

APPLYING THE EXTENDED THEORY OF PLANNED BEHAVIOR TO UNDERSTAND TOURIST DECISION-MAKING IN SANATORIUM AND RESORT ORGANIZATIONS

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Received 25.05.2025.

| Sent to review 16.06.2025. | Accepted 29.09.2025.

Original article



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JEL Classification:
L83, Z32, D91

Doi: 10.2478/eoik-2025-0092

UDK: 338.486.1.02:316.472

ABSTRACT

The study analyzes the consumer behavior of tourists in relation to sanatoriums, the influence of the external environment, personal opinions and perceptions of the quality of service on the intention to visit sanatorium-resort facilities. An extended model of the classical theory of consumer behavior and decision-making, supplemented by variables of trust and quality of service, is used as a theoretical basis. The Saryagash district of Turkestan region was chosen as the leading center of balneological tourism in Kazakhstan. The purpose of the work is to identify the interrelationships of factors influencing the intention of tourists to visit sanatoriums, as well as to determine the influence of intentions on their behavior in order to predict trends in the sanatorium segment.

The methodology is based on partial least squares (PLS-SEM) implemented in the Smart PLS 4.0 program, which includes a measurement model and a structural model. The empirical part was performed using a questionnaire distributed through social networks, WhatsApp and e-mail among 457 respondents from Kazakhstan aged 18 and older. The questionnaire contained 50 questions; a “snowball” sample was used. The survey period is from 05.01.2024 to 02.02.2025.

The results confirmed the significance of the extended factors of the model, as well as all the proposed hypotheses. The data obtained can be used by researchers and sanatorium-resort organizations to improve the quality of services and the competitiveness of the industry.

Keywords: health resort organizations, scale, Theory of planned behavior; Kazakhstan, medical and health tourism, tourist trust, intention, behavior

1. INTRODUCTION

Tourism is one of the important sectors of economic growth in the world and a key source of wealth, employment, and income for the population (Merli et al., 2019; Li et al., 2018). In today's world, tourism is associated with the development of new destinations and an increase in the number of tourist destinations (Beerli-Palacio and Martín-Santana, 2018).

In the post-pandemic world, there is a positive trend toward increased interest in healthy lifestyles and sanatorium-resort recreation to strengthen immunity, both physical and mental, and restore the body. Tourists are increasingly choosing wellness vacations, and health resort organizations are becoming a priority destination thanks to their combination of treatment, relax-

ation, nature, and comfort (Mrkaić Ateljević, et al., 2025). Tourism acts as one of the most relevant forms of travel, and many sanatoriums provide their visitors with a wide range of cultural, historical and entertainment services (Novakivskiy I. et al., 2024).

The use of modeling allows for a deeper understanding of the demand and behavior of tourists in such institutions. For sanatorium-resort organizations, this facilitates the process of planning economic activities, promotes the efficient allocation of resources and infrastructure development in accordance with the needs of tourists (Bonilla-Quijada et al., 2021; Weng et al., 2022).

The main areas of focus for health resort organizations are as follows: medical, wellness, recreational, preventive, and rehabilitation. Sanatorium and resort organizations also play an important role in the development of domestic and foreign tourism. Medical and wellness tourism is gradually becoming one of the important elements of the tourist infrastructure. Sanatorium and resort organizations use natural healing factors, medical procedures, and comfortable accommodation infrastructure. Sanatoriums provide a wide range of services, including classic treatments and SPA and wellness programs. The main types of treatment in sanatorium and resort organizations are balneology (the use of mineral waters for internal and external use), mud therapy (the use of therapeutic mud), and climatotherapy (aerotherapy). The global consumer market for wellness services, worth \$1.8 trillion, researched in clinical settings, may not be entirely reliable. McKinsey Future of Wellness study on the formation of well-being. In the USA, the wellness services market has reached \$480 billion, with an annual growth rate of 5-10%. In the US, about 82% of wellness service consumers consider health to be the most important factor, compared to 73% in the UK and 87% in China (McKinsey & Company).

Consumer behavior theory explains the psychological phenomena underlying human behavioral intentions (Ajzen I., 1991).

Studying the trends of the tourism market and forecasting its future development play an important role in the strategic planning of the tourism business and local communities (Bashinskaya et al., 2022).

Tourist intention, which emphasizes a person's desire to travel, is the result of a mental process that precedes any action in tourist behavior (Lapteva N., 2021).

Tourist behavior is often predicted by intention, which is considered more effective than behavior for understanding the human mind. (Jang, S., et al., 2009). The intention to travel as a tourist refers to the perceived probability of visiting a particular place during a specific period. (Hashim, N. A. et al., 2018). The intention to travel is the result of a mental process that leads to action, translating motivation into behavior (Seidualin et al., 2025).

Axhausen emphasizes the combination of the following aspects in tourist behavior: travel purpose, time, duration, location, possible participants, expenses, and structure (Axhausen K., 2007).

Kazakhstan has many sanatoriums offering different types of tourism, treatment and prevention, rehabilitation of the gastrointestinal tract, treatment and restoration of the musculoskeletal system, respiratory organs, etc. One of the promising and popular areas of sanatorium and resort activities is balneology, for natural and economic reasons: the abundance of mineral springs, which in turn have mineral waters that vary in composition and therapeutic properties, including thermal, radon, sulfate-hydrocarbonate, and iodine-bromine waters. Among the balneological resort and sanatorium organizations of Kazakhstan, according to official statistics as of January 1, 2025, 35% of the total number of such organizations are located in the Turkestan region, namely, 117 resort and sanatorium organizations out of 333 in Kazakhstan (National Statistics Bureau, 2025).

The Turkestan region leads the country in the number of sanatorium and resort organizations and is the center of balneological tourism in Kazakhstan, possessing favorable natural, cli-

matic, and balneological resources. In the Turkestan region itself, most of the sanatoriums are concentrated in the Saryagash district, due to the presence of rich mineral springs, developed infrastructure, and long-standing traditions of resort treatment and health improvement. Among them, 287 sanatorium and resort organizations are small enterprises, 38 are medium-sized, and 8 are large. In terms of ownership, 288 (86.5%) of the organizations are privately owned, 44 (13.2%) are state-owned, and 1 is foreign-owned (National Statistics Bureau, 2025).

The large number of sanatoriums in the Turkestan region indicates increased demand for sanatorium and resort organizations in this region, tourists' intentions to travel to sanatoriums in the region, and increased revenues for the tourism industry. The growing demand among the population for sanatorium-resort organizations increases competition and the need to modernize the industry. In addition, it increases the relevance of studying the regional characteristics of resort services and the factors that determine consumer behavior when choosing sanatorium services. Understanding the motives, attitudes, and behavior patterns of consumers when choosing a health resort vacation is a key condition for the effective management and promotion of such organizations. Consumer behavior theory makes it possible to identify and analyze the factors that influence the decisions of potential tourists: from the attitudes of those around them to the trip, their perception of the benefits and quality of services, to the level of trust, ease of access, and personal attitudes. The application of behavioral models in researching tourist preferences opens up opportunities to increase the competitiveness of health resort organizations, improve service, and develop targeted marketing strategies. In 2024, health resort organizations in Kazakhstan served 766,588 visitors, an increase of 8% compared to 2023 (National Statistics Bureau, 2025).

