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FATORES DETERMINANTES DA IMAGEM DAS TERMAS EM PORTUGAL  
DETERMINING FACTORS OF THE SPRING SPA IMAGE IN PORTUGAL  
FACTORES DETERMINANTES DE LA IMAGEN DE LOS BALNEARIOS TERMALES EN PORTUGAL

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## RESUMO

**Introdução:** O termalismo em Portugal, inserido no turismo de saúde e bem-estar, tem ganho destaque como alternativa terapêutica e de relaxamento. A imagem das estâncias termais influência diretamente a atratividade e competitividade dos destinos.

**Objetivo:** Analisar a imagem do termalismo em Portugal, compreender os fatores que a determinam e avaliar a sua relação com a satisfação e fidelização dos frequentadores, bem como identificar razões para a não frequência.

**Métodos:** Foi aplicado um questionário online a residentes em Portugal, entre maio e junho de 2024, obtendo-se 274 respostas válidas. Os dados foram analisados com recurso a análise fatorial e regressão linear, usando o software SPSS.

**Resultados:** Apenas 29,9% dos inquiridos afirmaram já ter frequentado termas, com destaque para a motivação de lazer/bem-estar (82,9%). A imagem atual das termas está associada a práticas modernas de saúde e bem-estar. A satisfação mostrou elevada correlação com a fidelização ( $R^2 = 0,584$ ). Entre os não frequentadores, o desconhecimento das termas e a preferência por outros tipos de turismo foram as principais barreiras.

**Conclusão:** A imagem do termalismo em Portugal está a modernizar-se, mas ainda enfrenta desafios relacionados com comunicação e percepção pública. Estratégias de marketing mais eficazes e foco na experiência do cliente são essenciais para aumentar a frequência e fidelização dos aquistas.

**Palavras-chave:** termalismo; imagem de destino; turismo de saúde e bem-estar; satisfação; fidelização

## ABSTRACT

**Introduction:** Mineral Spring SPA in Portugal (sometimes referred to as Thermal) is part of health and wellness tourism, and gained prominence as a therapeutic and relaxation alternative. The image of SPA resorts directly influences the attractiveness and competitiveness of destinations.

**Objective:** To analyse the image of Spring SPA in Portugal, understand the factors that shape it, and assess its relationship with visitor satisfaction and loyalty, as well as identify reasons for non-visititation.

**Methods:** An online questionnaire was conducted among residents in Portugal between May and June 2024, yielding 274 valid responses. Data was analysed using factor analysis and linear regression with SPSS software.

**Results:** Only 29.9% of respondents had previously visited thermal resorts, mainly motivated by leisure/well-being (82.9%). The current image of Spring SPA resorts is associated with modern health and wellness practices. Satisfaction showed a strong correlation with loyalty ( $R^2 = 0.584$ ). Among non-visitors, lack of knowledge about Spring SPA resorts and preference for other types of tourism were the main barriers.

**Conclusion:** The image of Spring SPA in Portugal is becoming more modern, but still faces challenges related to communication and public perception. More effective marketing strategies and a focus on customer experience are essential to increase visitation and loyalty among spa-goers.

**Keywords:** mineral spring spa; destination image; health and wellness tourism; satisfaction; loyalty

## RESUMEN

**Introducción:** El termalismo en Portugal, enmarcado dentro del turismo de salud y bienestar, ha ganado protagonismo como alternativa terapéutica y de relajación. La imagen de las estancias termales influye directamente en la atractividad y competitividad de los destinos.

**Objetivo:** Analizar la imagen del termalismo en Portugal, comprender los factores que la determinan y evaluar su relación con la satisfacción y fidelización de los visitantes, así como identificar las razones de no asistencia.

**Métodos:** Se aplicó un cuestionario en línea a residentes en Portugal, entre mayo y junio de 2024, obteniéndose 274 respuestas válidas. Los datos fueron analizados mediante análisis factorial y regresión lineal, utilizando el software SPSS.

**Resultados:** Solo el 29,9% de los encuestados declaró haber visitado las termas, destacando la motivación de ocio/bienestar (82,9%). La imagen actual de las termas está asociada a prácticas modernas de salud y bienestar. La satisfacción mostró una elevada correlación con la fidelización ( $R^2 = 0,584$ ). Entre los no asistentes, el desconocimiento de las termas y la preferencia por otros tipos de turismo fueron las principales barreras.

