# The Importance-Satisfaction Matrix as a Strategic Tool for *Termas de Chaves* Thermal Spa Priority Improvements

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## ABSTRACT

Health and wellness tourism has gained increased interest from the public, which searches for spaces that assure health and wellness maintenance. Proof of this is the example of *Termas de Chaves* thermal spa, which has gradually grown demand for its products and services. In this context, this study aims to identify and analyse the attributes offered by the thermal spa since it is essential to know the customer's preferences and satisfaction. To this end, dimensions related to the determinants of importance that influence the respondents' satisfaction were evaluated. A questionnaire survey was applied on-site from 09 August to 20 December 2021, obtaining a total sample of 225 participants. After data collection, the importance-satisfaction matrix was applied for exploratory, descriptive analysis. The results show that customers give high overall importance and satisfaction to the attributes under study. Moreover, it was possible to identify that the factor "availability and assistance provided by human resources" presents high importance but low satisfaction. Such a conclusion indicates that it will be necessary to adapt improvement strategies to increase customer satisfaction.

## KEYWORDS

## ARTICLE HISTORY

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# 1. Introduction

The tourism industry is constantly growing, and health and wellness tourism is currently seen as a tourism segment with a high level of competitiveness (Hartwell, Fyall, Wills, Page, Ladkin, & Hemingway, 2018). The ageing population is pointed out, as well as the way of life of individuals hit by the stress of modern life, factors that can justify the development of this tourism product. For these spaces to remain competitive and grow in the current circumstances, thermal establishments must adapt quickly to the volatile context. To conduct this analysis, the present study considers the particular case of *Termas de Chaves* thermal spa, located in the region of Chaves, a sub-region of *Alto Tâmega*. In this context, the importance-satisfaction matrix. This diagnostic tool was selected since it was revealed to be potentially valuable in understanding what the visitor expects from the experience. In the future, the results may help the establishment to gather efforts to supply products and services more directed to satisfy the visitors' expectations or, if possible, exceed them. For this purpose, 225 customers were surveyed for five months, where the thermal spa guests were asked to give their opinion concerning the attributes of the thermal spa, which were divided into eight fundamental parts: thermal water; facilities; equipment; services; techniques; human resources; relaxation; and companions. It was chosen to use the importance-satisfaction matrix, supported by the importance-performance matrix (IPA) introduced by Martilla and James in 1977. The tool is seen as a basic diagnosis technique (Johns, 2001) that facilitates the identification of improvement priorities in companies (Sampson & Showalter, 1999) and allows the concordance of efforts in strategic planning to improve relative competitiveness (Matzler, Bailom, Hinterhuber, Renzl, & Pichler, 2004). The study aims to investigate the perception of the importance and satisfaction of the attributes of the Chaves thermal spa. The weak points will be determined for each customer, and those with a competitive advantage will be highlighted. Following this introduction, the paper is structured in four additional sections to achieve the objectives. The second section focuses on the theme's theoretical framework, while the third presents the research method and methodology. The fourth section presents and analyses the results of the data collected. The final considerations bring the study to an end. The dissemination of this analysis results is expected to provide the thermal spa of Chaves with data which will allow a closer knowledge of their customer's preferences to create strategies to satisfy them and attract more customers.

# 2. Theoretical Background

The world economy is nowadays characterised by globalisation, in which the speed of evolution is perceived at all levels. With this, organisations must be increasingly aware of increased competitiveness in the market, which requires better quality of productivity and service supply to make profits. Thus, the success of an institution depends on its ability to meet its customer's needs, and it becomes essential to know them (Manhas, Charak, & Sharma, 2019).

In business activity, the literature suggests that tourism is a special case of services trade. Such services have particular characteristics which require special treatment in the analysis of competitiveness (Ferreira et al., 2022; Rodrigues et al., 2022). It involves providing services entirely focused on the customer, whose leading purpose is to match what the customer is looking for (Dwyer, Edwards, Mistilis, Roman, & Scott, 2009). Thus, the prosperity and success of this industry are entirely dependent on the customer. In recent years, the service industry focused on health and wellness tourism has grown in importance, with spas and thermal spaces representing a stable and reliable source of business. Health tourism may not be the core type of tourism when measured by the number of tourists, but it is currently considered one of the market sections with the highest income level due to its demand and high prices (Hodzic & Paleka, 2018). Indeed, society, in general, is more aware of health and well-being issues, both physical, psychological and social, due to the recommendations of the World Health Organization - WHO (Pereira, Fonseca, Coutinho, Cruz, & Araújo, 2017).

