

MARKETING FACTORS AFFECT THE ATTRACTION OF INTERNATIONAL TOURISTS TO JORDANIAN TREATMENT DESTINATIONS

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Abstract: Medical tourism (MT) has become a significant phenomenon, garnering the interest of experts in fields such as marketing, medicine, and health geography. MT refers to individuals who travel abroad specifically for medical treatment and healthcare services. The growth of medical tourism aligns with the overall rise in global travel and tourism. The medical tourism market is expanding rapidly, with an annual growth rate of 10.8%, projected to reach \$248.2 billion and accommodate 21.1 million medical tourists worldwide by 2024. Countries that are prominent in medical tourism include Thailand, Mexico, India, and Turkey. In Jordan, the medical tourism sector has generated over a billion dollars annually, with approximately 224,800 medical tourists expected in 2024. This sector can be divided into two main categories: clinical medical tourism, which takes place in hospitals, and therapeutic medical tourism, which occurs at natural sites like the Dead Sea and Ma'in Hot Springs. The current study aims to evaluate the impact of marketing elements "4Ps" (Product, Price, Place, Promotion) on attracting medical tourists to Jordan. The research adopts a quantitative approach, focusing on numerical data, statistical analyses, and conclusions. Additionally, the study is primarily descriptive. The study's population consists of all medical tourists arriving in Jordan for treatment at private hospitals, totalling 92,500 by May 2025. A sample size of 383 medical tourists was selected using simple random sampling. Data were collected via a fully structured questionnaire based on a five-point Likert scale. The study concludes that pricing and promotion significantly influence the attraction of medical tourists to Jordan. Conversely, no significant impact was found for the medical product and place (distribution) regarding their attraction to these tourists. Finally, the study recommends implementing a geographical pricing strategy and utilizing sales promotion tools in the targeted markets.

Keywords: marketing factors, medical tourists, tourism for treatment, medical marketing mix, Jordan

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INTRODUCTION

The significance of medical tourism is increasingly aligned with the growing importance of the travel and tourism sector, making it a key component of the global economy. Medical tourism has evolved due to rising globalization, easier access to tourist destinations, and improved hospitality services (McCartney & Wang, 2024). The global medical tourism market is estimated to be around \$248.2 billion in 2024, with projections indicating it could reach \$273 billion in 2025, reflecting an annual growth rate of 10.4%. Currently, there are approximately 21.1 million medical tourists worldwide (www.media.market.us, 2025). The leading procedures in this market include plastic surgery (25%), followed by cosmetic dentistry (15%) and orthopedics (10%). By 2035, the medical tourism market could potentially reach \$890.4 billion, driven by factors such as telemedicine for online consultations, AI-based treatment recommendations, and blockchain technology for secure patient records. Prominent destinations for medical tourism include Thailand, Mexico, India, Turkey, Costa Rica, Malaysia, and Singapore. In contrast, the United States, the United Kingdom, and Western Europe are also among the most sought-after markets for medical tourism (www.media.market.us, 2025).

Jordan possesses many essential elements for the growth of its medical tourism sector. The country is home to 120 hospitals, which include 71 private facilities and 47 public institutions. Additionally, it boasts a medical workforce of approximately 30,000 specialists who offer a range of specialized treatments, such as advanced heart surgeries, oncology care, orthopedic procedures, and fertility treatments. The medical facilities collaborate with natural health sites, including the Dead Sea and the Ma'in Mineral Baths, to support patients' health. Furthermore, Jordan's tourism offerings highlight its rich archaeological sites, such as Petra and Jerash, while religious tourism thrives at locations like the baptism site. Ecotourism is also flourishing in areas like Wadi Rum and the Dead Sea. Overall, the tourism sector is projected to contribute no more than 9.9% to Jordan's GDP in 2024 (CBJ, Annual Data, 2024).

The Jordanian medical tourism sector generated over \$1 billion in annual revenues, contributing approximately 4% to the local GDP. In 2024, it attracted 224,800 medical tourists, accounting for about 0.4% of the global medical tourism

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market. The demand for medical services comes primarily from various Arab countries, including Iraq, Saudi Arabia, Palestine, Syria, Yemen, and Libya (Tourism Promotion Authority, 2024). The external demand focuses on a variety of specialized and advanced medical treatments, including those for cancer, heart conditions, skin diseases, neurological disorders, musculoskeletal issues, and eye conditions (www.moh.gov.jo, 2025). Jordan is also home to several natural medical sites, such as the Dead Sea, Ma'in Baths, Afra and Zara, Jordan Valley, and Zarqa. These locations are known for their unique chemical properties that can help treat conditions such as high blood pressure, diabetes, infertility, bone diseases, respiratory issues, and skin diseases like psoriasis, vitiligo, and allergies (www.mota.edu.jo, 2025).

As healthcare expenditures continue to rise in developed countries, medical tourism has emerged as a vital option for patients seeking high-quality, affordable medical care. Specialists believe that the medical tourism sector offers an innovative solution to absorb surplus labor, generate additional income, and create new investment opportunities for the national economy, serving as a key catalyst for economic growth. I support Jordan's vision for economic modernization, which aims to strengthen the medical tourism sector, ensuring it is competitively priced while maintaining high-quality standards (Economic Modernization Vision, 2025). Research indicates that medical tourism significantly impacts the global economy, generating approximately \$100 billion annually. This sector increases government revenues by 25%, boosts employment rates by 15%, and drives infrastructure investment of \$500 million, contributing to 10% of the GDP (www.media.market.us, 2025).

The literature confirms that marketing is one of the most significant aspects of the twenty-first century, playing a crucial role in attracting target markets and reaching potential new customers. With the rise of the Internet, there has been a greater focus on international marketing and the development of new export channels in remote markets (Appiah et al., 2024). Furthermore, marketing has facilitated the entry of numerous industries and products into foreign markets, particularly in the realm of medical tourism and its associated services (Fregidou-Malama & Hyder, 2021). For an extended period, the elements of the marketing mix have demonstrated their effectiveness in increasing awareness of the medical tourism sector and positively influencing the purchasing behaviors of medical tourists (Meng et al., 2023).

The medical tourism sector is increasingly viewed as a service industry whose offerings are becoming more tangible, thus relying significantly on consumer opinions and evaluations (Chambhare & Anute, 2022). Additionally, marketing and its various components enable local medical tourism products to reach diverse cultures, cultivate local trends in medical tourism, and connect with the preferences, patterns, and tastes of medical tourists worldwide. This approach is also instrumental in developing tailored strategies for different market segments of medical tourists (Meng et al., 2023). Despite previous insights, local studies indicate that marketing activities and their various components have not been sufficiently integrated into the practices of the medical tourism sector (Wong et al., 2024). This includes aspects such as methods, forms, mechanisms, strategies, and factors affecting marketing, including product, pricing, distribution, and promotion. Research aimed at understanding and influencing purchasing behaviors in the local market, as well as facilitating informed purchasing decisions, has also been unsuccessful (Appiah et al., 2024). Data shows that 81.1% of private hospitals in Jordan allocate less than 1% of their annual revenues to promote their treatment services in foreign markets (Al-Nsour, 2021).

In contrast, Turkey invests approximately \$5 billion in tourism marketing, while Jordan's spending did not exceed \$16.5 million in 2024 (www.Mota.gov.jo). The current study highlights the significant challenges facing the medical tourism sector, emphasizing the need for effective marketing strategies to attract medical tourists and connect them with the local market. Such connections are vital for fostering contributions and benefits that would enhance the medical tourism sector.

It is important to note that marketing practices in Jordan are still traditional and immature, often limited to sales functions without acknowledging their broader impact on improving the country's reputation, advancing export sectors, and adding substantial value to the local economy. These challenges are exacerbated by adverse economic indicators, such as a general unemployment rate of 22% (DOS, 2024), along with significant issues related to public debt, trade deficits, and the general budget deficit (Ministry of Finance, 2024). Therefore, there is a pressing need for innovative marketing solutions that leverage the available capabilities in the economy while aligning them with global market trends (www.modee.gov.jo, 2024). The medical tourism sector is a promising economic area that has demonstrated its ability to generate significant financial income for the country, create job opportunities, and promote sustainable economic growth. It presents a valuable investment opportunity in the Jordanian market. The sector's effectiveness can be further enhanced through marketing activities and strategies aimed at reaching international markets. The findings of this study may serve as a guiding resource for transforming Jordan into a regional medical hub, capable of attracting global investment, developing medical competencies - especially among Jordanians - enhancing innovation and medical manufacturing, and ultimately competing in the global medical tourism market. This study contributes to the ongoing efforts to raise awareness within the Jordanian government about the importance of the medical tourism sector and emphasizes the need to address restrictions that impede its development, such as fostering cultural openness and easing the procedures for medical tourists coming to Jordan.

The medical tourism sector holds significant promise for economic growth, proving its capacity to generate substantial financial income for the country, create job opportunities, and promote sustainable development. It is recognized as a valuable investment opportunity within the Jordanian market. The Jordanian government has acknowledged the importance of medical tourism, designating it as one of the pillars of economic growth. This acknowledgement is reflected in their emphasis on important tourist and archaeological sites, inclusion of the sector in the vision for economic modernization, and development of a strategy aligned with the national tourism plan. The findings of this study may serve as a guiding resource for transforming Jordan into a regional medical hub, capable of attracting global investment.

This transformation could enhance the development of medical competencies, particularly among Jordanians, foster innovation in medical manufacturing, and ultimately boost Jordan's competitiveness in the global medical tourism market. Therefore, this study contributes significantly to raising awareness within the Jordanian government regarding the

importance of the medical tourism sector. It also aims to highlight the need to reduce barriers that hinder the sector's growth, such as fostering cultural openness and simplifying the procedures for medical tourists seeking to visit Jordan.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

1. The Evolution of Medical Tourism

Evidence suggests that the movement of individuals over long distances to seek healthcare is an ancient practice that has accompanied the growth of countries and civilizations. The oldest known health complex was established by the Sumerians around 4000 BC, and medical tourism has thrived in India for over 5000 years, with a focus on natural oils and massage for those pursuing alternative treatments (Lorkowski & Pokorski, 2022). The Romans also traveled for health and medical purposes, creating healing baths, and the first instance of what we now refer to as medical tourism was related to the treatment of mental illnesses (Baysal & Hürriyet, 2023). Romans would visit the Greco-Roman god of medicine, Asclepius, in search of healing, engaging in "incubation" rituals that included prayer, fasting, and celebrations (Crooks et al., 2019). Spas and public baths became popular destinations for those seeking medical treatment (Smith, 2025).

