

THE IMPACT OF MEDICAL SERVICE QUALITY ON THE PURCHASE INTENTION OF INTERNATIONAL TOURISTS: THE MEDICAL HUMAN RESOURCES COMPETENCE AS A MEDIATOR

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Abstract : Medical tourism has emerged as a rapidly expanding sector within the global healthcare industry, intensifying competition among countries seeking to attract international patients. Although Jordan has established itself as a prominent regional destination for medical tourism, limited empirical research has examined the key determinants influencing international medical tourists' purchasing intentions toward Jordanian hospitals. In particular, the role of medical staff competence within the relationship between medical service quality and patients' behavioral intentions remains insufficiently explored. Accordingly, this study investigates the impact of medical service quality on international tourists' purchase intentions while examining the direct and mediating role of medical staff competence. A quantitative research design based on the descriptive–analytical approach was employed. The study population consisted of international medical tourists who visited Jordanian private hospitals for treatment, totaling approximately 92,500 patients during the first half of 2025. Using simple random sampling, 383 valid responses were collected through a structured questionnaire developed from prior literature. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) to test the proposed hypotheses. The findings reveal that medical service quality has a significant positive effect on international tourists' purchase intentions and significantly influences medical staff competence. However, medical staff competence did not demonstrate a direct effect on purchase intention nor a mediating role in the relationship between service quality and purchase intention. This study contributes theoretically by integrating healthcare service quality and human resource competence within a unified framework to explain international patients' behavioral intentions in the medical tourism context. Practically, the findings provide strategic insights for hospital administrators and policymakers by emphasizing the importance of service quality enhancement and patient experience management in strengthening Jordan's competitiveness as a global medical tourism destination.

Keywords: service quality, purchase intention, medical staff, international tourist, medical tourism, Jordan

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INTRODUCTION

In recent decades, the medical tourism sector has experienced significant expansion at both regional and global levels, largely driven by the growing demand for specialized healthcare services and increasing public awareness of health and wellness (Zhong et al., 2021). This growth has been further accelerated by structural deficiencies in healthcare systems in several countries, particularly with regard to high treatment costs, long waiting times, and inconsistencies in service quality (Karsana & Murhadi, 2021). As a result, medical tourism has progressively transformed from a peripheral activity into a well-established global industry. Beyond its healthcare dimension, the sector has become an important economic driver for many destinations due to the substantial direct and indirect revenues it generates, as well as its contribution to strengthening the international reputation and competitiveness of health destinations (Al-Nsour, 2020).

Recent market estimates highlight the rapid expansion of this industry. In 2025, the global medical tourism market was valued at approximately USD 273 billion, with an annual growth rate of 10.4%, while the number of international medical tourists reached nearly 21.1 million worldwide (Market.us Media, 2025). In addition to direct revenues generated by healthcare services, the sector has produced considerable spillover effects on the broader economy. In the same year, medical tourism contributed nearly USD 100 billion in indirect economic activity, increased government revenues by approximately 25%, supported employment growth of around 15%, and stimulated infrastructure investments estimated at USD 500 million (Market.us Media, 2025). At the national level, the sector generated direct revenues exceeding USD 1

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billion by attracting approximately 224.8 thousand medical tourists in 2024, representing an estimated 0.4% share of the global medical tourism market (MOTA, 2025). These figures underscore the growing strategic importance of medical tourism as a driver of economic diversification and international competitiveness within the healthcare sector (Demir et al., 2025).

However, in an increasingly competitive global marketplace, the ability of destinations to attract international medical tourists is no longer determined solely by the availability of medical services (Choi et al., 2020). Instead, patients' decisions are strongly influenced by their perceptions of healthcare service quality, which plays a central role in shaping health-related behaviors and medical travel choices (Elgarhy & Alharethi, 2024). From this perspective, healthcare service quality has emerged as a critical determinant of international patients' evaluation of their treatment experience (Meng et al., 2022).

This is largely due to the multidimensional nature of healthcare quality, which encompasses technical, functional, and interpersonal components, including the safety of medical procedures, the accuracy of diagnosis, and the effectiveness of treatment outcomes (Demir, 2025). Furthermore, the patient experience is significantly influenced by relational aspects of care, such as the level of attention provided, the clarity of communication, and the degree of respect and transparency demonstrated by healthcare professionals throughout the treatment journey (Ye et al., 2011).

Collectively, these dimensions shape patients' overall perceptions of service quality and ultimately influence their satisfaction, trust, and willingness to engage in medical travel. In the context of medical tourism, purchase intention refers to the behavioral willingness of international patients to select a particular hospital or medical destination for treatment. This intention extends beyond the initial decision to seek medical services and encompasses the likelihood of revisiting the destination for future treatment as well as recommending it to others (Al-Nsour, 2017). From a theoretical perspective, purchase intention is widely recognized as a strong predictor of actual behavior, as suggested by the Theory of Planned Behavior, which posits that behavioral intentions reflect an individual's level of confidence and commitment toward performing a particular action (Rahman et al., 2022). Within medical tourism, such intentions are particularly significant because healthcare decisions typically involve high levels of perceived risk, uncertainty, and personal involvement. Existing empirical research consistently demonstrates that perceived healthcare service quality exerts a direct and positive influence on international patients' purchase intentions. High-quality medical services enhance patients' willingness to select a medical destination, revisit the facility, and recommend it to other potential medical tourists (Choi et al., 2020).

Nevertheless, although service quality remains a fundamental determinant of behavioral intentions, relying solely on a direct relationship between these variables may not sufficiently explain the complexity of international patients' decision-making processes. Medical tourism involves not only clinical outcomes but also interpersonal interactions and trust-building processes, which play a crucial role in shaping patient perceptions and behavioral responses (Al-Nsour, 2022).

In this regard, the competence of medical staff emerges as a critical contextual factor that may influence how perceived service quality translates into purchase intention. Medical professionals—through their clinical expertise, professional experience, and communication abilities—serve as the primary interface between healthcare institutions and international patients (Alawneh et al., 2025). Consequently, their performance represents a key element in shaping patients' perceptions of service quality and their overall healthcare experience (Farid et al., 2025). Contemporary literature suggests that medical staff competence extends beyond technical proficiency and professional qualifications (Fetscherin & Stephano, 2016). It also includes relational capabilities such as the ability to build trust, communicate effectively, demonstrate empathy, and manage interactions with patients from diverse linguistic and cultural backgrounds (Zhong et al., 2021).

Empirical studies further indicate that international patients' perceptions of medical staff competence significantly enhance their trust in healthcare providers (Park et al., 2021). Such trust contributes to higher levels of patient satisfaction, which in turn strengthens behavioral intentions, including the willingness to revisit medical destinations and recommend them to others (Khan et al., 2023). Despite the growing body of research on medical tourism, however, a review of the literature reveals a notable gap concerning the explanatory mechanisms linking healthcare service quality to purchase intention. In particular, limited attention has been devoted to examining the moderating role of medical staff competence in this relationship, especially within the context of Arab and developing countries (Al-Nsour, 2022).

Moreover, much of the existing research has predominantly focused on mediating variables such as satisfaction and destination image, while offering limited insight into how and why service quality translates into behavioral intentions. Accordingly, this study seeks to address this gap by proposing an integrated explanatory model that examines the moderating role of medical staff competence in the relationship between healthcare service quality and the purchase intention of international medical tourists. By doing so, the study contributes to advancing the theoretical understanding of international patients' behavioral decision-making while also providing practical implications for healthcare and tourism policymakers seeking to enhance the competitiveness and attractiveness of medical tourism destinations.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Medical Tourism in Jordan

The global medical tourism market has experienced sustained expansion over the past two decades and is projected to continue its upward trajectory in the coming years. Recent estimates suggest that the global medical tourism market will reach approximately USD 41.8 billion in 2024 and may expand to nearly USD 160 billion by 2032 (World Travel & Tourism Council, 2025). Within this expanding global landscape, the Middle East and North Africa (MENA) region—particularly the Arab Gulf states—has emerged as a major source market for international medical travel. Countries within the Gulf region collectively spend nearly USD 20 billion annually on healthcare services abroad, accounting for approximately 7% of the global medical tourism market (www.Alarabiya, 2025). This substantial outbound demand has contributed significantly to the development of regional medical tourism destinations, among which Jordan has established

a prominent position. The origins of medical tourism in Jordan can be traced back to the 1970s, when the country began attracting patients from neighboring states due to the availability of qualified medical professionals and relatively advanced healthcare services. Since then, Jordan has experienced remarkable progress in its healthcare sector, enabling it to become one of the leading medical tourism destinations in the region. In 2024, Jordan received approximately 224,000 medical tourists, generating revenues estimated at nearly USD 1 billion. This represents a notable increase compared to approximately 191,500 medical tourists in 2022 and 202,600 in 2023. The upward trend has continued into 2025, with approximately 92,800 medical tourists visiting Jordan by May 2025 alone, reflecting a 16.5% increase compared with the same period in 2024 (Ministry of Health, 2024). These figures highlight the growing importance of medical tourism as a strategic sector contributing to Jordan's economic development. Jordan has become a preferred medical destination for patients from several neighboring countries, particularly those within the Gulf Cooperation Council and the wider Middle East region. The country attracts a large number of patients from Saudi Arabia, Iraq, Palestine, Syria, Yemen, and Libya (Ministry of Health, 2025). This reputation is largely attributed to the long-standing development of Jordan's healthcare system and the country's history of medical achievements. For instance, Jordan performed its first open-heart surgery in 1970 and its first kidney transplant in 1972, marking important milestones in the development of advanced medical care in the region. More recently, specialized institutions such as the King Hussein Cancer Center have achieved internationally recognized clinical outcomes. In 2022, the center performed approximately 250 bone marrow transplant procedures with a success rate of around 85%, exceeding many global benchmarks. Reflecting these achievements, the United Nations World Tourism Organization recognized Jordan in 2023 as a regional hub for medical tourism, reporting that the country received nearly one million medical tourists from 71 countries during the past five years (UNWTO, 2025).