According to the ISPA Foundation - University Institute of Psychological, Social and Life Sciences Foundation (2021), spas are places dedicated to general well-being through a variety of professional services that encourage a renewal of mind, body and spirit. Panchal (2012) indicates that spa treatments generally provide positive experiences for tourists. Tang, Chan, Chew-Tan, and Wong (2020) provide evidence of this

positive pattern concerning spa baths, identifying 748 positive experiences and 187 negative experiences. At the same time, Nilsen (2013), Silvério, Ferreira, Alves, and Fernandes (2022), and Vaz et al. (2022) confirm that thermal experiences are valuable enough to be repeated. Choi, Kim, Lee, and Hickerson (2015) consider that spa spaces have become a popular tourist destination, largely influenced by the current emphasis on well-being in the tourist experience. Kim and Yang (2021) identify a four-stage transformation process of the well-being experience: realisation, involvement, transformation and appreciation. Huang, Chen, and Gao (2019) report that the spa experience was significantly associated with two well-being components, one including positive emotions and the other falling into life satisfaction leading to consumer loyalty.

Lo, Wu, and Tsai (2015) identified four service quality dimensions that significantly impact the positive emotions of spa consumers: tangibility, reliability, responsiveness and empathy. These authors state that a well-designed service process, standardised service procedures, and training of service staff and therapists can help generate positive emotions and create a better spa experience for users. These authors also consider that it is vital to provide quality services to stimulate the consumer to repeat the same experience in the future. Thus, it is understood that providing a quality experience encourages customers to return (Langviniene & Sekliuckiene, 2008). The same idea is shared by Loureiro, Almeida, and Rita (2013), who argue that a positive and satisfactory experience is crucial for those who frequent a thermal spa because they want to praise it and recommend it to family and friends. The findings of Choi, Poade, Sohn, and Choi (2016) show that the most significant factor influencing repeated visits to spas is a memorable experience, which includes self-discovery, positive emotions, feeling connected to the space, and the experience of enjoying local, non-marketed products and attractions.

Recent studies analyse the users' point of view regarding the attributes they consider most important in the spa experience. Rodrigues, Brochado and Troilo (2020) point out aspects such as the infrastructure (building, exterior and interior design, environment) and the behaviour of the technical team. Smith, Jancsik, and Puczkó (2020) mention the importance of providing specialised information, the staff's guidance and the space's cleanliness. Previously, Bodeker and Cohen (2010) had mentioned essential safety, comfort, communication, customer service and technical capacity. The findings of Zeng, Li, and Huang (2021) report that the satisfaction of health and wellness tourists has a direct positive effect on their behavioural intentions after the experience. In turn, behavioural intentions have a direct and positive effect on competitiveness. Precisely because people share the good and bad of their experiences, intending to witness and advise others with their opinion and evaluation (Ahani, Nilashu, Ibrahim, Sanzogni, & Weaven, 2019). Liu, Fu, and Li (2019) report that the impact of on-site experience plays a crucial role in customer loyalty. And they further reveal that service performance and affective experiences are significantly associated with consumer satisfaction contributing to a good evaluation of wellness spa tourism destinations.

Therefore, the link between customer satisfaction and the organisation's success is entirely related, and the daily challenge for any institution is essential to recognise the needs of the public in the best possible way to provide high-quality services to retain them.

Understanding and using the importance-performance analysis (IPA) concept becomes relevant in this context. Martilla and James introduced it in 1977 as a tool for developing management strategies in companies that intend to examine and understand specific customer characteristics (Ferreira & Fernandes, 2015; Esteves & Fernandes, 2017). The performance is measured according to the customer's importance given to a product or attribute. Ideally, this measurement should use the same set of attributes so that the importance and performance can be directly compared. It is recommended that the values are presented using the median instead of the mean (Martilla & James, 1977). In essence, IPA combines measures of attribute importance and performance in a two-dimensional grid to facilitate data interpretation and obtain practical suggestions (Silva & Fernandes, 2011; Azzopardi & Nash, 2013). However, over time questions were raised regarding the conversion of the acquired results into action. First, the research findings required a great deal of effort to decode and interpret. And secondly, the analysis could only be conducted to analyse the attributes of importance or performance attributes. Still, it was later proved that knowing customer satisfaction is an added value. With this, IPA underwent changes proposed by Matzler, Heischemidt and Sauerwein (2003), in which the dimension "performance" was replaced by "satisfaction", thus creating the importance-satisfaction matrix. It presents itself as a marketing and management tech-

nique used to develop strategies focused on consumer attitudes that involve their preferences regarding the product/service.

