Instituto Superior de Ciências do Trabalho e da Empresa


# DISTRIBUTION MANAGEMENT IN THE HEALTH CLUB INDUSTRY

*The impact of a company's image and environment when choosing a point of sale (POS)*

**MÓNICA SOFIA DE FREITAS**

Thesis submitted as a partial requisite to obtain the Masters degree in

**MARKETING**

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# Abstract

The objective of this investigation is to study how a store's environment influences consumers when choosing a point of sale (POS). The POS that is taken into account is part of the tertiary industry: Health Clubs. This project is set on identifying the principle characteristics of Health Clubs in Portugal that are taken in consideration when clients or potential clients are considering joining a club of this nature.

Store environment, in theory, consists of three factors: ambient, design and service provided by employees, which in this investigation will be identified as the social factor. On the other hand, the store choice criteria that will be analysed are: service quality, price and store image. The research done in this investigation also includes a study on consumer behaviour, in order to comprehend the link between the store environment and the consumers store choice criteria.

The conclusions of this project are based on 121 questionnaires which were distributed by means of two channels: the internet (mailing) and physical distribution (personal interview). The target population are the members of a private Health Club situated in Torres Vedras and the respondents were selected by using convenience sampling.

This investigation proposes a conceptual model that analyzes the consumer's perception of the store's atmospherics and how these influence the consumer's store choice.

**Keywords:** Consumer Behaviour, Store Environment, Image of a Point of Sale, Store Choice Criteria

***JEL**: C12, M31*

# *Resumo*

*O objectivo desta investigação é estudar como o meio ambiente das lojas influencia os consumidores na escolha de um ponto de venda. O ponto de venda que é tomado neste estudo faz parte do sector terciário: Centros de Saúde e Lazer. Este projecto baseia-se na identificação das principais características dos Centros de Saúde e Lazer em Portugal que são tomadas em consideração quando os clientes ou potenciais clientes pretendem frequentar um clube desta natureza.*

*O envolvente da loja, na teoria, consiste em três factores: ambiente, design e serviço providenciado pelos empregados, o qual nesta investigação será identificado como factor social. Por outro lado, os critérios de escolha da loja que serão analisados são: qualidade do serviço, preço e imagem da loja. A pesquisa feita na investigação também inclui um estudo do comportamento do consumidor, de modo a compreender a ligação entre o meio ambiente da loja e os critérios de escolha da loja por parte dos consumidores.*

*As conclusões deste projecto são baseadas em 121 questionários, os quais foram distribuídos por dois principais canais: a internet (email) e a distribuição física (entrevistas pessoais). A população-alvo são membros de um Centro de Saúde e Lazer privado situado em Torres Vedras e os entrevistados foram seleccionados utilizando o método de amostragem por conveniência.*

*Esta investigação apresenta um modelo conceptual que analisa a percepção dos consumidores sobre a envolvente da loja e como isso influencia a escolha dos consumidores por essa loja.*

***Palavras-Chave:*** *Comportamento do Consumidor, O Envolvente da Loja, Imagem do Ponto de Venda, Critérios de Escolha de Loja*

***JEL****: C12, M31*

# Executive Summary

The theme of this dissertation is Distributions Management in the Health Club industry in Portugal. The purpose of this investigation is to analyze whether a Health Club's image and environment can influence clients in their decision making process, i.e. whether or not to join a club of this nature.

The environmental cues used in this investigation are: (1) Design, (2) Ambient and (3) Social. As for the Health Club choice criteria we studied: (1) Service Quality, (2) Price and lastly (3) Health Club image. The conceptual model proposed in this investigation is based on the research done by Baker's *et al* (2002) conceptual model of the prepurchase process of assessing a retail outlet on the basis of environmental perceptions. We adapted this model to a service outlet point of view, more specifically, a Health Club.

In order to obtain our objectives, we collected data using structured questionnaires to personal interview as well as mail surveys. The target population were members of a Health Club in Torres Vedras called Universalbodies, Lda., aged from 18 years and above. The sample consists of 121 members who were selected using the method convenience sampling. The Health Club used to draw the sample is a private organisation and was founded in 2005 and to date counts with 600 members. It offers its members cardio fitness training, body building, group activities and aquatic activities (swimming pool).

The questionnaire allowed us to identify the principal characteristics of Health Clubs that a member (or potential member) gives more emphasis to. According to the descriptive analysis we were able to indicate that the design cues given most importance to by the respondents are: material quality (88.6%), facility comfort (88.4%) and layout (57%). In terms of the ambient cues, the cues hygiene (98.4%), scent (88.4%) and temperature (78.5%) are given most importance. Last, but not least, in reference to the social cues of a Health Club, employee friendliness (95.6%) and the service the employees provided (91.8%) were regarded as the factors of most importance.

Using the conceptual model proposed, 12 hypotheses were formulated of which the principal objective was to study the relationship between the 7 latent variables:

"Design"; "Ambient"; "Social"; "Service Quality"; "Price"; "Image" and "Joining Intentions". Some of the hypotheses that were studied are:

- $H_{1a}$ - The consumer's perception of the Health Club's design positively influences the consumer's perception of the service quality.
- $H_{2b}$ - The consumer's perception of the Health Club's ambient positively influences the consumer's perception of the price range.
- $H_{3c}$ - The consumer's perception of the Health Club's social factors positively influences the consumer's perception of the price range.
- $H_4$ - The consumer's perception of the service quality positively influences the consumer's intention to join the club.
- $H_5$ - The consumer's perception of the price range positively influences the consumer's intention to join the club.
- $H_6$ - The consumer's perception of the Health Club's image positively influences the consumer's intention to join the club.

This investigation is based on research done on retail outlets and was adapted to the service outlet under investigation. We were able to conclude that factors other than price, service quality and image influence a member, or potential member's joining intentions.

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# 1 Introduction

## 1.1 Theme and Importance

Confronted with new life-styles, consumers today have grown in more ways than one. The "New Consumer" (Correia, 2004) is more informed, cultured, sophisticated, independent and much less loyal in comparison with his ancestors due to the new technologies that have emerged over time. Now information is acquired at a click of a button allowing consumers all over the world to be more demanding, informed and alert.

Today, people in general, are more concerned with the environment, their health and well being (Leeflang and Van Raaij, 1995) among other aspects. This being said, the evolution of the world has provoked a change in the purchase patterns which obligates companies to be even more attentive and dedicated to their clients. Therefore, the understanding of how the client's mind works is crucial for the survival of any organization. The client is a company's number one asset, especially in the Health Club industry.

Currently Portugal holds the title for the highest sedentary rate in Europe, i.e. 66% of the Portuguese population does not perform any type of exercise. The country is in second place regarding overweight conditions, childhood obesity and diseases associated with inactivity (diabetes, cardiovascular diseases, hypertension, certain cancers, etc.). The government is implementing plans to combat these problems, of which one strategy was to reduce the VAT weight on health from 21% to 5% with the objective of reducing the Health Club's monthly fee and therefore allowing more people to gain access to a healthier life style.

Recent studies show that the wellness and fitness market will increase by 500% by the end of the year 2010 and the Baby Boomers will be the main generation responsible for this rapid increase (Mauro, 2008). This being said, Health Clubs need to know how to attract their clients today as well as how to retain them, seeing that the Health Club industry is one of the industries with the highest growth potential. To allow this to

happen, it is essential to know what the client wants and expects and therefore being important to know what drives the consumer's motivation.

The intention of this investigation is to expand the scientific knowledge regarding the motivations of consumers and provide knowledge to the owners and/ or managers of Health Clubs in Portugal. This analysis will be focused on how the ambient and design of a Health Club as well as the service provided by its employees, can influence the consumer's store choice criteria. The factors that are most valued by customers of such establishments will be identified and can be used for future reflection by entrepreneurs of this industry.

## 1.2 Investigation Topic

The theme of this investigation is Distribution Management, more specifically in the Health Club Industry in Portugal. This study will be essentially focused on how a store's image and environment can influence consumers when choosing a point of sale. In other words, the intention of this study is to evaluate the **impact of a company's image when choosing a POS.**

## 1.3 Investigation Objectives

The purpose of this study is essentially to analyze whether or not consumers are influenced by a store's environment and the impact of this environment when it comes to the store choice criteria. This investigation is set on identifying the principle characteristics of Health Clubs in Portugal that are taken into consideration when clients or potential clients are considering joining a club of this nature.

In theory, the store's environment consists of three elements: ambient, design and service provided by employees (Baker *et al*, 2002).

In traditional Marketing, the Marketing Mix (4 P's) facilitate marketing decisions making use of the following four controllable categories: (1) Product; (2) Price; (3) Place (distribution) and; (4) Promotion. The term "marketing mix" was first used by Neil H. Borden in 1964 in the article entitled "The Concept of the Marketing Mix". Borden considered that the elements included: product planning, pricing, branding, distribution channels, personal selling, advertising, promotions, packaging, display, servicing, physical handling, fact finding and analysis. E. Jerome McCarthy, in 1960,

grouped these ingredients into the four categories that today are known as the 4 P's of marketing.