After the collapse of the Roman civilization, Asia emerged as the primary destination for medical tourism. Temples were transformed into hospitals for travelers seeking healthcare, and many Islamic civilizations established healthcare systems that extended services to foreigners (Baysal & Hürriyet, 2023). In the seventeenth century, health resorts began to appear in attractive locations like the Pyrenees Mountains, attracting wealthy individuals from Europe (Karabatos et al., 2021). Evidence suggests that the movement of individuals over long distances to healthcare is an ancient practice that has accompanied the growth of countries and civilizations. The oldest known health complex was established by the Sumerians around 4000 BC, and medical tourism has thrived in India for over 5000 years, with a focus on natural oils and massage for those pursuing alternative treatments (Lorkowski & Pokorski, 2022).

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Medical tourism has experienced significant growth since the late 1990s, particularly in East Asian countries such as India, Thailand, and Mexico. Many international patients seek medical care in these regions due to high costs, insufficient services, or the unavailability of specific treatments in their home countries (Amirian, 2022).

Over the years, medical tourism has evolved into a commercial phenomenon driven by the principles of entitlement, individualism, and self-realization (Connell, 2013). It has become a multifaceted industry with diverse tourist destinations across Asia, Europe, and Latin America. The industry's economies have diversified as a result of their reliance on tourism and existing healthcare systems (Karabatos et al., 2021), highlighting the strong connection between medical tourism and overall economic development (Baysal & Hürriyet, 2023). Nowadays, tourism has thrived, fueled by people's desire for better health. Factors such as easy access to treatment centers, improved transportation, and the availability of amenities have contributed to the growing demand for tourist resorts and treatment service centers (Armitage, 2025). In the 1980s, Costa Rica saw an influx of foreigners seeking plastic and dental surgeries.

During the 1990s and early 2000s, some doctors took the initiative to attract foreign patients by offering low-cost plastic surgery, leading to approximately 1.5 million Americans traveling abroad annually for healthcare.

Today, medical tourism is not limited to wealthy patients or developed countries. A significant proportion of medical tourists now includes affluent individuals from the United States and the United Kingdom. Interestingly, this phenomenon also extends to individuals in developing countries, turning medical tourism into a substantial industry with considerable economic returns. Health resorts are increasingly attracting international patients, and non-profit clinics have emerged to cater to those in need of treatment or surgical procedures (Latief & Ulfa, 2024).

2. Medical Tourism: Definition and Importance

Medical tourism has emerged as a contemporary and viable phenomenon, garnering increasing attention from professionals in fields such as marketing, medicine, and health geography (Kho, 2021). However, definitions of medical tourism remain limited due to the diverse nature and demographics of medical tourists (Baysal & Hürriyet, 2023). Some researchers argue that medical tourism is an umbrella term encompassing the concept of improving health through travel abroad (Armitage, 2025). It is not confined solely to surgical procedures but also includes less complex surgeries and medical examinations (Kho, 2021). Other studies have characterized tourism as a less mature concept, emphasizing the emotional motivations behind international travel for health improvement (Smith, 2025).

The literature associates medical tourism with various patient categories, including refugees, individuals seeking occasional healthcare, and expatriates (Bader et al., 2023). However, there is a consensus that medical tourism typically involves patients traveling to more developed countries to receive medical care for several reasons, including cost, accessibility, quality, and available services (Pailwar & Mitra, 2025). It can be defined as the number of individuals traveling abroad explicitly to obtain medical treatment or healthcare (Alnakhli et al., 2019). As tourism and travel activities have expanded, and in conjunction with economic globalization, medical tourism has become a more complex phenomenon

(McCartney & Wang, 2024). Lower airfare and the availability of cross-border digital communications have facilitated the provision and marketing of medical services across countries (Mathijssen & Mathijssen, 2020). Organized travel outside the local environment for healthcare purposes, as well as to promote mental and physical health, is often referred to as medical tourism (Armitage, 2025). Modern definitions emphasize the commercial vision, suggesting that patients travel abroad in search of better, affordable, and higher-quality care (Kim et al., 2019). Medical tourism specifically involves international travel for direct medical procedures and has significant, long-term ramifications (Alnakhi et al., 2019).

The literature differentiates between medical tourism and health tourism; the latter pertains to simple, non-surgical medical procedures, including dentistry and related medical examinations and interventions (Chan et al., 2021). Some definitions also incorporate the concept of intention, highlighting patients' desire to leave their home country to obtain medical care and surgery (Karabatos et al., 2021). Medical tourists are defined as patients who choose to travel voluntarily for their healthcare (Cynthia, 2025). The author of the current study argues that "tourism for treatment" is the most suitable term. It refers to the movement of individuals outside their usual place of residence to receive medical and health services or any form of healthcare, for a period of at least one day and no longer than one year, with the assurance that they will not engage in work within the host country during the treatment period.

Furthermore, the literature emphasizes the importance of modern and specialized medical centers or hospitals equipped with advanced medical technology and skilled personnel. The concept of hospital tourism is also introduced, focusing on natural elements that aid in patient recovery, such as mineral waters, sand, and sunlight exposure for treating skin diseases, rheumatism, bone ailments, and medical rehabilitation (www.mota.gov.jo, 2025). Moreover, medical and tourism services can be integrated, as resorts and sanatoriums increasingly offer recovery, treatment, rest, and relaxation. These services include sessions conducted by medical specialists in open-air settings where sunlight and warm medical waters are available (https://www.eshfaa.com, 2025). Medical tourism refers to the practice of traveling to another country to receive medical care, often at lower prices or for treatments that are not available in the individual's home country (Armitage, 2025). The decision to seek treatment abroad is usually influenced by multiple factors, such as the availability of specialized services and the desire to bypass long waiting lists in one's home country. These elements contribute to both the perceived value and cost of medical services (Saeed et al., 2022). It is also important to consider that medical tourism involves organizing an individual's health journey to find services that align with their financial means while accessing advanced medical care (Armitage, 2025). For instance, patients can achieve significant cost savings, with reductions of up to 60% in Thailand and Mexico, around 80% in India and Malaysia, and about 40% in Jordan when compared to prices in European countries or the United States (www.visitjordan.com).

Beyond financial savings, medical tourism offers timely access to care, alleviating issues related to long waits in domestic healthcare systems. It allows patients to schedule their medical services flexibly and access specialized treatments that may not be available in their home countries, including procedures like plastic surgery, artificial insemination, and certain oncology treatments that may be legally or ethically restricted (Latief & Ulfa, 2024). However, medical tourism comes with risks, including concerns about the quality and safety of healthcare standards, the continuity of care and follow-up once the patient returns home, and the potential complications of traveling after surgery. Other challenges include language barriers, cultural differences, logistical issues related to travel, accommodation, and transportation, as well as the coordination of medical appointments and post-treatment care (McCartney & Wang, 2024).

3. Medical Tourism in Jordan

The global medical tourism market is steadily growing, projected to reach \$41.8 billion in 2024 and potentially \$160 billion by 2032 (World Travel & Tourism Council, 2025). Over the past few decades, the Middle East and North Africa region, particularly the Arab Gulf states, has been a significant contributor to international medical tourism. The Gulf region spends up to \$20 billion annually on healthcare abroad, representing 7% of the global medical tourism market (www.alarabiya.net, 2025). The roots of medical tourism in Jordan date back to the 1970s, when it became one of the premier medical care destinations in the region. Since then, Jordan has experienced exceptional growth, securing a distinguished position at both regional and global levels. In 2024, Jordan attracted 224,000 medical tourists, generating approximately \$1 billion in revenue. This reflects significant growth compared to around 191,500 in 2022 and 202,600 in 2023. As of May 2025, Jordan welcomed 92,800 medical tourists, marking a 16.5% increase compared to the same period in 2024 (Moh.gov.jo, 2025). Jordan is recognized as a leading destination for medical tourism within the Gulf Cooperation Council countries, particularly attracting a significant number of medical tourists from nations such as Saudi Arabia, Iraq, Palestine, Syria, Yemen, and Libya (Moh.gov.jo, 2025). The country has achieved remarkable milestones in its health sector, including the first open-heart surgery performed in 1970 and the first kidney transplant in 1972.