This analysis presents several benefits as it is a simple, understandable and low-cost technique that provides insight into the attributes that should be taken into account, as it helps to understand the areas that may be consuming too many resources within a company and/or organisation. This instrument has gained widespread acceptance in many fields and is widely used in the tourism industry due to its simplicity and attractiveness in projecting results and suggesting strategic actions to improve competitiveness (Esteves & Fernandes, 2017; Machado & Fernandes, 2017). Nevertheless, the present state of our knowledge indicates Portugal still has no application studies in health and wellness tourism. The description of the importance-satisfaction matrix will be explained in more detail in the methodology section.

## 3. Methodology and Methods

The objectives of the present study can be divided into two main objectives. First, to identify the customer's perception importance of Chaves thermal spa attributes and the evaluation granted in terms of their satisfaction. Second, to identify the areas of concern of *Termas de Chaves* thermal spa and those with a competitive advantage. To this end, a questionnaire survey was applied to the *Termas de Chaves* customers, using the non-probabilistic sampling process during the 2021 thermal season, i.e., between 09 August and 20 December. A final sample of 225 participants who agreed to collaborate in the study was reached. All received an explanation of the research objectives, duration, and voluntary and confidential nature. Consequently, they gave their informed consent. The data collection period was conditioned by the pandemic caused by the SARS-CoV-2 virus that implied the closure of spas in the Portuguese territory for an extended period in the first half of 2021. It should be noted that the questionnaire preparation concerning importance and satisfaction attributes was supported by a questionnaire already implemented by Silvério (2020) in *Termas de Chaves* between 13 July and 17 September 2020, which had a final sample of 107 spa customers for the evaluation of 14 attributes.

The questionnaire used in this study is divided into two parts. The first part includes questions which allow us to characterise the customer profile, such as the socio-demographic information. The second part integrates questions dedicated to the analysis of the "importance" that customers attribute to the aspects of the thermal spa of Chaves and the study of their "satisfaction" to understand the actual performance of the spa concerning the services provided. In terms of validity, the questionnaire had been designed on the basis of related studies. For analysing these two dimensions, 11 items were used to account for the following variables: Thermal water, Facilities, Equipment, Services, Techniques, Human Resources, Relaxation and Escorts. Table 1 presents the attributes used by Silvério (2020) and how they were adapted for the present study.

**Table 1.** Attributes of the Thermal Spa of Chaves, by Study

| Attributes of Silvério's Study (2020) | Research Study (2022) |
|---|---|
| Water quality | Medicinal quality of thermal water |
| Installations' quality | Installations' quality (cleanliness and safety) |
| Equipment quality | Equipment quality |
| Quality of services provided | Quality of services provided |
| Diversity of services provided | Diversity of services provided (treatments and program) |
| Expertise and techniques used | Expertise and techniques used |
| Knowledge and skills in human resources | Knowledge and skills in human resources |
| Availability and assistance provided by human resources | Availability and assistance provided by human resources |
| Service customisation | Service customisation |
| ---------- | Rest and tranquillity |
| ---------- | Presence of friends and/or family |

Source: Own Elaboration

Cronbach's alpha coefficient was calculated to analyse the reliability of the group of questions that answer the latent variables: Global Importance and Global Satisfaction. To measure the level of importance and satisfaction, a 5-points Likert-type scale was used. Thus, the respondent would have to answer, for the level of importance, using the scale: 1 - Not at all important; 2 - Not very important; 3 - Relatively important; 4 - Very important; 5 - Extremely important. For the satisfaction level, use the scale: 1 - Very Dissatisfied; 2 - Dissatisfied; 3 - Neither Dissatisfied nor Satisfied; 4 - Satisfied; 5 - Very Satisfied. Table 2 presents the data on the actual Cronbach's alpha coefficient values concerning Global Importance and Global Satisfaction for the 11 attributes under study.

**Table 2.** Reliability Statistics for the Importance and Satisfaction Dimensions

| Latent Variable | Cronbach's alpha | Reliability |
|---|---|---|
| Global Importance (11 items) | 0.956 | Very Good |
| Global Satisfaction (11 items) | 0.939 | Very Good |

Source: Own Elaboration

According to the internal consistency scale (Gliem & Gliem, 2003), the actual Cronbach's alpha coefficient values for the latent variables, importance (0.956) and satisfaction (0.939), assume very good reliability. This demonstrated that the scales of the formal questionnaire have considerable reliability.