Jordan's competitiveness in medical tourism is further strengthened by its ability to combine high-quality healthcare services with relatively affordable treatment costs. Research indicates that the cost of medical procedures in Jordan is approximately 40% lower than in the United States and many European countries. Moreover, when compared with other major international medical tourism destinations—such as India, Singapore, and Thailand—Jordan remains highly competitive, with price differences generally ranging between 5% and 10% (World Travel & Tourism Council, 2025).

In addition to cost advantages, the country benefits from the availability of natural therapeutic resources that contribute to the overall attractiveness of its medical tourism offerings. Locations such as the Dead Sea, situated approximately 400 meters below sea level, are globally recognized for their mineral-rich waters and therapeutic properties, with salinity levels reaching nearly 33%. Similarly, the Ma'in hot springs, where mineral-rich waters can reach temperatures of up to 60°C, are widely used for therapeutic treatments related to skin conditions, joint diseases, and circulatory disorders (Ministry of Tourism and Antiquities, 2025). The strength of Jordan's healthcare system also plays a crucial role in supporting the growth of medical tourism. The country currently hosts approximately 121 hospitals and medical centers, including 71 private healthcare facilities and 47 public hospitals. Many of these institutions hold internationally recognized accreditations from organizations such as the Joint Commission International and the Jordanian Health Care Accreditation Council, ensuring adherence to global standards of patient safety and healthcare quality (Ministry of Health, 2025). Prominent private hospitals include the Jordan Hospital, Abdali Hospital, Al-Kindi Hospital, Ibn Al-Haytham Hospital, the Arab Medical Center, and the King Hussein Cancer Center. At the same time, major public facilities such as Al-Hussein Medical City and Al-Bashir Hospital also serve a large number of international patients.

In addition to modern healthcare infrastructure, Jordan benefits from a highly skilled medical workforce comprising more than 30,000 physicians and medical specialists. These professionals provide a wide range of advanced medical treatments, including cardiovascular surgery, oncology care, orthopedic procedures, and fertility treatments. The absence of long waiting lists for many procedures, combined with the widespread availability of English-speaking medical personnel, further enhances international patients' confidence and comfort during their treatment journeys (Abd Manaf et al., 2015). Beyond its healthcare benefits, medical tourism represents an important pillar of Jordan's national economy.

The sector contributes significantly to job creation and stimulates growth across multiple supporting industries, including hospitality, transportation, and wellness services (Chuang et al., 2014). Studies suggest that medical tourists typically spend three to five times as much as conventional tourists, owing to longer stays and the need for additional healthcare and accommodation services (Gholipour et al., 2023). Jordan's well-developed hospitality sector plays a complementary role in supporting this industry. As of April 2025, the country hosts approximately 357 classified hotels, 73 unclassified hotels, and 176 hotel apartments and suites, providing a diverse range of accommodation options suitable for patients and their accompanying companions (Ministry of Tourism and Antiquities, 2025). Furthermore, research indicates that between 2008 and 2022, revenues generated from medical tourism significantly contributed to the expansion of healthcare sectors across 49 emerging and developed economies, suggesting that increasing investment in medical tourism can further strengthen national healthcare systems and broader economic development (Gholipour & Esfandiari, 2025).

Medical Service Quality

Medical service quality is widely recognized as one of the most complex constructs in service management literature, given its direct association with human health and life, which inherently entails higher perceived risk and uncertainty than most other services (Gao et al., 2024). Over time, the conceptualization of healthcare service quality has evolved from traditional medical frameworks toward more comprehensive perspectives that integrate marketing and service management approaches. These perspectives emphasize the patient not merely as a passive recipient of healthcare but as an active participant in the service delivery process (Han et al., 2021). One of the most influential theoretical frameworks for evaluating healthcare quality is Donabedian's (1988) model, which conceptualizes quality through three interrelated

dimensions: structure, process, and outcomes. The structural dimension refers to the material, human, and organizational resources available within healthcare institutions, such as the competence of physicians, the availability of medical equipment, and health information systems. The process dimension concerns how healthcare services are delivered, including diagnostic accuracy, adherence to treatment protocols, and communication between healthcare providers and patients (Mo et al., 2025). The outcome dimension focuses on the outcomes of healthcare services, including improvements in patients' health status, reductions in complications, and patient satisfaction (Al-Nsour, 2013). Despite the emergence of several alternative approaches, the Donabedian model continues to provide a fundamental theoretical foundation for evaluating healthcare quality, particularly in studies that integrate medical and service management perspectives (Al-Nsour, 2024).

Complementing this medical perspective, service management scholars have highlighted the experiential and perceptual dimensions of healthcare service quality. Grönroos (1984) introduced the technical and functional quality model, which distinguishes between the quality of clinical outcomes received by patients (technical quality) and the service quality delivery processes (functional quality). Technical quality concerns the effectiveness of treatment, diagnostic accuracy, and professional competence. In contrast, functional quality encompasses interpersonal aspects of care, such as communication, empathy, responsiveness, and the manner in which healthcare services are delivered. Contemporary research increasingly conceptualizes perceived healthcare quality as a multidimensional construct comprising technical, human, organizational, and psychological components that shape the overall healthcare experience of international patients (Fetscherin & Stephano, 2016). In medical tourism, the perceived quality of healthcare services is particularly critical, as international patients evaluate medical destinations not only on clinical outcomes but also through a comprehensive assessment of their overall treatment experience. Empirical studies indicate that international patients assess healthcare service quality through several indicators, including treatment safety, efficiency of medical procedures, reliability of outcomes, and the level of empathy and personalized care provided by medical staff. Trust in healthcare providers and the ability of medical personnel to communicate effectively across cultural and linguistic barriers also play crucial roles in shaping perceptions of healthcare quality (Elgarhy & Alharethi, 2024). Consequently, medical tourists' decisions are influenced by a broader evaluation of the healthcare environment in the host destination, including perceptions of safety, transparency of medical information, ease of procedures, respect for patient privacy, and treatment costs (Aboalganam, 2024; Rauf et al., 2024). High levels of perceived service quality have been shown to enhance trust, reduce perceived risks, and ultimately influence patients' behavioral intentions, including destination selection, revisit intentions, and recommendations to others (Khan et al., 2023).

In this regard, healthcare service quality represents a fundamental pillar in strengthening Jordan's competitive position as a leading destination for medical tourism at both regional and international levels (Gao et al., 2024). Over the past decades, Jordan has developed a strong reputation in the healthcare sector due to the presence of highly qualified medical professionals, advanced healthcare infrastructure, and the adoption of internationally recognized accreditation standards by many hospitals and medical centers. These factors have significantly enhanced the credibility of Jordanian healthcare institutions and increased the confidence of both domestic and international patients in the quality of services provided.

The literature consistently emphasizes that healthcare service quality is among the most influential determinants shaping patients' decisions when selecting medical tourism destinations, as perceptions of care quality and the professional competence of healthcare providers directly affect patient satisfaction and trust in healthcare institutions (Rahman et al., 2022). Jordan's healthcare sector has undergone significant development, supported by a highly skilled medical workforce, continuous technological advancement in medical equipment, and the expansion of specialized hospitals and healthcare facilities. Moreover, many Jordanian hospitals have obtained international accreditation from globally recognized organizations such as the Joint Commission International (JCI) and the Health Care Accreditation Council (HCAC), which strengthens international confidence in the quality and safety of healthcare services provided in the country (Al-Ababneh, 2020). Importantly, healthcare service quality extends beyond clinical competence to include broader dimensions of patient-centered care, such as effective communication between healthcare providers and patients, responsiveness to patient needs, the efficiency of nursing services, and the provision of a safe therapeutic environment (Abdul-Rahman et al., 2023).

These elements collectively enhance the patient experience, increase patient satisfaction, and encourage positive behavioral outcomes, such as repeat visits and referrals to other medical tourists (Abdullah et al., 2023). The relatively high quality of therapeutic services in Jordan, combined with treatment costs that are competitive with those of many developed healthcare systems, has played a crucial role in attracting international patients, particularly from the Middle East and North Africa. Patients travel to Jordan to receive specialized medical treatments across various fields, including cardiac surgery, orthopedic procedures, ophthalmology, cosmetic surgery, and rehabilitation medicine.

Empirical evidence suggests that the high level of medical expertise and the quality of healthcare services available in Jordan are among the most influential factors shaping patients' decisions to select the country as a preferred medical tourism destination (Shriedeh & Ghani, 2019). Accordingly, therapeutic service quality represents a central determinant of Jordan's competitiveness within the global medical tourism market.

Recent statistics further confirm Jordan's sustained attractiveness as a medical tourism destination. The Jordan Tourism Board reports that the number of medical and wellness tourism visitors reached approximately 224,740 in 2024, and 52,500 were recorded during the first half of 2025, reflecting continued demand for therapeutic services in regional markets (TTN Worldwide, 2025). In terms of healthcare capacity, the Jordanian health system comprises approximately 120 hospitals with nearly 15,999 beds, including 70 private hospitals with 5,529 beds, providing a robust operational base for serving international patients (Ministry of Health, 2024). Furthermore, the expansion of international accreditation within the healthcare sector—where seven hospitals have obtained Joint Commission International (JCI)

accreditation and numerous facilities are accredited by HCAC—serves as an important signal of quality assurance and patient safety for international medical tourists (Tamimi et al., 2024).