Notably, the Al Hussein Cancer Center has made important advancements, such as conducting 250 bone marrow transplant operations in 2022 with an impressive success rate of 85%, surpassing global averages. In 2023, the World Tourism Organization recognized Jordan as a regional center for medical tourism, reporting that the country received one million medical tourists from 71 different countries over the past five years (WTO, 2025). The medical tourism sector in Jordan combines high-quality medical care with competitive pricing, along with the availability of natural resources that promote health for both patients and their companions (Alawneh et al., 2025). Cost savings are the primary attraction for those seeking medical tourism in Jordan, as treatment prices are approximately 40% lower than in the United States and Europe. In fact, Jordan offers better competitiveness than other well-known international destinations in this field, such as India, Singapore, and Thailand, where prices are lower by only 5% to 10% (World Travel & Tourism Council, 2025). The healthcare sector in Jordan is renowned for its world-class system, which includes 121 hospitals and medical centers—71

private facilities and 47 public health institutions. Many of these establishments have received prestigious international accreditations from organizations such as the Joint Commission International and the Jordanian Council for Accreditation of Health Institutions. This ensures that medical tourists receive the highest standards of patient care and safety (Moh.gov.jo, 2025). Notable private institutions include Jordan Specialized Hospitals, Abdali, Al-Kindi, Ibn Al-Haytham, the Arab Medical Center, and the Al-Hussein Cancer Center. In the public sector, Al-Hussein Medical City and Al-Bashir Hospital are favored by medical tourists (Moh.gov.jo, 2025). Jordan boasts over 30,000 medical specialists who provide a diverse array of treatments, including advanced heart surgery, oncology, orthopedic surgery, and fertility treatments. The absence of long waiting lists for procedures, along with the availability of English-speaking medical personnel, enhances patient comfort and confidence. The prominence of medical tourism in Jordan can also be attributed to the presence of advanced medical facilities and physical therapy sites. The Dead Sea, located 400 meters below sea level, is a unique medical destination known for its mineral-rich waters that have a salinity of 33%. Additionally, the Ma'in mineral baths are famous for their mineral-rich waters, which reach temperatures of 60 degrees Celsius, making them effective for treating skin diseases, joint pain, and blood circulation issues (mota.gov.jo, 2025). Medical tourism is a significant component to Jordan's national economy, providing thousands of job opportunities and fostering the development of various related sectors. Research indicates that medical tourists spend three to five times more than the average tourist due to their longer stays and additional service needs (Gholipour, 2023). Jordan's integrated hotel infrastructure supports the medical tourism sector, offering a range of accommodation options to meet the needs of patients and their companions. As of April 2025, there are 357 classified hotels, 73 unclassified hotels, and 176 hotel apartments and suites available (mota.gov.jo, 2025). Moreover, from 2008 to 2022, medical tourism revenues contributed to the growth of the healthcare sector in 49 emerging and developed economies; thus, increasing medical tourism revenues would further enhance this sector (Golipour & Esfandiari, 2025).

4. Impact of Marketing Factors on Medical Tourism

Marketing is a concept that plays a significant role in various aspects of daily life, and its definition can differ depending on whether it is viewed as an independent system or as a management process (Dwivedi et al., 2021). Kotler asserts that marketing has gained considerable recognition as an independent discipline since the late 1950s. Since then, research has increasingly focused on viewing it as an applied approach for businesses (Kotler & Keller, 2021). During that period, traditional marketing communication methods—such as brochures, posters, local newspapers, and business cards—were prevalent (Aboali & Mudholker, 2024). These marketing communication tools enabled companies to convey their product offerings to consumers, build brand awareness, and attract customers (Hussin & Hishan, 2022). Furthermore, advancements in development, technology, and communication have led to the emergence of technology-enabled marketing communication tools that facilitate interaction with customers (Dwivedi et al., 2021). These marketing tools not only helped companies communicate more effectively (Biemans, 2023) but also encouraged collaboration with customers to create value and generate new ideas for developing and improving their products (Biemans, 2023). The literature has explored consumer psychology, which is directly related to marketing. Additionally, the study of consumer behavior is seen as a fundamental subfield within marketing (Putra & Sheyoputri, 2024). Consumer behavior refers to “the processes involved in individuals or groups selecting, purchasing, using, or disposing of products, services, ideas, or experiences to meet their needs or desires” (Šostar & Ristanović, 2022). This means that consumer behavior encompasses the thoughts and feelings people experience as well as the actions they take during consumption (Zhao & Wei, 2019). It includes various environmental factors that influence these thoughts, feelings, and actions, such as comments from other consumers, advertisements, price information, packaging, product features, blogs, and much more. This definition indicates that consumer behavior is dynamic and variable, involving a range of interactions and exchanges (Peter & Olson, 2010). According to Kim et al. (2019), processes such as selection, consumption, and disposal connect consumer behavior to various institutions in society, including marketing organizations. Researchers often approach the study of consumer behavior from diverse perspectives, ranging from a focus on individual behaviors to a broader examination of social behaviors and cultural influences (Shekhar & Venugopal, 2025).

Marketing encompasses several key elements that companies can control through their marketing tools and strategies, commonly referred to as the 4Ps of the marketing mix (Xia, 2023). This concept was introduced by marketing researcher E. Jerome McCarthy in 1964, and he categorized the elements into four main groups: product, price, place, and promotion (McCarthy, 2018). According to Kotler (2022), organizations can manipulate these elements within their target markets to achieve specific business goals. The marketing mix elements serve as a collection of tools that allow companies to gain positive feedback from their target markets (Kaleka & Morgan, 2019). However, decisions related to the marketing mix often require significant time to implement and cannot be easily altered in the short term (Wichmann et al., 2022).

Understanding consumer behavior is essential; it involves analyzing the marketing factors that influence this behavior (Rusdian et al., 2024). Companies must learn how to utilize the marketing mix elements to meet customer needs. It is crucial to recognize that today's consumers differ significantly from those in the past, primarily due to increased competition, a wider variety of products and services, and brand loyalty dynamics (Tuominen et al., 2023). Gaining insights into consumer preferences is foundational to a company's success (Asim, 2024).

Once businesses grasp the marketing factors that impact consumer behavior, they can effectively achieve their marketing objectives and fulfill customer needs, enhancing overall comfort, well-being, and effectiveness (Wong et al., 2024). Customers often seek products that align with their purchasing power and expectations of value (Nasti et al., 2024). Additionally, marketing mix decisions must consider product availability for consumers, as well as the promotion of these products to communicate relevant information to target customers (Farid et al., 2023). These factors will be explored in greater detail in the next section, particularly in the context of the medical tourism sector.

5. Medical Product

The product is a crucial element in marketing strategies, in competitive offers, and in attracting medical tourists globally. Consumers prioritize value over specific product features when making their choices (Fernando et al., 2023). They seek to fulfill their diverse needs through various means, including interest, acquisition, or utilization of the product (Kotler & Keller, 2021). The product serves as the foundation of the marketing strategy, delivering unique and innovative features that surpass those of competitors (Longwe & Sakyi, 2020). In the medical tourism sector, a medical product encompasses the goods, services, or ideas offered by healthcare facilities (Aronson et al., 2020). However, experts indicate that defining a medical product accurately can be challenging due to its intangible aspects, which create conceptual hurdles for healthcare marketers (Purcarea, 2019). The medical product is the quest for treatment and medical services provided by hospitals and medical centers. This includes expedited services, hospital amenities, medical equipment, specialized personnel, and patient care services (Aronson et al., 2020). The Ministry of Health plays an intermediary role in the medical tourism sector by merging the provision of medical products with oversight and regulation of the industry.

Table 1. Jordanian Medical Sector (Source: Ministry of Health, Annual Data. 2025. Jordan)

The Service Supplier	MOH	Private Sector	Royal Medical Services	University Hospitals
Average Length of Stay (in Days)	3.5	2	3.6	3.9
Number of Beds (000)	5923	3348	1261	4417
Bed Occupancy Rate%	71.4	34.4	68.6	64.4
Admission Rates %	43.5	27.6	22.1	3.5
Clinic Outpatients (000)	4619	1305	4155	921
Operations (000)	150.5	145.7	142.9	41

This collaboration involves private sector institutions, intermediary bodies such as the Royal Medical Services (RMS), and university hospitals, including the University of Jordan Hospital and King Abdullah II Hospital, according to Table 1. As of 2023, Jordan has 121 hospitals, with a total bed capacity of 16,000. Government hospitals account for 27.3%, university hospitals represent 12.4%, while the private sector comprises 58.7% of the total (www.moh.gov.jo, 2023). The medical sector distributes its treatment services across a variety of hospitals and health centers, offering a wide range of services that vary in complexity, as shown in Figure 1. Clinical treatment forms the largest share of these services, as it requires significant investment in medical devices, equipment, facilities, and highly skilled medical personnel specialized in complex diseases.

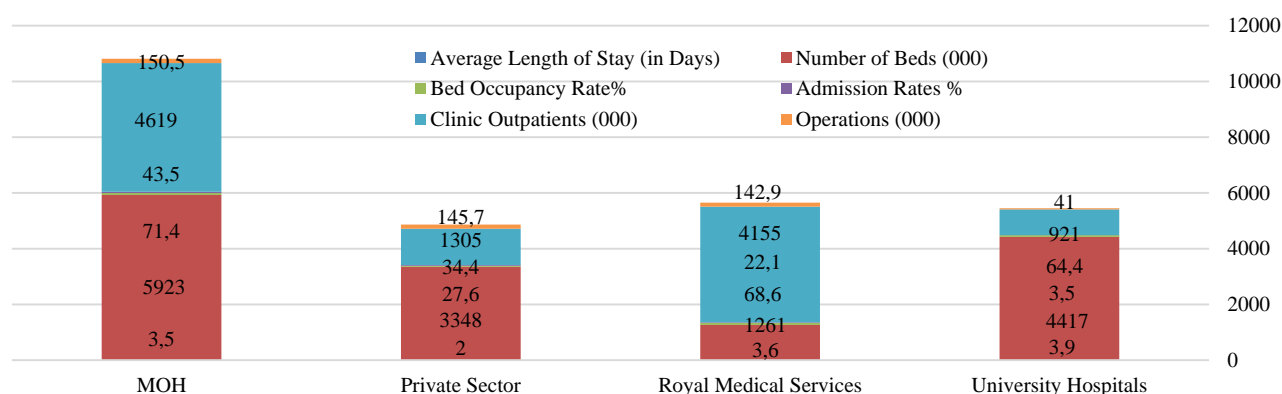


Figure 1. Jordanian Medical Sector

Environmental treatment in hospitals is often viewed as the least capital-intensive option because it depends more on natural and human resources that are less developed. Jordan is fortunate to have an abundance of mineral and natural water, which enhances its appeal as a medical tourism destination. These mineral and hot water sources possess diverse chemical and physical properties that can effectively treat a wide range of diseases. In particular, the climate treatment available in the Dead Sea region is a significant factor in its uniqueness, as it has proven to be effective in treating several rare diseases. For instance, low humidity and oxygen saturation contribute to the successful treatment of psoriasis, with success rates of up to 80% (www.mota.gov.jo, 2025). The following Table 2 outlines the potential of medical tourism.