After collecting data from the questionnaires, these were processed, and information was produced using exploratory and descriptive analysis. Univariate and bivariate statistical techniques were applied to process the collected data. Firstly, a descriptive analysis of the socio-demographic results is carried out to help analyse and characterise the study sample. Secondly, the Importance-Satisfaction matrix is used to identify the strategic determinants from the spa stakeholders' point of view.

As already mentioned, the importance-satisfaction matrix is applied to direct the performance improvement actions focusing on the opinion of the spa customers. This strategic management tool is straightforward and helps trace an organisation's panorama. Stakeholders have expectations and requirements to be met by the Chaves thermal spa, which may present different performance levels. It becomes necessary to monitor customer satisfaction and continuously improve. Thus, the importance-satisfaction matrix makes it possible to verify which attributes are positioned in each quadrant and which deserve greater attention and priority considering their positioning. With the scheme presented in Figure 1, it becomes possible to create plans and actions to improve the aspects deemed strategic to an organisation that is a priority for improvement interventions.

**Figure 1.** Importance-Satisfaction Matrix



Source: Adapted from Matzler, Heischemidt and Sauerwein (2003, p. 115).

The matrix is divided into four quadrants that enable the positioning of attributes according to importance and satisfaction to identify characteristics and possible strategies (Martilla & James, 1977; Matzler, Heischemidt, & Sauerwein, 2003):

- Quadrant I: Pointed as an area of concern, as the attributes are considered very important, but the level of satisfaction is below average. It requires immediate attention to improve the weak points;
- Quadrant II: Encompasses the strong points that have high importance and with which the customer is completely satisfied. In this quadrant, the main challenge/objective is to maintain opportunities to continue achieving competitive advantage with the standards already established;
- Quadrant III: Encompasses the weak points, where low importance and low satisfaction are central. Not enough attention is being paid to improving weaknesses, and additional effort is required;
- Quadrant IV: Includes those points with low importance and high satisfaction. It indicates the resources that should be used in another way are being wasted. Through the results obtained, it is possible to know which ones really need more concern and which ones are in a good phase.

This instrument proves to be very advantageous and straightforward to apply, allowing relevant information to be obtained so that the bodies that assume the management of an organisation, whether public or private, may reflect on which strategies to delineate for each service/product.

## 4. Results

### 4.1 Chaves thermal spa customer profile

Users of Chaves thermal spa are typically female (68%) with an average age of 68 years (standard deviation of 12.93). They are married (70.7%) and have basic education levels (56.4%). They are typically national individuals (96.4%) living in Portugal (97.8%) and coming from the northern region, particularly from the districts of Vila Real (44.4%) and Oporto (20.4%). These last results may be related to the geographical proximity of *Termas de Chaves*. The household is composed of two elements (59.1%). Regarding the labour situation, pensioners prevail (70.2%), and the customer has mainly a monthly net income of 666 to 1300 euros (42.2%). It was also perceived that 60.4% of the respondents are familiar with the Chaves thermal spa and do not frequent other spas (74.4%), indicating that customers are satisfied with the experience and revisit the space (Vaz et al., 2022).

### 4.2 Importance-Satisfaction descriptive analysis

Taking into account the eleven attributes under study regarding *Termas de Chaves* - (1) Medicinal quality of thermal water; (2) Installations' quality; (3) Equipment quality; (4) Quality of services provided; (5) Diversity of services provided; (6) Expertise and techniques used; (7) Knowledge and skills of human resources; (8) Availability and assistance provided by human resources; (9) Service customisation; (10) Rest and tranquillity and (11) Presence of friends and/or family - at this stage, it is essential to analyse and present the results obtained about the importance and assessment that the 225 respondents give to each aspect under study. Thus, in Table 3, it is possible to observe the indicators of statistical distribution concerning the importance of the attributes of the Chaves thermal spa, according to the opinion of the thermal bathers.