**Conclusión:** La imagen del termalismo en Portugal se está modernizando, pero aún enfrenta desafíos relacionados con la comunicación y la percepción pública. Son necesarias estrategias de marketing más eficaces y un enfoque en la experiencia del cliente para aumentar la frecuencia y fidelización de los usuarios termales.

**Palabras Clave:** termalismo; imagen del destino; turismo de salud y bienestar; satisfacción; fidelización

## INTRODUCTION

Spring SPAs, part of health and wellness tourism, play a relevant role in the development of regions where the resorts are located, with a significant impact on the economy and employment. In Portugal, this sector assumes an increased importance, given that the Mineral Spring resorts are in regions with low population density, with the Thermal Establishment sometimes being the main employer in the region. Spring SPA frequency statistics (DGEG, 2025) show that this industry in Portugal has gained significant prominence in recent years, due to a growing global trend in the search for experiences that promote relaxation and well-being, but also a greater concern for health, especially on urban populations (Pereira et al., 2023; Smith & Puczkó, 2015). Through a more qualified and diversified offer capable of meeting the new needs of tourists, this tourist product has a potential that needs to be boosted. But, given the great competition between destinations, it is crucial to understand the image of a tourist destination (Hallmann et al., 2015). Therefore, to build the image of a resort, it is necessary to know what Spring SPA clients are looking for and what their perceptions are so that managers can adjust services to customers' desires (Navarrete & Shaw, 2021).

The image of a spa resort's destinations thus assumes great importance in the development process of the location, functioning not only as a way of differentiating itself from its potential competitors, but mainly as an attempt to provide economic support for the sustainable development of the resort (Chagas, 2009).

It is in this context that we intend to study the Spring SPA sector, seeking to analyse the perceptions that tourists have of Mineral SPA in Portugal, analysing the relationship between the image and the satisfaction of spa visitors and their loyalty. We also look for defining the profile of those who frequent the spas and understanding the factors that lead to people not visiting the spas. This knowledge is therefore relevant, as it will allow us to improve the potential of Mineral Springs to adequately satisfy the needs of current and potential customers.

## 1. LITERATURE REVIEW

Health and wellness tourism has become an important part of the tourism dimension (Brandão et al., 2021), often linked to leisure. However, according to Rodrigues et al. (2022), Spring SPA combines health and well-being, as the activity provides an improvement in quality of life and a "complete state of well-being, physically and psychologically". As also shown by Rodrigues et al. (2022), there has been an increase in publications on health and well-being on various subjects, which supports and reinforces the credibility of Spring SPA practices as a therapeutic alternative. These publications aimed at the scientific community are fundamental to the positioning of Spring SPA (Ramos et al., 2021), and one of the main themes under study concerns the profile of people who visit the SPAs with the intention of understanding their motivations, sociodemographic profiles, characteristics, needs, and desires. Knowing these aspects of the user allows those responsible for SPA destinations to identify strategies and guidelines to differentiate them and provides companies with information on the type of products to be offered (Antunes, Gonçalves, & Estevão, 2022). Understanding tourists' perspectives enables the creation of a competitive advantage for both destinations and businesses.

Nowadays, Spring SPA baths, heirs to a rich and long tradition from the ancient world, combine classical techniques with innovative proposals. The introduction and implementation of new technologies in equipment such as bathtubs, swimming pools, showers, saunas, etc., allows for the efficient optimization of SPA techniques and hydrotherapy facilities (Goméz Pérez et al., 2019).

Furthermore, the development of health tourism offers a new way of understanding the use of thermal waters, which demands greater quality and specialization of thermal services. Every year, thousands of people travel in Europe looking for healthy holidays and to improve their well-being and health (Anaya-Aguilar et al., 2021; Ramos et al., 2019).

Internationally, according to the Global Wellness Institute (GWI, 2025), the hot springs market is an important business segment of the wellness tourism industry. More specifically, the spa industry in 2017 included more than 149,000 facilities, with a revenue of \$93.6 billion, and 2.5 million workers. This sector grew 9.9% annually between 2015 and 2017, and the forecast for 2022 is to reach gains of US\$ 128 billion.