Seeing that Health Clubs are considered to be part of the service industry, another three categories need to be added to the 4 P's for the analysis to be complete. These categories are: People; Process and Physical Evidence (Booms and Bitner, 1981).

This thesis took into consideration the 7 P's of Marketing when selecting the store choice criteria for this study. Using the P's 'People', 'Price' and 'Physical Evidence', the chosen criteria that will be analyzed are: (1) Service Quality; (2) Price and lastly (3) Store Image.

The central objective of this analysis is the construction of a conceptual model that analyzes the influence over consumer's perception on the ambient, design and service provided by employees and how these three elements influence the client in their Health Club choice decision.

## 1.4 Methodology

The methodology used in this investigation is based on structured questionnaires to personal interview as well as mail surveys. The target population are members of a Health Club in Torres Vedras, aged from 18 years and above and were chosen by convenience. A conceptual model will be constructed, hypotheses will be formulated and the tools and methods will be identified.

## 1.5 Dissertation Structure

This dissertation is composed of five distinctive parts: (I) Introduction; (II) Literature Review; (III) Methodology; (IV) Results; and (V) Conclusion.

Part I – **Introduction**, is a general presentation of this thesis and consists of five subdivisions: (1) Theme and importance of the investigation; (2) Investigation Topic; (3) Objectives; (4) Methodology; and (5) Dissertation structure.

Part II – **Literature review**, is where the theoretical part of this investigation is explored. In this section a special emphasis is given to the consumer's behaviour and we study how this behaviour is influenced by a store's atmospherics. Topics such as store choice criteria, store environment and image of a POS are studied in this section.

Part III – **Methodology**, is focused mainly on putting theory into a practical application by constructing a conceptual model that analyzes the influence over consumer's perception of a Health Club's environment and how it influences the choice criteria. It also includes a description of the sample that will be used as well as the procedures, data analysis, instruments and techniques.

Part IV – **Results**, is where the results of the quantitative study are presented.

Part V – **Conclusion**, is where the results that were presented in the previous chapter are analyzed and discussed. This section is dedicated to presenting the main conclusions that derived from the study as well as the limitations that occurred during this investigation, finalizing with recommendations for future studies.

# 2 Literature Review

In this section of the investigation, topics related to consumer behaviour, store environment and the point of sale image are studied. The purpose of these studies is to allow a better understanding of the impact of a company's image and environment when choosing a point of sale (POS).

## 2.1 Consumer Behaviour

According to Schiffman and Kanuk (2007), the term Consumer Behaviour is described to be "the behaviour that consumers display in searching for, purchasing, using, evaluating and disposing of products and services that they expect will satisfy their needs."

Consumer Behaviour can also be defined as an interaction of cognition and affect, behavioural and environmental events where humans conduct the exchange aspects of their lives. Generically speaking, it is safe to assume that consumer behaviour is created by combining psychology and marketing, seeing that Consumer Behaviour is the psychology behind marketing and the behaviour of consumers in the marketing environment (American Marketing Association).

This being said, it is easily confirmed that the consumer behaviour is a complex object of study, due to the numerous variables in which it consists. In attempt to facilitate the

study of consumer behaviour, many authors have developed models that allow a better comprehension of this subject. Through these models, it is possible to identify the importance of the variables: (1) the environment and (2) the company's image in the consumer decision-making process.

Schiffman and Kanuk (2007), before studying how consumer decisions are made, noted that it is necessary to look at models of consumers. According to these authors, the expression *models of consumers* refers to a "general view or perspective as to how (…) individuals behave as they do". These models consist of four views: an economic view, a passive view, a cognitive view and an emotional view.

The economic view consists of assuming a world of perfect competition where the consumer often is characterized as a rational decision maker. This model has been criticized by various authors. The reason being that for a consumer do behave rationally, he would have to: "(1) be aware of all available product alternatives, (2) be capable of correctly ranking each alterative in terms of its benefits and disadvantages, and (3) be able to identify the one best alternative." This being said, it's obvious that consumers rarely have enough information or even a sufficient level of involvement and motivation to allow them to make a "perfect decision".

The passive view is the contrary to the economic view. The passive view assumes "that consumers are perceived as impulsive and irrational purchasers, ready to yield to the aims and into the arms of the marketers". The main disadvantage of this model is that it doesn't acknowledge the fact that the consumer plays a very important role in many buying situations. A simple fact like searching for information about alternatives, choosing a product that at that moment best pleases their mood, finding an emotion offering them satisfaction, etc. allows us to state that not all buying decisions are impulsive and irrational.

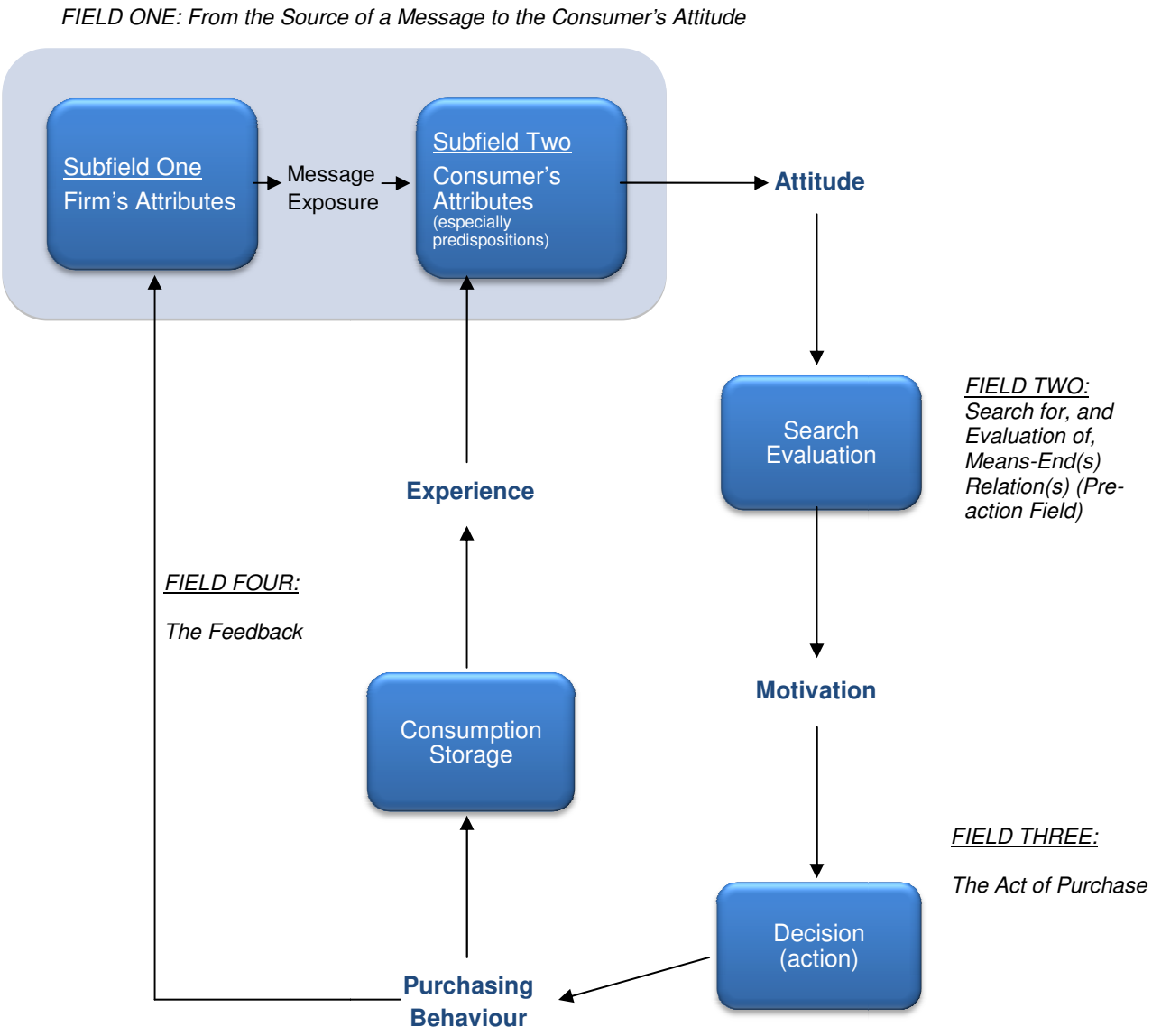
Up until now, we have discussed the consumer as a "rational decision maker" and an "impulsive and irrational purchaser". The following model assumes the consumer as a "thinking problem solver". The cognitive view "focuses on the process by which consumers seek and evaluate information about selected brands and retail outlets." Consumers process information and therefore are referred to as information processors. According to this model, consumers will acquire information until they feel that they have a sufficient level of information about an alternative or alternatives allowing him

to make satisfactory decisions. As a result, we can easily state that the "problem solver" lies somewhere between the "rational decision maker" and the "impulsive and irrational purchaser".