**Table 3.** Descriptive Statistics for the *Termas de Chaves* Importance Attributes

| Attributes | Mean | Standard Deviation | Coefficient of Variation (%) |
|---|---|---|---|
| Medicinal quality of thermal water (n=225) | 4.51 | 0.52 | 11.52 |
| Installations' quality (n=225) | 4.48 | 0.53 | 11.83 |
| Equipment' quality (n=225) | 4.41 | 0.57 | 12.92 |
| Quality of services provided (n=225) | 4.42 | 0.57 | 12.89 |
| Diversity of services provided (n=225) | 4.38 | 0.57 | 13.01 |
| Expertise and techniques used (n=224) | 4.40 | 0.57 | 12.92 |
| Knowledge and skills of human resources (n=224) | 4.39 | 0.56 | 12.75 |
| Availability and assistance provided by human resources (n=225) | 4.41 | 0.56 | 12.69 |
| Service customisation  (n=225) | 4.40 | 0.56 | 12.72 |
| Rest and tranquility (n=225) | 4.49 | 0.51 | 11.35 |
| Presence of friends and/or family (n=225) | 4.36 | 0.78 | 17.88 |
| Global Importance | 4.42 | 0.57 | 12.95 |

Source: Own Elaboration

The overall average of the importance that respondents granted to the attributes of Chaves thermal spa was 4.42 points (standard deviation of 0.57). It is clear that the attribute "Medicinal quality of thermal water" is crucial for customers when they frequent the spa, with an average of 4.51 points (standard deviation 0.52). In turn, aspects such as "Rest and tranquillity" and "Installation's quality" are also considered very important, with an average of 4.49 points (standard deviation 0.51) and 4.48 points (standard deviation 0.53), respectively. On the other hand, aspects such as "Presence of friends and/or family", "Diversity of services provided", and "Knowledge and skills of human resources" showed the lowest scores, indicating low importance, namely 4.36±0.78, 4.38±0.57, and 4.39±0.56 points, respectively. It should be noted that all attributes with the lowest score obtained a "3", which translates into a "Neutral" score, according to the Likert scale. The exception is the "Presence of friends and/or family", with a score of "1" corresponding to "Not at all important". This means that, although most respondents consider the presence of friends and family important in the experience, some customers do not have the same opinion. The attribute "Quality of services provided" is equally important for the spa customers, with an average of 4.42 (standard deviation 0.57). Then, "Equipment' quality" and "Availability and assistance provided by human resources" are at the same level of importance for customers with a slightly lower mean, respectively 4.41±0.57 points. In turn, the attributes "Expertise and techniques used" and "Service customisation" present an average of 4.40±0.56 points, revealing medium importance.

Overall, all attributes of the thermal spa, relative to the level of importance, present values considered very important - all higher than 4 points. This finding may indicate that in today's society, customers' expectations are increasing concerning the experience they wish to have in this type of space. Therefore, the capacity of the spas to fulfil them must be a constant and fast challenge that manages to keep up with the needs of their customers.

The global average of customer satisfaction concerning the attributes of *Termas de Chaves* is equal to 4.70 (standard deviation of 0.52) (Table 4).

**Table 4.** Descriptive Statistics for the *Termas de Chaves* Satisfaction Attributes

| Attributes | Mean | Standard Deviation | Coefficient of Variation (%) |
|---|---|---|---|
| Medicinal quality of thermal water (n=225) | 4.73 | 0.47 | 9.93 |
| Installations' quality (n=224) | 4.74 | 0.46 | 9.70 |
| Equipment's quality (n=225) | 4.71 | 0.46 | 9.76 |
| Quality of services provided (n=224) | 4.72 | 0.47 | 9.95 |
| Diversity of services provided (n=224) | 4.69 | 0.50 | 10.66 |
| Expertise and techniques used (n=224) | 4.70 | 0.48 | 10.21 |
| Knowledge and skills of human resources (n=223) | 4.61 | 0.63 | 13.66 |
| Availability and assistance provided by human resources (n=223) | 4.65 | 0.58 | 12.47 |
| Service customisation (n=224) | 4.68 | 0.57 | 12.17 |
| Rest and tranquillity (n=225) | 4.77 | 0.45 | 9.43 |
| Presence of friends and/or family (n=224) | 4.67 | 0.61 | 13.06 |
| Global Satisfaction | 4.70 | 0.52 | 11.00 |

Source: Own Elaboration

At first sight, it is evident that the attribute "Rest and tranquillity" stands out positively in the level of customer satisfaction, with an average of 4.77 points (standard deviation of 0.45). This is followed by "Installations' quality" and "Medicinal quality of thermal water", which present equally high values, namely 4.74±0.46 and 4.73±0.47 – such values reveal that respondents are satisfied with these aspects. The level of satisfaction regarding the "Quality of services provided", "Equipment quality", and "Expertise and techniques used" is slightly lower than the attributes mentioned above, with the mean scores being 4.72±0.47, 4.71±0.46 and 4.70±0.48 with a minimum score of 3 which means on the Likert scale "Neither satisfied nor dissatisfied". The attribute "Diversity of services provided" presents a good level of satisfaction for the participants with an average of 4.69 (standard deviation of 0.5). As regards "Presence of friends and/or family" and "Availability and assistance provided by human resources", the minimum value for these two aspects was "2", which means that there are "dissatisfied" customers with these attributes. However, most admitted being satisfied, translating into the mean scores of 4.67±0.61 and 4.65±0.58. The attribute which presents the lowest satisfaction average is "Knowledge and skills of human resources", with answers with a minimum value of 2 and an average of 4.61 (standard deviation of 0.63).