2. RELEVANCE OF THE RESEARCH TOPIC

Research into the preferences and consumer behavior of potential tourists of health resort organizations in the Turkestan region is a relevant and practice-oriented area that contributes to the development of sustainable health tourism in Kazakhstan. Therefore, additional research is needed on consumer behavior that influences the desire to visit resort and sanatorium organizations in the Turkestan region. In addition, to our knowledge, there are currently no theoretically sound scientific studies in Kazakhstan devoted to measuring the general attitudes and feelings of consumers towards traveling abroad for the purpose of medical and health tourism and the consumer behavior of tourists at health resorts. One of the goals of this study is to fill this gap.

Tourists traveling for health purposes are of great interest to host countries, as they stay longer than regular tourists and often travel with at least one companion (Whittaker, 2008).

The purpose of this study is to identify the factors that influence tourists' intentions to visit health resort organizations in the Turkestan region (Kazakhstan) using a well-established theoretical model—the theory of planned behavior, which includes the study of normative influence attitudes, perceived service quality, and tourists' intentions to visit resorts; to investigate the relationships between service quality and satisfaction for a deeper understanding and prediction of tourist behavior in the field of health and wellness tourism.

The authors of the study have developed a model that provides a complete understanding of the intention to visit health resort organizations, presented by an extended initial model of consumer behavior theory;

Using the expanded model of the Theory of Planned Behavior (Ajzen I., 1991), the study will explain what drives tourist behavior and decision-making processes and will propose a new theoretical framework for predicting the intention of domestic tourists to visit resorts in the Turkestan region. The study contributes to a deeper understanding of the factors influencing the intention of domestic tourists to visit sanatorium and resort organizations in the Turkestan region.

Scientific novelty and practical significance. The development of a scale for medical and health tourism represents a new application of the theory of tourist consumer behavior in the health resort segment (Alfdool et al., 2025). This scale, based on a theoretical model, is proposed as a new tool for future research. The study examines psychological characteristics (values and beliefs, concern for health, focus on prevention/treatment), behavioral characteristics (channels through which information is obtained, sources of recommendations), motivational factors (desire to restore health, desire for relaxation and rest, satisfaction with the combination of treatment and tourism, interest in alternative medicine), emotional and cognitive variables (trust in specific institutions, perception of quality, service, level of awareness of the resort, expected usefulness and satisfaction), social factors (influence of family, friends, cultural attitudes).

The study examined the influence of trust and perceived quality of services on the behavior of domestic tourists, including trust and perceived quality of services, to study the factors influencing the tourist's intention to visit sanatorium and resort organizations in the Turkestan region, to assess and justify the role of trust and perceived service quality in the new proposed conceptual framework of the study, which is a crucial component in the development of health and wellness tourism strategies in accommodation facilities (Golets, A., et al., 2020).

Originality and value. The application of the obtained results and recommendations is possible to other sanatorium and resort organizations in Kazakhstan, the use of a theoretical model for creating a scale for forecasting sanatorium indicators, the identification and analysis of the characteristics of tourist consumer behavior in relation to sanatorium and resort organizations in the Turkestan region. The results of the study will allow us to identify the key factors influencing their motivation, choice and satisfaction, and will allow us to develop recommendations for increasing the attractiveness and competitiveness of balneological resorts in the region, taking into account consumer behavior patterns. The extended model of consumer behavior theory provides a theoretical basis for explaining tourists' intentions to visit sanatoriums in the Turkestan region.

The value of this study lies in testing an expanded model of planned tourist behavior, which allows for a clear explanation and understanding of tourist behavior in relation to the health resort areas of the Turkestan region. Previous research by scientists related to health improvement has focused on medical tourism and trips abroad (Seow Ai Na et al., 2020), while the use of consumer behavior theory for health purposes has been studied mainly from the perspective of specific countries (T. T. B Bui, 2023, Abbasi et al., 2021), and there have been no theoretically grounded studies of consumer behavior regarding the tourist behavior of tourists from Kazakhstan or its regions for medical and wellness purposes. One of the goals is to fill this gap. In this study, we conducted a survey on the tourist behavior of one of the leading regions in medical and health tourism, the Turkestan region.

3. LITERATURE REVIEW

For the quantitative assessment of the constructs included in the empirical analysis, a sufficient literature review was conducted to select the most appropriate scales for measuring various concepts adapted to the study.

The reasons why tourists seek health improvement in sanatorium and resort organizations include cost, accessibility, experience, quality, and service (Hume and DeMicco, 2007). The formation and influence on consumer perception is important stage in the development of medical and health tourism. Travel for the purposes of health improvement, rehabilitation, and prevention is associated with services that have a high level of trust characteristics, which are difficult for consumers to evaluate even after receiving the service (Lovell et al., 2009). For the successful development of health resort organizations, it is necessary to pay attention to the general attitudes

of consumers and their decision-making process. (Martin D.S., Ramamonjiarivelo Zo H., 2011) The proposed model is based on the theory of planned behavior (Ajzen I., 1991) and expanded with additional variables: perceived service quality (Abbasi et al., 2020a, 2020b), trust (Bui T. T. B., 2023). The expanded model shows the influence of additional variables on the intention of tourists to travel, and which will provide a deeper understanding of the psychological mechanisms of behavior and increase the accuracy of predicting the behavior of tourists during health tourism at sanatorium-resort facilities. To this end, it is proposed to develop a comprehensive model of consumer behavior theory, including the following indicators: a scale of attitudes toward trips to sanatoriums, a scale of subjective expectations of family and friends, perceived ability to achieve successful medical and health services, intention to travel, tourist behavior, perceived quality of services, and trust.

Forming a positive attitude among tourists can provide a competitive advantage and ensure the success of destination marketing (Beerli-Palacio, Martín-Santana, 2018). The health resort destination is a service destination and depends on the quality of services provided, tourists' assessments of the services provided, and the state of the infrastructure. The process of making a decision about a trip is a complex process that depends on many factors: psychological characteristics, motivational factors, emotional and cognitive variables, social factors, economic factors, and perceived behavioral control (Bianchi C, et al., 2017). The level of tourist satisfaction plays an important role in the development of a destination (An. S., Suh, J., and Eck, T., 2019).

The consumer behavior theory model is widely used in research in the context of tourism (Hasan K. et al., 2020, Meng and Cui, 2020, Meng and Choi, 2019, Soliman, 2019, Han et al., 2019).

Some researchers recommend adding additional variables to the classical consumer behavior theory to increase its predictive power (Meng and Cui, 2020, Abbasi, G.A., Su-Yee, S. and Goh, Y.-N. 2020a, Meng and Choi, 2019, Soliman, 2019, Russell et al., 2017, Mondéjar-Jiménez et al., 2016).

Perceived service quality contributes to the formation of the intention to visit a tourist destination (Meng and Choi, 2019, Soliman, 2019, Russell et al., 2017, Mondéjar-Jiménez et al., 2016).