The last model, the emotional view, defends that each consumer frequently associates profound feelings and emotions such as happiness, fear, love, faith, fantasy, and so forth with several purchases. When this happens, less emphasis is given to gathering prepurchase information, giving more importance to the mood and emotions that the consumer is experiencing when purchasing an item. Note that this does not mean that an emotional decision is 100% irrational. If the product purchased satisfies the emotional necessity, we can call it a rational decision. A consumer's mood is considered to be an important factor to consumer decision making. "It impacts on *when* consumers shop, *where* they shop and *whether* they shop alone or with others."

Francesco Nicosia (1968) was the first author to introduce a model that focuses on the consumer's decision making process. In this model, all the variables are interdependent allowing a circular flow of influences in which each component supplies inputs for the next. According to this author, the consumer's decision is composed of four fields as illustrated in Figure 1, presented on the following page.

**FIGURE 1 – A STRUCTURE OF CONSUMER BEHAVIOUR: SUMMARY FLOW CHART**




**FONT: NICOSIA, 1968**

According to Nicosia (1968), the flow chart illustrated above shows the direction in which the consumer decision process should work. "By stating specific variables and their general interdependencies, it offers the necessary guidelines for data collection, and the technical bases for experimental simulations of the psychological, social, and economic processes it describes and of the possible reactions of these processes to different advertising policies."

The flow chart indicates the following: Field One is responsible to pass the message from a firm to a consumer. Subfield one consists of the firm's attributes. The interaction between these attributes creates a message directed to a "homogeneous market segment". On the other hand, subfield two consists of the consumer's space which includes all the consumer's attributes. Once the message has reached the consumer targeted, it becomes an input into the consumer's space.

Once the output of Subfield two is established, an attitude may or not be formed toward the product and brand. If the formation of the attitude is successful, then we pass to Field two. At this time, the consumer may do an internal or external search. Field two consists of "a search for, and evaluation of, means-ends relations between the attitude toward the advertised product and brand and the number of brands perceived as available". The output resulting from this field may or not form a motivation toward the advertised brand.

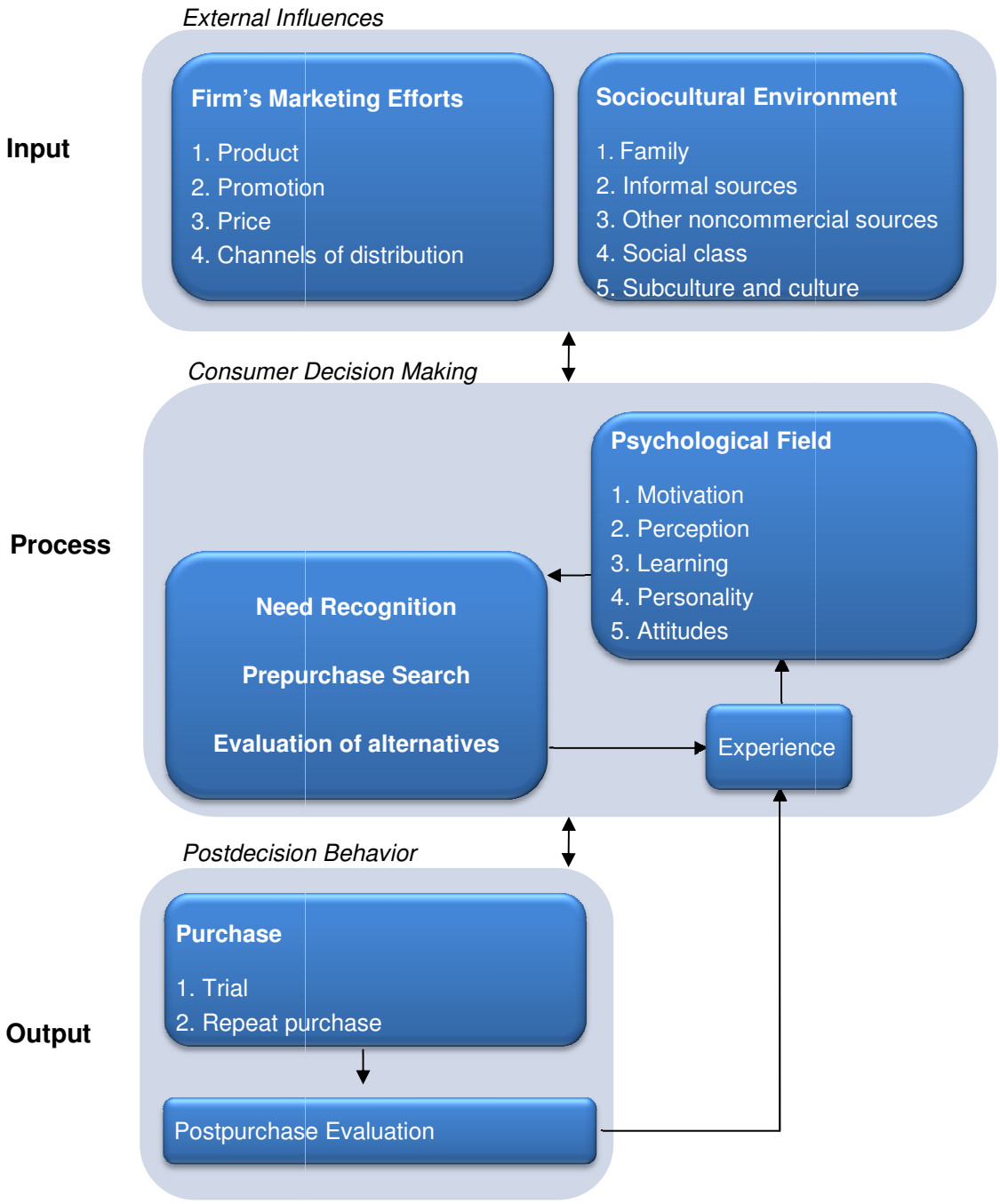
If the formation was a success, it will become the input into Field three. This field consists of the possibility of conversion of the motivation into an act of purchase. The output developed, may or not be the purchase of the brand in question. Once a purchase is made, Field four receives its input.

"Field Four consists of operations such as storage and consumption (or use) that lead to experience with the brand". The resulting output is then an experience that ends up becoming the input into Field one, thus closing the cycle.

Schiffman and Kanuk (2007) have put together a model that links the consumer decision making process with consumption behaviour. This simple model, designed to synthesize and provide a global picture of the decision making process, has three components: (1) input, (2) process, and (3) output. Input is mainly a result of external influences (marketing and sociocultural environment). Process is where the consumer makes his decision, evaluating alternatives. Last, but not least, Output consists of the consumers postdecision behaviour.

By analysing Figure 2, presented on the following page, we can conclude that Marketing as well as the environment in which the consumer finds himself, plays a great role in the consumer decision making process. When well done, it can influence a consumer in more ways than one. Researchers have found that 'affect' has been recognized as more important in decision making.

**FIGURE 2 – A SIMPLE MODEL OF CONSUMER DECISION MAKING**




**FONT: SCHIFFMAN and KANUK, 2007**

An individual's mood can apparently influence behaviour without interfering with other cognitive processes (Clark, 1982; Clark & Isen, 1982) (*in* Mathur *et al*, 1997). A mood can be defined as an affective or emotional state, i.e. as a state of mind or emotion. The ambient and surroundings in which consumer's find themselves normally influences

their mood and therefore influencing their decision. This being said, the store environment plays an important role in the consumer's decision process. Next we shall study what the store environment consists of and analyze each of its components independently.

## 2.2 Store Environment

The store environment may be defined as a set of attributes of a point of sale expressed by the exterior and interior of a store (Cunha, 2006).

Prior store environment case studies have shown that a number of environmental elements, which include music, colour, scent and crowding, when tested individually, affect consumer response (Baker *et al*, 2002). Spas are good examples of how these elements, when used correctly, influence the consumer's behaviour. The soothing background music, the soft scent in the air, the neutral and earthy colours, the lighting placed at just the right intensity, among other Spa characteristics, gives the consumer all he needs to feel relaxed.

The term atmospherics was first used by Kotler (1973), in which it is defined as "the conscious designing of space to create certain effects in buyers". The author states that atmospherics is an attempt to design an environment that produces specific emotional effects in the buyer, creating a greater probability of purchase.

Similarly, Roy and Tai (2003) affirm that "atmospherics are often designed to create a buying environment that produces specific emotional and experience effects that will enhance a consumer's likelihood of purchase."

According to Tai and Fung (1997), "stores and store design in the form of atmosphere, project massive amounts of information to shoppers with cues such as display, colour, lighting, layout and departmentalization". These elements form a sensory stimulation and their purpose is to create a high level of sensory involvement by consumers.

Atmospherics, in the consumer's perspective, may be experienced through sensory channels, i.e. sight, sound, scent and touch. To be more precise, these sensory channels can be divided into 4 main dimensions: (1) visual (colour, brightness, size and shapes), (2) aural (volume, pitch), (3) olfactory (scent, freshness) and (4) tactile (softness, smoothness and temperature) (Kotler, 1973).

Researchers have come to the conclusion that sensory information from environmental cues influence cognitive or emotional states which can change shopping behaviours, store atmospherics and affect customers' product perception (Gardner and Soimkos, 1986)(*in* Tai and Fung, 1997).