Purchase Intention of International Tourists

In studies of international medical tourism, purchase intention is frequently used as a proxy for actual purchase decisions because it is a more feasible and measurable indicator of potential consumer behavior. Purchase intention reflects an individual's willingness or likelihood to obtain a specific service in the future and is widely recognized as a strong predictor of actual behavior in both consumer behavior and healthcare service research (Meng et al., 2023). This concept serves as an important link between individuals' perceptions and evaluations, on the one hand, and their actual behavioral decisions, on the other (Demir et al., 2025). Behavioral frameworks such as the Theory of Planned Behavior (TPB) emphasize that behavioral intention constitutes the most immediate determinant of actual behavior, as it reflects individuals' readiness to perform a particular action based on their attitudes, perceived social norms, and perceived behavioral control (Putra et al., 2024). Consequently, purchase intention has become a widely adopted construct for predicting future healthcare consumption and medical travel decisions (Yilmaz et al., 2021).

Within the context of medical tourism, the concept of purchase intention assumes greater complexity compared with traditional tourism or other consumer services. The decision is not limited to purchasing a single product or service; rather, it involves selecting an integrated healthcare system that includes the treatment destination, hospital, physician, and supporting healthcare services, often within a different cultural and linguistic environment (Zhong et al., 2021). As a result, international patients typically undergo a complex decision-making process that involves extensive information search, evaluation of healthcare quality, assessment of perceived risks, comparison of treatment costs, and consideration of alternative medical destinations before making a final treatment decision. Because these processes occur before the actual treatment stage, measuring the real purchase decision during data collection is often difficult. Therefore, purchase intention provides a more appropriate construct for capturing patients' behavioral tendencies during the evaluation and planning stages of medical travel (Gao et al., 2024). In medical tourism literature, purchase intention is generally conceptualized as a multidimensional behavioral construct comprising several interconnected outcomes, such as the intention to select a particular medical destination, the intention to revisit the destination for future treatment, and the intention to recommend the destination to others (Esfandiari & Hadinejad, 2026). These behavioral outcomes collectively reflect the degree of confidence and trust that patients place in healthcare providers and treatment facilities (McCartney & Wang, 2024).

Empirical studies indicate that international patients' intentions to seek treatment abroad are strongly influenced by perceived healthcare service quality, trust in medical professionals, destination reputation, and expected treatment outcomes (Fetscherin & Stephano, 2016; Khan et al., 2023). Medical tourism decisions are typically characterized as high-involvement and high-risk, as they entail potential health, psychological, and financial consequences (Rauf et al., 2024). The high perceived risk encourages international patients to conduct intensive information searches, compare alternative treatment options, and rely heavily on external sources such as prior patient experiences, reputation signals, and institutional credibility (Al-Nsour et al., 2021). Consequently, purchase intention becomes highly sensitive to the perceived quality of the overall treatment experience rather than merely the final medical outcomes (Rauf et al., 2024; Seow et al., 2024).

Furthermore, existing research suggests that the relationship between perceived service quality and purchase intention is not necessarily direct or linear. Instead, it is often influenced by several mediating and contextual factors, such as patient satisfaction, trust in healthcare providers, and perceptions of medical staff competence (Lee et al., 2021). When international patients perceive high service quality, combined with a strong sense of security and trust in healthcare institutions, they are more likely to exhibit positive behavioral responses, including intentions to revisit medical destinations and recommend them to others (Wong et al., 2024). This finding reinforces the notion that purchase intention emerges from a complex interpretive process involving multiple psychological and experiential factors (Al-Nsour & Al-Sahli, 2024). In the Jordanian context, medical tourists' purchase intention appears to be shaped by several overlapping factors, including the country's medical reputation, the perceived quality of healthcare services, the ease of administrative procedures, and the professional competence of medical staff (Al-Nsour & Al-Sahli, 2024).

Some studies have also highlighted revisit intention as a key indicator of the long-term success and sustainability of medical tourism destinations (Al-Nsour et al., 2025). Despite these contributions, the literature still lacks sufficient empirical models that comprehensively explain how perceived healthcare quality translates into purchase intention, particularly through the influence of human-related factors such as medical staff competence. Accordingly, further research is required to develop integrated explanatory models that clarify the mechanisms through which service quality perceptions are transformed into positive behavioral intentions among international medical tourists (Aladwan et al., 2024).

Medical Staff Efficiency

The conceptual overlap between human resource efficiency and medical service quality has been widely discussed in healthcare management literature. Addressing this overlap requires a clear distinction between the two constructs from both theoretical and methodological perspectives (Aiken et al., 2018). Human resource efficiency refers to the level of competencies, professional skills, clinical expertise, training, and performance capabilities possessed by healthcare personnel that enable them to perform their roles effectively within healthcare organizations (Al-Nsour, 2019). In contrast, medical service quality reflects the overall standard of healthcare delivered to patients and the extent to which healthcare services meet recognized quality dimensions such as patient safety, effectiveness of treatment, accessibility, and continuity of care (Lake et al., 2019). Accordingly, human resource efficiency should be conceptualized as a determinant or

influencing factor of healthcare service quality rather than a component of it. From a methodological perspective, empirical research typically maintains this distinction by treating human resource efficiency as an independent variable that influences healthcare service outcomes, while therapeutic healthcare service quality is treated as a dependent variable.

Separate measurement indicators are applied to each construct to reduce conceptual overlap and improve analytical clarity (Aiken et al., 2018). Human resource efficiency may be assessed through indicators such as staff competence, professional training, productivity, and continuous professional development, whereas healthcare service quality is commonly evaluated through indicators including patient safety outcomes, treatment effectiveness, and patient satisfaction (Ramar et al., 2025). This conceptual separation allows researchers to better analyze how workforce capabilities influence healthcare service outcomes and organizational performance within healthcare systems (Lake et al., 2019).

Within this framework, medical staff competence represents a key dimension of human resource efficiency in healthcare institutions. Medical competence refers to an integrated combination of scientific knowledge, clinical expertise, professional skills, behavioral abilities, and cumulative experience possessed by physicians, nurses, and healthcare technicians that enables them to provide safe and effective treatment services consistent with professional and ethical standards (World Health Organization, 2024). Importantly, medical competence extends beyond the technical aspects of diagnosis and treatment to include interpersonal communication skills, empathy toward patients, responsiveness to patient needs, and the ability to work effectively within multidisciplinary healthcare teams (Khaleel et al., 2022). These competencies play a crucial role in strengthening patients' trust and shaping their perceptions of healthcare service quality. Recent research confirms that higher levels of medical staff competence contribute significantly to improving treatment outcomes, reducing medical errors, and enhancing patient safety within healthcare institutions (Al-Nsour, 2019).

These improvements are reflected in increased patient satisfaction and stronger behavioral intentions toward healthcare providers, including willingness to revisit and recommend healthcare institutions to others (Mikulić et al., 2021). In the context of medical tourism, the competence of medical personnel becomes even more critical, as international patients often rely heavily on the professional reputation of physicians and hospitals when deciding to travel abroad for treatment (Zhong et al., 2021). This reliance is particularly important in situations characterized by cultural, linguistic, and institutional differences that may increase perceived uncertainty among international patients (Yilmaz et al., 2021). Empirical studies indicate that competent medical staff not only enhance the perceived quality of treatment services but also play an important role in translating perceptions of service quality into positive behavioral outcomes among international patients, including purchase intention and destination loyalty (Naqrash et al., 2025). Consequently, the efficiency and competence of medical personnel represent strategic variables within healthcare performance evaluation models, particularly in competitive healthcare environments seeking to position themselves as leading destinations for medical tourism, such as Jordan (Alawneh et al., 2025).

The importance of human resource efficiency is clearly reflected in the healthcare workforce structure in Jordan. According to national statistics, the density of physicians in Jordan reaches approximately 31.7 physicians per 10,000 people, while the density of nurses is approximately 37.5 per 10,000 people (Ministry of Health, 2022). These levels support the healthcare sector's capacity to deliver treatment services based on high levels of clinical expertise and professional competence. They also help explain the strong regional reputation of Jordanian medical personnel, particularly in managing complex medical cases and addressing the needs of patients from diverse cultural backgrounds (World Health Organization, 2024). From a broader economic and tourism perspective, the growing role of healthcare services is also reflected in Jordan's tourism performance. Reports from the Ministry of Tourism and Antiquities indicate that total tourism revenues reached approximately JD 5.132 billion in 2024, with medical treatment activities contributing to the expansion of tourism-related economic activities in recent years (Ministry of Tourism and Antiquities, 2025). These trends suggest that medical tourism represents a relatively resilient component of the tourism value chain, particularly during periods of economic uncertainty in international tourism markets. In this context, medical service quality in Jordan should not be viewed solely as a technical outcome of clinical performance but rather as the result of an integrated healthcare system in which institutional accreditation, healthcare capacity, workforce competence, and patient experience interact to create a sustainable competitive advantage in the regional medical tourism market (Naqrash et al., 2025).

Developing Research Hypotheses

The Impact of the Medical Services Quality on the Purchase Intention of International Tourists

Numerous empirical studies have demonstrated a positive relationship between the perceived quality of medical services and patients' purchase intentions in medical tourism contexts. High levels of perceived service quality enhance patients' confidence in healthcare providers and reduce perceived risks associated with seeking treatment abroad, thereby increasing the likelihood of making a medical travel decision (Yilmaz et al., 2021). In particular, research conducted in regional medical tourism destinations, including Jordan, indicates that factors such as the accuracy of diagnosis, the efficiency of medical procedures, and the level of human care and attention provided by healthcare professionals represent key determinants influencing purchase intentions among patients from Arab countries (Farid et al., 2025; Raoofi et al., 2024). However, the relationship between healthcare service quality and purchase intention is not always direct.