Table 2. Natural Medical Tourism Sites in Jordan (Source: MOTA, Published Data. 2025. Jordan)

Destination	Treatment Possibility	Key Springs	Medical Features	Requirements
Ma'in	80%	Al-Shalal, Al-Mabkhara, Al-Ameer, Zara	63°C, radon, hydrogen sulfide	- Hygiene factors. - Attractive tourist attractions.
Jordan Valley	75%	---	50°C, mineral and hot water.	- Tourism police.
Al-Azraq	80%	---	Alkaline water, radioactive radon	- Transport.
Al-Zarqa Valley	75%	Jerush, Dir Ala	Iron, dissolved materials, carbon dioxide, and bicarbonate	- Restaurants and hotels from different classifications
Dead Sea	80%	---	Concentration of salts, temperature, humidity, and oxygen	
South of Jordan	80%	Afra, Ibn Hamad, Al-dhiare' Valley	Mineral and hot water (48°C)	

We ultimately view the product as a marketing solution with a design that is likely to be embraced by customers. Researchers and business practitioners identify several factors influencing consumer decisions, such as product design and packaging (Yadav et al., 2024; Mohd Noor & Fuzi, 2024; Mushtaq et al., 2023; Yu et al., 2018; Dong & Gleim, 2018; Kahn, 2017; Hussain et al., 2015). Companies continuously offer a range of innovative and unique products to maintain their market presence. Product design involves modeling the outcomes of an activity or the value created to influence the emotions of the target audience (Costa & Haftor, 2020).

When combined with packaging, product design encompasses various dimensions, including visual, functional, sensory, aesthetic, and informational aspects (Liu et al., 2025). The design serves as the primary purpose of the product and defines its functional characteristics. Effective product design fosters a rich and valuable experience, conveys essential information about unique features, and ultimately influences purchasing decisions (Handoyo, 2024). The product reflects various elements that enhance functional value, visual and sensory appeal, and contribute to both credibility and brand image (Al-Nsour, 2023). In the context of medical products, the characteristics of Intangibility, Inseparability, Variability, and Perishability align with the concept of a service (Marc Lim, 2023).

A service is an intangible act or assistance that benefits someone (Ravaghi et al., 2023). Services may refer to useful work or assistance needed by the public, such as transportation, communication facilities, hospitals, or energy supplies, which are provided in a planned and organized manner by government entities or official bodies (Tahir et al., 2024).

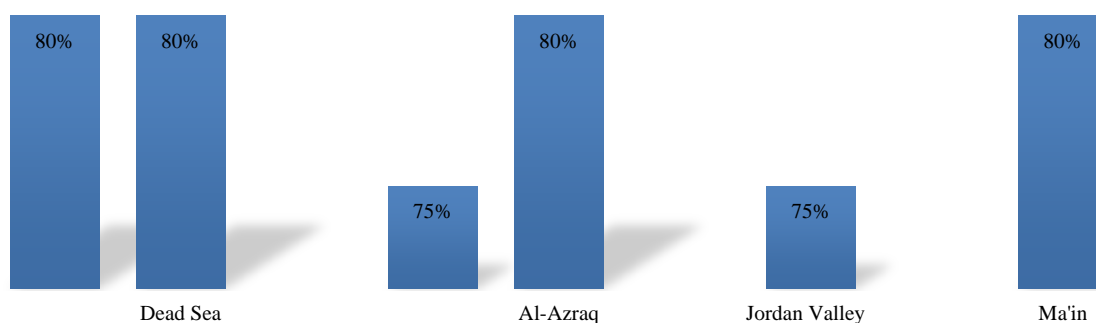


Figure 2. Treatment Possibility

From an economic perspective, a service is an action or use that a consumer or company is willing to pay for, distinguishing it from physical goods (Goedertier & Weijters, 2023). Table 3 shows that medical services focus on the continuous well-being of the patient by providing efficient healthcare in accordance with medical guidelines and standards that address the needs of both patients and service providers (Young & Smith, 2025).

High-quality medical services involve delivering care that not only meets but exceeds patient expectations, achieving the best possible clinical outcomes with the available resources (Mosadeghrad, 2014). The evaluation of therapeutic services varies based on the perspectives of the service provider and the recipient (Badu et al., 2021). Service providers typically assess therapeutic services based on delivery and design measures (Benz et al., 2024), while recipients evaluate service quality based on their experiences before and after using the service (Amro et al., 2025).

Traditionally, service quality was judged by objective criteria such as mortality and morbidity rates, and infant mortality rates (Zaw et al., 2020). However, over time, perspectives in the industry shifted, and the role of patients in determining quality has gained greater emphasis (Kraus et al., 2021). In modern competitive markets, understanding customer needs and expectations is crucial (Han et al., 2024). Therefore, healthcare suppliers focus on delivering what customers expect rather than what they believe is necessary to maintain high demand (Kraus et al., 2021).

Table 3: Medical Product Mix and Other Supported Services in Jordan

Levels	Hospital Medical Services	Clinical Therapeutic Services
Core Services	Vertebral erosion, skin diseases, joint diseases, atherosclerosis, blood circulation, diuresis, psoriasis, skin diseases, disappearance of skin color, anemia, infertility, and blood pressure.	Medical diagnosis and consultations, and specialized surgery such as organ transplantation, cardiothoracic surgery, brain and nerve operations, eye diseases, kidney and urinary tract surgery, dental and cosmetic surgery, ear, nose, and throat surgery, spinal cord surgery, blood diseases and cancer, and fertilization and infertility operations.
Basic Services	Medical transportation, therapeutic technology, medicines and prescriptions, medical facilities and benefits, specialized treatment centers, communications technology, electricity and water services, medical treatment personnel, health housing, hotels, restaurants.	
Expected Services	Health care, cleanliness of medical buildings and facilities, cleanliness of food and drink, confidentiality of patient information, and good treatment of medical staff.	
Augmented Services	Providing medical services in hospital-affiliated treatment resorts, transporting patients to and from the airport, providing payment facilities, and organizing recreational trips for patients and companions.	
Potential Services	Post-treatment services include free periodic examinations, consultations, follow-ups, thank-you cards, and greetings.	

The study of Saml & Eminer (2021) suggests that in a consumer-oriented healthcare market, healthcare delivery should center around patient preferences, positioning patients as the judges of service quality. To improve service quality, healthcare providers must identify the key dimensions of service quality and concentrate on the aspects that matter most to

patients (Ferreira et al., 2023). Sumardika et al. (2024) conducted a study on the effect of treatment service quality on patient satisfaction at Kartika Husada Jatiasih Hospital. The findings indicated that service quality has a positive and significant impact on patient satisfaction at this hospital. Similarly, Alghamdi (2024) noted that patient satisfaction is influenced by the quality of health services, with the empathy dimension having the greatest impact. Additionally, Rauf et al. (2024) found that higher service quality increases patient satisfaction and encourages frequent visits to the hospital. Furthermore, KS et al. (2023) demonstrated that patient satisfaction mediates the relationship between the quality of health care services and care outcomes. These findings provide a clear understanding of both the direct and indirect impacts of various dimensions of health care service quality on patient satisfaction, leading to the following hypothesis:

H0₁₁: The service quality is expected to impact the attraction of medical tourists to Jordan.

6. Pricing of Medical Products

Price plays a crucial role in the purchasing decision-making process (Al-Nsour & Al-Shaibani, 2024; Kotler & Keller, 2016). Empirical evidence suggests that customers' perceptions of the fairness of product prices compared to those of competitors are key factors in shaping purchasing decisions (Al-Nsour & Al-Sahli, 2022). Researchers agree that understanding customer purchasing behaviors involves examining perceived price levels, which serve as critical signals for accepting or rejecting a product purchase (Al-Nsour, 2020). In the context of medical products, various costs related to patient treatment must be considered. These include periodic doctor visits, treatment staff, hospital stay occupancy rates, diagnostic examinations, radiographs, prescriptions, and meals. While these items serve as production inputs, they are not final products (ELNasieh et al., 2024). Patients or consumers of healthcare services do not intend to purchase these inputs directly; rather, they arise from the demand for treatment services (Enock et al., 2020).

To measure the cost of a medical product, it is essential to consider the impact of changes in input productivity, technological advancements in the final service, and the potential for replacing more expensive inputs without compromising treatment quality. Therefore, it is important to evaluate the adequacy of inputs and alternative treatment methods, as well as their influence on selling prices (Gentili et al., 2022). The pricing of medical services can vary significantly based on several factors. For example, the cost of a hospital stay can differ depending on the patient's diagnosis, the hospital's classification level, and the duration of the stay (Al-Nsour, 2024; Jamal et al., 2020).

Additionally, treatment costs can be gauged by the level of satisfaction and benefits experienced by the patient (Riyadh et al., 2019). The expenses associated with purchasing treatment services encompass a variety of hospital costs, including those for both public and private facilities treating chronic and acute diseases, inpatient care, medications provided during the hospital stay, doctors' fees, and fixed institutional expenses like nurses' housing (Nabi et al., 2025). Doctors' expenses include fees for the health services they provide, salaries and wages, as well as other costs such as dental services, anesthesia, patient care, medications, and treatments (Arora et al., 2015).

Furthermore, there are capital expenditures related to buildings, equipment maintenance, clinics, ambulances, public health initiatives, and administrative expenses (Hinrichs-Krapels et al., 2022).

The time allocated to purchasing the medical service is an important part in calculating the total non-financial costs of the medical product (Hinrichs-Krapels et al., 2022). The costs of waiting for a treatment service, the costs of obtaining appointments, or the time consumed in clinics and hospitals all affect the volume of demand for those services, and time is considered an opportunity cost that can be invested in another job (Brindley et al., 2023). Time is an important factor in calculating the price of a medical service through waiting times for the service (McIntyre & Chow, 2020). The time that the doctor allocates to the patient is considered to have financial implications that both the patient and the doctor bear, because it hinders the practice of any other productive work (Rachel et al., 2024). The individual's need for medical services is considered one of the factors affecting the degree of response, as these services are of great importance to the individual regardless of his age or income level, and this means that the demand for medical services has low flexibility in relation to price changes (Mosadeghrad, 2014).