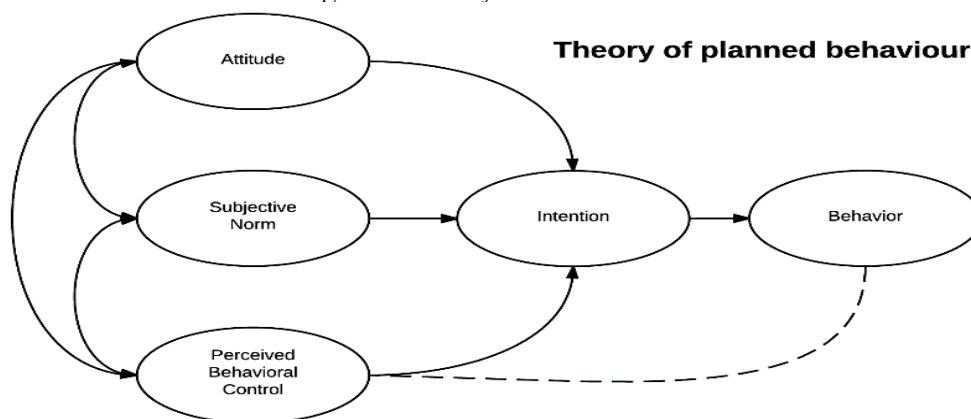
Trust is confidence in the reliability and integrity of one party toward a partner. Willingness to rely on a partner (Morgan, R. M., Hunt, S. D., 1994).

Trust is a belief related to the competence and integrity of a partner and plays an important role in establishing and strengthening the relationship between a tourist and a partner (Mussina K. et al., 2024).

4. STRUCTURE OF THE MODEL

After studying the concepts presented, a conceptual model was created to visualize the scope of the study.

Figure 1. Theory of consumer behavior



Source: Ajzen I., 1991

In classical consumer behavior theory, there are three main factors: “Attitude,” “Subjective Norms,” and “Perceived Behavioral Control,” which are interrelated and influence “Intention,” which in turn directly influences “Behavior.” In the classical model, “Attitude” and “Perceived Behavioral Control” are usually constant, while “Subjective Norms” may be variable; ‘Attitude’ focuses on the subject and answers the question “What do I think?”, and a person’s beliefs can have a positive or negative influence on intention; “Subjective norms” influence decision-making by focusing on a person’s environment and consist of the question “What do others think?” “Perceived behavioral control” represents the perception of how easy or difficult it is to change a certain behavior and consists of the question “Can I do it?” With all the positive influences, the tourist is more likely to form a behavioral intention, which will subsequently lead to a certain behavior or action. Consumer behavior theory shows conscious behavior, excluding automatic behavior (Lapteva N., 2021).

In the extended model of planned tourist behavior, additional new variables have been introduced into the original model. These are imperative factors that influence the decision-making process of tourists, do not depend on existing factors in the theory, and are potentially suitable for certain behaviors. The variables of perceived service quality (Abbasi et al., 2020a, 2020b) and trust (Rasoolimanesh et al., 2021) were added to the model to improve understanding of tourist behavior and increase the ability to predict visits to health resort organizations.

This study put forward hypotheses, previously applied in scientific research and adapted to this study, about the mediating effect of attitudes toward behavior, subjective norms, and perceived behavioral control between the intention to travel and tourist behavior. The following hypotheses were used to understand the factors influencing the tourist attractiveness of health resort organizations in the Turkestan region.

In the field of tourism, numerous studies note a positive relationship between attitudes toward a destination and the intention to visit that destination (Bianchi et al., 2017, Hasan et al., 2017, 2019). The scale of attitudes toward trips to health resorts is defined as the significance of the place for the tourist, the rationality of the decision to make the trip, the feelings from the trip, and the attitude toward the trip from an economic point of view.

H₁: Attitude will have a positive effect on the intention to travel to health resorts in the Turkestan region (T. T. B Bui, 2023, Abbasi et al., 2021)

Subjective norms are the next factor influencing behavioral intention, depending on social pressure, support from one’s environment, and approval or disapproval of certain behaviors (Belanche et al., 2019, Bianchi et al., 2017).

In the context of tourism, research shows that the choice of a vacation or wellness destination depends on the approval of one’s social circle (relatives or friends) (Hasan et al., 2020, Quintal et al., 2015).

The scale of subjective norms of expectation of the tourist’s environment, their relatives and friends, encouraging or discouraging the purchase of tourist services, in the positive sense of their encouragement, wishes, promotion, support, understanding of the importance of the trip, recommendations to visit tourist sites.

H₂: Subjective norms will have a positive effect on the intention to travel to health resorts in the Turkestan region (T. T. B Bui, 2023, Abbasi et al., 2021).

The following constant is also considered a predictor of intentions and behavior: Perceived behavioral control, defined as the belief in one’s own ability to perform a behavior, an individual perceives how difficult or easy it is to perform an action, managing the circumstances that motivate or inhibit certain behavior (Song et al., 2015).

In the context of tourism, factors such as skills, time, and resources, and their perception, influence intentions and behavior in choosing a tourist destination (Bianchi et al., 2017).

Perceived ability in the context of tourism to obtain a service includes having sufficient time to make a trip, financial capabilities, the absence of any inhibiting factors, the desire to visit health resorts, and the belief that the services received will have a positive impact on health.

H₃: Perceived behavioral control will have a positive effect on the intention to travel to health resorts in the Turkestan region (T. T. B Bui, 2023, Abbasi et al., 2021).

In tourism, perceived service quality includes criteria for evaluating and the importance to tourists of the quality of services provided, staff performance, location, amenities (Liu and Lee, 2016), availability of additional services, quality of food, comfort, and qualified personnel.

H₄: Perceived service quality positively influences the intention to travel to health resorts in the Turkestan region (Abbasi et al., 2021).

Trust is the belief, confidence, and expectation that a trusted partner will provide services to customers. Trust on the part of the tourist, the willingness to rely on a tourist destination, the conviction of its reliability, can also directly influence behavioral intentions (Hsiao & Yang, 2010, p. 281, Rasoolimanesh et al., 2021), a tool that minimizes uncertainty (Han, H., & Hyun, S. S., 2015).

In a tourism context, trust implies belief and conviction in the quality of services, the reliability of a tourist destination for tourists, confidence in the information received about tourist sites, and positive expectations of the places visited.

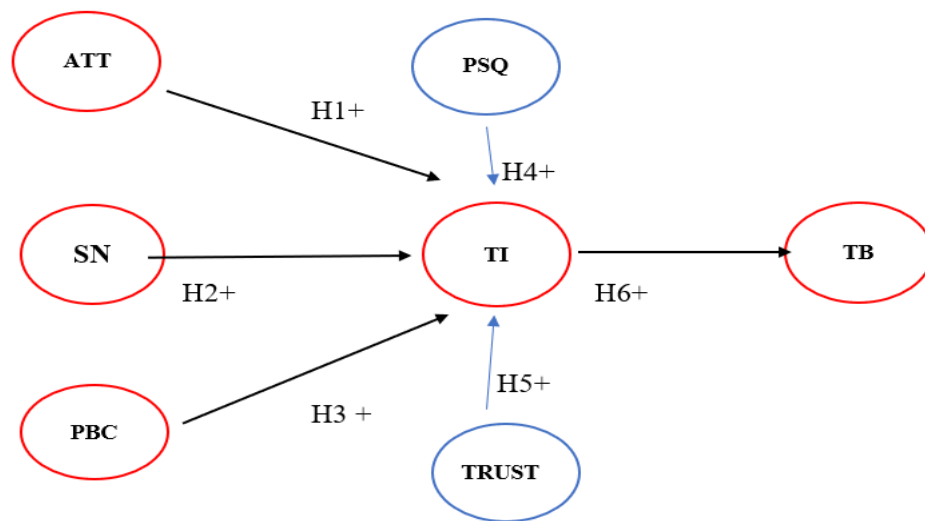
H₅: Trust will positively influence the intention to travel to health resorts in the Turkestan region (T. T. B Bui, 2023).