Several studies suggest that service quality may influence purchase intention indirectly through mediating variables such as patient satisfaction, destination image, and trust in healthcare institutions (Abubakar & Ilkan, 2016; Chahal & Kumari, 2012). From this perspective, international patients' decisions to seek treatment abroad are shaped by a broader evaluation process that includes not only clinical quality but also additional contextual factors such as treatment cost, the physical healthcare environment, ease of travel, and the availability of logistical support services. Moreover, some empirical evidence indicates that the direct impact of medical service quality on purchase intention may become

insignificant in certain contexts where healthcare providers offer relatively similar levels of service quality. In such situations, international patients may rely on alternative signals when selecting medical destinations, including physician reputation, institutional credibility, and destination attractiveness (Ye et al., 2011; Malkawi et al., 2025). These findings highlight the importance of complementary factors—particularly those related to the professional reputation and competence of physicians—in motivating purchasing behavior and shaping international patients' medical travel decisions.

H1: Medical service quality positively influences purchase intention in medical tourism.

The Impact of the Jordanian Medical Service Quality on the Medical Staff Competence

Several empirical studies have reported a positive relationship between medical service quality and the competence of medical staff. In particular, local studies suggest that the implementation of comprehensive healthcare quality standards—such as clinical risk management systems and patient-centered care practices—can contribute to improving the professional performance and competence of medical personnel (Naqrash et al., 2025). For example, research conducted in internationally accredited private hospitals found that the adoption of integrated quality management systems positively influences medical staff competence by encouraging adherence to standardized medical procedures, reducing clinical errors, and strengthening multidisciplinary collaboration among healthcare teams (Raoofi et al., 2024).

However, the relationship between medical service quality and medical staff competence remains conceptually complex and has produced mixed empirical findings. Some scholars argue that the relationship may operate in the opposite direction, as medical staff competence constitutes a fundamental input in achieving high-quality healthcare services rather than being an outcome of service quality itself (Chahal & Kumari, 2012). From this perspective, attributing improvements in staff competence solely to healthcare quality initiatives may lead to misleading interpretations, particularly in healthcare systems characterized by limited resources or high patient volumes. In such contexts, the implementation of strict quality standards may increase administrative workload and procedural requirements for healthcare professionals, potentially restricting their professional flexibility and negatively affecting perceptions of their competence (Ye et al., 2011). Furthermore, several studies have reported inconclusive or insignificant relationships between treatment service quality and the competence of medical staff, especially in healthcare institutions where professional performance relies heavily on the accumulated experience and expertise of physicians and nurses (Mikulić et al., 2021). In these cases, the professional competence of healthcare workers is largely shaped by factors such as continuous medical education, long-term clinical experience, and established professional cultures, which may operate independently of formal institutional quality policies. Therefore, the relationship between healthcare service quality and medical staff competence should be viewed as a dynamic and potentially reciprocal interaction rather than a simple linear relationship. This perspective highlights the importance of examining contextual and organizational factors that may influence how healthcare quality systems interact with workforce capabilities within healthcare institutions.

H2: Medical service quality positively influences medical staff competence.

The Impact of Medical Staff Competence on Purchase Intention of International Tourists

Some studies suggest that the competence of medical staff does not necessarily represent a decisive factor in shaping purchase intention among international medical tourists. In many cases, medical competence is perceived as a basic requirement rather than a distinguishing attribute, particularly in countries that already enjoy a strong reputation for highly qualified healthcare professionals and advanced educational systems. Under such circumstances, international patients tend to focus more on the overall treatment experience, including aspects such as the hospital's physical environment, the efficiency of administrative procedures, the availability of support services, and the comparative cost of treatment relative to competing destinations. Consequently, the competence of medical staff may be viewed as an implicit or expected attribute that does not significantly differentiate between healthcare providers during the decision-making process (Connell, 2013; Al-Hadid & Al-Salaymeh, 2019). Similarly, several studies have reported that the influence of medical staff competence on purchase intention may occur indirectly rather than through a direct relationship. In these cases, the competence of healthcare professionals contributes to strengthening mediating variables such as patient trust, satisfaction, and the perceived image of the medical destination, which in turn influence patients' behavioral intentions toward seeking treatment abroad (Yilmaz et al., 2021). In contrast, other studies—particularly recent research conducted in the Jordanian context—emphasize the critical role of medical staff competence in shaping international patients' purchase intentions. Given the high level of perceived risk associated with traveling abroad for medical treatment, international patients often rely on signals related to physicians' professional expertise, clinical experience, and the competence of nursing staff when evaluating healthcare institutions.

For example, the study conducted by Khaleel et al. (2022) found that international patients' awareness of physicians' expertise and the professional competence of nursing staff significantly enhances trust in healthcare providers and reduces uncertainty, thereby positively influencing purchase intention. Similarly, Karsana & Murhadi (2021) reported a direct positive effect of medical staff competence on purchase intention in Jordanian private hospitals. Additional evidence provided by Abu Alhaja et al. (2024) indicates that the professional reputation and sub-specialization of Jordanian physicians represent key competitive advantages for the country in the regional medical tourism market.

Furthermore, a recent study by Al-Nsour (2022) demonstrates that the competence of medical staff contributes to strengthening the international image of Jordanian hospitals, which in turn positively affects medical tourists' purchase intentions and loyalty toward healthcare institutions. Based on the above discussion, the following hypothesis is proposed:

H3: Medical staff competence has a positive effect on purchase intention among international medical tourists.

The Mediator Role of Medical Staff Competence in the Relationship between the Jordanian Medical Service Quality and the Purchase Intention of International Tourists

Several studies have highlighted the mediating role of medical staff competence in the relationship between medical service quality and purchase intention. These studies are based on the premise that the perceived quality of medical services does not automatically translate into positive behavioral intentions among international patients.

Rather, the effect of service quality is often realized through patients' direct interaction with competent medical professionals, where clinical expertise, human interaction, and the establishment of trust become critical elements in shaping patients' perceptions and behavioral responses (Yilmaz et al., 2021). In this perspective, healthcare service quality represents a structural input within the healthcare system, while medical staff competence functions as an explanatory mechanism that transfers the influence of perceived service quality into positive behavioral outcomes such as revisit intentions and recommendations. Empirical evidence further suggests that the competence of medical personnel enhances international patients' understanding of the value of healthcare services and reduces the perceived risks associated with seeking treatment abroad. By strengthening clinical trust and confidence in healthcare providers, competent medical staff can significantly increase patients' willingness to travel for treatment and their future purchase intentions (Mikulić et al., 2021). In the Jordanian context, previous studies indicate that several core dimensions of medical service quality—such as reliability, empathy, and assurance—are closely linked to the performance of physicians and nursing staff. This observation supports the assumption that medical staff competence may function as an intermediary mechanism through which service quality influences patients' behavioral intentions (Shriedeh & Ghani, 2017).

However, other scholars have raised conceptual concerns regarding the mediating role of medical staff competence. Some studies argue that the competence of medical personnel should be treated as an integral component of healthcare service quality rather than as an independent mediating variable (Chahal & Kumari, 2012). From this perspective, introducing medical staff competence as a mediator may lead to construct overlap, thereby weakening the explanatory power of causal models examining service quality and behavioral outcomes (Al-Qahtani & Al-Nsour, 2025).

Empirical evaluations of private hospitals in Jordan also suggest that elements such as physicians' professional skills, nurses' behavior, and response speed are often included within service quality measurements themselves, which means that their influence on purchase intention may occur directly through perceived service quality rather than through a separate mediating pathway (Alkhatib & Aloqaily, 2024). Furthermore, some studies have reported weak or insignificant mediating effects of medical staff competence, even when healthcare service quality demonstrates a direct influence on purchase intention. This may occur because other explanatory mediators—such as destination image, institutional trust, or perceived reputation—play a stronger role in shaping medical tourists' behavioral intentions (Demir, 2025). These findings suggest that international patients' decisions are influenced not only by clinical interactions with healthcare professionals but also by broader contextual factors, including the international reputation of medical institutions, treatment costs, ease of travel, and the availability of supporting services.

Despite these differing perspectives, examining the mediating role of medical staff competence remains important for understanding the mechanisms through which healthcare service quality influences international patients' behavioral intentions. Accordingly, the following hypothesis is proposed:

H4: Medical staff competence mediates the relationship between medical service quality and purchase intention among international medical tourists.

METHODOLOGY

1. **Research Design:** Research design refers to the structured framework that guides the process of data collection, measurement, and analysis to address the research problem effectively and enable the generalization of findings from the sample to the target population (Pandey & Pandey, 2015). In this study, a descriptive-causal research design was adopted to examine the relationships between the study variables. This design allows the researcher to describe the characteristics of the phenomenon under investigation and to analyze the causal relationships between variables. Specifically, the study aims to investigate the effect of medical service quality in Jordanian private hospitals on international medical tourists' purchase intention, while examining the mediating role of medical staff competence in this relationship.

2. **Research Approach:** According to Malhotra (2021), research approaches can generally be classified into qualitative and quantitative methods. Qualitative research focuses on gaining an in-depth understanding of phenomena through methods such as interviews, focus groups, and open-ended questions. In contrast, quantitative research aims to analyze relationships among variables using numerical data and statistical techniques. Since the primary objective of this study is to collect measurable data from a large group of respondents and test the relationships between variables, a quantitative research approach was employed. This approach involves collecting data through structured questionnaires, converting responses into numerical values, and applying statistical analyses to test the study hypotheses and draw conclusions (Malhotra, 2021).