There are other, less important non-price factors that influence price elasticity of demand, such as the life cycle of a medical service, the level of market competition, service distribution channels, promotion strategy, consumer perception of the service, and the level of spending on it (Gonen et al., 2024). Alternative treatment services affect the price, as changing demand for admission and hospitalization services generates price effects that differ from those for non-hypnotic cases. Therefore, preventive treatment services and the level of response to support services, such as laboratory tests, doctor visits, diagnostic tests, radiographs, and pharmacy, differ (Nasiruddin, 2025). Studies link the price and quantity of Medical services in the hospital, and here a price sensitivity analysis can be conducted for all types of services, through which the impact of price changes on the demand for Medical services can be determined (Ellis et al., 2017). Finally, regulating a specific price for Medical services faces major difficulties, the most prominent of which are: relying on a set of common costs borne by the patient, and considering spending on services as part of the additional costs borne by the patient, in addition to the diversity in quantity and methods of use (Barber et al., 2019).

In conclusion, pricing is the primary factor that generates revenue for hospitals and serves as an indicator of the success or failure of their products and services. Therefore, the researchers in this study chose to highlight this aspect. Kobayashi et al. (2019) conducted research on how price transparency affects patient demand for healthcare. Their study revealed that enhanced price transparency correlated with higher total costs per patient, increased expenses for laboratory tests and imaging studies, and a rise in the total number of blood and urine tests performed. These empirical results suggest that price transparency fosters greater demand for healthcare services in Japan. Furthermore, according to the research by Sumardika et al. (2024), price has a positive and significant impact on patient satisfaction at Kartika Husada Jatiasih Hospital.

Additionally, the study by Nourmohammadi & Sadigh (2024) identified a need for price transparency in radiology and imaging services. The findings indicated that between 21% and 24% of Americans believe there is a connection between the quality of healthcare services and their prices. This understanding of patients' behavior leads us to assume:

The pricing of the medical product is anticipated to influence the attraction of medical tourists to Jordan.

7. Place of Medical Services

The concept of "Place" refers to the decisions made regarding the distribution channels used in a hospital, including their locations, transportation routes, and the inventory levels that need to be maintained (Al-Nsour, 2023).

Effective distribution ensures that products and services are delivered with the right quality at the appropriate time and location (Martin et al., 2018). In the medical sector, "Place" encompasses a broader understanding of distribution within a hospital environment. It extends beyond the physical or geographical location and encompasses aspects such as the overall appearance of the hospital, its capacity to deliver services, the efficient organization of internal spaces, and the transportation methods used to access the hospital (Engle et al., 2021). A comprehensive approach to distribution means that a hospital is viewed not merely as a building but as a functional and welcoming resource designed to enhance patient care and well-being (Blanca et al., 2019). Consequently, the distribution of medical services involves all activities performed by the hospital to ensure that these services are easily accessible to patients in terms of location, time, cost, and information (Razzak et al., 2020). The distribution of Medical services can be seen as a coalition of facilities that operate independently in terms of ownership and management (Stubbe, 2018). Distribution entails a series of marketing activities that enable medical tourists to recognize the various spatial and temporal advantages of the Medical services offered, as well as their suitability for specific times, places, and situations (Azimi et al., 2018). Finally, research indicates that many hospitals have struggled to understand and address their essential role in developing and enhancing the Medical services they provide, as well as ancillary services available on-site (Rivers & Glover, 2008). This often occurs because they focus solely on patient service within the hospital's geographic location. Such a narrow focus can negatively impact the overall patient experience and their perception of the Medical services offered (Liu et al., 2024).

Various studies have highlighted the significance of the relationship between the distribution of treatment services and patient behavior. Maślach et al. (2020) provided evidence indicating that patient satisfaction varies based on place of residence. This finding aligns with the results of Du et al. (2021), which emphasize that the physical environment of therapeutic services greatly influences patients' mental health. A review of 44 studies conducted across nine countries identified several key factors that contribute to a positive therapeutic environment in patient facilities. These factors include: - Personal spaces that prioritize privacy and environmental control - Areas that maximize natural light - Mixed-use common areas that encourage activities and social interaction - Designated spaces for visits and opportunities for spiritual or reflective contemplation - Home-like environments - Inclusion of artwork within units - Open nursing stations - Female-only areas Rowe & Knox (2023) further noted that the distribution of therapeutic services effectively stimulates demand for these services. Their study identified the most common factors impacting a patient's experience in the emergency department, including overcrowding, waiting times, privacy, and communication. Given this information, we can draw the following hypothesis:

The distribution of the medical product is expected to affect the attraction of medical tourists to Jordan.

8. Promotion of Medical Services:

The promotion of Medical services has emerged for several reasons, including the efforts of marketing personnel and the mutual interest between patients and hospitals (Lujia & Martin, 2024). Additionally, commercial promotion and hospital managers play crucial roles in identifying opportunities and utilizing creative strategies to attract new medical tourists (Jalali et al., 2025). Unlike other products, the promotion of Medical services is multi-dimensional and a unique framework (Ahmed et al., 2024). This distinction is rooted in the influential goals that health organizations pursue, which aim to foster positive behaviors that ultimately benefit society as a whole (Al-Nsour, 2019). Moreover, the goal is to enhance both the quality and quantity of Medical services available in the market (Douglas et al., 2024). Through an effective marketing communications system, hospitals can send and receive accurate information that aids in improving patients' health conditions (Malkawi et al., 2025). This information not only facilitates recovery and helps patients return to their normal lives quickly but also helps prevent potential health risks (Jalali et al., 2025).

The promotion of Medical services revolves around three main entities that form the core of the service promotion strategy: the physician providing the treatment, the patient requesting the service, and the health insurance that covers the treatment costs (Lujia & Martin, 2024). Private hospitals place significant emphasis on health insurance, aiming to attract insurance providers, meet their needs, and ensure their satisfaction (AlSahli et al., 2025; Al-Nozha, 2024). When entering foreign markets with medical services, several considerations must be taken into account, including the purchasing power, education levels, and literacy rates in the target market, as well as the market's maturity, trade structure, inflation rates, and promotion tools (OECD, 2021). The various promotional tools used by hospitals have different impacts on occupancy rates and the percentage of fees collected. For outpatients, such as those seen by emergency auditors and specialty clinics, the use of specialized physician offices, home health care services, and free outpatient medical consultations can enhance the benefits of long-term promotion. However, these may have a limited effect on hospital occupancy rates and financial revenues (Lujia & Martin, 2024; Al-Nsour et al., 2024). For inpatients, strategies such as general surgery and intensive care have the most significant influence on occupancy rates and the anticipated profitability of the hospital (Douglas et al., 2024). Although the effectiveness of each promotional tool varies, it is crucial to emphasize the integration of services for both inpatients and outpatients regarding occupancy and financial returns (Albashtawi et al., 2025).

Treatment costs have gained importance due to the growing competition among institutions providing medical services to both inpatients and outpatients (Chang et al., 2011). Patients often seek to fulfill specific needs at a convenient time and location (Wensley et al., 2020). Thus, building a positive relationship with patients becomes easier by fostering good communication, increasing their willingness to accept lower costs, and offering diverse treatment service packages tailored to their purchasing power and personal preferences (Kumar et al., 2024). These packages should include all relevant information and details that patients need, reducing the time and effort required to search for these services (Alnsour et al., 2025). Additionally, following a Pull-Demand strategy can help institutions stay ahead of their competitors (Grewal et al., 2023).

The various studies examine the impact of promotional techniques on attracting foreign patients to treatment in hospitals and medical centers. One notable finding from the study by Ben Said et al. (2019) indicates that certain sales activation tools have a significant influence on consumers' purchasing decisions. Among these, the arrangement and design of promotional display interfaces and the "Buy 1 Get 2" offer stood out as particularly effective. Promotional gifts were the most popular choice among participants, while free samples, although favored, were found to be the least effective tool. Current research sheds light on how different sales activation tools impact patient purchasing decisions.

The study by Willie (2025) further supports that promotional strategies can effectively enhance brand engagement and stimulate short-term sales. However, Jang et al. (2024) revealed that both cash and non-cash promotions negatively affect patient behavior. Additionally, Zhang et al. (2024) found a positive correlation between the number of behavioral recommendations related to behavioral and clinical changes, although approximately 87% of patients received between 0 to 4 recommendations. Celebrity are highly affected consumer behavior (Al-Nsour, 2023) and E-wom is crucial tool as well (Al-Nsour, 2017). Elsayed et al. (2024) explained that promotions have a positive impact on patients' behavior and well-being. Meanwhile, Gong & Zhang (2025) emphasized the significance of premium-based promotions, noting that consumers are more likely to engage in mental simulations when presented with such promotions compared to discount-based ones. According to above, it can be assumed that:

The promotion of the medicinal product is anticipated to play a role in attracting medical tourists to Jordan.

METHODOLOGY

1. **Research Design:** It refers to the framework that outlines how a study will be conducted to address the research topic effectively. It involves organizing data collection and interpretation methods to generalize the results obtained from the sample (Pandey & Pandey, 2015). For this study, a descriptive causal research design will be employed, along with relative frequency analysis. Marketing factors and the appeal of Jordan as a destination for medical tourists will be presented using percentages, tables, and graphs. To accurately characterize the properties of the variables of interest, causal descriptive research will be conducted. This research design was selected for the current study because it facilitates a thorough examination of how the elements of the 4Ps marketing mix influence the attraction of medical tourists to Jordan.

2. **Research Approach:** According to Malhotra (2021), there are two primary methods for conducting research: quantitative and qualitative. The qualitative method of data collection includes techniques such as focus groups, open-ended questions, and interviews, aiming to provide a deep and comprehensive understanding of a phenomenon. In contrast, the quantitative approach can summarize common characteristics among links or groups by utilizing a larger sample size. Given that the main objective of this research is to obtain descriptive data from the survey, the quantitative method is deemed the most suitable for the current study. This approach involves collecting data, converting it into numerical formats, performing statistical analysis, and drawing conclusions based on the findings (Malhotra, 2021).

