco, 2016). These insights imply that in medical tourism, the adoption of hospital websites, teleconsultations, and online reviews can critically shape patients' trust and decision-making.

Complementing this technological perspective, behavioural theories also offer valuable explanations. The Theory of Planned Behaviour (TPB), introduced by Ajzen (1991), suggests that attitudes, subjective norms, and perceived behavioural control collectively influence an individual's intention and eventual behaviour. Within tourism literature, TPB has been widely used to predict tourist choices, sustainable travel patterns, and participation in wellness-related activities (Lam & Hsu, 2006). In healthcare research, TPB has been employed to explain patient compliance and preventive health practices (Godin & Kok, 1996). When applied to medical tourism, TPB provides a lens to understand how cultural values, peer influence, and personal confidence in navigating a foreign healthcare environment contribute to decision-making.

A growing number of studies argue that integrating TAM and TPB can provide a more comprehensive understanding of both technological and psychological determinants of behaviour (Taylor & Todd, 1995). While TAM captures cognitive evaluations of technology, TPB accounts for social pressures and personal control, making the combined framework particularly effective in contexts where technology adoption and behavioural intention intersect. Recent applications of the integrated TAM–TPB model in domains such as e-commerce, e-health, and digital travel services have shown higher explanatory power compared to either model alone (Cheng et al., 2019).

Despite these advances, the literature indicates that Indian medical tourism research has not sufficiently utilized this integrated framework. While studies have explored patient satisfaction, cost-effectiveness, and hospital reputation in cities such as Delhi and Chennai, Coimbatore remains underexplored despite its growing reputation as a healthcare hub. Furthermore, existing research rarely employs secondary-data-driven conceptual models to assess medical tourism efficacy.

The literature suggests that the integration of TAM and TPB provides a promising theoretical foundation to evaluate the efficacy of Coimbatore's medical tourism. This synthesis highlights the dual importance of technology-driven healthcare access and behaviourally-driven decision-making. By bridging these perspectives, the study can contribute to advancing both theoretical discourse and practical strategies for strengthening Coimbatore's position in the global medical tourism landscape.

METHODOLOGY

The methodology of this study outlines the research design, approach, data sources, and analytical techniques employed to examine the integration of the Technology Acceptance Model (TAM) and the Theory of Planned Behaviour (TPB) for evaluating the efficacy of Coimbatore's medical tourism. As the research is conceptual and based on secondary data, the focus lies on synthesizing existing literature and frameworks to develop an integrative model that captures both technological and behavioural determinants of medical tourism efficacy (Ha, 2020).

RESEARCH DESIGN

This study adopts a conceptual research design supported by a descriptive and analytical approach. The design is suitable since the primary objective is not to collect new empirical data but to critically examine and synthesize existing scholarly works, government reports, industry publications, and digital health tourism data. Through this approach, the study builds a theoretical framework that integrates TAM and TPB, providing insights into technological adoption and behavioural intention collectively influence medical tourism outcomes in Coimbatore (Gómez-Ramirez, et al., 2019).

NATURE OF THE STUDY

The research is qualitative and conceptual in nature. It emphasizes understanding relationships between constructs such as perceived ease of use, perceived usefulness, attitude, subjective norms,

perceived behavioural control, intention, and actual behaviour in the context of medical tourism. By employing secondary data analysis, the study bridges gaps between fragmented streams of literature on technology acceptance, behavioural theories, and medical tourism efficacy.

DATA SOURCES

The study relies exclusively on secondary data sources, which include:

- Peer-reviewed journal articles on TAM, TPB, healthcare management, and tourism studies.
- Books, theses, and conference proceedings related to medical tourism and behavioural models.
- Reports published by government bodies such as the Ministry of Tourism, Ministry of Health and Family Welfare, and Tamil Nadu Tourism Department.
- Industry publications and white papers by medical associations, hospital groups, and tourism boards.
- Online databases such as Scopus, Web of Science, JSTOR, PubMed, and Google Scholar.

These sources provide both theoretical insights and empirical findings that can be synthesized to develop the proposed framework.

Framework Development

The conceptual framework integrates Technology Acceptance Model (TAM) and Theory of Planned Behaviour (TPB) to evaluate the efficacy of medical tourism in Coimbatore. The framework highlights how technology adoption (PEOU, PU) and behavioural predictors (Attitude, SN, PBC) influence medical tourists' intention and actual behaviour.