3. **Research Population:** The population of the study consists of all international medical tourists receiving treatment in private hospitals in Jordan. According to the Jordanian Ministry of Health, the number of medical tourists reached approximately 92,500 visitors as of May 2025 (Ministry of Health, 2025). Based on standard sample size calculation formulas with a 95% confidence level, a 5% margin of error, and a population proportion of 50%, the recommended minimum sample size for this population is 383 respondents (calculator.net).

4. **Sampling Method:** To ensure representativeness, the study employed a simple random sampling technique, which is one of the most widely used probability sampling methods. In this method, each member of the population has an equal

chance of being selected, thereby reducing sampling bias and improving the reliability and validity of the results (Malhotra, 2021). A total of 383 medical tourists were randomly selected from patients receiving treatment in Jordanian private hospitals. Data regarding international patients were obtained through the Foreign Patients Offices located in the hospitals, which are supervised by the Jordanian Ministry of Health. These offices facilitated the identification and counting of medical tourists during the data collection period. All distributed questionnaires were successfully returned, resulting in a 100% response rate (383 questionnaires) used for final analysis. The data collection period took place in June 2025, which coincided with a period of increased demand for medical services in Jordan. Several factors contributed to this increase, including seasonal growth in international tourism during the summer months, school and university holidays in many source markets, and the return of Jordanian expatriates to the country during the summer season.

5. Unit of Analysis: The unit of analysis in this study consists of individual international medical tourists receiving treatment in Jordanian private hospitals. Through coordination with the Foreign Patients Offices in hospitals, questionnaires were distributed to medical tourists whose health conditions allowed them to participate in the survey and respond to the questionnaire items.

6. Data Collection Sources: The study relied on two main sources of data. Secondary data were obtained through a comprehensive review of the relevant literature, including academic books, peer-reviewed journal articles, university theses, official reports, and statistical data published by local and international institutions related to medical tourism and healthcare services. Primary data were collected through a structured questionnaire specifically developed to measure the study variables and to obtain responses directly from international medical tourists receiving treatment in Jordanian private hospitals.

7. Measurement Scale: The study variables were measured using a five-point Likert scale, which is widely used in social science research to measure attitudes and perceptions. The scale ranged from 1 (very low) to 5 (very high) to indicate the level of agreement with each statement. The Likert scale was used to measure the independent variable (medical service quality), the dependent variable (purchase intention), and the mediating variable (medical staff competence).

8. Research Instrument: The primary data collection instrument used in this study was a structured questionnaire. The questionnaire consisted of a series of statements designed to measure respondents' perceptions regarding the study variables. The survey was administered to medical tourists receiving treatment in the selected private hospitals. In some cases, respondents requested to complete the questionnaire at a later time; therefore, the researcher also provided electronic versions of the questionnaire through WhatsApp, Messenger, and email. The questionnaire was developed using Google Forms, allowing for easier distribution and data collection. To ensure the validity and clarity of the measurement instrument, the initial questionnaire was reviewed by a panel of academic and professional experts in healthcare management and tourism studies. Their feedback was used to refine the questionnaire items and ensure that the instrument accurately reflects the study constructs and research objectives.

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

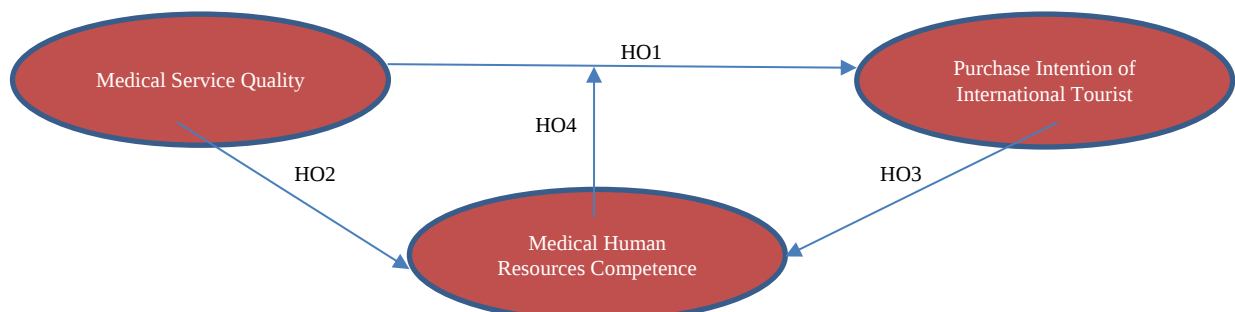


Figure 1. The Conceptual Model

Figure 1 illustrates the proposed research model, which conceptualizes medical service quality as the independent variable, purchase intention as the dependent variable, and human resource competencies as the mediating variable. This model is theoretically grounded in the service marketing and healthcare management literature, which consistently emphasizes that perceived service quality is one of the most influential determinants of consumer behavior and purchasing decisions. Previous studies in service marketing demonstrate that customers' perceptions of the quality of services provided significantly influence their behavioral intentions, including purchase intention and the intention to continue using a particular service provider (Farid et al., 2025; Parasuraman et al., 1988).

Within the healthcare context, the perceived quality of medical services plays a crucial role in strengthening patients' trust in healthcare institutions and increasing the likelihood that they will seek services from the same provider in the future. High levels of service quality contribute to improving patients' confidence in healthcare providers, which ultimately enhances their willingness to utilize healthcare services and recommend them to others (Kotler & Keller, 2016). Therefore, medical service quality can be considered a primary factor influencing international patients' behavioral intentions when selecting medical tourism destinations. At the same time, healthcare services are characterized by a high degree of human interaction, which makes human resource competencies a critical factor in translating service quality into positive patient experiences.

The competence of healthcare professionals—including their clinical expertise, communication skills, and professional behavior—plays a vital role in shaping patients' perceptions of healthcare quality and their overall treatment experience. Effective interaction between medical staff and patients enhances trust, reduces perceived risks, and strengthens patients'

confidence in the healthcare institution (Tran et al., 2025). Accordingly, human resource competencies may function as a mediating mechanism that explains how perceived medical service quality influences patients' purchase intentions. Through their professional competence and interaction with patients, healthcare personnel contribute to transforming perceived service quality into positive behavioral outcomes, such as the intention to seek treatment, revisit the healthcare institution, or recommend it to others. This mediating role is particularly important in medical tourism contexts, where international patients rely heavily on the competence and professionalism of healthcare staff when making treatment decisions in foreign destinations.

DESCRIPTIVE FREQUENCIES OF THE RESEARCH MODEL

Table 1 shows the descriptive statistics that determine respondents' perceptions regarding the study variables, including Jordanian medical service quality, purchase intention, and medical staff competence.

1. Jordanian Medical Services Quality (Independent Variable): The variable was measured using nine items. The results indicate that seven items were rated at a very high level and two items at a high level. The overall mean score was 4.309 (SD = 0.861), indicating a very high perceived level of medical service quality among international medical tourists. Approximately 82.7% of respondents expressed agreement with the statements related to this construct, suggesting that respondents generally perceive Jordanian medical services as highly reliable and effective.

2. Purchase Intention (Dependent Variable): Purchase intention was measured using four items. The findings show that three items were rated at a high level, while one item (B1) reached a very high level. The variable recorded a mean score of 4.165 (SD = 0.906), reflecting a high level of purchase intention among respondents. About 78.4% of participants expressed positive agreement with the items measuring their intention to seek treatment in Jordan.

3. Medical Staff Competence (Mediating Variable): Medical staff competence was assessed using four items, with two items rated at a high level and two items at a very high level. The variable achieved a mean score of 4.265 (SD = 0.787), indicating a very high perception of the competence of Jordanian medical personnel. Approximately 84.3% of respondents agreed with the statements measuring this construct.

Overall, the descriptive analysis indicates high to very high perceptions across all study variables, with relatively moderate standard deviations, suggesting acceptable variability in respondents' evaluations.

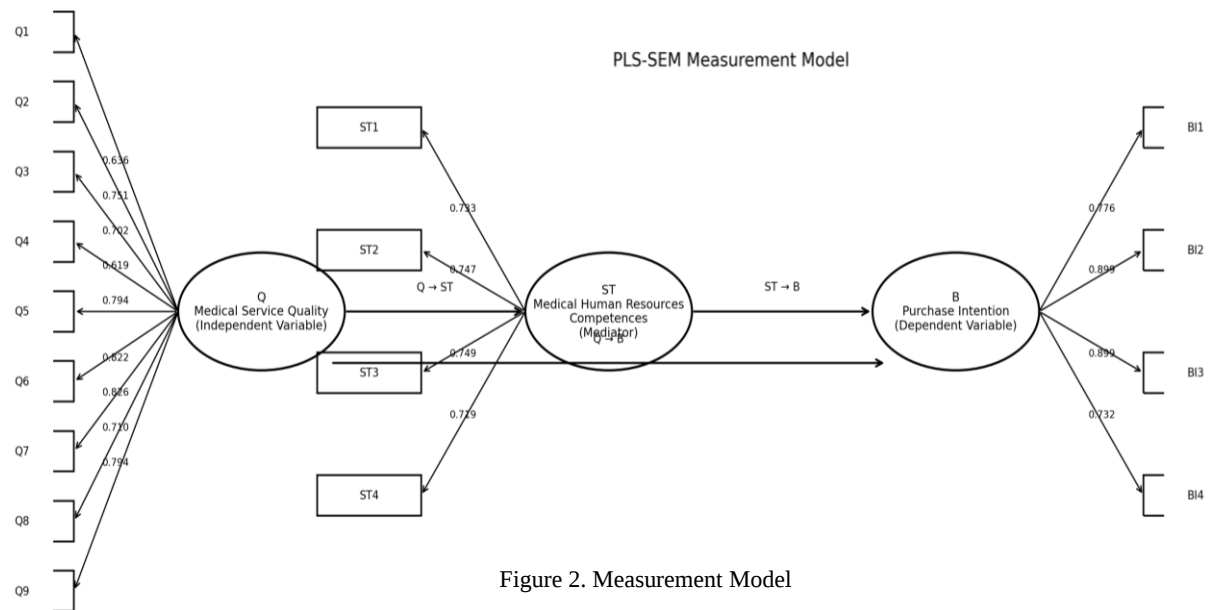
Table 1. Descriptive Statistics for the IV, DV, and Mediator