3. **Research Population:** This study focuses on all medical tourists who visit Jordan for treatment at both private and government hospitals, as well as at Royal Medical Services. According to the Jordanian Ministry of Health, approximately 92,500 medical tourists arrived in Jordan for medical purposes by May 2025 (www.moh.gov.jo, 2025). This figure is based on actual data and is not an estimate; therefore, it represents the total population for this study from which the required sample will be drawn. Based on calculations for the sample size, the recommended sample includes about 383 medical tourists. This calculation is based on a margin of error of 0.5%, a confidence level of 95%, and a population proportion of 50% (<https://www.calculator.net>).

4. **Sampling Method:** A simple random sample of 383 medical tourists was drawn from various hospitals that serve these patients, including private hospitals, government hospitals, and the Royal Medical Services. Information about the medical tourists was gathered from within the hospitals, specifically through the Foreign Patients Office established by the Jordanian Ministry of Health in each facility. Staff members at the Foreign Patients Office counted the number of medical tourists during the sample collection period. A simple random sample consists of a randomly selected subset of the study population, ensuring that each member has an equal chance of being included in the sample.

5. This method is one of the most straightforward among probabilistic sampling techniques because it requires only a single random selection and minimal prior knowledge of the population. Due to the use of randomization, any research conducted on this sample achieves a high level of reliability and validity, making it less susceptible to research bias, thereby enhancing the generalizability of the results obtained (López, 2023). The researcher retrieved 377 questionnaires but excluded 6 that did not meet the criteria for statistical evaluation, resulting in a final total of 371 valid responses. Samples were collected from medical tourists during June 2025.

6. The researcher noted several factors that influenced the sample collection: this period experienced a high demand for medical services from tourists, at 50%, compared to other times of the year. Additionally, the summer coincided with the beginning of vacation for schools and universities in both existing and potential markets, marking the start of the tourist season, as well as summer recreation activities and the return of Jordanian expatriates from abroad.

7. Unit of Analysis: The text discusses the arrival of medical tourists seeking treatment at both private and government hospitals, as well as royal medical services. Information was collected from these tourists through the Foreign Patients Office in hospitals. The data were gathered from medical tourists whose health conditions enabled them to respond to the questionnaire and other study-related questions.

8. Data Collection Sources: The study utilized two types of data sources. First, secondary data was gathered through a comprehensive review of various literature relevant to the topic, which included published works in both Arabic and foreign books, university theses, specialized websites, and statistics from pertinent local and international institutions. Second, primary (raw) data were collected using a well-structured measurement tool (questionnaire) designed specifically for this study. The primary tool for data collection was a questionnaire administered to a randomly selected sample. The questionnaire comprised various questions that required respondents to express their agreement or disagreement. The survey was conducted on-site with medical tourists in private hospital patient rooms, often with the assistance of public relations staff. In some instances, tourists requested to postpone their responses, and the questionnaire was subsequently sent to them via WhatsApp, Messenger, social media, or email. The researcher created the study tool using Google Drive, and a team of specialists was engaged to evaluate the initial survey items to ensure their clarity, external validity, and effectiveness in meeting the study's objective.

9. Measurement: A five-point Likert scale was employed to assess both independent study variables (marketing factors) and dependent variables (attraction of medical tourists). The response levels were scored as follows: 5 for "very high," 4 for "high," 3 for "medium," 2 for "low," and 1 for "very low." This scoring system was intended to express the degree of agreement between the statements and the respondents' opinions.

After reviewing and discussing the existing literature, the main hypothesis of the study can be formulated as follows:

HO1: Marketing factors are expected to influence the attraction of medical tourists to Jordan. Four sub-hypotheses have been formulated to explore this further:

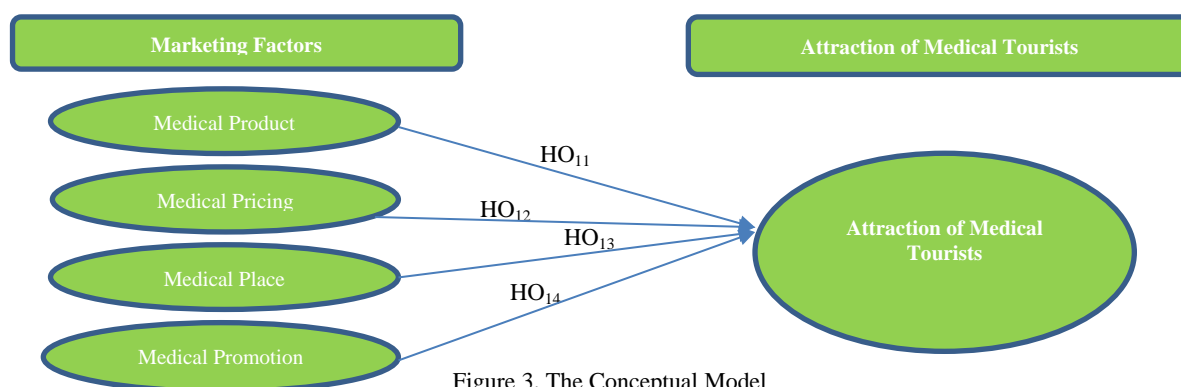


Figure 3. The Conceptual Model

The Figure 3 illustrates that attracting medical tourists relies on several marketing factors that encompass the four elements of marketing. In practice, all major decisions companies make to bring a product to market are considered: what they offer (product), what they charge (price), where it is available (place), and how to promote it (promotion).

These four elements, often referred to as the marketing mix, provide a framework that companies use to successfully introduce a product or service to the market. The concept of the 4 Ps was developed in the 1950s and served as the foundation for early marketing strategies. It is crucial to identify the primary factor to focus on when analyzing the behavior of medical tourists according to this model and to predict how it may be influenced or altered. Neil Borden, a professor of advertising at Harvard University, popularized the idea of the marketing mix in the 1950s. His 1964 article, "The Concept of Marketing Mix," illustrated how companies can utilize advertising tactics to engage consumers. Even decades later, businesses continue to employ concepts derived from Borden's work to advertise their goods and services. Furthermore, Borden's ideas have been developed and refined over the years by other influential figures in the marketing field. E. Jerome McCarthy, a professor of marketing at Michigan State University, further refined Borden's concepts and labeled them the four Ps of marketing. McCarthy's book, "Basic Marketing: A Management Approach," contributed to the increasing popularity of this model in various marketing applications. In summary, academic literature suggests that consumer behavior is influenced by multiple marketing factors that shape how consumers make purchasing decisions.

MEDICAL TOURISM VALIDITY AND RELIABILITY

1. Discriminant Validity: This refers to the extent to which measure statements differ from one another, as well as the degree of overlap between them (Hair et al., 2018). It involves a cross-loading test, which stipulates that the loading value of each item in a latent variable (IV & DV) must be the highest among all other variables (Hair et al., 2018). As shown in Table 4, the cross-loading values for each statement in the latent variables are distinct and exceed the values of other variables. Therefore, these statements are considered distinct, and their position is optimal.

2. Convergent Validity: This refers to the level of agreement among several statements measuring the same concept within a variable (Ringle et al., 2024). It includes three tests:

- Individual Item Validity: This test measures the consistency between statements that assess the same phenomenon or concept, ensuring that respondents provide consistent answers. The acceptable benchmark is a value greater than 0.7. As indicated in Table 4 below, all statements exceed this threshold and are thus statistically acceptable. 2.

- Composite Alpha: According to the statistical rule, the acceptability of a latent variable (independent or dependent) should be greater than 0.7. Table 4 below confirms that both the independent and dependent variables surpass this value (Hair et al., 2021).
- Average Variance Extracted (AVE): The minimum acceptable threshold for AVE is 0.5. Results show that all study variables exceed this benchmark and are therefore statistically acceptable (Ringle et al., 2024).
- rho_A: The statistical rule states that the test value should be higher than 0.7 (Fornell & Larcker, 1981). Results indicate that the peak test values for all variables are above 0.7, confirming that the constructs are reliable and acceptable for the current study.

Table 4. Cross Loading, CR, AVE, CR & VIF

Factor	Items	Cross Loading	CR	AVE	Rho_A	Factor	Items	Cross Loading	CR	AVE	Rho_A
Medical Product	PRODUCT1	0.947	0.991	0.933	0.982	Place	PLACE1	0.948	0.982	0.887	0.981
	PRODUCT2	0.966					PLACE2	0.938			
	PRODUCT3	0.957					PLACE3	0.897			
	PRODUCT4	0.958					PLACE4	0.955			
	PRODUCT5	0.957					PLACE5	0.959			
	PRODUCT6	0.958					PLACE6	0.957			
	PRODUCT7	0.961					PLACE7	0.919			
	PRODUCT8	0.968				Promotion	PROMOTION1	0.837	0.985	0.878	0.987
	PRODUCT9	0.956					PROMOTION2	0.914			
	PRODUCT10	0.961					PROMOTION3	0.964			
	PRODUCT11	0.904					PROMOTION4	0.943			
Price	PRICE1	0.960	0.989	0.896	0.988	Promotion	PROMOTION5	0.952	0.986	0.933	0.982
	PRICE2	0.890					PROMOTION6	0.966			
	PRICE3	0.965					PROMOTION7	0.960			
	PRICE4	0.962					PROMOTION8	0.946			
	PRICE5	0.967					PROMOTION9	0.946			
	PRICE6	0.954				Medical Tourists Attraction	MTA1	0.964			
	PRICE7	0.961					MTA2	0.971			
	PRICE8	0.928					MTA3	0.978			
	PRICE9	0.917					MTA4	0.961			
	PRICE10	0.960					MTA5	0.956			

3. Fornell-Larcker Test: The test demonstrates that the value of the latent variable—whether independent or dependent—accounts for the greatest level of variance when compared to other latent variables (Fornell & Larcker, 1981). As shown in Table 5 below, the variance values of the latent variables are higher than those of the other latent variables. This indicates that there is no relationship with the other latent variables, suggesting that the current state of the variable is more favorable.