The intention to travel is the willingness to visit a tourist destination (Chen et al., 2014). In a tourism context, the intention to travel includes the intention and willingness to receive specific services at a high level, improve physical and mental well-being, and the likelihood of choosing one specific destination among others.

H₆: The intention to travel will have a positive impact on the behavior of tourists in sanatoriums in the Turkestan region (T. T. B Bui, 2023).

Figure 1 shows the proposed extended model of Consumer Behavior Theory, based on Consumer Behavior Theory (Ajzen I., 1991), with the addition of the variables Trust and Perceived Service Quality. The assumption about the intention to travel to sanatorium and resort organizations in the Turkestan region was that trust and the quality of services provided in sanatoriums located in the Turkestan region directly influence the constant intention to travel, which in turn influences the behavior of the traveler.

Figure 2. Extended model of consumer behavior theory



Source: compiled by the authors based on (Ajzen I., 1991)

5. RESEARCH METHODOLOGY

This study focuses on the population of Kazakhstan and neighboring countries who care about their health and plan to visit health resorts in the Turkestan region.

The Turkestan region, located in southern Kazakhstan, has a favorable climate and therapeutic springs that attract tourists to the region. According to official statistics, the region's population is 2,154,334 (National Statistics Bureau, 2024).

The Turkestan region occupies a leading position among the health resorts of Kazakhstan. The Saryagash district, the most visited by tourists in the Turkestan region, accounts for about 80% of the region's health resorts. The total number of tourists served in Kazakhstan's health resorts in 2024 is 766,588 (National Statistics Bureau, 2025). Based on the characteristics of the Turkestan region, this region was selected as the subject of research on medical and health tourism in this study.

The creation of a model of tourist consumer behavior when visiting health resort organizations was adapted to the specifics of this study and was based on an online questionnaire survey, in which 457 respondents, residents of Kazakhstan aged 18 to 60+, participated, containing 50 statements.

Table 1 presents the demographic characteristics of the respondents used in this study, including gender, age, level of education, occupation, and marital status, adapted from (T. T. B Bui, 2023, Ghazanfar A. Abbasi, et al., 2021).

Sample description:

- 100% Kazakhstani citizens,
- According to gender characteristics, 299 respondents (65%) were women, while 35% were men.
- According to age characteristics, the largest share was the 36-45 age group, with 133 respondents (29%).
- The largest group by occupation was office workers/ITR (engineering and technical workers)/teachers/doctors – 89 respondents, 19%,
- The largest group by level of education was respondents with higher education – 299 people, 65%,

- In terms of marital status, the largest proportion were married, 293 respondents, 64%.

The questions in the study were divided into two parts, including demographic information (5 items) and attitude scales (5 items) adapted from [Martin D.S., Ramamonjiarivelo Zo H. \(2011\)](#), [Bui T. T. B. \(2023\)](#), [\(Abbasi et al. \(2021\)\)](#), [Seow Ai Na et al. \(2020\)](#), Subjective norms (9 items) were adapted from [Martin D.S., Ramamonjiarivelo Zo H. \(2011\)](#), [Abbasi et al. \(2021\)](#); [Song et al. \(2012\)](#), [Seow Ai Na et al. \(2020\)](#), [T. T. B Bui \(2023\)](#), Perceived behavioral control (10 items) adapted from [Abbasi et al. \(2021\)](#); [Song et al. \(2012\)](#), [Martin D.S., Ramamonjiarivelo Zo H. \(2011\)](#), [Seow Ai Na et al. \(2020\)](#), Perceived service quality (7 points) adapted from [Abbasi et al. \(2021\)](#), [Godlewska et al. \(2023\)](#), [Meng and Choi. \(2015\)](#), The intention to travel (12 items) was adapted from [Abbasi et al. \(2021\)](#), [Song et al. \(2012\)](#), [Seow Ai Na et al. \(2020\)](#), [Rasoolimanesh et al. \(2021\)](#), [Martin D.S., Ramamonjiarivelo Zo H. \(2011\)](#), Trust (4 items) was adapted from [Rasoolimanesh et al. \(2021\)](#), [Bui T. T. B. \(2023\)](#), tourist behavior (3 points) was adapted from [Lapteva N. \(2021\)](#). The questionnaire was compiled in Russian, as this language is the language of interethnic communication in Kazakhstan. All items were rated on a 5-point Likert scale. Respondents were asked to indicate their level of agreement with each statement, from 1, meaning strongly disagree, to 5, meaning strongly agree (Table 2). All questions were tested to ensure the reliability and validity of the constructs.

Data analysis was performed using the partial least squares method PLS-SEM, with the help of the Smart PLS 4.0 program, known for its computational efficiency and speed, and well suited for working with large sample sizes ([K. Mussina et al., 2024](#)). The authors of the study developed a Consumer Behavior Theory model to explain tourist consumer behavior, including seven basic scales that allowed the measurement model and structural model to prove the hypotheses about the positive impact of the design. PLS-SEM (Partial Least Squares Structural Equation Modeling) modeling consists of two parts:

- the measurement model checks the validity and reliability of measurements.
- the internal model (structural model) is necessary for testing the relationships between constructs.

Evaluation of the measurement model

To evaluate the reflective constructs, this study tested:

- internal reliability (using Cronbach's alpha),
- convergent validity (using AVE),
- discriminant validity (according to NTMT and Fornell-Larcker).

The online questionnaire was distributed via social networks, personal WhatsApp, and email. To speed up the data collection process, a combination of convenience sampling and snowball sampling was used ([Bryman & Bell, 2011](#)). Only adult respondents were allowed to participate in the survey to ensure a sound approach. To achieve reliability, validity, and the ability to generalize the results, it was important to collect as many responses as possible. The survey was conducted between January 5, 2024, and February 2, 2025, to ensure the maximum possible number of respondents. Scientists [Nunkoo and Ramkissoon \(2011\)](#) believe that 100 to 400 respondents are needed for a reliable analysis, while [Blunch \(2013\)](#) recommends 200–300.

According to official statistics, the population of the Republic of Kazakhstan as of January 1, 2025, was 20,286,084 ([National Statistics Bureau, 2025](#)), and the required sample size for a representative population survey ([Veal, 2011, p. 293](#)) for the Turkestan region is 384 respondents. For a representative survey and to guarantee extrapolation to the wider population of Kazakhstan (20,286,084 people), the sample must exceed 384 people, using a confidence level of 95% and a margin of error of 5%, in accordance with the recommendations on sample size.