The increase in life expectancy, with the aging of the population and the change in habits, towards healthier lifestyles, together with other reasons, has led to the growth of health tourism, particularly the growth in the number of clients in the Spring SPA facilities (Alén et al., 2006).

Mineral waters have been used to solve health problems since ancient times, and from these first experiments and the consecutive improvements in the understanding and use of these waters, different cultures and communities around the world have used natural structures or built facilities for the best use and enjoyment of mineral water. The Spring SPA thermal baths, heir to a rich and long tradition from the ancient world, combine classical techniques with innovative proposals (Gómez Pérez et al., 2017).

SPA tourism also has a high potential to attract different tourist segments, thus contributing to reducing seasonality, which is one of the main problems in the tourism industry (Anaya-Aguilar et al., 2021). Spring SPA refers to medicine and well-being, leading customers to seek new experiences and see Mineral SPAs as places of relaxation and leisure (Loureiro et al., 2023) or treatment places where they can rest and have a healthier life (Ramos et al., 2019). Resorts, spas, thalassotherapy centres, and Spring SPAs, with mineral water, sometimes referred to as thermal water, use immersion, inhalation, pressure, and wrap techniques, like SPAs more focused on the therapeutic component (Goméz Pérez et al., 2019). In wraps, in addition to peloids (popularly known as

muds), other types of clay or herbal wraps are also used, with therapeutic and aesthetic purposes. From the practices developed in Roman times, but especially from the first hydrotherapy techniques described by Priessnitz and Kneipp to the present day, there have been countless innovations that have allowed SPAs to adapt to the demands and needs of a new type of client. There are currently companies specializing in the design and innovation of the offer that favour the modernization of existing Spring Spas and Spas, or even the emergence of new units. Highlights are control and automation; new materials; design and architecture designed by prestigious architects (Goméz Pérez, et al., 2019) and, in this process, it is not enough for operators to have a good product, but rather to satisfy or overcome the expectations and desires of their customers (Alén et al., 2006).

Most mineral springs are surrounded by beautiful natural environments and contribute to sustainable economic development, with their guests, national and local tourists, having a high average overnight stay (Anaya-Aguilar, 2021), as well as to the reduction of regional asymmetries (Antunes & Costa, 2024).

The introduction and implementation of new technologies in bathtubs, swimming pools, showers, saunas, etc., allows the efficient optimization of thermal techniques and hydrotherapy facilities and new services in the wellness area. Furthermore, the development of health tourism offers a new way of understanding the use of mineral waters, which demands greater quality and specialization of SPA services (Gómez Pérez, et al., 2017), but did this modernization of the facilities involve a change in the image of the Spring Baths in the minds of consumers, with implications on the decision-making process?

The image of a tourist destination has been defined as the “sum of beliefs, ideas and impressions that a person has of a given destination” (Crompton, 1979, cited in Lee et al., 2023 p.2) and plays an important role in the decision-making process and in the choice of the tourist destination (Beerli & Martín (2004); cited in Paiva et al., 2018), contributing to the positioning and differentiation of each destination. The image is constructed in a dynamic process, addressed by several authors (Chen, 2019; Severt & Hahm, 2020; cited in Lee, et al., 2023), in different stages, being gradually modified, until contact with the reality of the destination. This continuum highlights the importance of expectations and on-site experiences, and their influence on the subsequent intention to revisit or not (Lee et al., 2023). Faced with this reality of constant image changes, some researchers have tried to determine which experiences and which factors induce positive changes in the image of destinations (Lee et al., 2023), and it has also been confirmed that tourist experiences linked to water are positively correlated with the perception of quality of life, satisfaction and loyalty of people both towards the experience or to the destination (Campón-Cerro, 2020). In Spring SPAs, the unique and differentiating element is, precisely, the natural mineral water, which with its physical and chemical characteristics confers beneficial effects on health and makes SPA treatments possible and allows for the enhancement of the offer, in terms of well-being, but it is not enough to respond to the diversity of demand motivations, making an effective segmentation process of its customers difficult (Alén & Rodríguez, 2004). So, it is mandatory for managers to know the different motivations of customers to adapt the offer to customers and potential customers.