Table 5. Fornell-Larcker Criterion

Construct	Medical Tourists	PLACE	PRICE	PRODUCT	PROMOTION
Medical Tourists	0.966				
PLACE	0.949	0.942			
PRICE	0.974	0.971	0.947		
PRODUCT	0.944	0.983	0.963	0.954	
PROMOTION	0.889	0.965	0.923	0.966	0.937

PATH ANALYSIS

H01: Marketing factors are expected to influence the attraction of medical tourists to Jordan.

The path analysis indicates that several marketing factors impact the attraction of medical tourists to Jordan. According to Table 6 below, the statistical significance level of two correlational relationships is below the acceptable margin of error (0.05). This allows us to empirically support the sub-hypotheses concerning the prices of medical products and the promotional methods used. In more detail, there is a strong positive correlation (0.799) between the prices of medical products and the attraction of medical tourists to Jordan. There is also a weaker positive relationship (0.310) between the promotion of medical products and the attraction of medical tourists. However, no significant effect was observed from medical product and place factors on attracting medical tourists to Jordan. The f^2 value measures the magnitude of the effect that independent variables have on dependent variables (Hair et al., 2021). In this context, f^2 is utilized to assess the extent of impact that marketing factors—such as medical products, pricing, distribution, and promotion—have on attracting medical tourists to Jordan. The statistical guideline states that an f^2 value above 0.35 indicates a high effect, a value between 0.15 and 0.35 signifies a moderated effect, a value below 0.15 indicates a low effect, and a value below 0.02 says no effect. As shown in Table 6 below, marketing factors positively influence the attraction of medical tourists to Jordan. Specifically, it was found that the prices of medical products had the highest impact on attracting such tourists, while the promotion of medical products had a smaller effect on the dependent variable.

The coefficient of determination, R^2 , reflects the strength of the linear relationship between the independent and dependent variables by measuring how much of the variance in the dependent variable (DV) can be attributed to changes in one or more independent variables (IVs) (Hair et al., 2018). According to statistical guidelines, an R^2 value below 0.02 is considered very small, a value between 0.02 and 0.13 is deemed average, and a value above 0.26 indicates high variance. The R^2 value in Table 6 shows that the selling prices of medical products and the methods of promotion explain 95.2% of the variation in attracting medical tourists to Jordan. However, both the medical products and the distribution methods significantly affect the attraction of medical tourists from abroad. Lastly, the predictive effectiveness of the model used in this study can be assessed using the predictive relevance index, Q^2 . The statistical guideline states that the predictive power of a model is demonstrated if the Q^2 value is greater than 0.00 (Chin, 2010). Table 6 indicates that there is significant potential for analyzing the variance in attracting medical tourists to Jordan, with a Q^2 value of 0.884. This demonstrates that the proposed model has a strong predictive ability to explain the variation in attracting medical tourists, primarily based on the prices of medical products and, to a lesser extent, on medical promotions.

Table 6. Direct Path Analysis (Significant at $P_0^* < 0.01$; Significant at $P_0^{**} < 0.05$)

H	Relationship	Std. Beta	Std. Dev.	T-Value	P-Value	f^2	Decision	R^2	Q^2
H ₁₁	Product → MTA	0.265	0.143	0.143	1.818	0.039	Not Supported H1	0.952	0/884
H ₁₂	Price → MTA	0.799	0.081	9.765	0.00	0.674	High Positive Effect		
H ₁₃	Place → MTA	0.214	0.175	1.317	0.189	0.025	Not Supported H1		
H ₁₅	Promotion → MTA	0.310	0.100	3.128	0.002	0.114	Small Positive Effect		

Goodness of Fit (GoF)

The Goodness of Fit (GoF) test is calculated as the geometric mean of the Average Variance Extracted (AVE) and the R^2 indicators of the Inner Constructs' internal metrics (Hair et al., 2021). GoF can be used to assess the predictive power of a complex model by evaluating the performance of both the Measurement Model and the Structural Model (Ringle et al., 2024). According to the statistical decision rule, a GoF value of less than 0.1 indicates that the model is not suitable. A value between 0.1 and 0.25 suggests little suitability, while a GoF value between 0.25 and 0.36 indicates average suitability. A GoF value greater than 0.36 signifies a high fit. Table 7 below illustrates the indicators used to evaluate the suitability of the research model, as outlined by Ringle et al. (2024). The model fit indicators are as follows:

- Standardized Root Mean Square Residual (SRMR): This metric assesses the average magnitude of the differences between saturated and predicted correlations. It serves as an absolute measure of model fit. According to Henseler et al. (2014), an acceptable SRMR value should be less than 0.08, with values up to 0.10 being considered the best fit. The current value for the estimated model is 0.101, indicating that there are no significant differences between the saturated and expected values, and thus, the model is highly suitable.
- d_ULS and d_G : These two indicators determine the model's suitability based on the differences between saturated and expected values. The d_ULS represents the sum of the squares of the differences between the values, whereas d_G is the square root of that sum. The d_ULS values for the estimated and saturated models are equal at 2.268, indicating a high level of model fit. Additionally, the d_G values for both models are also equal at 14.463, confirming a very high degree of fit in the estimated model.
- Chi-Square: This statistic measures how well the model aligns with observed data. The Chi-Square values for both the estimated and saturated models are identical, reflecting that there are no discrepancies between the two models.
- NFI (Normed Fit Index): This index assesses how much the estimated model improves upon the saturated model. The formula for calculating NFI is 1 minus the squared Chi value of the proposed model divided by the squared Chi value of the empty model. The resulting values range from 0 to 1, with values closer to 1 indicating a better fit. An NFI value above 0.9 is typically seen as a good fit. In this case, the NFI for both models is 0.64, suggesting that the model may require a slight improvement.

Table 7. GOF Value

Variable	Saturated Model	Estimated Model	$Q^2 (=1-SSE/SSO)$
SRMR	0.050	0.050	0.884
d_ULS	2.268	2.268	
d_G	14.463	14.463	
Chi-Square	4701.662	4701.662	
NFI	0.640	0.640	

FINDINGS AND DISCUSSION

Jordanian hospitals exhibit several positive indicators that encourage medical tourism in the country. However, the tangible aspects of treatment services are currently insufficient to attract medical tourists. The findings from the current study highlight several areas that require more attention in both private and government hospitals, as well as the Royal Medical Services. These areas include building design, medical facilities, patient room equipment, and medical furniture. Foreign patients prioritize high-quality essential treatment services, which they value more than the tangible aspects of the treatment experience mentioned earlier. While medical tourists have expressed satisfaction with certain support services offered in hospitals—such as diagnostic procedures, examinations, medications, and treatments—this does not necessarily reflect their satisfaction with the essential treatment services provided. Additionally, the study indicates a need for

improvement in a variety of support services that received low satisfaction ratings. These include cleanliness of food in patient rooms, building maintenance, electronic reservation systems, assessment of the patient's condition prior to their arrival in Jordan, medical transportation, and the selection of medical staff. It is not surprising that essential medical products fail to attract doctors to Jordan. Studies indicate that basic medical products are readily available in almost all neighboring countries and even in countries that excel in the medical tourism sector. For instance, Saudi Arabia, Bahrain, and Iraq are among the prominent Arab markets that send a significant number of patients to Jordan for treatment.

These countries offer a wide range of primary, secondary, and specialized healthcare services, including family medicine, pediatric care, emergency services, and ambulance services. Specialized treatments such as cardiac surgery, catheterization, chemotherapy for tumors, bariatric surgery, and infertility treatments are also available. Additionally, there are services for dental care, physical therapy, and postpartum follow-up. However, it is important to note that the success of these services is linked to the quality of the technologies, equipment, and tools used in their delivery. The available services include specialized clinics for treating non-chronic emergency diseases, emergency units, home healthcare and nursing for medical tourists, treatment in medical wards outside hospitals, and physical therapy centers.

Other services include child care centers, pharmacies, dental clinics, and various medical wards. While these services are accessible in various health facilities worldwide, their availability alone does not constitute a significant advantage for the state or the healthcare provider without the support of other critical elements in the marketing mix. Our findings are consistent with other studies that have reached similar conclusions. For instance, the research conducted by Kim et al. (2019) indicated that the medical tourism industry in Korea relies on a variety of services, including tourist activities for companions, additional patient support, and recreational options. Additionally, this study confirmed the diminishing role of essential medical services within the medical tourism landscape.

Similarly, Rokni et al. (2019) found that non-clinical services are not crucial for the development of the medical tourism sector. Instead, three key factors are necessary: the personal characteristics of doctors, external support from relevant organizations, and effective skills for interacting with foreign patients. Alharethi & Kabil (2023) demonstrated a strong relationship between service quality and types of treatment.

The availability of high-quality services enhances the perception of medical tourists when choosing their destination for care. This aligns with the essence of medical tourism, which involves traveling to another country for affordable medical care (Amirian et al., 2022). Patients often seek to bypass waiting lists in their home countries and find treatment options that match their financial capabilities (Smith, 2025). Studies have indicated that the potential for economic savings in destination countries makes medical tourism an appealing alternative for patients. In summary, this research suggests that traveling for medical treatment can encompass more than just the concept of a medical service. However, some studies emphasize the importance of the medical product in the marketing mix of medical tourism. The survey by Ghosh & Mandal (2018) introduced the idea of the "medical tourism experience," identifying seven essential elements, with the quality of treatment and medical services being the most significant. Furthermore, Tabaei et al. (2025) confirmed that the medical product plays a crucial role in the marketing mix for medical tourism in Gilan Province, Iran.