The authors of the study used the following formula to calculate the sample size:

$$n = \frac{N \cdot Z^2 \cdot p \cdot (1-p)}{E^2 \cdot (N-1) + Z^2 \cdot p \cdot (1-p)} \quad (1)$$

N = 20,286,084 - population of Kazakhstan as of January 1, 2025

Z= 1.96 – value for a 95% confidence level

p = 0.5 — proportion (maximum uncertainty)

E = 0.05 — margin of error (5%)

$$n = \frac{20\,286\,084 \cdot (1.96)^2 \cdot 0.5 \cdot (1-0.5)}{(0.05)^2 \cdot (20\,286\,084-1) + (1.96)^2 \cdot 0.5 \cdot (1-0.5)} \quad (2)$$

$$n = \frac{20\,286\,084 \cdot 3.8416 \cdot 0.25}{0.0025 \cdot 20\,286\,083 + 3.8416 \cdot 0.25}$$

$$n = \frac{20\,286\,084 \cdot 0.9604}{50\,715.2575 + 0.9604}$$

$$n = \frac{19\,480\,040.57}{50\,716.1679}$$

$$n \approx 384.15$$

To eliminate the error of the general measurement method, the following measures were taken:

- ensuring the anonymity and confidentiality of the study,
- using proven scales without ambiguity,
- conducting a pilot test of the questionnaire

Table 1. Demographic characteristics of respondents

Measure	Frequency	Percentages (%)
Total	457	100
Gender of the respondents		
Male	155	35
Female	299	65
Marital status		
Single / unmarried	164	36
Married / married	293	64
Age		
18-25	90	20
26-35	56	12
36-45	133	29
46-60	116	25
More than 61	62	14
Education level		
Incomplete secondary education	9	2
Average	39	9
Secondary special education	51	11
Incomplete higher education	59	13
Higher	299	65

Measure	Frequency	Percentages (%)
Occupation		
Worker	49	11
Employee / Office worker / IT (engineering and technical worker) / Teacher / Doctor (no subordinates)	89	19
Military personnel (army, militia, fire department, etc.)	15	3
Head of Department / Manager / Foreman / Head of the workshop, site (there are subordinates)	61	13
Director of the enterprise/company	20	4
Entrepreneur/owner of a company / individual enterprise	29	6
A working student	39	9
A working pensioner	19	4
Retired (not working)	30	7
Student (not working)	42	9
I don't work, I do household chores.	28	6
Unemployed	10	2
Other	26	6

Source: compiled by the authors

6. DISCUSSION

The research data were analyzed using structural equation modeling with the partial least squares' method (SEM-PLS) with Smart PLS (version 4.0) to test measurement models and various hypotheses. When constructing measurement models and various hypotheses, the analysis consisted of three stages: measurement, analysis of the Consumer Behavior Theory model, and verification of the moderation effect.

6. 1. TESTING THE MEASUREMENT MODEL

Studying measurement models is the first stage of analyzing PLS-SEM results (Hair et al., 2019). The following general recommendations were used to assess the reliability of the design (Hair et al., 2019, Mussina K. et al., 2024).

To ensure convergent validity, the factor loadings of all items and the extracted average variance explained (AVE) must be above predetermined thresholds.

Table 2. Factor loading, reliability, and construct validity

	Factor load (λ)	AVE	α	Composite Reliability (ρ_a)	CR (ρ_c)
The scale of attitudes towards trips to sanatoriums		0,676	0,880	0,887	0,912
AT1	0,797				
AT2	0,759				
AT3	0,881				
AT4	0,838				
AT5	0,831				
The scale of the subjective expectation of family and friends		0,733	0,954	0,956	0,961
SN1	0,874				
SN2	0,894				
SN3	0,847				
SN4	0,830				
SN5	0,895				

	Factor load (λ)	AVE	α	Composite Reliability (ρ_a)	CR (ρ_c)
SN6	0,820				
SN7	0,873				
SN8	0,894				
SN9	0,773				
Perceived ability to achieve successful treatment and wellness services		0,719	0,956	0,958	0,962
PBC1	0,858				
PBC2	0,831				
PBC3	0,861				
PBC4	0,843				
PBC5	0,834				
PBC6	0,886				
PBC7	0,875				
PBC8	0,854				
PBC9	0,834				
PBC10	0,799				
Perceived quality of service		0,685	0,923	0,929	0,938
PSQ1	0,822				
PSQ2	0,871				
PSQ3	0,881				
PSQ4	0,844				
PSQ5	0,851				
PSQ6	0,752				
PSQ7	0,765				
Trust		0,702	0,858	0,875	0,904
T1	0,885				
T2	0,888				
T3	0,780				
T4	0,793				
The intention to travel		0,723	0,965	0,965	0,969
TI1	0,796				
TI2	0,833				
TI3	0,829				
TI4	0,792				
TI5	0,850				
TI6	0,871				
TI7	0,852				
TI8	0,877				
TI9	0,867				
TI10	0,892				
TI11	0,891				
TI12	0,844				
Tourist behavior		0,719	0,808	0,833	0,885
TB1	0,876				
TB2	0,844				
TB3	0,824				

Source: Compiled using the PLS-SEM partial least squares method, using the Smart PLS 4.0 program

Factor loading (λ) is a numerical coefficient that indicates how strongly a variable is related to a latent (hidden) factor. Factor loading is interpreted as follows: $\lambda \geq$ means that the indicator

is very reliable, from 0.80 to 0.89 – the indicator is reliable, there is still a strong connection between the variable and the factors, from 0.70 to 0.79 is acceptable, from 0.60 to 0.69 is acceptable with other acceptable reliability measurements, and < 0.60 means that the indicator is not reliable. Table 2 shows that all factor loadings (λ) in the table are acceptable to very reliable, but for greater accuracy, we also applied other reliability measures.

AVE (Average Variance Extracted) is the average share of extracted variance, used to assess the convergent validity of a latent variable (hidden factor), i.e., an indicator of how well the variable explains the variance (variation) of its indicators. The higher the AVE indicator, the better the variable “justifies” its measurements. For good convergence, AVE should be ≥ 0.50 , indicating sufficient convergent validity (Hair et al., 2019). If $AVE \leq 0.50$, the model has low explanatory power and needs to be revised. The AVE values for all items in Table 2 exceed the threshold value of 0.5.

Cronbach’s alpha (α) is a coefficient used to assess the internal consistency of a scale and test, i.e., how consistent the responses are to several questions measuring the same indicator, latent (hidden factor). If Cronbach’s $\alpha \geq 0.90$, this means excellent reliability of the consistency of the questions and the test (Excellent), from 0.80 to 0.89 – good reliability (Good), from 0.70 to 0.79 – acceptable reliability (Acceptable), from 0.60 to 0.69 is borderline (Questionable), and from 0.50 to 0.59 is poor (Poor). In Table 2, all scale values range from 0.80 to 0.97, i.e., from good reliability to excellent reliability of the model.

Composite Reliability (ρ_a) is an indicator of the reliability of a latent variable in structural modeling, which reflects the internal consistency of the scale indicators, is based on equal loadings, and represents a more realistic measure than Cronbach’s α , taking into account the real factors of indicator covariance and being more sensitive to the model structure and data quality. Interpretation of the value (ρ_a): $\geq$ excellent reliability, 0.80 to 0.89 – good, 0.70 to 0.79 – acceptable, < 0.70 – insufficient (Hair et al., 2019). The scale data in Table 2 range from 0.83 to 0.97, which indicates a good to excellent level of construct reliability.

Composite Reliability (CR), ρ_c , or ρ_c also refers to the reliability indicators of a latent variable, like Cronbach’s α , but is more accurate in structural modeling, especially when indicator loadings vary, taking into account real factor loadings without assuming they are the same. CR is used to assess the reliability of a group of indicators (questions/statements). CR values in the model: if $CR \geq 0.90$, it means excellent scale reliability (Excellent); from 0.80 to 0.89, it means good (Good); from 0.70 to 0.79, it means - Acceptable, if $CR < 0.70$ – insufficient and requires model revision (Hair et al., 2019). In Table 2, the assessment of the scale data ranges from 0.89 to 0.97, which shows a level of reliability from good to excellent

The factor loadings in the presented model exceed the required value of 0.7, i.e., all are acceptable and above, which confirms the reliability of the model.

Cross-loadings (Table 3), the Fornell-Laker criterion (Table 4), and the HTMT ratio used to assess discriminant validity (Table 5) were used to assess discriminant validity.