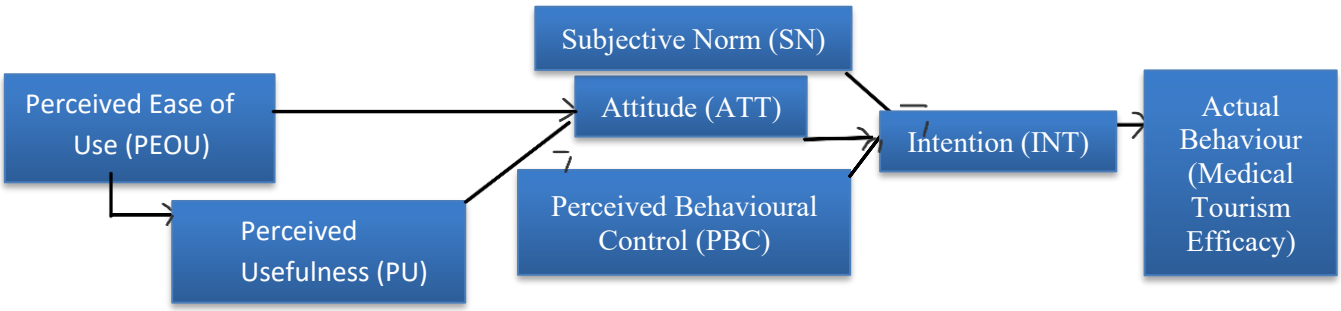

Figure 1 : Integrated Conceptual Model of TAM & TPB to measure Efficacy of Medical Tourism

ANALYTICAL APPROACH

A qualitative thematic analysis is applied to the reviewed literature to identify recurring patterns, similarities, and gaps. The integration of TAM and TPB is guided by prior empirical studies that have successfully combined these models in healthcare, e-commerce, and tourism contexts. The study does not employ quantitative hypothesis testing but instead develops conceptual propositions that future empirical studies can validate.

LIMITATIONS

Since the study is based on secondary data, it is limited by the availability and reliability of existing literature. The conceptual framework is not empirically tested within this research, and hence its predictive power in the Coimbatore context requires further validation through primary research.

OBJECTIVES OF THE STUDY

- To examine the relevance of the Technology Acceptance Model (TAM) in understanding the role of digital health platforms, hospital websites, and teleconsultation services in shaping medical tourists' decisions in Coimbatore.
- The objective of the analysis was to assess the applicability of the Theory of Planned Behaviour (TPB) to explain the attitudinal, normative, and control factors that influence medical tourists' behavioural intentions toward Coimbatore as a healthcare destination.

- To integrate TAM and TPB into a unified conceptual framework for evaluating both technological and behavioural determinants of medical tourism efficacy.
- To identify key constructs such as perceived ease of use, perceived usefulness, attitude, subjective norms, and perceived behavioural control that collectively influence medical tourists' intentions and actual behaviour.
- To contextualize the integrated TAM–TPB model with reference to secondary data on Coimbatore's healthcare infrastructure, wellness services, and medical tourism ecosystem.
- To highlight the research gaps in existing studies on Indian medical tourism and propose conceptual propositions for future empirical testing.

FINDINGS AND DISCUSSIONS

Findings

The integration of the Technology Acceptance Model (TAM) and the Theory of Planned Behaviour (TPB) in the context of Coimbatore's medical tourism yields several key conceptual findings:

Role of Technology in Medical Tourism Decision-Making

Secondary data analysis suggests that digital platforms, hospital websites, teleconsultations, and online patient testimonials are crucial in influencing medical tourists' choices. Consistent with TAM, Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) are significant determinants of patients' willingness to adopt digital tools before committing to healthcare travel. Hospitals in Coimbatore such as GKNM, PSG, and Kovai Medical Center & Hospital have actively invested in online visibility, enabling international patients to access treatment information remotely, thus enhancing trust and perceived usefulness.

Behavioural Influences on Medical Tourism

TPB constructs are equally evident in shaping medical tourism decisions. Attitude toward Indian healthcare, subjective norms such as recommendations from family, peers, and referring doctors, and Perceived Behavioural Control (PBC) regarding ease of travel and support services strongly affect behavioural intention. For instance, Coimbatore's strong reputation in Ayurveda and integrative wellness care positively shapes attitudes, while word-of-mouth recommendations and diaspora connections act as subjective norms encouraging foreign patients.

Integration of TAM and TPB

Findings from literature suggest that TAM alone cannot fully explain behavioural decisions in medical tourism, as it focuses primarily on technology. Likewise, TPB, though robust in explaining behavioural intentions, does not adequately capture the role of digital health technologies. An integrated model provides a holistic understanding: TAM addresses cognitive evaluations of technology, while TPB incorporates psychological, social, and control factors. The combined framework thus demonstrates greater explanatory power for medical tourism efficacy in Coimbatore.

Efficacy of Coimbatore as a Medical Tourism Destination

Secondary reports indicate that Coimbatore offers competitive advantages such as high-quality healthcare, affordable costs, a skilled workforce, and strong wellness tourism offerings. However, challenges remain in international branding, visa facilitation, and patient follow-up care. The integrated TAM–TPB framework highlights that while technological readiness improves perceived usefulness, subjective norms (peer referrals, doctor recommendations) and perceived control (ease of travel, insurance, logistics) are equally decisive for patients' final choice.

DISCUSSION

The discussion emphasizes how the findings contribute to both theoretical advancement and practical implications for medical tourism in Coimbatore.