Item	Responses %					S. D	Mean	Application Degree
	VH	H	M	L	VL			
Q1	50.6	30.3	14.6	1.1	3.4	0.98	4.24	Very High
Q2	59.6	24.7	13.5	2.2	0	0.81	4.42	Very High
Q3	67.4	25.8	6.7	0	0	0.61	4.61	Very High
Q4	38.2	33.3	13.5	6.7	2.2	0.99	4.04	High
Q5	47.2	30.3	12.4	4.5	0	0.86	4.31	Very High
Q6	56.2	29.2	10.1	3.4	1.1	0.88	4.36	Very High
Q7	42.7	39.3	12.4	4.5	1.1	0.90	4.18	High
Q8	50.6	36	9	3.4	1.1	0.86	4.31	Very High
Q9	52.8	30.3	12.4	4.5	0	0.86	4.31	Very High
Medical Service Quality	51.7	31.02	11.62	3.367	0.989	0.861	4.3089	Very High
B1	47.2	30.3	20.2	1.1	1.1	0.89	4.21	Very High
B2	41.6	38.2	15.7	4.5	0	0.86	4.17	High
B3	42.8	37	15.7	4.5	0	0.86	4.17	High
B4	44.9	31.5	15.7	5.6	2.2	1.016	4.11	High
Purchase Intention	44.125	34.25	16.825	3.925	0.825	0.9065	4.165	High
ST1	46.1	30.3	16.9	4.5	2.2	1.002	4.13	High
ST2	65.2	23.6	6.7	3.4	1.1	0.86	4.48	Very High
ST3	60.7	22.5	11.2	5.6	0	0.90	4.36	Very High
ST4	25.8	62.9	6.7	3.4	1.1	0.75	4.09	High
Staff Competence	49.45	34.825	10.375	4.225	1.1	0.878	4.265	Very High

Medical Service Quality, Purchase Intention, and Human Resources Competencies Validity and Reliability Individual Item Validity (Outer Loadings)

Figure 2 demonstrates that the individual item validity of the measurement model was evaluated by examining the outer loadings of all items associated with the study constructs. According to Hair et al. (2024), indicator loadings of 0.70 or higher are considered acceptable, as they indicate that the item adequately represents its underlying construct.

The initial assessment included all measurement items across the study variables. However, two items related to the independent variable (Q1 = 0.636 and Q4 = 0.619) recorded loadings below the recommended threshold of 0.70. Consequently, these items were removed from the model to improve the reliability and validity of the measurement structure. After the removal of these items, the measurement model consisted of 17 indicators, while the independent variable retained seven valid items in the final model. The subsequent analysis showed that all remaining indicators achieved higher loadings on their respective constructs than on other constructs, thereby satisfying the requirements for discriminant validity. Overall, the refined measurement model demonstrated improved indicator reliability and confirmed the discriminant validity of the constructs, indicating that the retained items adequately represent their respective variables in the structural model.



Reliability and Convergent Validity of the Measurement Model

Figure 2 illustrates the assessment of the measurement model's internal consistency reliability using Composite Reliability (CR). According to Hair et al. (2021), CR values exceeding 0.70 indicate acceptable reliability, demonstrating that the indicators consistently measure their respective constructs. As presented in Table 2, all study constructs recorded CR values above the recommended threshold of 0.70, confirming a satisfactory level of internal consistency among the measurement items. In addition, convergent validity was evaluated using the Average Variance Extracted (AVE). According to Ringle et al. (2024), an AVE value of 0.50 or higher indicates that a construct explains at least half of the variance of its indicators. The results reported in Table 2 show that the AVE values for all study variables exceed the minimum recommended value of 0.50, indicating adequate convergent validity for the measurement model. Furthermore, rho_A reliability was calculated as an additional measure of construct reliability. Statistical guidelines suggest that rho_A values greater than 0.70 indicate acceptable reliability (Panahi et al., 2022). The results presented in Table 2 demonstrate that all constructs achieved rho_A values above this threshold. Overall, the findings indicate that the measurement model meets the recommended criteria for internal consistency reliability and convergent validity, confirming that the constructs used in the study are statistically reliable and valid for further structural model analysis.

Table 2. Cross Loading, CR, AVE, CR & VIF

Factor	Items	Cross Loading	CR	AVE	Rho_A
Medical Service Quality	Q1	0.636	0.879	0.596	0.866
	Q2	0.751			
	Q3	0.702			
	Q4	0.619			
	Q5	0.794			
	Q6	0.822			
	Q7	0.826			
	Q8	0.710			
	Q9	0.794			
Purchase Intention	BI1	0.776	0.898	0.688	0.887
	BI2	0.899			
	BI3	0.899			
	BI4	0.732			
Staff Competence	ST1	0.733	0.826	0.543	0.895
	ST2	0.747			
	ST3	0.749			
	ST4	0.719			

Discriminant Validity (Fornell–Larcker Criterion)

Finally, discriminant validity was assessed using the Fornell–Larcker (1981) criterion, which is widely applied in structural equation modeling to evaluate the distinctiveness of latent constructs. This method involves comparing the square root of the Average Variance Extracted (AVE) for each construct with the correlations between that construct and other constructs in the model. According to Fornell & Larcker (1981), the square root of the AVE for each latent variable should be greater than its correlations with other latent variables. This condition indicates that the construct explains more variance in its own indicators than it shares with other constructs in the model. As presented in Table 3, the square root of the AVE

for each study variable exceeds the corresponding inter-construct correlation coefficients. These results confirm that each construct demonstrates stronger relationships with its own measurement items than with other constructs, thereby satisfying the requirements for discriminant validity. Overall, the findings indicate that the study constructs—medical service quality, medical staff competence, and purchase intention—are empirically distinct from one another. This confirms the adequacy of the measurement model and supports its suitability for subsequent structural model analysis.

Table 3. Fornell-Larcker Criterion

Construct	Medical Service Quality	Purchase Intention	Staff Competence
Medical Service Quality	0.772	0.756	0.731
Purchase Intention	0.725	0.830	0.642
Staff Competence	0.731	0.642	0.737

RESULTS

Direct Impact Analysis

Table 4 presents the results of the structural model used to test the direct hypotheses while considering the mediating variable (medical staff competence). The relationships between the study variables were evaluated using the path coefficient (β), standard deviation (STDEV), t-value, and p-value, which determine the strength and statistical significance of each hypothesized relationship. H1: The first hypothesis examined the relationship between Jordanian medical service quality and purchase intention among international tourists. The results show strong support for this hypothesis. The path coefficient ($\beta = 0.899$) indicates a strong positive relationship between the two variables. In addition, the t-value (5.082) exceeds the critical value of 1.96, and the p-value is less than 0.001, confirming that the relationship is statistically significant at $\alpha \leq 0.05$. These findings suggest that the perceived quality of medical services is a key determinant influencing international tourists' intention to seek treatment in Jordan. H2: The second hypothesis tested the relationship between Jordanian medical service quality and medical staff competence.

The results provide strong support for this hypothesis as well. The path coefficient ($\beta = 0.899$) indicates a strong positive relationship between the two variables. The t-value (4.196) exceeds the critical value of 1.96, while the p-value (0.001) confirms the statistical significance of the relationship. This finding indicates that higher levels of perceived medical service quality are associated with greater perceived competence of medical staff in the studied hospitals. H3: The third hypothesis examined the relationship between medical staff competence and purchase intention among international medical tourists. The results show that this relationship is not statistically significant. The path coefficient ($\beta = 0.115$) indicates a weak relationship, while the t-value (0.779) is below the critical threshold of 1.96. Furthermore, the p-value (0.838) exceeds the significance level of 0.05. Accordingly, H3 is not supported, suggesting that the perceived competence of medical staff does not directly influence the purchase intention of international medical tourists. To further assess the strength of the relationships in the model, effect size (f^2) was calculated based on Cohen's (1988) criteria (0.02 = small, 0.15 = medium, 0.35 = large). The results indicate that Jordanian medical service quality has a substantial effect on both medical staff competence and purchase intention, while the effect of medical staff competence on purchase intention is very weak, which is consistent with the insignificant path identified in H3.

In addition, the coefficient of determination (R^2) was used to evaluate the explanatory power of the model. The results show that medical service quality explains 68.4% of the variance in medical staff competence ($R^2 = 0.684$), indicating a strong explanatory capacity for this relationship. Similarly, the combined effect of medical service quality and medical staff competence explains 54.8% of the variance in international tourists' purchase intention ($R^2 = 0.548$).

This value is considered acceptable and indicates a moderate level of explanatory power within marketing and tourism research contexts. Overall, the structural model results confirm the strong influence of medical service quality on both medical staff competence and purchase intention, while the direct effect of medical staff competence on purchase intention appears to be statistically insignificant in this study context.