Cross loadings represent values showing the correlation of each indicator (variable) not only with its latent variable, but also with other constructs in the model, where each indicator should correlate more strongly with its variable than with another. If an indicator is strongly related to another factor, this may indicate a problem with discriminant validity, i.e., there is no clear distinction between the constructs (concepts) in the model.

Table 3. Cross loadings of the measurement model

	AT	PBC	PSQ	SN	TR	TI	TB
AT1	0,797	0,558	0,598	0,642	0,574	0,657	0,547
AT2	0,759	0,576	0,548	0,558	0,497	0,535	0,473
AT3	0,881	0,671	0,701	0,698	0,640	0,731	0,588
AT4	0,838	0,699	0,683	0,712	0,622	0,702	0,593
AT5	0,831	0,635	0,632	0,711	0,620	0,707	0,590
PBC1	0,698	0,858	0,707	0,764	0,726	0,791	0,670
PBC2	0,620	0,831	0,668	0,683	0,704	0,736	0,630
PBC3	0,675	0,861	0,720	0,741	0,735	0,780	0,688
PBC4	0,603	0,843	0,653	0,643	0,673	0,715	0,603
PBC5	0,613	0,834	0,629	0,636	0,648	0,677	0,575
PBC6	0,715	0,886	0,751	0,745	0,722	0,791	0,669
PBC7	0,664	0,875	0,716	0,699	0,709	0,768	0,666
PBC8	0,643	0,854	0,669	0,678	0,698	0,724	0,660
PBC9	0,615	0,834	0,661	0,657	0,674	0,696	0,586
PBC10	0,629	0,799	0,640	0,653	0,662	0,678	0,589
PSQ1	0,687	0,631	0,822	0,701	0,599	0,726	0,563
PSQ2	0,699	0,708	0,871	0,720	0,622	0,738	0,577
PSQ3	0,717	0,733	0,881	0,735	0,648	0,772	0,604
PSQ4	0,665	0,727	0,844	0,657	0,606	0,688	0,578
PSQ5	0,610	0,692	0,851	0,673	0,773	0,752	0,796
PSQ6	0,522	0,583	0,752	0,587	0,724	0,578	0,751
PSQ7	0,550	0,573	0,765	0,593	0,630	0,582	0,715
SN1	0,690	0,692	0,693	0,874	0,732	0,764	0,659
SN2	0,733	0,718	0,707	0,894	0,730	0,790	0,683
SN3	0,683	0,687	0,654	0,847	0,685	0,719	0,624
SN4	0,639	0,647	0,642	0,830	0,677	0,710	0,649
SN5	0,699	0,697	0,703	0,895	0,717	0,778	0,688
SN6	0,695	0,695	0,683	0,820	0,635	0,738	0,607
SN7	0,723	0,711	0,723	0,873	0,694	0,789	0,676
SN8	0,726	0,723	0,750	0,894	0,715	0,800	0,696
SN9	0,666	0,719	0,670	0,773	0,628	0,689	0,583
TR1	0,661	0,728	0,697	0,722	0,885	0,759	0,765
TR2	0,671	0,731	0,732	0,724	0,888	0,791	0,823
TR3	0,528	0,583	0,621	0,590	0,780	0,576	0,680
TR4	0,541	0,697	0,601	0,655	0,793	0,652	0,644
TI1	0,735	0,672	0,709	0,758	0,666	0,796	0,622
TI2	0,753	0,772	0,742	0,701	0,689	0,833	0,643
TI3	0,764	0,770	0,732	0,691	0,698	0,829	0,657
TI4	0,737	0,706	0,730	0,734	0,691	0,792	0,620
TI5	0,655	0,782	0,701	0,736	0,718	0,850	0,688
TI6	0,674	0,785	0,716	0,756	0,733	0,871	0,707
TI7	0,665	0,739	0,716	0,730	0,732	0,852	0,708
TI8	0,631	0,701	0,658	0,723	0,729	0,877	0,676
TI9	0,669	0,688	0,702	0,745	0,736	0,867	0,709
TI10	0,687	0,718	0,704	0,749	0,760	0,892	0,714
TI11	0,672	0,724	0,681	0,762	0,776	0,891	0,731
TI12	0,688	0,744	0,682	0,714	0,672	0,844	0,661
TB1	0,643	0,720	0,730	0,713	0,772	0,791	0,876
TB2	0,512	0,577	0,611	0,586	0,768	0,571	0,844
TB3	0,561	0,585	0,645	0,622	0,674	0,618	0,824

Source: Compiled using the PLS-SEM partial least squares method, using the Smart PLS 4.0 program

The cross-loading of all items meets the criteria in Table 3, where the factor loading of the indicator on its latent factor in its row is higher than the other cross-loadings. This indicates that there are no problems with discriminant validity and confirms the stability of the measurement indicators.

The next criterion, Fornell-Larker, is a method for assessing the discriminant validity of measurement models (Table 4).

Table 4. Checking discriminant validity using the Fornell-Larker criterion

	AT	PBC	PSQ	SN	TB	TI	Trust
AT	0,822						
PBC	0,765	0,848					
PSQ	0,773	0,805	0,828				
SN	0,812	0,816	0,808	0,856			
TB	0,682	0,749	0,787	0,762	0,846		
TI	0,817	0,823	0,811	0,822	0,798	0,850	
Trust	0,722	0,821	0,794	0,807	0,818	0,844	0,838

Source: Compiled using the PLS-SEM partial least squares method, using the Smart PLS 4.0 program

This method of testing discriminant validity (Fornell–Larcker Criterion) shows the ability of a construct (latent variable) to differ from other constructs in the model; diagonally, the values must be greater than the corresponding interfactor correlations. Violation of the criterion indicates a merging of concepts, low questionnaire quality, or a need to revise the model. Analysis of this criterion indicates the reliability of the discriminant.

Heterotrait-Monotrait Ratio of Correlations (HTMR) is a statistical indicator used to assess discriminant validity in research. This indicator measures the similarities between different latent variables to determine the level of their statistical difference, to avoid repetition of each other, that is, how different variables actually differ from each other. NTMT is the ratio of the average correlations between variables that measure the same construct (monotrait) to the average correlations between variables that measure different constructs (heterotrait). An HTMT value of less than 0.85 indicates sufficient, excellent discriminant validity (recommended), statistical difference between variables, < 0.90 is acceptable in some cases, ≥ 0.90 – model refinement, variables measure the same thing.