Tables 3 and 4 also present the coefficient of variation. This indicator allows us to underline that the data under analysis is homogeneous, with low dispersion, where the coefficient of variation value is 12.95% for importance and 11.00% for satisfaction. In general, it can be said that the global satisfaction level of the customers is quite satisfactory. They are more satisfied with the rest and tranquillity that Chaves thermal spa offers and less satisfied with the knowledge and skills of the human resources.
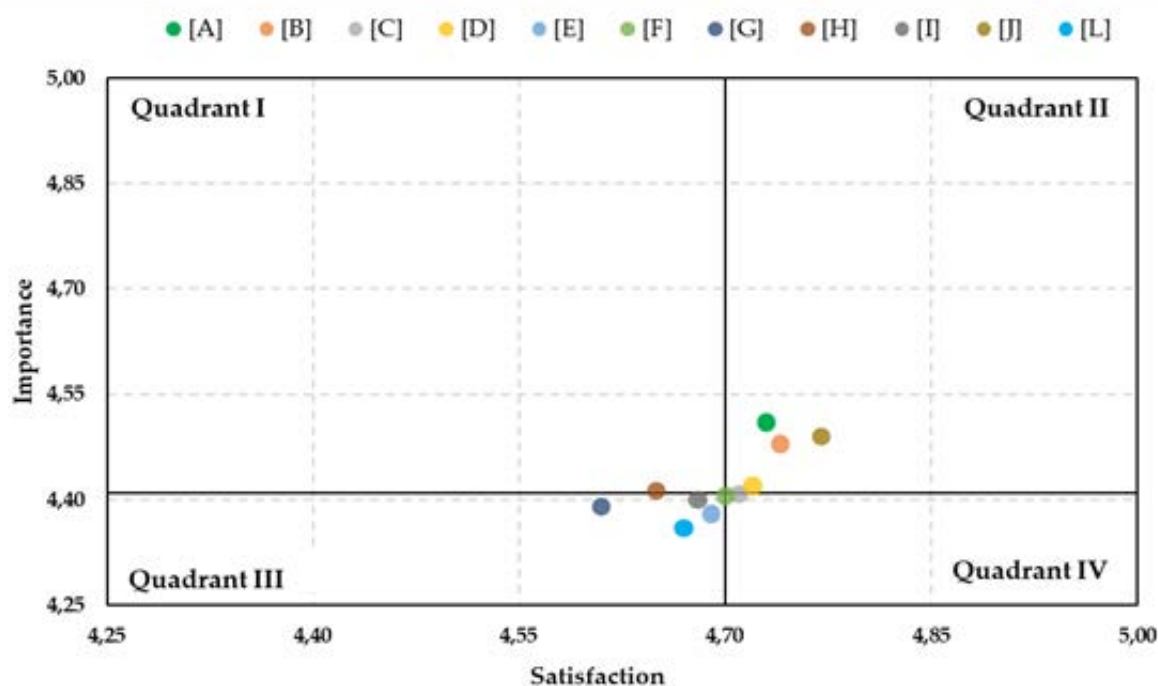
## 4.3 Importance-Satisfaction Matrix

With the description of the attributes of *Termas de Chaves* regarding importance and satisfaction, it is now necessary to develop through the importance-satisfaction matrix the analysis of the factors under study. Following the model of Martilla and James (1977), the importance-satisfaction matrix is composed of four quadrants. Taking into account the values presented in Table 5, the matrix will include the attributes of the spa, the averages of each for importance and satisfaction, and the display of symbols, making the positioning of the attributes in the matrix more perceptible. It should be noted that the median values were used to define the axes of this study, considering the respondents' tendencies (Lynch, Carver, & Virgo, 1996; Silva & Fernandes, 2011).