Table 4. Direct Path Analysis

H	Relationship	Std. Beta	T-Value	P-Value	f^2	Effect Size	Decision	R^2	Q^2
H1	Quality $\rightarrow$ Purchase Intention	0.899	5.082	0.000	0.84	High	Supported	0.548	0.490
H2	Quality $\rightarrow$ Staff Competence	0.899	4.196	0.001	2.17	Very High	Supported	0.684	---
H3	Staff Competence $\rightarrow$ Purchase Intention	0.115	0.779	0.838	0.007	Very Weak	Not Supported		0.491

Significant at $P_0^* < 0.01$; Significant at $P_0^{**} < 0.05$

Mediation Analysis

This study examined the mediating role of medical staff competence in the relationship between Jordanian medical service quality and international tourists' purchase intention. The mediation analysis was conducted using path analysis within the Structural Equation Modeling framework (PLS-SEM). The bootstrapping technique was applied to test the indirect effects, as it provides a robust method for mediation testing without requiring the assumption of normal data distribution (Hair et al., 2021). Testing indirect effects is essential in studies involving mediating variables, as it allows researchers to determine whether the influence of an independent variable on a dependent variable occurs directly,

indirectly through the mediator, or through a combination of both. The results presented in Table 5 show that the indirect effect of Jordanian medical service quality on international tourists' purchase intention through medical staff competence was ($\beta = 0.114$). However, this effect was not statistically significant, as indicated by the Z-value (0.778) and p-value (0.437), which exceeds the acceptable significance level of $\alpha \leq 0.05$.

These results indicate that the mediating role of medical staff competence cannot be statistically confirmed. In evaluating the mediation decision, the total effect of medical service quality on purchase intention is primarily explained by the direct relationship between the two variables, rather than by the indirect path through the mediating variable. Furthermore, the direct effect of medical staff competence on purchase intention was also found to be statistically insignificant, while the direct effect of medical service quality on purchase intention remained significant.

Accordingly, the results suggest that medical staff competence does not function as a statistically significant mediator in the relationship between medical service quality and purchase intention in the present model. Although the indirect path represents approximately 11.3% of the total effect, its contribution is relatively weak. From an interpretive perspective, these findings imply that international medical tourists base their purchase decisions primarily on their perceptions of overall medical service quality, rather than on direct evaluations of medical staff competence. Elements such as efficient administrative procedures, effective coordination, rapid service response, and professional service delivery appear to play a more prominent role in shaping purchase intentions. Nevertheless, medical staff competence may still act as a supporting mechanism that enhances the overall perception of service quality, even though it does not independently influence purchasing decisions. This finding is consistent with the nature of medical tourism as a high-involvement service, where patients prioritize the overall quality of healthcare services when selecting treatment destinations, while the competence of medical staff contributes indirectly by reinforcing trust and confidence in the healthcare system.

Table 5. Direct Path Analysis

H	Relationship	Std. Beta	T-Value	P-Value	Decision	R ²	Q ²	Indirect B	Direct B	Total
H4	Quality $\rightarrow$ Purchase Intention $\rightarrow$ Medical Staff Competence	0.114	0.778	0.437	Not Supported	0.374	0.271	0.114	0.899	1.013

Predictive Relevance and Model Fit Assessment

Finally, the predictive relevance of the research model was evaluated using the Stone–Geisser Q² value. According to Chin (2010), a model demonstrates predictive relevance when the Q² value is greater than 0.00. As presented in Table 6, the Q² value for purchase intention of international tourists reached 0.584, indicating a strong predictive capability of the model in explaining variations in the dependent variable. In addition, the overall model fit was assessed using several goodness-of-fit indices based on the PLS-SEM methodology. These indices help determine the extent to which the proposed model adequately represents the observed data. The Standardized Root Mean Square Residual (SRMR) is considered the primary indicator of model fit, where values below 0.08 indicate a satisfactory fit between the model and the data. Furthermore, the d_ULS and d_G indices were used to evaluate the discrepancy between the empirical correlation matrix and the model-implied correlation matrix. The results show that the values of these indicators are lower than their respective critical values (H195), suggesting an acceptable level of model fit. Additionally, the Chi-Square statistic was reported primarily for model comparison purposes. Meanwhile, the Normed Fit Index (NFI) reflects the degree of improvement of the proposed model compared with a null model. According to established guidelines, NFI values above 0.90 indicate a good model fit. Overall, the results of the predictive relevance test and model fit indices confirm that the proposed structural model demonstrates adequate predictive power and a satisfactory level of fit with the observed data, supporting its suitability for interpreting the relationships between the study variables.

Table 6. GOF Value

Variable	Estimated Model	Decision	Q ² (=1-SSE/SSO)
SRMR	≤ 0.08	Acceptable / Unacceptable	0.584
d_ULS	$\leq H195$	acceptable	
d_G	H195	acceptable	
Chi Square	Comparison between models		
NFI	≥ 0.090	Good / Weak	

DISCUSSION

The results of the current study reveal a statistically significant positive effect of the quality of medical services provided in Jordanian hospitals on the purchase intention of international medical tourists. This finding highlights the critical role of healthcare service quality in shaping purchasing behavior within the medical tourism sector. It aligns with the broader health marketing literature, which consistently identifies service quality as a primary determinant influencing international patients' decisions to travel abroad for medical treatment, particularly given the high level of perceived risk associated with healthcare services (Yilmaz et al., 2021; Connell, 2013). In the context of medical tourism, patients' perceptions of service quality extend beyond clinical outcomes alone. International medical tourists evaluate healthcare services through a comprehensive assessment of the treatment experience, including the efficiency of administrative procedures, clarity of communication with healthcare providers, responsiveness of medical staff, and

the overall quality of care throughout the treatment journey. These elements have been shown to significantly enhance patients' confidence and strengthen their purchase intentions when selecting a hospital or medical destination (Abu-Alhaija & Gillespie, 2024). The findings of the present study are also consistent with recent research conducted in the Jordanian healthcare context. Previous studies have emphasized that the quality of medical services represents a major competitive advantage that strengthens the position of Jordanian hospitals in the regional and international medical tourism market. Higher perceived service quality contributes to increased trust in the Jordanian healthcare system and improves the institutional image of hospitals, which in turn positively influences international tourists' purchase intentions. This effect becomes particularly evident when Jordanian healthcare services are compared with alternative medical destinations that may offer higher treatment costs or lower perceived service quality (Al-Nsour, 2024).

The second major finding of the study indicates a significant positive relationship between medical service quality and the competence of medical staff in Jordanian hospitals. This result is consistent with the principles of Total Quality Management (TQM) in healthcare, which suggest that the implementation of quality standards and accreditation systems contributes to improving the professional performance of healthcare personnel. The adoption of structured quality systems helps standardize clinical procedures, enhance adherence to treatment protocols, and foster a culture of continuous improvement and organizational learning within healthcare institutions (Donabedian, 1988; Al-Dmour et al., 2025).

From this perspective, healthcare quality should not be viewed merely as an outcome but rather as an organizational and operational framework that directly influences the competence and professional capabilities of healthcare providers. Evidence from Jordanian hospitals indicates that the adoption of international accreditation systems, such as Joint Commission International (JCI) standards, is strongly associated with improvements in medical staff performance, enhanced coordination among multidisciplinary medical teams, and a reduction in medical errors.

These improvements ultimately contribute to strengthening the perceived competence of healthcare professionals from both patients' and institutional perspectives (Abu Alhaija et al., 2024). Based on these findings, the results suggest that medical service quality functions as an antecedent variable influencing the competence of medical staff.

A healthcare environment that emphasizes quality management practices creates conditions that empower healthcare professionals, enhance their professional skills, and improve the effectiveness of service delivery (Aboalghanam, 2024). Overall, the current study provides empirical support for the theoretical relationships between medical service quality, medical staff competence, and purchase intention within the context of medical tourism. The findings confirm that medical service quality represents a fundamental pillar in shaping the medical experience of international patients. It influences purchase intentions both directly, by enhancing perceptions of healthcare value, and indirectly, by improving the competence and performance of medical staff. Consequently, strengthening service quality remains essential for enhancing the competitive position of Jordanian hospitals in the rapidly expanding global medical tourism market.

On the other hand, the results of the current study indicate no statistically significant direct effect of medical staff competence on the purchase intention of international tourists seeking treatment in Jordanian hospitals. This finding contributes to the ongoing debate in the medical tourism literature regarding the actual role of medical competence in shaping international patients' purchasing decisions. This result is consistent with several previous studies suggesting that in medical destinations with a well-established professional reputation, the competence of medical staff is often perceived as a basic and expected requirement rather than a differentiating factor influencing patients' decisions (Connell, 2013; Al-Sharif et al., 2024). In such contexts, international patients tend to assume that healthcare professionals possess the necessary expertise and qualifications, which reduces the explanatory power of staff competence in predicting variations in purchasing behavior. Furthermore, research in medical tourism indicates that patients' decisions are rarely based on a single factor. Instead, international patients typically evaluate the overall healthcare experience, which includes service quality, administrative efficiency, hospital facilities, ease of procedures, and treatment costs.

Han et al. (2021) argue that broader aspects of the service experience often play a more influential role in shaping behavioral intentions than perceived competence among individual healthcare professionals.

When the medical destination already enjoys a strong reputation and high professional standards, patients may rely more heavily on these broader service attributes when making treatment decisions. Evidence from studies conducted in the Jordanian healthcare context supports this interpretation. Previous research suggests that the strong reputation of Jordanian healthcare professionals reduces international patients' sensitivity to differences in medical staff competence across hospitals, as competence is generally assumed to be consistently high throughout the healthcare system (Karsana & Murhadi, 2021). From a theoretical perspective, the current findings also align with models suggesting that medical staff competence influences purchase intention indirectly rather than directly. In such models, staff competence contributes to strengthening mediating factors such as patient trust, satisfaction, and the perceived image of the hospital or medical destination, which subsequently influence behavioral intentions. Studies have shown that international patients' perceptions of healthcare professionals' competence help build trust and reduce perceived risk associated with medical travel. However, these perceptions may not translate into purchase intention unless they are supported by a comprehensive and satisfactory service experience that meets patients' expectations (Karsana & Murhadi, 2021).