Table 5. Ratio of heterotrait and monotrait (HTMT) – Matrix

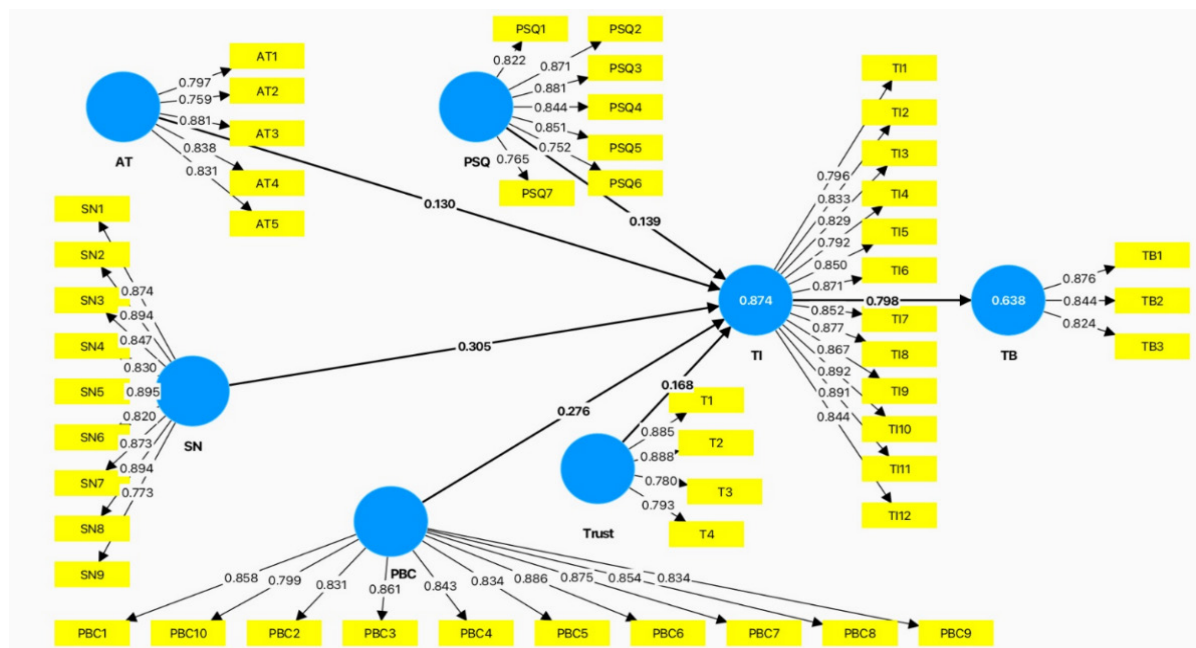
	AT	PBC	PSQ	SN	TB	TI	Trust
AT							
PBC	0,831						
PSQ	0,849	0,843					
SN	0,812	0,833	0,839				
TB	0,796	0,839	0,841	0,819			
TI	0,811	0,807	0,824	0,808	0,835		
Trust	0,821	0,842	0,835	0,848	0,797	0,717	

Source: Compiled using the PLS-SEM partial least squares method, using the Smart PLS 4.0 program

Analysis of Table 5 shows that the results of the NTMT criterion are below the critical value of 0.85, which indicates acceptable discriminant validity and demonstrates the adequate convergent and discriminant validity of the model.

As a result of the research and analysis of the PLS-SEM results, the authors developed the following model of the Extended Theory of Consumer Behavior (Figure 3).

Figure 3. Structural model of the Extended Theory of Consumer Behavior



Source: Compiled using the PLS-SEM partial least squares method, using the Smart PLS 4.0 program

A model based on previously formulated research hypotheses was introduced into the Smart PLS 4.0 program. For a hypothesis to be accepted, it must be confirmed and have t-statistics equal to or greater than 1.96 and p-values less than 0.05 (Table 6). The t-statistic is a statistical indicator used to test the significance of a hypothesis, showing the difference between the coefficient estimate and zero, taking into account the standard error. The t-statistic determines whether the influence of a variable is significant; the higher the t-value, the higher the probability of the variable having a real impact.

The p-value is the level of significance, the probability of obtaining the observed value, provided that the null hypothesis is true. If $p < 0.05$, the result is considered statistically significant, and the null hypothesis is rejected (the effect is not random; if $p \geq$, there is no reason to reject the null hypothesis).

The higher the t-statistic, the lower the p-value.

The purpose of the study is to determine the influence on tourists' intentions to visit health resort organizations in the Turkestan region and the influence of intentions on tourist behavior. The results of the trajectories are shown in Figure 2, and the summary results of the hypothesis testing are given in Table 6. Six hypotheses were found to be statistically significant and were confirmed.

The TI variable is equal to 0.874, which means that in this model, the intention to travel is 87% influenced by attitude, subjective norms, perceived behavioral control, perception of service quality, trust, while the variable intention to travel influences tourist behavior during travel by 83%, which confirms the validity of the model and the proposed hypotheses.

Table 7. Presentation of the results of hypothesis testing

Hypotheses	Influence	Standard deviation	T statistics	P values	Decision
H1: The attitude will have a positive impact on the intention to make a trip to a sanatorium in the Turkestan region.	AT -> TI	0,039	3,295	0,001	Confirmed
H2: Subjective norms will have a positive impact on the intention to make a trip to a sanatorium in the Turkestan region.	SN -> TI	0,048	6,387	0,000	Confirmed
H3: Perceived behavioral control will have a positive impact on the intention to make a trip to a sanatorium in the Turkestan region.	PBC -> TI	0,052	5,318	0,000	Confirmed
H4: The perceived quality of service has a positive effect on the intention to make a trip to a sanatorium in the Turkestan region.	PSQ -> TI	0,056	2,477	0,013	Confirmed
H5: Trust will have a positive effect on the intention to make a trip to a sanatorium in the Turkestan region.	Trust -> TI	0,048	3,511	0,000	Confirmed
H6: The intention to make a trip will have a positive impact on the behavior of tourists in the sanatoriums of the Turkestan region.	TI -> TB	0,020	38,969	0,000	Confirmed

Source: Compiled using the PLS-SEM partial least squares method, using the Smart PLS 4.0 program

All hypotheses presented were confirmed and are significant in terms of the influence of scales on tourists' intentions to travel and tourist behavior. The study found convincing evidence that attitude positively influences the intention to travel to health resorts in the Turkestan region, which is confirmed by the results of the study and corresponds to hypothesis 1.

7. CONCLUSIONS AND RECOMMENDATIONS

The results of the study are characteristic of the Turkestan region of Kazakhstan and may fully reflect the factors influencing the intention to travel in all regions of Kazakhstan. The study was conducted to analyze the factors influencing consumers' intention to visit health resort organizations in the Turkestan region for medical and health purposes.

The results of the study indicate that the influence of others on the intention to travel, corresponding to hypothesis 2, perceived behavioral control positively influences the intention to travel to health resorts in the Turkestan region, corresponding to hypothesis 3, the perception of the quality of services received also positively influences the tourist's intention to take a health and wellness trip, corresponding to hypothesis 4, trust in health resort organizations directly influences the intention of tourists to take a trip to health resort organizations in the Turkestan region, hypothesis 5. The intention to travel has a positive effect on the behavior of tourists during trips to sanatorium organizations, corresponding to hypothesis 6.

The conclusions of the study can serve as a guideline for sanatorium and resort organizations located in the Turkestan region to improve service quality and increase the level of trust and satisfaction among consumers.

Of particular note is the study by [Abbasi et al. \(2021\)](#) and [Bui T. T. B \(2023\)](#), who examined the

influence of attitudes, subjective norms, and perceived behavioral control on tourists' travel behavior. **Bui T. T. B (2023)** examines the change in travel preferences after the COVID-19 pandemic, concluding that in order to increase the number of tourists, health resorts must improve the quality of their services and increase public confidence in the quality of services, taking into account the expectations of tourists.

The study found a significant influence of the variables presented on tourists' intentions to visit health resorts in the Turkestan region.

Limitations and prospects. The main limitation of the study is the use of a convenient sample for respondents. To confirm the reliability of the medical and health tourism scale, additional studies with other samples are required. Future studies may also focus on further exploring the influence of economic status (affordability, expected costs, availability of insurance, subsidies, benefits, government programs) and social factors (religious and traditional barriers, social and group affiliation) associated with the intention to participate in medical and health tourism.