Store atmosphere effects are emotional states that (1) are difficult to verbalize, (2) are difficult to recall and (3) influence behaviours within the store (Donovan and Rossiter, 1982). Kotler (1973) goes as far as saying that "atmospheres are a silent language in communication".

Mattila and Wirtz (2001) have concluded from their research that adding pleasant environmental cues enhances the shopping experience. The authors also found that such environmental stimuli should not be considered individually, seeing that the global effect is what influences the consumer response.

After intensive literature reviews, it is possible to state that the store's environment has three distinct cues: design, ambient, and social (Baker *et al*, 2002).

The design of a POS includes the layout, architecture, decoration, materials and styles used in the construction of the point of sale (Baker, 1987). The ambient of a store's environment consists in the music, scent, noise, temperature, air quality, among other aspects (Bitner, 1992).

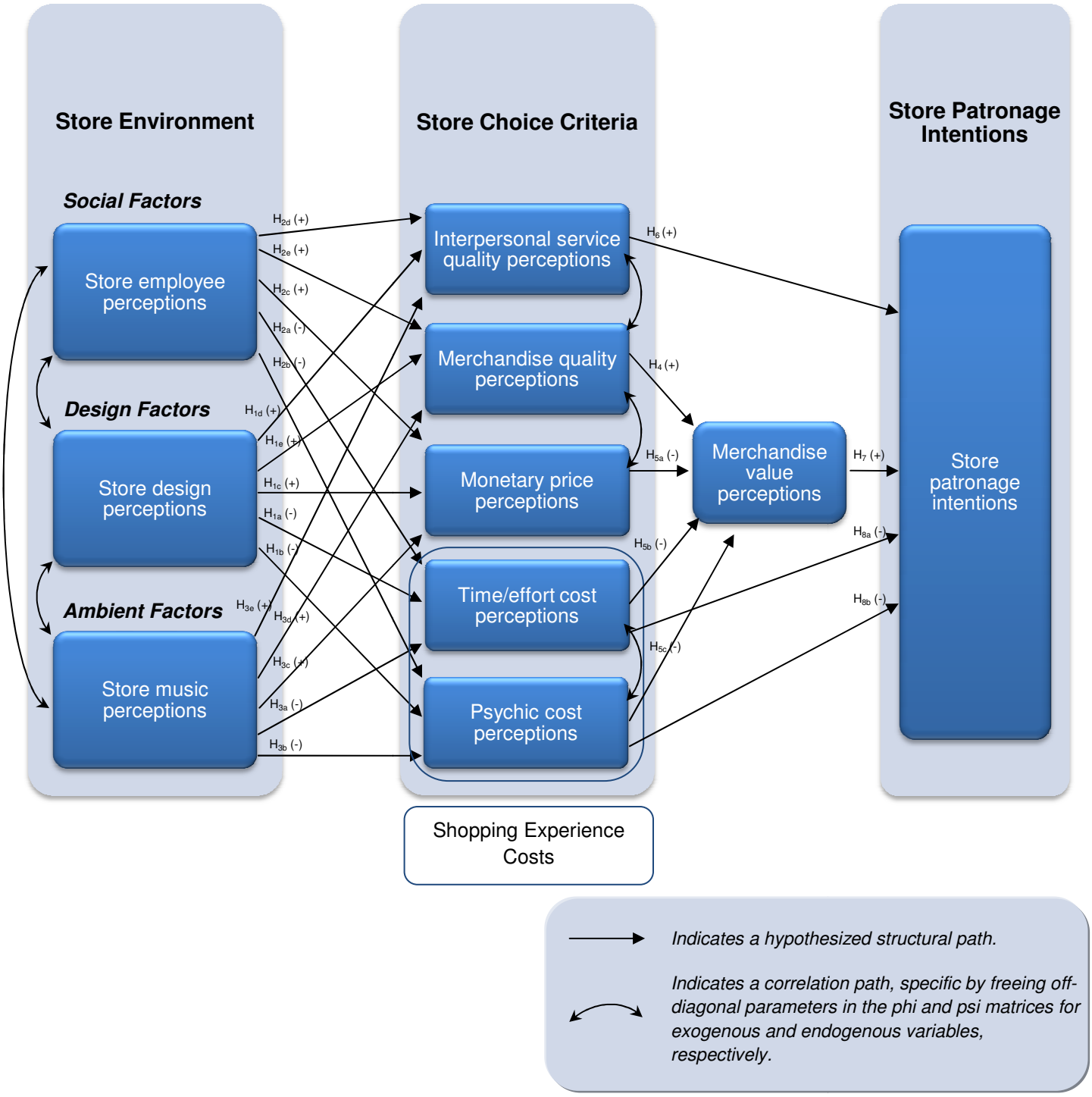
The difference between these two elements (i.e. design and ambient) is that "ambient cues tend to affect non-visual senses whereas design cues are more visual in nature". Another point of dissimilarity would be in terms of the level in which they are processed seeing that "ambient cues tend to be processed at a more subconscious level than are design cues" (Baker *et al*, 2002).

The social cues, according to Baker *et al* (2002), are linked to the store employee perception.

Due to several studies in this field, authors have found empirical evidence that confirm the fact that the information gathered from environmental cues "influences consumers' perceptions of service providers (Baumgarten and Hensel 1987) and helps consumers categorize service firms (Ward, Bitner, and Barnes 1992)" (*in* Baker *et al* , 2002).

According to Baker *et al* (2002) the conceptual model of the prepurchase process of assessing a retail outlet on the basis of environmental perceptions can be schemed as illustrated in Figure 3:

**FIGURE 3 – A CONCEPTUAL MODEL OF THE PREPURCHASE PROCESS OF ASSESSING A RETAIL OUTLET ON THE BASIS OF ENVIRONMENTAL PERCEPTIONS**




**FONT: BAKER ET AL, 2002**

Bitner (1992) argues that consumers turn to design, ambient, and social environmental cues when evaluating stores, since they believe that these cues offer reliable information about product-related attributes such as quality, price, and the overall shopping experience.

In order to comprehend these environmental cues, we shall study each one of them individually.

### 2.2.1 Design

One of the most important features of the total product is the place where it is bought or consumed (Kotler, 1973). According to the author, a store's image (interior and exterior) can be designed to stimulate specific feelings that end up influencing the purchase.

The design of a point of sale is visual in nature. It is how the point of sale is displayed (Philips and Bradshaw, 1990) (*in* Tai and Fung, 1997). This includes the store's layout, display, architecture, decoration, materials and styles, among other visual elements.

As we have already discussed, the main sensory channels for atmosphere are sound, scent, sight and touch. The fifth sense, taste, does not apply to these studies. According to Tai and Fung (1997), "atmosphere design is particularly important for the retailer when the number of competitive outlets increases; or when product and price differences are small; or when product entries are aimed at distinct social classes or lifestyle buyer groups". In other words, atmosphere design helps the store to differentiate itself from its competitors.

Service design research is also said to be multi-disciplinary, including disciplines such as operations management, marketing, human resources, information technology, organizational behaviour, functional strategy, economics and so forth (Hill *et al*, 2001). This being said, managers should combine information from these departments in order to identify the consumer's preferences so that they can develop a design that is most appropriate for their target market.(Sirgy *et al*, 2000)(*in* Cunha, 2006).The stores design should be flexible (Cunha, 2006).

Researchers have studied design in many outlets, in which most research has been concentrated on retail outlets. Designs such as "grid" (mostly used in hypermarkets,

supermarkets), "racetrack" (commonly used in department stores), and "free-form" (used in smaller speciality stores) are very well known and commonly used in the retail industry (Cunha, 2006).

In what refers to service outlets, very little research has been done. This lack of attention is of great concern, since service design has been identified as 'perhaps the most crucial factor for quality' (Gummesson, 1993) (*in* Tax and Stuart, 1997).

Although there is very little information on this subject, one can state that the positive points in a retail outlet design should be taken into consideration so that an adaptation can be made to a service outlet. The store space should be optimized and should be appropriate to the type of business.

When considering a layout, one should take into account three principles: circulation, coordination and convenience (Levy and Weitz, 2004) (*in* Cunha, 2006). In other words, a layout should allow control of the flux of clients in the store, products should be strategically placed according to the type of consumer targeted and lastly, products should be easy to find.

When referring specifically to Health Clubs, the ambient and design cues are related to hygienic issues in the facility, equipment conditions, and the design of the facility; where as the social dimension refers to the attitude and behaviour of other members within the facility, especially in social situations (Alexandris *et al,* 2004).

The design cue consists of elements such as the facility's attractiveness, the use of up-to-date equipment, whether or not it is spacious and so forth (Alexandris *et al,* 2004).

All these elements may influence the consumer's perspective of the Health club as well as their psychological commitment. However, as previously stated the environmental cues do not and should not act individually. Next, we shall study the ambient and social cues.

### 2.2.2 Ambient

As Herbert George Wells (1866 – 1946) once said, "beauty lies in the eyes of the beholder". In other words, beauty is perceived differently by each person. It exists in the mind of the observer. Therefore, the way that individuals may respond to ambient elements may depend on individual response moderators (Bitner, 1992).