Nevertheless, the results of the current study differ from some previous research that identified a direct influence of medical staff competence on purchase intention, particularly in emerging medical tourism markets or relatively unknown healthcare destinations. In such environments, professional competence often serves as a crucial signal of credibility that helps reduce uncertainty and perceived risks associated with seeking treatment abroad (Yilmaz et al., 2021). The differences between these findings may be explained by variations in the maturity level of medical tourism markets, healthcare system reputation, and contextual characteristics of the study setting.

In more established medical tourism destinations such as Jordan, where healthcare professionals already enjoy strong regional credibility, patients may place greater emphasis on the overall quality of healthcare services and institutional reputation rather than on individual assessments of medical staff competence. Consequently, the Jordanian context provides an important explanatory framework for interpreting the current results.

Finally, the results of the current study indicate no statistically significant mediating effect of medical staff competence on the relationship between Jordanian medical service quality and international tourists' purchase intention. This finding reflects the complex and multidimensional nature of decision-making among international medical tourists when selecting a treatment destination. Specifically, the results suggest that medical service quality directly influences purchase intention, without the need for the effect to pass through medical staff competence as a mediating variable. This outcome is consistent with previous studies indicating that in well-established medical tourism destinations, medical staff competence is often perceived as a fundamental and expected characteristic rather than a distinct channel through which service quality influences purchasing behavior (Al-Nsour, 2020).

In such contexts, international patients assume a high level of professional competence among healthcare providers, which reduces their explanatory role in mediating the relationship between perceived service quality and behavioral intentions. From a theoretical perspective, this finding aligns with models suggesting that international patients evaluate medical destinations through a comprehensive assessment of the overall treatment experience. In this evaluation process, healthcare service quality represents a broader construct encompassing organizational efficiency, service delivery, administrative procedures, responsiveness, and the overall treatment environment. These elements collectively shape patients' perceptions and directly influence purchase intentions, independent of the perceived technical competence of healthcare professionals (Yilmaz et al., 2021). Accordingly, medical service quality can be viewed as a holistic construct that directly affects purchasing behavior without necessarily requiring mediating mechanisms.

In this context, medical staff competence may still play an indirect and supportive role in shaping the healthcare experience by contributing to factors such as trust, satisfaction, and institutional image, rather than acting as a direct mediator between service quality and purchase intention. Recent studies suggest that the influence of medical staff competence becomes more evident when it is examined within more complex models that incorporate additional mediating or moderating variables, such as institutional trust, hospital reputation, or destination image (Karsana & Murhadi, 2021).

These factors may serve as more powerful explanatory mechanisms linking service quality perceptions to behavioral intentions in medical tourism contexts. At the same time, the findings of the present study differ from some research that has identified a significant mediating role of medical staff competence, particularly in emerging medical tourism markets or relatively less established healthcare destinations. In such contexts, professional competence functions as a critical signal that helps reduce uncertainty and perceived risk among international patients (Karsana & Murhadi, 2021). The differences between these findings may be attributed to contextual variations and the maturity of the medical tourism market in Jordan. Jordan has developed a strong regional reputation for high-quality healthcare services and well-qualified medical professionals. As a result, professional competence may be perceived as a standard expectation rather than a differentiating factor capable of mediating the effect of service quality on purchase intention.

Overall, the results of the current study contribute to the medical tourism literature by providing empirical evidence from the Jordanian context, indicating that medical staff competence does not function as a mediating variable in the relationship between medical service quality and purchase intention. Instead, it operates as part of a broader system of factors shaping the overall healthcare experience of international patients. These findings also highlight the need to reconsider traditional explanatory models and encourage future research to explore more comprehensive frameworks that incorporate multiple mediating or moderating variables. Such approaches may better capture the dynamic and multidimensional nature of international medical tourists' decision-making processes and provide deeper insights into the mechanisms through which healthcare service quality influences behavioral intentions.

Based on the findings of the current study, several managerial implications can be proposed to enhance the competitiveness of Jordanian hospitals in the international medical tourism market:

1. Improving medical service quality: Hospitals should prioritize enhancing clinical and administrative service processes, including treatment efficiency, simplified procedures, and effective multilingual communication, as service quality strongly influences international patients' purchasing behavior.
2. Adopting international quality standards: Implementing internationally recognized healthcare accreditation systems, along with investing in modern healthcare infrastructure and hospital environments, can strengthen service quality and enhance the global reputation of Jordanian hospitals.
3. Integrating medical staff competence into patient experience: Medical competence should be incorporated within a comprehensive patient experience strategy that emphasizes coordination among medical teams, effective communication, and personalized care throughout the treatment journey.
4. Strengthening institutional trust and destination image: Building institutional trust, enhancing the international image of Jordanian hospitals, and increasing the perceived value of healthcare services are essential for encouraging international patients to choose Jordan as a medical tourism destination.

Finally, the findings of this study provide important theoretical insights, alongside critical policy and managerial implications, for strengthening Jordan's position in the regional and global medical tourism market. The results confirm that medical service quality is the most influential determinant of international patients' purchase intentions, highlighting the need for policymakers and healthcare administrators to prioritize quality-driven strategies within the national medical

tourism agenda. In this context, service quality should be treated not merely as an operational issue at the hospital level but as a strategic policy instrument capable of enhancing Jordan's competitiveness in the international healthcare market.

From a practical and policy perspective, the results suggest that Jordan's comparative advantage in medical tourism lies primarily in its reputation for reliable healthcare services and cost-effective treatment, rather than solely in the professional competence of individual physicians. While Jordanian doctors are widely recognized for their expertise in specialties such as oncology, cardiology, and orthopedic surgery, the study indicates that international patients perceive this competence as a baseline expectation rather than a decisive competitive differentiator. Consequently, public and private stakeholders should shift their strategic focus from promoting individual medical expertise to strengthening the institutional quality of the healthcare system, including administrative efficiency, patient coordination mechanisms, and service integration across healthcare facilities. Furthermore, the findings imply that medical tourism policy in Jordan should increasingly emphasize system-level service quality rather than isolated clinical excellence. This includes developing standardized international patient pathways, improving hospital accreditation systems, and enhancing coordination between healthcare providers and tourism institutions. Such measures can help position Jordan not only as a destination for high-quality medical treatment but also as a comprehensive healthcare experience destination.

The results also highlight the importance of leveraging Jordan's unique therapeutic and wellness assets as part of a broader medical tourism value proposition. Destinations such as the Dead Sea, internationally recognized for its therapeutic properties, and specialized institutions such as the King Hussein Cancer Center represent strategic assets that can strengthen Jordan's international positioning in the medical tourism market. Integrating these assets into a coordinated national medical tourism strategy would enable Jordan to move from a hospital-centered model of medical tourism toward an integrated healthcare and wellness ecosystem. At the strategic level, sustaining Jordan's competitiveness requires a policy framework that integrates healthcare quality, tourism infrastructure, and international marketing efforts. This involves strengthening collaboration between the Ministry of Health, the Ministry of Tourism and Antiquities, private hospitals, and international medical facilitators. Such coordination can improve Jordan's global visibility as a trusted destination for medical treatment while ensuring that service quality standards remain consistent across the healthcare system. Overall, the study demonstrates that Jordan's future success in medical tourism will depend less on promoting isolated elements of healthcare competence and more on developing an integrated, high-quality healthcare system capable of delivering a reliable and seamless patient experience for international medical tourists.

CONCLUSION

This study examined the factors influencing international tourists' purchase intention to obtain medical services from Jordanian hospitals, focusing on medical service quality and medical staff competence within an integrated analytical framework. The results indicate that medical service quality is the most influential factor shaping international tourists' purchase intention. This finding highlights the importance of perceived service quality in high-risk service environments such as medical tourism, where patients evaluate the overall treatment experience, including clinical outcomes, administrative efficiency, communication, and service organization. The study also found a significant positive relationship between medical service quality and medical staff competence, suggesting that healthcare quality standards and accreditation systems contribute to improving professional performance within healthcare institutions. However, the results showed no direct or mediating effect of medical staff competence on purchase intention, indicating that in well-established medical destinations such as Jordan, medical competence is perceived as a basic prerequisite rather than a differentiating factor influencing patient decisions. Overall, the findings emphasize that medical service quality directly drives purchase intention, while medical staff competence contributes indirectly by supporting the quality environment. From a practical perspective, strengthening Jordan's competitiveness in medical tourism requires continued investment in healthcare service quality, institutional reputation, and the overall international patient experience.

Research Limitations and Future Research Directions

Despite its contributions, this study has several limitations that provide directions for future research. The findings showed no statistically significant mediating role for medical staff competence in the relationship between medical service quality and purchase intention, suggesting the need to explore alternative mediating variables such as institutional trust, patient satisfaction, destination image, and perceived value to better explain international medical tourists' purchasing behavior. Future studies may also incorporate moderating variables related to patient characteristics, including nationality, type of treatment, length of stay, and perceived health risk, as these factors may influence how international patients evaluate healthcare services and form their purchase intentions. In addition, since the study focused primarily on private hospitals in Jordan, comparative research between public and private hospitals or between Jordan and competing medical tourism destinations could enhance the generalizability of the findings. Future research may also benefit from adopting mixed-method or longitudinal approaches to provide deeper insights into international medical tourists' experiences and to examine how purchase intentions evolve into actual treatment decisions over time.

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Abbreviations List: Medical Service Qulaity: MSQ; Purchase Intention: PI; International Tourists: IT; Human Resources Copmetence: HRC;

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