Theoretical Contributions

The integration of TAM and TPB adds depth to understanding medical tourism efficacy. While prior studies have separately used TAM to study telemedicine adoption or TPB to explain

tourist behaviour, this research conceptualizes a combined model that captures technological acceptance (digital access, teleconsultation, hospital websites) alongside behavioural intention (attitude, norms, and perceived control). This synthesis advances theoretical discourse by bridging fragmented perspectives, thereby creating a comprehensive framework for evaluating healthcare tourism destinations.

Alignment with Global Studies

Findings align with global studies where TAM and TPB integration has shown higher explanatory power in e-commerce, e-health, and tourism adoption contexts (Taylor & Todd, 1995; Cheng et al., 2019). Specifically, medical tourists increasingly rely on online platforms for pre-travel decision-making, validating the centrality of TAM constructs. At the same time, their behaviour is strongly influenced by cultural values, trust in recommendations, and control over logistics, confirming the validity of the TPB.

Practical Implications for Coimbatore

From a managerial perspective, hospitals and tourism boards in Coimbatore should adopt a dual strategy. On the technological front, enhancing user-friendly websites, virtual hospital tours, teleconsultations, and online payment gateways will strengthen Perceived Ease of Use and Perceived Usefulness. On the behavioural front, leveraging diaspora networks, patient testimonials, and international accreditation (such as JCI or NABH) can improve attitudes and subjective norms. Additionally, improving travel facilitation, medical visas, and post-treatment follow-up will enhance Perceived Behavioural Control, encouraging stronger intention to choose Coimbatore as a medical tourism hub.

Research Gap and Future Implications

While this study synthesizes existing literature to propose a conceptual framework, future research must empirically validate the integrated TAM–TPB model through surveys and structural equation modelling (SEM) with medical tourists visiting Coimbatore. Such empirical testing can confirm the relative weight of each construct, thereby offering more concrete policy recommendations. Extending this model to compare Coimbatore with other Indian destinations like Chennai or Bengaluru could provide benchmarking insights.

Overall Contribution

The findings highlight that medical tourism efficacy is not determined solely by infrastructure or affordability but by an interplay of digital technology adoption and behavioural dynamics. Coimbatore, with its advanced hospitals and wellness heritage, is well-positioned to leverage this duality. The Strategic interventions in digital branding, global outreach, and facilitation services are necessary to translate its potential into a globally recognized medical tourism hub.

CONCLUSION

This study set out to conceptually examine the efficacy of Coimbatore's medical tourism sector by integrating two widely recognized theoretical frameworks: the Technology Acceptance Model (TAM) and the Theory of Planned Behaviour (TPB). The review and synthesis of secondary data reveal that Coimbatore possesses significant potential as a medical tourism hub, owing to its advanced multi-specialty hospitals, affordability, complementary wellness traditions, and growing digital health presence. However, the city's global visibility and systematic evaluation mechanisms remain underexplored in existing scholarship.

The research results highlight that the effectiveness of medical tourism cannot be assessed solely in isolation from the impact of new technology implementation or behavioural intentions. TAM highlights how perceived ease of use and perceived usefulness of digital platforms such as hospital websites, teleconsultations, and online testimonials directly influence patients' willingness to consider Coimbatore for healthcare services. TPB complements this by emphasizing the role of attitudes, subjective norms, and perceived behavioural control in shaping behavioural intention, particularly within the social and cultural contexts that influence health-related travel decisions.

By integrating TAM and TPB, the study proposes a holistic framework that combines both cognitive-technological factors and psychological-behavioural determinants. This integration provides a more robust tool for evaluating medical tourism efficacy and offers a foundation for future empirical research. Importantly, it demonstrates that patient decisions are shaped not only by technological accessibility but also by trust, social influence, and logistical feasibility.

From a practical standpoint, the conceptual framework suggests that Coimbatore's healthcare providers and policymakers must adopt a dual strategy; strengthen technological readiness through user-friendly digital platforms, while simultaneously enhancing behavioural drivers by improving destination branding, international accreditation, and facilitation of medical travel. Such an approach would increase the city's competitiveness against established medical tourism hubs like Chennai, Bengaluru, and Delhi.

The study's contribution lies in filling a conceptual gap in Indian medical tourism research by applying an integrated TAM–TPB perspective to Coimbatore. While this research is based on secondary data and remains conceptual in nature, it lays the groundwork for empirical studies that can validate the proposed framework through quantitative testing. Future research may employ surveys, structural equation modelling, or comparative analyses with other destinations to deepen the understanding of medical tourism dynamics.

Coimbatore stands at the threshold of becoming a global medical tourism destination. The integration of technology acceptance and behavioural intention perspectives offers a comprehensive pathway to measure and enhance its efficacy. By leveraging this integrated model, stakeholders can align digital innovation, cultural strengths, and healthcare excellence to position Coimbatore as a sustainable and trusted hub for medical tourism.

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