## 2. METHODS

To understand the expectations, perceptions, and reasons for seeking out Spring Spa resorts in Central Portugal, a structured methodology was used with the application of an online survey to tourists residing in Portugal. The scales used to measure perceptions of destinations in spa resorts were constructed based on scales pre-established in the review of literature related to spa tourism and determinants of tourist demand, namely perception, motivation, satisfaction, future intention, etc. The scales were tested in previous studies, but adapting some variables to identify and measure other dimensions related to thermal spaces. The impossibility of knowing the population, in tourism studies, makes it impossible to use a probabilistic sample, which led us to consider a convenience sample, described below.

### 2.1 Sample

In this research, a non-probabilistic sampling technique was used, applying a survey through the social networks Facebook, WhatsApp and Instagram. Data collection was carried out between May and June 2024, with 274 valid questionnaires collected for analysis.

### 2.2 Data collection instruments

The data were collected through a questionnaire applied online, on social networks. The computer tool used to construct the questionnaire was Google Forms, and the link, with the academic basis for the study, was published on various social networks, in user groups related to Spas. Ethical procedures were followed during data collection.

### 2.3 Statistical analysis

The analysis and processing of the collected data were carried out using the SPSS program (V. 27), specifically for exploratory factor analysis and linear regression. Factor analysis is one of the psychometric procedures widely used in this type of study, where the aim is to identify and reduce the number of explanatory variables. Linear regression is a statistical technique used to predict the value of one variable based on the value of another variable or variables, which we call independent variables.

### 3. RESULTS

The analysis of results begins with a characterization of the sample. This analysis is subdivided between individuals who have already attended the spas and those who have never attended (Table 1). As can be seen in this table, it is recorded that of the sample of 274 individuals, only 29.9% of the sample had ever visited the spas in Portugal. In terms of gender, there are no very significant differences between the two groups, although there is a slight predominance of males among individuals who have already attended Spas. In relation to age, there was a higher proportion of individuals in the age range of 25 to 41 among those who frequented Spring Spas, with 35.4%, compared to the total sample and no spa visitors. Regarding income, the group of spa visitors also had, on average, higher incomes compared to the total sample and non-visitors. Regarding qualifications, there is a slight difference, with higher qualifications being recorded among those who frequent the spas. About the profession, there is a high percentage of employees (42.7%) in the sample of spa visitors, compared to the total sample and non-visitors.

**Table 1** - Sample characterization

Variables	Categories	Total Sample		SPA users		No Users	
		Freq.	%	Freq.	%	Freq.	%
Gender	Feminine	132	48,2	33	40,2	99	51,6
	Masculine	142	51,8	49	59,8	93	48,4
Age	18-24 years	168	61,3	38	46,3	130	67,7
	25-41 years	49	17,9	29	35,4	20	10,4
Monthly income	42-56 years	48	17,5	15	18,3	33	17,2
	More than 57	9	3,3	0	0,0	9	4,7
Education	Less than 820€	136	49,6	31	37,8	105	54,7
	Between 820€ a 1000€	80	29,2	32	39,0	48	25,0
Profession	Between 1001€ 2000€	46	16,8	16	19,5	30	15,6
	Between 2001€ 3000€	6	2,2	0	0,0	6	3,1
Education	More than 3000	6	2,2	3	3,7	3	1,6
	Less than 9 years at school	9	3,3	0	0,0	9	4,7
Profession	More than 9 and less than 12	80	29,2	26	31,7	54	28,1
	Undergraduate	185	67,5	56	68,3	129	67,2
Education	Unemployed	9	6,5	3	3,7	6	3,1
	Self-employed worker	14	5,4	8	9,8	6	3,1
Profession	Student	159	26,1	36	43,9	123	64,1
	Work. for someone else's account	92	33,6	35	42,7	57	29,7
Total		274	100,0	82	100,0	192	100,0

The following analysis will only be carried out in relation to respondents who have already attended spas. Regarding the main reason for visiting the spa, a higher percentage was recorded for the reason of Well-being/Relaxation, with 82.9% of respondents, compared to only 17% with the health motivation (Table 2). These data are in line with national statistics from 2023, which show that 25.3% attend spas for therapeutic reasons and 74.7% for well-being reasons (DGEG, 2025).