The store environment is being more and more recognized for the influence it has upon sales (Milliman 1982, 1986; Smith and Cumow 1966), product evaluations (Bitner 1986; Rappoport 1982; Wheatley and Chiu 1977), and satisfaction (Bitner 1990; Harrell, Hutt, and Anderson 1980) (*in* Spangenberg *et al*, 1996). Attitudes that consumers have toward the environmental cues have shown to play a greater role in the consumer choice criteria than the merchandise. One of the environmental cues that have been recently more explored by authors is the ambient. After long and extensive research, we have come to the conclusion that the ambient consists of music (Milliman, 1986), colour (Bitner, 1992), cleanliness, lighting (Summers and Hebert, 2001), temperature, visual communication (Grewal *et al*, 2003), scent (Spangenberg *et al*, 1996) and so forth.

Mattila *et al* (2001) state that "improving a store's ambient conditions enhances consumers' evaluations of and behaviours in the shopping experience". The authors highlight that when one strategically manipulates the store environment via elements such as scents and music, it is necessary to insure that the elements used to improve the environment's arousing do not clash.

In fact, many authors have tested these variables individually as well as together in order to examine the effects that they have upon the store's environment in the consumer's perspective. Mattila *et al* (2001) state that elements such as ambient, scent and music, when congruent with each other in terms of their arousing qualities, have a specific reaction upon consumers. They "rate the environment significantly more positive, exhibit higher levels of approach and impulse buying behaviours, and experience enhanced satisfaction than when these environmental cues were at odds with each other."

With the competitiveness that exists at present, service outlets are not only diffusing scents into their stores to create more positive environments but also using it to create a competitive advantage (Spangenberg *et al*, 1996). Distinctive scents are used to differentiate stores and therefore we can state that scents are used as a method to increase positive evaluations of the store's environment.

Another element in which the ambient cue consists of is colour. According to Bellizzi, Crowley, and Hasty 1983; Crowley 1993 (*in* Spangenberg *et al*, 1996), "colour has been shown to affect liking of the store and perceptions of merchandise". According to Lin

(2004), different colours stimulate different personal moods and emotions. Children, for example, often have a positive response to light colours and negative response to dark colours (Boyatzis and Varghese, 1994) (*in* Lin, 2004).

Music has also been studied as an element of the ambient cue. Studies have shown that by increasing the tempo and intensity of in-store music, one can influence the time spent by consumers in the store (Milliman, 1986). In other words, "environmental music regards consumers' perceptions of time; different types of environmental music have been shown to shorten or lengthen the perceived amount of time spent" (Spangenberg *et al*, 1996).

Lighting has said to be an important element of store atmospherics (Summers and Hebert, 2001). The authors state that "a more appealing store with better-illuminated merchandise may entice shoppers to visit the store, linger, and hopefully make a purchase". Further more, their studies allowed them to conclude that "increased levels of lighting will produce arousal and pleasure and increase the approach behaviours of consumers".

As previously discussed, temperature is also known as an element of the store's ambient cue. Every ambient has its "comfort zone" when relating to temperature. According to Baker and Cameron (1996), temperatures that exceed or do not reach this border (too hot or too cold) may affect negatively the emotional state of a person (*in* Cunha, 2006). One tends to feel uncomfortable and irritated, feeling the need to leave the store as quick as possible.

On the other hand, one can enhance the store's environmental cues through visual communications, which include signs and graphics (Grewal *et al*, 2003).

In the Health Club industry, ambient cues include elements such as facility cleanliness and whether or not the equipment is in good condition among other aspects (Alexandris *et al,* 2004).

Nevertheless, the store's atmospherics does not only rely on its visual and non visual elements. A third component is also needed to enhance the store environment. This element includes the human part of an organization – the stores personnel – which in this investigation we classify as the "social cue".

### 2.2.3 Social

"Physical or social stimuli affect directly the emotional state of a person, which in turn influences their behaviours". (Hightower *et al*, 2002)

According to Milliman and Turley (2000), the store's "human variables" include: (1) employee characteristics, (2) employee uniforms, (3) crowding, (4) customer characteristics and, (5) privacy.

Bitner (1992) argues that the servicescape "influences the nature and quality of customer and employee interactions, most directly in interpersonal services". Interpersonal services include Hotels, Restaurants, and Health clinics among others, where both customer and employee perform actions in the servicescape. According to the author, "in interpersonal servicescapes, special consideration must be given to the effects of the physical environment on the nature and quality of the social interaction between and among customers and employees". The servicescape not only influences the consumers but also the employees in service organizations.

It is important to understand how consumers perceive the service provided to them while shopping. The service quality, just like the other environmental cues, can influence the consumer's decision to revisit the store.

Researchers have found evidence that consumers use specific attributes or cues to deduce quality. This being said, it is crucial for managers to identify these attributes with the aim of optimising consumers' general perception of quality and value (Olshavsky, 1985; Olson and Jacoby, 19721) (*in* Gould-Williams, 1999).

The perception that clients have of service quality, is influenced by: (1) consumers interaction with employees, (2) the perceived outcome of the service encounter, and (3) the service firm's physical environment (Grönroos, 1982; Lehtinen and Lehtinen, 1982; Rust and Oliver, 1994) (*in* Hightower *et al*, 2002).

According to Bitner (1990), "the performance of customer contact employees is reported as forming a dominant quality cue" (*in* Gould-Williams, 1999).

In a Health Club, social conditions consist of the interaction among the customers and employees. It includes elements such as the 'niceness' of the facility's atmosphere, whether or not employees respond quickly to member's requirements, whether the

employees are able to make members feel comfortable, whether they work with enthusiasm, whether they are polite, whether they respect members' needs, their reliability, knowledge, trustfulness, and so forth. (Alexandris *et al*, 2004).

## 2.3 Image of a Point of Sale

A store's image (or personality) can be defined as store layout, architecture, symbols, colours and sales personnel. According to Martineau (1958), the image of a POS is the deciding factor that attracts consumers. The author believes in the existence of "a force operative in the determination of a store's customer body besides the obvious functional factors of location, price ranges, and merchandise offerings" and calls this "force" the store image. Martineau (1958) states that "the shopper seeks the store whose image is most congruent with the image she has of herself". The image that she portrays for herself includes variables such as: attitude, expectations, motivations, habits, and so forth. The author also highlights the importance of a company image in the success of service organizations.

Houston and Nevin (1981) define the store image as "the complex aggregate of a customer's perceptions of a store on salient attributes" (*in* O' Cass *et al*, 2008).

Zimmer (1988) states that "a store's image is the way it is perceived by consumers" and that "it can ultimately influence patronage behaviour". The author affirms that the consumer's perception of image derives from both objective and subjective store characteristics and also emphasizes other types of image descriptors such as "global image perceptions that summarize the consumer's gestalt impression of a store; store-type labels that represent institutional categories; prototypic and exemplar image descriptors, which are comparative-based impressions utilizing other stores as anchors in the image description; product-related image descriptors that link the store's image to the consumer's evaluation of the merchandise carried; and finally, behavioural image descriptors, which categorize a store according to its inclusion or exclusion from a choice set".

According to Baker *et al* (1994), the "store environment indirectly influences store image through merchandise and service quality inferences". These authors define store image as a "cognition/affect that is inferred from a set of perceptions" and also suggest

that “the relationship between store environment and store image is mediated by consumer inferences”.

Stanley and Sewall (1976), Nevin and Houston (1980) and Malhotra (1983) state that a store’s image plays an important role in the store choice decision (*in* Baker *et al*, 1994).

The store image has various components which vary from author to author. Berman and Evans (1995) identify components such as: target characteristics; location, price levels, installation attributes, service provided to clients, community service, publicity, sales promotion, and so forth. Ghosh (1994), on the other hand, classifies as store image components the following: prices, goods, service provided, physical characteristics, convenience, types of publicity and promotion, ambient, consumer characteristics and employee characteristics. Although the components vary, the over-all idea is very similar.