**Table 5.** Data Used for the Creation of the Importance and Satisfaction Matrix

| Attributes | Satisfaction | Importance | Symbol | Quadrant |
|---|---|---|---|---|
| Medicinal quality of thermal water | 4.73 | 4,51 | [A] | II |
| Installations' quality | 4.74 | 4,48 | [B] | II |
| Equipment's quality | 4.71 | 4,41 | [C] | IV |
| Quality of services provided | 4.72 | 4,42 | [D] | II |
| Diversity of services provided | 4.69 | 4,38 | [E] | III |
| Expertise and techniques used | 4.70 | 4,40 | [F] | IV |
| Knowledge and skills in human resources | 4.61 | 4,39 | [G] | III |
| Availability and assistance provided by human resources | 4.65 | 4,41 | [H] | I |
| Service customisation | 4.68 | 4,40 | [I] | III |
| Rest and tranquillity | 4.77 | 4,49 | [J] | II |
| Presence of friends and/or family | 4.67 | 4,36 | [L] | III |
| Median | 4.7 | 4.4 | - | - |

Source: Own Elaboration

As shown in Table 5, the estimated values do not fall below 4.00 points. In Figure 2, where the impor-tance-satisfaction matrix is presented, the median values will be used to cross the axes by representing the values in a Cartesian referential, as referred to above. In this case, the horizontal axis (X) equals 4.70 points, and the vertical axis (Y) equals 4.41 points. For better visualisation of the attributes' position, it was decided to present more detailed information (Figure 3).

**Figure 2.** Importance-Satisfaction Matrix for the *Termas de Chaves* Attributes



Source: Own Elaboration

**Figure 3.** Importance-Satisfaction Matrix with Details of the Attributes Positioning
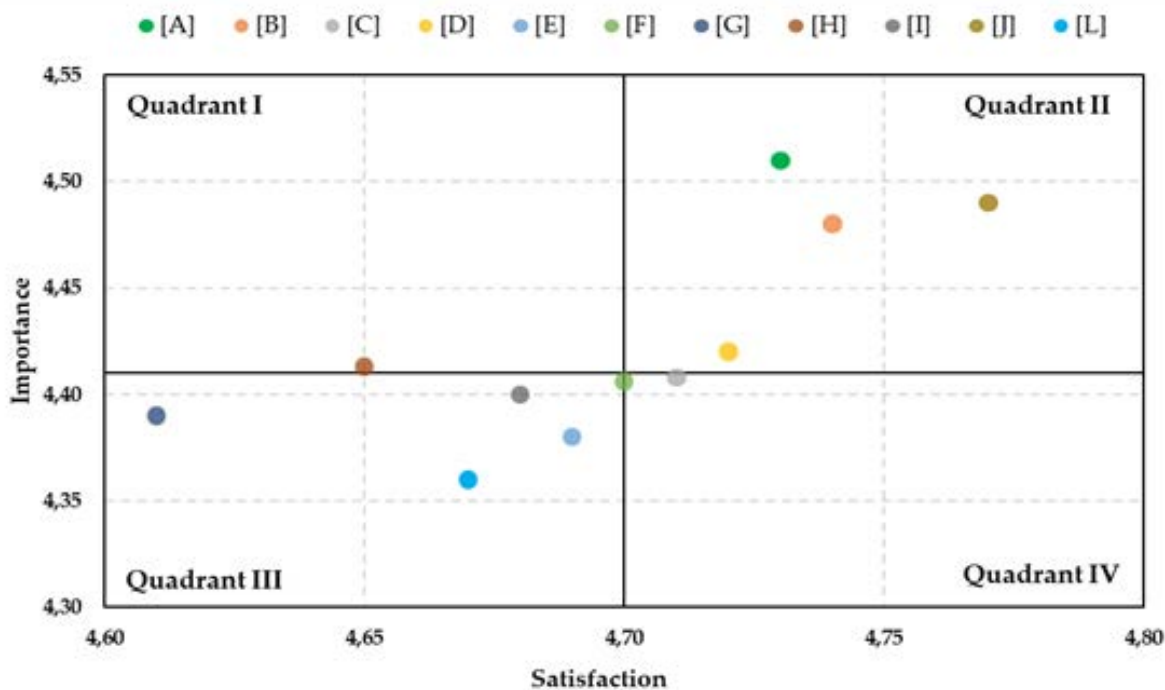


Source: Own Elaboration

With the creation of the matrix (Figures 2 and 3), it was possible to position the attributes of *Termas de Chaves* according to the importance and satisfaction gave by the customers to the aspects under analysis:

- Quadrant I (Concentrate here): Only one attribute fits in this quadrant, namely "Availability and assistance provided by human resources" (H). It is located in an area of concern. This means that spa management should concentrate on this aspect. Thermal spa owners indicated this attribute as important in their choice to visit the spa. However, the evaluation of this attribute was below average. If this issue remains unchanged, in the future, it may result in complaints from customers, as well as criticism and negative reactions in the evaluation of the space. It is important to think and apply strategies to reverse customers' opinions and increase satisfaction, such as raising the awareness of human resources for the implications of this issue through training actions;
- Quadrant II (Keep up the good work): The attributes "Medicinal quality of thermal water" (A);" Installations' quality" (B); "Quality of services provided" (D), and "Rest and tranquillity" (J) are considered, by the spa visitors, relevant and valuable, as they fully meet their expectations and needs. However, it is a significant challenge for the spa to maintain its strategies and the good level of performance already established;
- Quadrant III (Low Priority): The attributes "Diversity of services provided" (E); "Knowledge and skills of human resources" (G); "Service customisation" (I), and "Presence of friends and/or family" (L) are positioned in the lowest priority area. This indicates the respondents do not give much importance to these aspects when looking for *Termas de Chaves*. Consequently, the spa needs to pay the same attention to these aspects because although the attributes have less importance, they also contribute to the impact of customer satisfaction;
- Quadrant IV (Possible Overkill): The attributes "Equipment quality" (C) and "Expertise and techniques used" (F) are perceived by the thermal spa management in a way contrary to the customer's perception. They are paying too much attention to aspects that are not so important for the spa guests, as they are completely satisfied with these points. Therefore, *Termas de Chaves* should reconsider the importance of the available equipment and the current technical knowledge to the staff. Some changes should be made to reduce expenses related to these factors and invest in Quadrant I, namely in the attribute "Availability and assistance provided by human resources" (H).

# 5. Conclusions

The Importance-Satisfaction analysis measures how the importance and satisfaction of a specific attribute were perceived from an evaluator's perspective. This instrument facilitates the visualisation of results through a grid of strategic actions which, when applied, allows for the prioritisation of areas and options for investment or disinvestment in organisations.

In the first stage, the research revealed that the customers of *Termas de Chaves* thermal spa classify the 11 attributes under study with high levels of importance and satisfaction. The aspect that revealed the highest importance values was "Medicinal quality of thermal water". The least important one was the "Presence of friends and/or family". Regarding satisfaction, "Rest and tranquillity" was the most recognised aspect, while "Knowledge and skills of human resources" were the least appreciated by the thermal spa customers

In a second stage, when the importance-satisfaction matrix was analysed concerning the attributes, it was concluded that the thermal spa of Chaves should concentrate its efforts on the human resources training in terms of availability and assistance given to the thermal customer. They should create new strategies to increase the public's satisfaction, consequently leading to their fidelity. Aspects considered very positive that should continue to receive the same approach are related to the quality of the thermal water, the quality of the facilities, the quality of services and the tranquillity of the space. Although these aspects are not very important for the thermal customers, the diversity of the services, the knowledge and skills of the human resources, the customisation of the services and the presence of friends and family should receive attention, as they also contribute to the customer's global satisfaction. Finally, it was found that the quality of the equipment and the specialised knowledge and techniques are attributes perceived as being of minor importance by the spa guests, who are satisfied with them. These are the attributes in which *Termas de Chaves* has invested the most, although they go opposite to what the customers perceive.

Above all, future strategies should focus on human resources, namely their technical skills and the availability and assistance they provide to the customer. Despite being attributes that have a lower level of importance, they are the ones that reveal the lowest satisfaction index.

One of the contributions of this work was to give the Chaves thermal spa detailed information about its customers' preferences. In this way, it is possible to redefine priorities and redirect activities to the needs of those who frequent the space, but also for future customers. As seen, the idea is to improve some points and maintain the good performance of others with the main purpose of pleasing and satisfying the consumer public.

It should be noted that the study faced some limitations throughout the research process. The questionnaire was conducted during a pandemic derived from Covid-19, which consequently interferes with people's predisposition to go to the thermal spa. This factor influenced the final sample, which in other circumstances would be higher, considering the number of customers who frequented the *Termas de Chaves* in previous years. Another limitation that compromised the study was the reduced period (09 August to 20 December 2021) for the questionnaire application, i.e. it was not possible to carry out an annual reading. This ended up "losing" customers who seek these services at other times of the year. Considering all the analysis carried out, we suggest, for future studies, collecting data for a whole year to cover the four seasons.

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