**Table 2** - Main reason for visiting the spas

Items	Frequency	Percentage
Leisure / Relaxation	68	82,9
Prevent future diseases	7	8,5
Treat diseases	7	8,5
Total	82	100,0

We also wanted to know how people made the decision to visit the spas. It stands out on its own initiative, with 63.8% of responses, followed by the influence of third parties. It is worth noting that only 7.4% attend spas on medical prescription (Table 3). Regarding the number of times a year that they usually visit the spa, it is recorded that around 75% It was a one-time experience. Around 21% of respondents go to the Spring SPAs once a year, and only 4% visit two or more times per year, on average.

**Table 3** – How did you decide to go to the spa?

Items	Frequency	Percentage
Own initiative	60	63,8%
Influence of third parties (relatives, friends, etc.)	24	25,5%
Geographical proximity to the area of residence	3	3,2%
Medical prescription	7	7,4%
Total:	94	100,0%

The following analysis aims to identify the image that interviewees have of Spring SPAs in Portugal. Ten items were considered, based on the literature review (Chagas, 2009; Loureiro et al, 2023). It starts by presenting the mean and standard deviation of these items (Table 4).

**Table 4** – Mean and standard deviation of items related to the image of the SPA

Items	Mean	SD
It is possible to visit spas for fun without having the aim of treating any illness	4,45	0,729
Spring SPA is good for your health	4,44	0,728
Going to a spa helps people reduce their stress levels	4,41	0,746
Spring SPA contributes to the development of a region	4,36	0,717
Spring Spa treatments help prevent diseases	4,06	0,829
Undergoing SPA treatments has a high monetary cost	3,80	0,872
The Spring SPAs baths are set in a rural landscape	3,61	0,722
The Spring SPAs are mainly frequented by older people	3,38	0,895
The Spring SPAs have a hospital atmosphere	2,77	1,117
The Spring SPAs have an unattractive image	2,64	1,069

Today, people already have an image of spas as being linked to well-being practices and not just to treating illnesses, with an average of 4.45, but at the same time, that spas are good for health (4.45) and that visiting spas helps people to reduce their stress levels. It is also worth noting that the least valued items are that the spas have a hospital atmosphere, with an average of only 2.77, and that the spas have an unattractive image, with an average of only 2.64.

Next, a Principal Component Analysis (PCA) was performed on this set of 10 items to find combinations of variables (factors) that explain the correlations between all pairs of variables. To apply and validate this technique, it is necessary to evaluate the correlations between the variables to know whether it is legitimate to carry out a factor analysis. The Kaiser-Meyer-Olkin value ( $KMO = 0.687$ ), which presents the value of the suitability measure, indicates that the analysis is at a good level. The Bartlett test, which tests the null hypothesis that the correlation matrix is an identity matrix, presents the value 445.067 and an associated probability of 0.001, which rejects the null hypothesis that the correlation matrix is an identity matrix (Table 3). These tests indicate that the 10 variables are suitable for performing a factor analysis.

**Table 5** - KMO and Bartlett test

Kaiser-Meyer-Olkin of sampling adequacy.	,687
	Aprox. Chi-Square
Bartlett's test of sphericity	445,067
	gl
	45
	Sig.
	<.001

Using the Kaiser criterion (eigenvalue greater than 1), three factors were found that explain 75.839% of the total variance in the set of 10 variables analysed. For better interpretation of the factors, the axes were rotated using the varimax method.

variables analysed. For better interpretation of the factors, the axes were rotated using the varimax method. Table 6 shows the weights of the variables in each factor. Thus, factor 1, which we call "Contemporary image", is composed of 5 variables and is the factor that contributes most to explaining the total variance (27.005%). Factor 2 is related to the "Image of the past", contributing 17.694% of the total variance, and factor 3, called "Expensive price and set in a rural landscape", explains 15.775% of the total variance. Only weights greater than 0.5 were considered for easier interpretation and so that each variable only presented weights in a single factor.

weights greater than 0.5 were considered for easier interpretation and so that each variable only presented weights in a single factor. The internal consistency of each factor was then analysed using Cronbach's Alpha ( $\alpha$ ). The values of  $\alpha$  range from 0 to 1.0, and the closer to 1, the greater the reliability between the indicators. The first factor has good internal consistency (.779), factor 2 has an acceptable value of alpha=.636, and factor 3 has a low value of 0.481, but justifiable because it includes only two items.