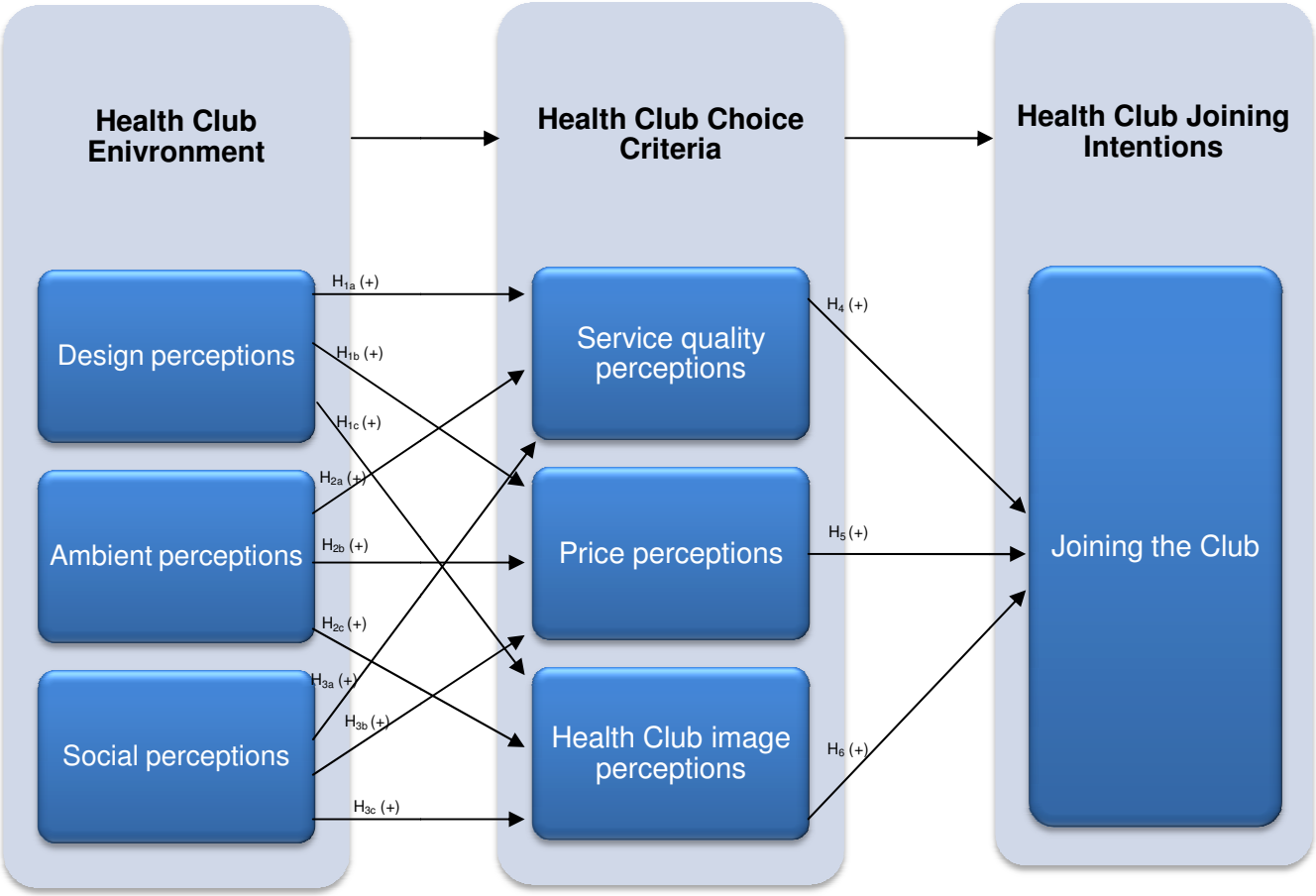
# 3 Methodology

In order to fully understand the relationship between the three environmental cues under investigation and its influence on the consumers choice criteria, it is wise to highlight the necessity to construct a conceptual model not only to explain the link that these two subjects have with one another but also, using the intensive research done in the literature review, to come to a conclusion.

## 3.1 Conceptual Framework and Investigation Hypotheses

The conceptual model proposed in this investigation is based on the research done by Baker’s *et al* (2002) conceptual model of the prepurchase process of assessing a retail outlet on the basis of environmental perceptions and has been adapted to a service outlet point of view, more specifically, a Health Club. The task of identifying the hypotheses is easier once the model is represented. As previously stated, the Health Club choice criteria under investigation are (1) Service Quality; (2) Price; and lastly; (3) Health Club Image.

**FIGURE 4– CONCEPTUAL MODEL**




The reasons for constructing the model in this manner, using these specific variables, are explained next.

### 3.1.1 Service Quality Perceptions

Service quality can be defined by using merely two words: "consistent performance". Researchers are more and more interested in the subject 'service quality' because of its influence on customer satisfaction and customer loyalty (Alexandris *et al,* 2004). Nowadays, the market being as competitive as it is, "service quality is now considered as an essential strategy" (Gould-Williams, 1999). In theory, service quality is conceptualised as the gap between consumers' expectations about a service and their subsequent perception of service performance (Grijnroos, 1984; Lehtinen and Lehtinen, 1991; Parasuraman *et al*., 1985, 1988) (*in* Gould-Williams, 1999).

Seeing that service quality is intangible and subjective, many researchers have created frameworks for measuring service quality, for example Parasuraman *et al* (1985). In fact, these authors (Parasuraman, Zeithaml & Berry, 1985) developed a model called SERVQUAL, which includes five factors (originally ten): (1) reliability, (2) assurance, (3) tangibles, (4) empathy and (5) responsiveness. Other researchers, such as Grönroos (1984, 1990) proposed a three-dimensional model and Dabholkar, Thorpe & Rentz (1996) proposed a multi-level service quality-model (*in* Alexandris *et al,* 2004). All these were attempts to find a way to measure service quality.

According to Hutcheson *et al* (1998), "merchandise and service quality inferences mediate the relationship between store environment and store image". This being said, including service quality as a factor in the conceptual model presented in this investigation was an obligation.

The objective is to be able to include factors that influence the consumer's perception about the service quality of a Health Club. As a result, using the conceptual model presented in Figure 4, four hypotheses arise. The first three are related to the three environmental cues: design, ambient and social and the last one is related to studying whether or not consumer's perception of the service quality influences the consumer's intention to join the club in a positive manner. The hypotheses that are formulated are the following:

> *$H_{1a}$ – The consumer's perception of the Health Club's design positively influences the consumer's perception of the service quality.*
>
> *$H_{2a}$ – The consumer's perception of the Health Club's ambient positively influences the consumer's perception of the service quality.*
>
> *$H_{3a}$ – The consumer's perception of the Health Club's social factors positively influences the consumer's perception of the service quality.*

The aim of this section is to acknowledge whether or not the consumer's perception of the service quality influences his intention to join the Health Club. Therefore, $H_4$ is formulated as the following:

> *$H_4$ – The consumer's perception of the service quality positively influences the consumer's intention to join the club.*

### 3.1.2 Price Perceptions

Including "price" as one of the Health Club choice criteria in this investigation isn't by any means random. In this section we aim to study how the consumer perceives the price range of the services provided by the Health Club.

In the past years, an increasing awareness of the complexity of price as a determinant of a purchase decision is evident (Monroe, 1973). The same author states that "according to the economic theory, price is assumed to influence buyer choice because price serves as an indicator of purchase cost".

Jacoby and Olson (1977) explain the consumer's price perception in their own terms through the S-O-R system. The symbols S, O and R stand for: (S) Stimulus variables, (O) Organismic variables and (R) Response variables. "Stimulus variables (S) represent the actual price and other relevant input variables. Organismic variables (O) include the acquisition, encoding, storage, and retrieval of price information. The Response variables (R) include overt consumer behaviours of various types" (*in* Berkowitz *et al*, 1980).

According to Nagle (1987), "an important determinant of consumers' responses to price is their perception of the entire purchase situation, which includes store environment" (*in* Baker *et al*, 2002).

In-store atmospherics may generate price belief's independent of the actual prices (Kotler, 1973) (*in* Baker *et al*, 2002). This being said, this investigation proposes the following hypotheses regarding store atmospherics:

> *$H_{1b}$ – The consumer's perception of the Health Club's design positively influences the consumer's perception of the price range.*
>
> *$H_{2b}$ – The consumer's perception of the Health Club's ambient positively influences the consumer's perception of the price range.*
>
> *$H_{3b}$ – The consumer's perception of the Health Club's social factors positively influences the consumer's perception of the price range.*

The overall intention of this part of the investigation is to study how the consumer's price perception influences his decision to join a Health Club. With this is mind, the following hypothesis is formulated:

> *$H_5$ – The consumer's perception of the price range positively influences the consumer's intention to join the club.*

### 3.1.3 Health Club Image Perceptions

To Martineau (1985), it isn't just the price, quality nor service that make consumers buy where they do. It's the stores personality that counts. According to the author, the consumers should be able to identify themselves with the store.

O' Cass (2008) states that an "image is expressed as a function of the salient attributes of a particular store that are evaluated and weighted against each other". Consequently and as previously stated, "Store image is defined as the complex aggregate of a customer's perception of a store on salient attributes (Houston & Nevin, 1981)".

It is necessary to understand how to rate a store image. Questions such as "is the store image portraying a positive vibe?" or "is this appealing to my target market?" are essential. According to Martineau (1985), "the image plays an increasingly vital part in the fortunes of business".