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Appendix

Constructions	Designation	Definition	Authors
The scale of attitudes towards trips to sanatoriums	AT1	For me, a trip to a sanatorium in the Turkestan region is a pleasant pastime.	Bui T. T. B (2023), Abbasi et al. (2021)
	AT2	I think that traveling for medical and wellness services outside of your place of residence is a reasonable decision.	Bui T. T. B (2023)
	AT3	I think it's nice to receive medical and wellness services in the Turkestan region.	Seow Ai Na et al., (2020), Martin D.S., Ramamonjiarivelo Zo H., (2011)
	AT4	In my opinion, it is financially beneficial to receive medical and wellness services in the Turkestan region.	Seow Ai Na et al., (2020)
	AT5	I believe that it is advisable for people to travel to the Turkestan region to receive balneological services.	Seow Ai Na et al., (2020)
The scale of the subjective expectation of family and friends	SN1	My close friends and relatives expect me to go to sanatoriums to receive medical and wellness services.	Martin D.S., Ramamonjiarivelo Zo H., (2011), Abbasi et al. (2021); Song et al. (2012)
	SN2	My close friends and relatives want me to go.(a) be treated in a sanatorium in the Turkestan region	Martin D.S., Ramamonjiarivelo Zo H., (2011), Abbasi et al. (2021)
	SN3	My family and friends encourage me to spend some time in health resorts.	Martin D.S., Ramamonjiarivelo Zo H., (2011), Abbasi et al. (2021); Song et al. (2012), T. T. B Bui, (2023)
	SN4	I got the impression that my friends and relatives are actively promoting wellness in health resorts.	Martin D.S., Ramamonjiarivelo Zo H., (2011),
	SN5	People who are important to me think that I should visit the sanatorium-resort facilities of the Turkestan region.	Martin D.S., Ramamonjiarivelo Zo H., (2011), Abbasi et al. (2021); Song et al. (2012)
	SN6	People who are important to me would support my decision to visit the sanatoriums of the Turkestan region.	Abbasi et al. (2021); Song et al. (2012)
	SN7	The people who are important to me understand the importance of visiting the sanatoriums of the Turkestan region	Abbasi et al. (2021)
	SN8	People who are important to me recommend visiting the sanatoriums of the Turkestan region	Abbasi et al. (2021), Seow Ai Na et al, (2020)
	SN9	The people who are important to me believe in health tourism	Seow Ai Na et al, (2020)
Perceived ability to achieve successful treatment and wellness services	PBC1	I feel that I will have enough time to visit sanatoriums in the Turkestan region.	Abbasi et al. (2021); Song et al. (2012)

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	PBC2	I assume that I will have the financial opportunity to visit the sanatoriums of the Turkestan region.	Martin D.S., Ramamonji-arivelo Zo H., (2011), Abbasi et al. (2021); Song et al. (2012)
	PBC3	I feel that nothing will stop me from visiting the sanatoriums of the Turkestan region.	Abbasi et al. (2021); Song et al. (2012)
	PBC4	I am sure that if I want to, I can go to the Turkestan region to visit sanatoriums.	Martin D.S., Ramamonji-arivelo Zo H., (2011), Abbasi et al. (2021); Song et al. (2012), Meng and Choi (2015)
	PBC5	I believe that the services provided by the sanatoriums will influence my decision to travel for medical and recreational purposes.	Martin D.S., Ramamonji-arivelo Zo H., (2011)
	PBC6	I feel that I will be able to get the necessary procedure in the sanatoriums of the Turkestan region.	Martin D.S., Ramamonji-arivelo Zo H., (2011)
	PBC7	I think that getting wellness services in the Turkestan region could help me avoid health threats.	Seow Ai Na et al, (2020)
	PBC8	I believe that the availability of health tourism in the Turkestan region will reduce the risk of health problems in the future.	Seow Ai Na et al, (2020)
	PBC9	Health tourism provides adequate resources to prevent health problems.	Seow Ai Na et al, (2020)
	PBC10	Thanks to my participation in health and wellness tourism, my overall well-being could probably improve.	Martin D.S., Ramamonji-arivelo Zo H., (2011)
Perceived quality of service	PSQ1	The level of medical, therapeutic and diagnostic infrastructure in sanatoriums is high	Abbasi et al. (2021);
	PSQ2	A wide range of rehabilitation, relaxation and treatment options in sanatoriums is important to me.	Abbasi et al. (2021);
	PSQ3	The proposed treatment, which does not lead to complications (the opposite effect) in sanatoriums, is important to me.	Godlewska et al., (2023)
	PSQ4	Good gastronomic facilities (the level of food quality) in sanatoriums are important to me	Godlewska et al., (2023)
	PSQ5	The silence in the sanatorium is important to me.	Godlewska et al., (2023), Meng and Choi (2015),
	PSQ6	The availability of sports infrastructure in a sanatorium is important to me	Godlewska et al., (2023)
	PSQ7	Having good specialists in sanatoriums is important to me	Godlewska et al., (2023)
The intention to travel	TI1	I plan to undergo some procedures in the sanatoriums of the Turkestan region.	Martin D.S., Ramamonji-arivelo Zo H., (2011)
	TI2	I will be able to receive highly qualified medical care in the sanatoriums of the Turkestan region.	Martin D.S., Ramamonji-arivelo Zo H., (2011)
	TI3	In the sanatoriums of the Turkestan region, I will be able to receive the services necessary for rapid physical and moral recovery of the body.	Martin D.S., Ramamonji-arivelo Zo H., (2011)

	TI4	I am sure that I will be able to arrange a trip to a sanatorium in the Turkestan region to improve my health.	Martin D.S., Ramamonjivelo Zo H., (2011)
	TI5	I am ready to go to the Turkestan region for health services	Seow Ai Na et al, (2020)
	TI6	I plan to receive reasonable medical treatment during my vacation in the sanatoriums of the Turkestan region.	Seow Ai Na et al, (2020)
	TI7	I would make every effort to get high-quality wellness services in the Turkestan region.	Seow Ai Na et al, (2020)
	TI8	In the near future, I will travel to the Turkestan region to participate in health tourism	Seow Ai Na et al, (2020)
	TI9	The Turkestan region would be my first choice among other areas of health tourism.	Abbasi et al. (2021)
	TI10	The probability of my trip to a sanatorium in the Turkestan region is high	Rasoolimanesh et al. (2021)
	TI11	I plan to travel to the Turkestan region in the near future for the purposes of health tourism	Rasoolimanesh et al. (2021)
	TI12	If possible, I am ready to travel to the Turkestan region to receive medical and wellness services.	Rasoolimanesh et al. (2021)
Trust	T1	I trust the information and advertising about the services provided by the spa facilities	Bui T. T. B (2023), Rasoolimanesh et al. (2021)
	T2	I trust the sanatoriums of the Turkestan region.	Rasoolimanesh et al. (2021)
	T3	I would describe the management of sanatoriums as working on the quality of services.	Rasoolimanesh et al. (2021)
	T4	My level of trust in the information and communication tools provided by the websites of the Turkestan region about sanatorium-resort organizations has increased since COVID-19.	Rasoolimanesh et al. (2021)
Tourist behavior	TB1	When I go on a trip, there is a possibility that I will visit the sanatoriums of the Turkestan region.	Lapteva N. (2021)
	TB2	My travel behavior is likely to change due to the increased threat of acute respiratory diseases.	Lapteva N. (2021)
	TB3	I will choose a less well-known destination, the sanatoriums of the Turkestan region, where there will be fewer tourists.	Lapteva N. (2021)