**Table 6** - Rotating component array<sup>a</sup>

Items	1	Component 2	3
Spring SPA is good for your health	,818		
Spring Spa treatments help prevent diseases	,766		
Spring SPA contributes to the development of a region	,749		
Going to a spa helps people reduce their stress levels	,736		
It is possible to visit spas for fun without having the aim of treating any illness	,543		
The Spring SPAs have an unattractive image		,807	
The Spring SPAs have a hospital atmosphere		,750	
The Spring SPAs are mainly frequented by older people		,658	
Undergoing SPA treatments has a high monetary cost			,789
The Spring SPAs baths are set in a rural landscape			,745
Eigenvalue	2,701	1,769	1,578
Variance explained	27,005%	17,694%	15,775%
Cronbach's Alpha ( $\alpha$ )	,779	,636	,481

Extraction Method: Principal Component Analysis.

Extraction Method: Principal Component Analysis.  
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 4 iterations.

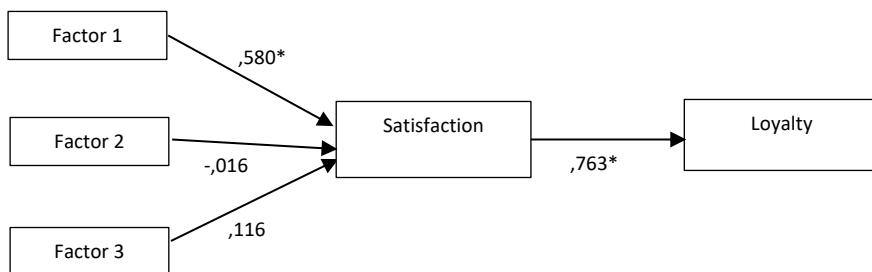
The analysis of these factors related to the image of Spring Spa can support decision-making by Spa managers. Aspects related to the current situation of SPA are the most valued factor. In this sense, Spa organizations must invest in more assertive communication, showing how Spring SPA is a present-day product, considering contemporaneous problems and with modern and latest equipment. In turn, it is necessary to eliminate the image of Spas as an old-fashioned product, with a hospital aspect and frequented mainly by the elderly.

SPA users were also asked to indicate their level of satisfaction and loyalty. Table 7 shows the mean and standard deviation of the items on the Likert scales from 1-completely disagree to 5-completely agree. All items have very positive averages, between 3.52 and 4.04. Figure 1 shows the relationships between the different constructs.

**Table 7** – Mean and standard deviation of items related to satisfaction and loyalty

Itens	Mean	SD
I am very satisfied with SPA treatments	3,56	1,067
Going to this spring SPA has been a good experience	3,83	0,940
Going to this spring SPA exceeded my expectations	3,52	0,997
I intend to continue visiting the spas in the coming years.	3,68	1,041
I usually speak well of Spring SPA when I talk to other people.	3,90	0,989
I recommend my family and friends to come to the spas	4,05	1,005

The following analysis aims to explain which of these image factors has the greatest influence on satisfaction and, in turn, on the loyalty of SPA users. To determine this relationship, the linear regression model was used. The first model considers the factors of factor analysis as independent variables and the satisfaction factor as a dependent variable. This model presents an  $R^2=0.583$ , therefore very satisfactory. Factor 1 has a strong impact on the satisfaction of thermal bathers, with  $B=0.580$  (sig.<.001). Factors 2 and 3 do not present statistically significant values. The effect of the satisfaction factor on the loyalty factor SPA users was also measured ( $R^2=0.584$ ), recording a coefficient of 0.763 (sig. < .001), which also suggests a strong focus on satisfaction, as this contributes strongly to the loyalty of thermal bathers (Figure 1).



\* Statistically significant, for a significance p level < 0,05

**Figure 1** - Relationship between image factors and satisfaction and loyalty of spa users

We also intended to find out from those interviewees who do not attend spas, what their main reasons were, on a 5-point Likert scale, with 1 - I completely disagree to 5 - I completely agree. The preference for another type of tourism stands out, as shown by national statistics (INE, 2024). What really should wake up the spa managers is the reason for "Little knowledge of the spas", with an average of 3.75, and the little knowledge that people have of the spas. These data are reasons for the enterprises to develop better and more promotional actions and communication among tourists in Portugal.