This being said and in the context of this investigation, the aim of this section is to study the factors that influence the consumer's perception of the image of a Health Club. In order to understand the influences that the consumer's perception of design has upon the store image, the following hypothesis is formulated:

> *$H_{1c}$ – The consumer's perception of the Health Club's design positively influences the consumer's perception of the Health Club's image.*

The same applies to the consumer's perception of the ambient and social cues, bringing together another two hypotheses: $H_{2c}$ and $H_{3c}$ as stated as follows:

> *$H_{2c}$ – The consumer's perception of the Health Club's ambient positively influences the consumer's perception of the Health Club's image.*

*$H_{3c}$ – The consumer's perception of the Health Club's social factors positively influences the consumer's perception of the Health Club's image.*

Martineau (1985) affirms that "perhaps the biggest single factor in the store image is the character of the sales personnel" therefore including $H_{3c}$ in this study is a must. Ultimately, the objective of this section is to be able to explain whether or not the consumer's perception of the Health Club's image has any influence on his intention to join the club. This being said, the hypothesis formulated is the following:

*$H_6$ – The consumer's perception of the Health Club's image positively influences the consumer's intention to join the club.*

Using the conceptual model presented, the hypotheses that will be taken into account in this investigation are listed below:

**TABLE 1 – HYPOTHESES**

| | |
|---|---|
| **$H_{1a}$** | The consumer's perception of the Health Club's design positively influences the consumer's perception of the service quality. |
| **$H_{1b}$** | The consumer's perception of the Health Club's design positively influences the consumer's perception of the price range. |
| **$H_{1c}$** | The consumer's perception of the Health Club's design positively influences the consumer's perception of the Health Club's image. |
| **$H_{2a}$** | The consumer's perception of the Health Club's ambient positively influences the consumer's perception of the service quality. |
| **$H_{2b}$** | The consumer's perception of the Health Club's ambient positively influences the consumer's perception of the price range. |
| **$H_{2c}$** | The consumer's perception of the Health Club's ambient positively influences the consumer's perception of the Health Club's image. |
| **$H_{3a}$** | The consumer's perception of the Health Club's social factors positively influences the consumer's perception of the service quality. |

| | |
|---|---|
| **$H_{3b}$** | The consumer's perception of the Health Club's social factors positively influences the consumer's perception of the price range. |
| **$H_{3c}$** | The consumer's perception of the Health Club's social factors positively influences the consumer's perception of the Health Club's image. |
| **$H_4$** | The consumer's perception of the service quality positively influences the consumer's intention to join the club. |
| **$H_5$** | The consumer's perception of the price range positively influences the consumer's intention to join the club. |
| **$H_6$** | The consumer's perception of the Health Club's image positively influences the consumer's intention to join the club. |

## 3.2 Health Club Description (in an objective view)

The Health Club is part of a condominium and therefore is limited in terms of parking lots. The total area of the installations is 1300 $m^2$. It has two floors: ground floor and basement.

The ground floor is 270 $m^2$ and has been divided into the following sections: reception; snack bar; restrooms for visitors and two studios which are used to give group classes (maximum 18 people in each studio per class). The colour scheme is simple. It includes dark blue for the floors, white for the walls and furniture is based on wood. The studios are fully equipped with all the equipment required for the specific group activities and have mirrors on three of the four walls which enable the members to correct their posture during their workout.

The basement is 1030$m^2$ and has been divided into five sections: cardio-fitness; body building; swimming pool; two restrooms (for each gender) and a studio. The colour scheme continues very cohesive with the Health Club's logo: dark blue, gold and white. Each of these sections is fully equipped with the required materials. Mirrors and glass are used to separate sections and also give the illusion that the space is bigger than it actually is. In general, one can state that the architecture of this fitness centre is current and that it has functional layout.

As for the interior design, one can regard it as fresh and clean. As for the interior scent, there is no specific aroma used. The lighting is used to highlight certain areas of the Health Club, such as the entrance, the snack bar and showcases (where some gym wear is exposed). There are four employees that are responsible for the cleaning and maintenance of the facility. They work in shifts, two employees at a time. The temperature is around 20 Cº. The background music is essentially the most recent on the market used in a very subtle way on the ground floor and more obvious in the basement. There isn't much background noise. There are various communication signs used in the facility mainly to indicate the different sections, i.e. restrooms, reception, swimming pool, and so forth.

As for the social part of this investigation, the Health Club has 11 fixed employees and 11 freelancers (the instructors) which all have to wear a uniform. The uniform varies according to the section the employee is a part of. The receptionists wear a black classic pants, white shirt and black jersey (optional). The instructors and coordinators wear black t-shirts with the logo and beige pants. The cleaning and maintenance department wear a yellow t-shirt with the logo and black pants. The bar ladies use a white t-shirt with the logo and a pair of jeans.

Seeing that only members with the age of 18 and above were questioned, the prices that will be used for this analysis are the prices that the adult members of this club pay. This being said, for the adults, the Health Club offers seven different packages each with different conditions and it's up to the client to decide which of the options best suit him. Generally speaking, the client has three options. Or he opts for only the aquatic activities (swimming pool), or he opts for only cardio-fitness, group activities and body building or he opts for all of the above. Each one of these options subdivides to the total of seven possibilities, as previously stated and varies according to the time table, price, among other conditions.

The prices practiced by the Health Club in question vary from 35.00€ to 75.00€ as can be confirmed in the following table:

| **CARD** | *Aquabodies Platinium* | *Aquabodies Gold* | *Platinium* | *Gold* | *Terra* | *Light* | *Cartão C* |
|---|---|---|---|---|---|---|---|
| **PRICE** | 35€ - 45€ | 35€ - 40€ | 63€ - 75€ | 57€ - 65€ | 50€ | 40€ | 35€ |

## 3.3 Construction of the Questionnaire

The method used to collect the data for this investigation is one of the most commonly used in researches of this nature. We opted to use questionnaires to gather information seeing that they are relatively easy to analyze, simple to administer and allow a larger group of people to express their opinion. Despite the advantages, questionnaires have their own share of limitations (i.e. respondents ignoring certain questions or questions being incorrectly completed) and were taken into consideration while gathering the required information.

The first step of this investigation was to establish the kind of information that was required in order to obtain the results that we were looking for. This was done in the literature review. Once the knowledge was obtained, objectives were stipulated. In this case, the objective was to find out the influence that the Health Club's atmospherics has on the consumer's choice criteria. The questions used in the questionnaire were carefully selected in order to attain the objectives of this study.

There are two main types of questions that are used in marketing research: (1) closed-ended and (2) open-ended questions. In this project we only used closed-ended questions. This type of question enables the respondent to make a choice by selecting the most correct answer from the range of answers previously listed by the investigator. These questions provide answers that are easier to tabulate. Our objective was to ensure that the questionnaire was less time consuming to complete and easier to analyze. Fifty seven questions were asked.

There are many types of closed-ended questions. In this investigation we used two: (1) Dichotomous questions (questions with only two possible answers) and the (2) Likert Scale (questions that allow respondents to express their opinions to a limited degree). The Likert scale was constructed using numbers from one to six, therefore becoming an even numbered scale. This was done in order to avoid neutral answers, that is, to force the respondents to pick a side: or they are more positively inclined or negatively inclined. They can't be both or neither. Some respondents tend to, when faced with an odd numbered scale and want to avoid selecting a side, choose the number in the middle, leaving the researchers in doubt.

The measurement scales used in this project are nominal, ordinal and interval allowing us to adequately test the quantitative data.

Once the questionnaire was complete, a pre-test (pilot) was done with the purpose of identifying errors and difficulties that may occur. Twenty people participated in the pre-test. The required adjustments were made and the final questionnaire was prepared and distributed using two methods: mail surveys (one hundred) and personal interview (sixty), of which only 121 participated.

Mail surveys were used because of its advantages: the respondent does not feel the need to be bias, he is able to maintain himself anonymous and this technique is very cost efficient. Personal interview was used because of the fact that it allows the interviewer to have flexibility when asking the questions and the response rate is normally very high. The sample was selected by the use of the method convenience sampling. The majority of the members chosen in the sample are Portuguese speaking. Therefore, the questionnaire was translated into Portuguese, the countries native language, allowing a full comprehension of the questions that were asked. Both the English and Portuguese versions are found in Appendices 7.1 and 7.2.

The questionnaire was divided into five sections: Design, Ambient, Social, Price and Personal Information. The first three sections are focused on evaluating the consumers perception of the three environmental cues analysed in this study.

In Section A – **Design**, various design factors were taken into consideration: space, comfort, parking lot, quality of the materials used, architecture, interior design and layout.

On the other hand, Section B – **Ambient** was dedicated to the ambient cues such as scent, lighting, temperature, background music, background noise level, hygiene, visual signs and colour scheme.

In Section C – **Social**, all the factors related to the service provided by the employee were addressed. The factors analysed were: nº of employees, employee presentation and attire, helpfulness, friendliness, employee performance and service quality. However, the social cue does not only rely on the employee but also on the other members of the Health Club. In this context, factors such as other member's friendliness, helpfulness, presentation and attire were evaluated.

Section D – **Price** focuses on the member's investment perception. The objective of this section was to identify whether, under the conditions provided to them by the Health Club, the members regard the investment worth it. Last but not least, in Section E – **Personal Information**, the respondents were asked to simply identify their age, gender and income, in order to maintain their anonymity.

The data collection was done during the months of December 2008 to February 2009. Once all the answered questionnaires were gathered, the questions and answers were coded and introduced into Microsoft Excel 2007 and later exported to a program called SPSS (Statistical Package for the Social Sciences) version 15.0 where a more detailed study was done.