The pricing of medical services is one of the key factors driving the growth of medical tourism worldwide (Biswakarma & Basnet, 2025). According to medical tourism theory, individuals from high-income countries travel to low- and middle-income countries to access medical services at lower costs (Zakaria et al., 2023). The core idea of medical tourism is that the decision to travel abroad for medical care is largely influenced by affordable pricing and the availability of treatment options that fit an individual's financial means (Smith, 2025). In Jordan, the pricing process for medical services in both public and private hospitals, as well as royal medical services, begins by calculating variable costs. These costs include meals, accommodation, medications, diagnostic tests and procedures, and medical transportation and communication fees. These variable costs are then combined with the patient's share of fixed hospital expenses, which encompass salaries and wages of doctors and nursing staff, along with other ongoing operational costs. A recent study revealed that only a small percentage of medical tourists (21%) were satisfied with the prices of medical services in Jordan, while 46.2% expressed dissatisfaction. However, when it comes to the prices of food and drinks at hospitals, 58.8% of medical tourists reported being satisfied. In contrast, only 34.5% were satisfied with the prices of medications, with 63% indicating dissatisfaction.

The percentage of medical tourists who are satisfied with the prices of treatment, food, and medicine is lower than that of those who are dissatisfied. Notably, 34.2% of medical tourists believe that the prices of medical products in Jordan are higher compared to other Arab countries, while 59.2% express partial satisfaction with these prices. This study highlights the significant impact of medical product prices on the attraction of medical tourist demand to Jordan. These findings align with previous studies indicating that 80% of medical tourists prioritize cost savings when selecting a treatment destination, compared to only 45% who choose destinations based on the quality of medical products (<https://media.market.us>, 2025).

According to the Theory of Planned Purchasing Behavior, research by Parl et al. (2017) indicates that medical tourists' awareness of the prices of medical products enhances their satisfaction with both those products and travel services. Therefore, it was observed that health awareness influences the decision-making process; however, it does not significantly affect tourists' satisfaction with medical travel services in Korea (Rokni et al., 2019). In 2015, the study by Heesup & Sunghyup confirmed that the impact of price on medical tourists' intentions is moderate. It also found that factors such as perceived quality, satisfaction, and trust in both the staff and the clinic have a stronger influence on the likelihood of repurchase from the destination country. Supporting this, the Al-Azzam study (2016) indicated that price is a significant element in the marketing strategy for the medical tourism sector in Jordan. Additionally, research by Sarwar et al. (2012) confirmed a strong relationship between cost and the perceptions of medical tourists when selecting their destinations. Furthermore, the study by Pailwar & Mitra (2025) identified a nonlinear relationship regarding the effect of exchange rate-adjusted relative prices on

medical tourism flows in India. Lastly, the Eberchukwu (2020) demonstrated that medical tourism plays a crucial role in funding heart surgery in the United States and that it does not negatively impact the American economy.

The current study indicates that the distribution element, specifically the place, did not significantly influence the attraction of medical tourists to Jordan. This finding aligns with several previous studies that have highlighted a lack of emphasis on place and brand marketing by hospitals. These studies revealed that hospitals have struggled to achieve a shared understanding of these concepts and how to implement related strategies (Martin et al., 2018).

Furthermore, the research by Latief & Ulfa (2024) affirmed that health facilities play a crucial role in the development of medical tourism but are not adequately represented in distribution strategies. Despite substantial empirical evidence supporting their role in advancing the sector, this viewpoint corresponds with the assertions of leading researchers in medical tourism, such as Heung (Heung et al., 2010). Additionally, Al-Azzam's study (2016) concluded that the venue is not an optimal element of the marketing mix for the medical tourism sector in Jordan. In contrast, Rahmawati's study (2020) found that the place is an influential factor in the marketing mix affecting medical tourism in Indonesia. The present study contributes to this discussion by revealing that private and public hospitals and the Royal Medical Services in Jordan primarily utilize indirect distribution methods, relying on marketing intermediaries and agents in their target markets, with this representing 75% of their strategy. Hospitals also maintain medical cooperation agreements with their target markets and insurance companies (76.9%). Locally, doctors' clinics are prominent in distributing treatment services (46.1%), with additional contributions from the Private Hospitals Association (25%) and foreign embassies in Jordan (20.3%).

It was noted that 76.5% of private hospitals focus on distributing their unique Medical services and primarily cater to high-income markets. Moreover, data indicate that 86.3% of external demand for local medical products originates from markets with medical agreements with Jordan, including Sudan, Iraq, Saudi Arabia, Yemen, Libya, and Palestine. The Pull Strategy is utilized as a demand generation method to attract medical tourists to Jordan.

The current study highlights the impact of marketing communication, specifically promotion, on attracting medical tourists to Jordan. Research has underscored the significance of marketing communication in the medical tourism sector. Modern promotional methods, such as social media and website marketing, have demonstrated a strong influence on medical tourism in Jordanian hospitals. However, the use of mobile phones had no significant impact (Campbell et al., 2024). In a study by Supak & Kanokkarn (2025), integrated marketing communication was found to be crucial in the medical tourism sector in Thailand, utilizing strategies such as electronic word-of-mouth (e-WOM), public relations, advertising, personal sales, sales activation, and e-marketing. Additionally, research by Phuanpoh & Ketsomboon (2023) highlighted the effectiveness of promotional strategies aimed at attracting elderly tourists to the Phra Nakhon Si Ayutthaya District in Thailand. Their findings indicated that advertising and social media positively influence medical tourists' perceptions of hospital brand images in Hungary (Smith, 2025). In Jordan's tourism sector, it was discovered that about one-third of private hospitals have dedicated marketing departments for their medical products, with larger hospitals leading the market. The most common promotional tools ranked in order of use are: word-of-mouth recommendations from friends and acquaintances, personal efforts, advertisements and newsletters, Jordanian embassies abroad, and marketing intermediaries. Notably, promotional spending accounts for less than 1% of annual revenues in 81.3% of hospitals, indicating a significant weakness in promotional activities and programs. Moreover, there is a lack of integration between promotional efforts in private and government hospitals, resulting in disjointed efforts and coordination among relevant institutions.

To enhance the effectiveness of the promotion strategy in attracting medical tourists, it is essential to incorporate medical tourism into national tourism plans and to address conflicts between various types of tourism. Improving the efficiency of those responsible for marketing promotion is crucial. Additionally, there is a pressing need to increase financial allocations for promotional activities, provide specialized expertise in marketing, eliminate technical and administrative barriers within hospitals, and refine national marketing plans based on necessary insights.

Based on the previous results, the study presents several recommendations as follows:

- 1) Explore opportunities in non-traditional markets that are competitive with Jordanian medical products, such as countries in East Asia.
- 2) Implement geographical pricing strategies, setting prices that vary according to the target market or the geographical location where the medical services are offered.
- 3) Increase efforts in medical promotion to enhance awareness among medical tourists regarding Jordanian medical products. We suggest the following:
 - Pre-purchase Marketing: Utilize medical agents, marketing intermediaries, the Internet, and hospital websites. Collaborate with the Ministry of Tourism and the Ministry of Foreign Affairs to employ direct mail, postcards, telemarketing, newspapers, magazines, and television and satellite advertisements.
 - Post-purchase Marketing: Use souvenirs, regular mail, and emails, thank-you letters to patients or their guarantors, health inquiries, greeting cards, and compile successful medical experiences into a book for distribution.

Theoretical and Practical Implications

Pricing is a crucial factor in attracting medical tourists, so hospitals should focus on sales activation tools and offer price incentives. They can provide free diagnostic procedures and examinations, and implement moderate drug pricing policies. While increasing prices for medical products may boost profits in the short term, it can harm sales in the long run. Continuing to impose high prices could signal that the medical product is reaching a declining stage in its life cycle, making it vulnerable to exiting the market quickly. In terms of medical promotion, hospitals that establish specialized

departments to market their medical products are more successful in attracting medical tourists. Therefore, hospitals have opportunities to diversify their promotion methods across different markets and to design technologies that suit each market's needs. Promotions based on discounts and price offers positively impact medical tourists, highlighting the necessity for training marketing staff in the medical tourism sector. Jordanian medical products are currently in the mature stage of their life cycle, making sales activation the most effective tool at this stage, as consumers balance their purchasing habits and preferences. Advertising that relies solely on psychological persuasion is as ineffective as financial persuasion for stimulating sales. Marketing professionals believe that managing a medical product financially should rely on sales activation tools, with an emphasis on supporting digital advertising, direct marketing, and personal selling within an integrated marketing communication strategy.

Research Limitations:

The study aimed to measure the marketing factors influencing the attraction of medical tourists to Jordan. It utilized the 4Ps of the marketing mix: product, price, place, and promotion. Future research could explore the extended marketing mix, known as the 7Ps, which includes the original 4Ps along with people, physical evidence, and process. The study was based on collecting data from medical tourists at both public and private hospitals, as well as the Royal Medical Services. There is also an opportunity to measure statistical differences in the influence of marketing factors based on the treatment service provider.

CONCLUSIONS

The Jordanian medical tourism sector is currently in the mature stage of its life cycle, where it has stabilized for a relatively long period. This sector faces significant competition from markets in Egypt, Dubai, and Turkey, which present challenges in marketing the mature medical products effectively. There is currently an excess production capacity within the medical tourism sector in Jordan, compelling it to compete with other markets and seek more lucrative segments, particularly in less expensive or developing markets such as Syria, Lebanon, and Palestine.

Furthermore, it is essential to support health facilities that can compete in larger markets such as Saudi Arabia, the Emirates, and Qatar. Medical tourism predominantly originates from high-income countries towards lower-income counterparts. In this context, there is a growing demand for new medical products like plastic surgery, cosmetic dentistry, and hair transplantation. Unfortunately, the Jordanian medical tourism sector lags behind Egypt and Turkey in these areas, making it strategically important for Jordan to consider expanding into these markets.

For instance, Turkey's beauty industry generated revenues of \$3 billion in 2024 by attracting 1.5 million medical tourists, along with \$453 million in revenue from the cosmetic dentistry industry in 2023. In comparison, Egypt achieved revenues of \$1.33 billion in the beauty and personal care sector in 2024. It is noteworthy that the global beauty market has reached \$401 billion, with an annual growth rate of 5.5%.

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