**Table 8** – Factors related to non-attendance at spas

Itens	Mean	SD
Little credibility in the effectiveness of SPA treatments	1,95	0,928
Preference for another type of tourism	4,03	0,792
Little knowledge of the Spring Spa baths	3,55	0,937
Existence of few complementary activities	3,19	1,076
Lack of promotion of Spring Spas	3,75	1,063
Lack of company to go to the spas	3,06	1,213
Financial issues	3,16	1,268

#### 4. DISCUSSION

Of the population surveyed, it was recorded that only 29.9% practice or have experienced Spring SPAs. These data are somewhat like the study carried out by Loureiro et al. (2023), in which around 35.5% practice or have practiced Spring SPA treatments. Regarding the profile of the sample that goes to SPAs, there are also some similarities with other studies (Antunes & Costa, 2024; Ramos et al., 2021), about gender, although the age of the users identified in the sample is considerably lower than what was found in previous studies and what we expected to find. This fact may be due, eventually, to the way in which information is collected (social networks). We also highlight the low percentage of users who go to the Spas on medical prescription, which shows a significant increase in the trend found in other studies (Ramos, et al., 2021). Also, the number of people who mention their own initiative versus suggestions from family/friends seems to point to a more subjective influence, below *the line*, which we would like to explore further in other studies. The average found in the question about the recreational aspect and the main motivation found to be leisure/relaxation is in line with the trend of frequenting spas in this aspect, which has been cannibalizing the therapeutic segment in recent years.

The relation between Spring SPAs practise and something good for health, the main factor of the first component found, is in line with the most recent studies that refer to the practice of Spring SPAs as a way of finding a state of global health – physical, emotional and social, making people “feel good” (Antunes et al., 2022). The lack of attractiveness of the Mineral Spring baths' image also explains some resistance to the first visit, an effort that is compensated by the experience, which leads to loyalty. The high monetary cost found in the third component is in line with the need to travel to places far from one's usual residence, but with great scenic value, where one can rest.

#### CONCLUSION

This study allowed us to understand, in greater depth, the current image of Spring SPAs in Portugal, highlighting the factors that influence their perception, the satisfaction of visitors, and their level of loyalty. Through statistical analysis of data collected from a sample of users and non-users of the SPA baths, it was possible to identify three main dimensions associated with the image of the Spring SPAs: the contemporary image, the traditional image (or from the past), and the perception related to cost and landscape setting.

The results reveal a positive evolution in the image of Spring SPAs, with a growing appreciation of its aspects of well-being, relaxation, and health promotion, in addition to the treatment of diseases. This positive perception reflects a modernization of spas and a greater adaptation to the new demands of tourists, particularly the younger generations. The image of an aged, hospital-like product aimed exclusively at the elderly is thus progressively being overcome, although some stigmas remain, notably among non-users.

The satisfaction demonstrated by users is high and has a direct relationship with loyalty, which reinforces the importance of continuing to invest in the quality of the experience offered. On the other hand, the analysis of the reasons for non-attendance highlights factors such as lack of knowledge about the spas, low publicity, and preference for other forms of tourism, indicating the need to strengthen strategic communication and marketing in this sector.

It was also found that the decision to visit the spas is, for the most part, individual, reinforcing the importance of the subjective experience and the image projected in the imagination of potential tourists. The emotional component and the perception of well-being seem to be decisive in the decision to repeat the visit.

Thus, it can be concluded that the image of spas in Portugal is undergoing a transformation, following international trends in health and wellness tourism. To consolidate this positioning, it is essential to invest in service innovation, diversification of supply, qualification of human resources, and effective communication, adjusted to the different market segments. Only in this way will it be possible to attract new audiences, retain current ones, and ensure sustainable and competitive development of the Spring SPA sector in Portugal.

#### AUTHORS' CONTRIBUTION

Conceptualization, A.B.R., J.A. and E.A.; data curation, J.A.; formal analysis, A.B.R., J.A. and E.A.; investigation, A.B.R., J.A. and E.A.; methodology, A.B.R., J.A. and E.A.; project administration, A.B.R.; resources, A.B.R., J.A. and E.A.; software, J.A., supervision, A.B.R., J.A. and E.A.; validation, A.B.R., J.A. and E.A.; visualization, A.B.R., J.A. and E.A.; writing-original draft, A.B.R., J.A. and E.A.; writing-review and editing, E.A.

#### CONFLICT OF INTEREST

The authors declare no conflict of interest.

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