## 3.4 Sample

This project applied the method known as convenience sampling (which falls in the nonprobability sampling scheme) to select the sample. In this method, the researcher chooses the individuals that are easiest to reach. According to Hill (2000), this method has three advantages: (1) it is fast, (2) cheap and (3) easy to apply. However, this method is criticized by many researchers since this sampling method does not (or may not) represent the entire population and therefore is considered bias. Taking into consideration this disadvantage, during the data collection process we aimed to keep our sample heterogeneous by selecting participants of different age groups, of both genders and with different incomes.

The investigation is based on structured questionnaires to personal interview as well as mail surveys. The target population are members, aged 18 years and above, from Universalbodies Health and Adventure Club, Lda., a Health Club in Torres Vedras, Portugal. One hundred and twenty one (n=121) members participated in the study. The Health Club used to draw the sample is a private organisation and was founded in 2005. To date, the Health Club has six hundred active members (paying members).

Initially one hundred and sixty members were approached but only one hundred and twenty one of them returned the questionnaire (response rate of 75.6%). The demographic information of the sample indicated that the majority were females (57%) and that the mainstream of the participants were part of the age group: 31yrs – 40yrs (39.7%).

## 3.5 Data Analysis Techniques

The data analysis process used in this investigation was done in four steps:

**Step 1:** Demographic characteristics analysis.
This section is dedicated to describing the sample used in this study in terms of gender, age and income using descriptive analysis.

**Step 2:** Descriptive Analysis of the Data Acquired
This step consists of reproducing the data collected from the questionnaires in a graphic form and examining the results acquired from each of the questions answered by the participants.

**Step 3:** Latent variable measurement models
This is the part of the investigation where we examine the various component variables and identify which of them best represents each of the latent variables in question. We applied the Factor Analysis technique (extraction methods used: Maximum Likelihood and Principal Axis Factoring) as well as the Reliability tests in order to determine the unidimensionality, reliability and validity of each of the latent variables.

**Step 4:** Hypotheses Testing
The 12 hypotheses formulated in section 3 of this investigation will be tested using the statistical test called correlations. This test allows us to measure how well the variables are associated.

According to Hill (2000), there are two types of statistics that one can use when analyzing data: (1) parametric statistics and (2) nonparametric statistics. Parametric statistics use parameters and assumes that the values of a variable are normally distributed. Examples of such statistics are: t test and the Pearson correlation. As for nonparametric statistics, these do not use parameters and do not assume that the variables are normally distributed. Examples include the Chi-square test and the Spearman correlation.

This information was taken into consideration when choosing the tests used in the following section. Section 4 is fully dedicated to analyzing the data using the four steps mentioned earlier. It also will provide a more in depth definition of the techniques, procedures and methods used. The analysis was conducted using the program SPSS.

# 4 Results

The goal of this section is to analyze the impact that a company's image and environment has on the consumer's choice criteria when choosing a Health Club. The analysis will be done using the information gathered from the questionnaires which were answered by 121 members of Universalbodies Heath and Adventure Club, Lda.

This section will commence by identifying the demographic characteristics of the sample. Then, the data acquired from the questionnaires will be presented followed by an analysis of the latent variable measurement models. We will end this section by testing the hypotheses formulated in section 3 of this investigation.

## 4.1 Demographic Characteristics

Generally, demographic characteristics include factors such as age, gender, race, income, marital status, educational attainment, home ownership, employment status and even location. In this investigation, the only factors that will be taken into account are: (1) gender, (2) age and (3) income. The other factors are not considered influential in this particular case and therefore unnecessary to highlight in this study.

One hundred and twenty one questionnaires were validated. This is roughly one fifth of the Health Club's total number members, therefore representing approximately 20% of its population.

The majority of the respondents are female, representing 57.02% of the sample and the remaining 42.98% representing the male respondents as shown in Table 2. These results do not match the estimates done by the National Institute of Statistics of Portugal – INE. According to the institute, the estimated number of habitants of Torres Vedras in the year 2007 (most recent update) is 65319 (excluding the population of 15 years and below) of which 51% are females and 49% are male. This difference may be due to the fact that woman are more inclined to join a club of this nature than men. We can verify this when comparing these results to the total number of members of the Health Club in question. According to their database, 61.5% of the members are female, where the remaining 38.5% represent the male population.

This being said, in terms of the gender of the respondents, we can state that it is similar to the population in Torres Vedras, considering the type of service that is being promoted.

**TABLE 2 – GENDER DISTRIBUTION**

| GENDER | FREQUENCY | % |
|---|---|---|
| Feminine | 69 | 57.02% |
| Masculine | 52 | 42.98% |
| **Total** | 121 | 100% |

As for the age group of the participants, we were able to collect information from members with ages 18 years and above. This information is found in Table 3. The majority of the sample lies within the age ranges of 21 to 30 and 31 to 40, representing 37.19% and 39.67% of the sample respectively. Representing 13.22% are people with ages 41 to 50 as confirmed by analyzing Table 3. These values are similar to the information in the Health Club's database where the majority of the members fall in the 21 to 30 (23.9%) and 31 to 40 (28.4%) age groups. Representing 16.7% are members with ages between 41 and 50. When comparing this information with the INE estimations, we note that the majority (55.2%) of the Torres Vedras population falls in the 25 to 65 age range. The age group with the second highest percentage is 15-24 representing 11.3% of the Torres Vedras population. Although this value is elevated (11.3%) in comparison with the other age groups, seeing that this investigation only involves adults with ages 18 years and above, they are insignificant to this particular study.

In terms of the age group of the respondents, we can consider that the sample is a good approximation of the population in Torres Vedras.

**TABLE 3 – AGE GROUP DISTRIBUTION**

| AGE GROUP | FREQUENCY | % |
|---|---|---|
| 18 - 20 | 1 | 0.83% |
| 21 - 30 | 45 | 37.19% |
| 31 - 40 | 48 | 39.67% |
| 41 - 50 | 16 | 13.22% |
| 51 - 60 | 9 | 7.44% |
| > 60 | 2 | 1.65% |
| **Total** | 121 | 100% |

When analysing the income of the respondents, we come to the conclusion that the majority fall in the 601 to 800 euros and 801 to 1000 euros categories, representing 32.23% of the sample individually. Representing 23.14% and 12.4% are the participants with an income between 1001 to 1500 euros and 400 to 600 euros, respectively. These values are not comparable to the Health Club database, seeing that this type of information is non existent. There are no estimates done for Torres Vedras by INE, not allowing us to do a further comparison on this factor. The values for the income distribution are found in Table 4.

In terms of the income of the respondents, we can not conclude whether or not the sample is alike the population in Torres Vedras, due to the lack of information.

**TABLE 4 – INCOME DISTRIBUTION**

| INCOME (€) | FREQUENCY | % |
|---|---|---|
| < 400 | 0 | 0.0% |
| 400 to 600 | 15 | 12.40% |
| 601 to 800 | 39 | 32.23% |
| 801 to 1000 | 39 | 32.23% |
| 1001 to 1500 | 28 | 23.14% |
| > 1501 | 0 | 0.0% |
| Total | 121 | 100% |

In the following section we shall present our research findings of the sample's perceptions of design, ambient and social factors. This will be done by presenting each question asked in the questionnaire and the respective answers.

## 4.2 Descriptive Analysis of the Data Acquired

As previously stated, the questionnaire was divided into five sections: Design, Ambient, Social, Price and Personal information. Questions 1 to 18 were devoted to studying the design perceptions, questions 19 to 25 were dedicated to studying the ambient perceptions, questions 36 to 48 were used to study the social perceptions, questions 49 to 54 were related to the members' price and investment perceptions and lastly questions 55 to 57 were used to characterize the sample's demographics, which has already been discussed in Section 4.1.

***Q1**. Do you regard the space provided to you by your Health Club sufficient?*

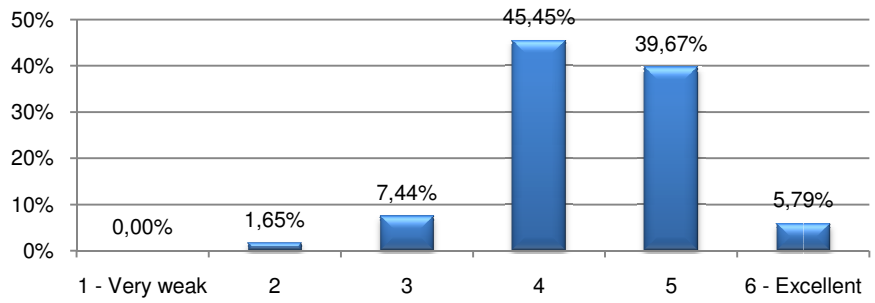
**TABLE 5.1 – SPACE PERCEPTIONS**

| ANSWER | FREQUENCY | % |
|---|---|---|
| Yes | 111 | 91,74% |
| No | 10 | 8,26% |
| **Total** | 121 | 100% |

Observing the data presented above in Table 5.1, we are able do conclude that the majority of the members that took part in this investigation (91.74%) regard the space provided by the Health Club in question sufficient. Only 8.26% of the respondents replied negatively to this question.

***Q2.** How do you classify the space/comfort ratio in your Health Club?*

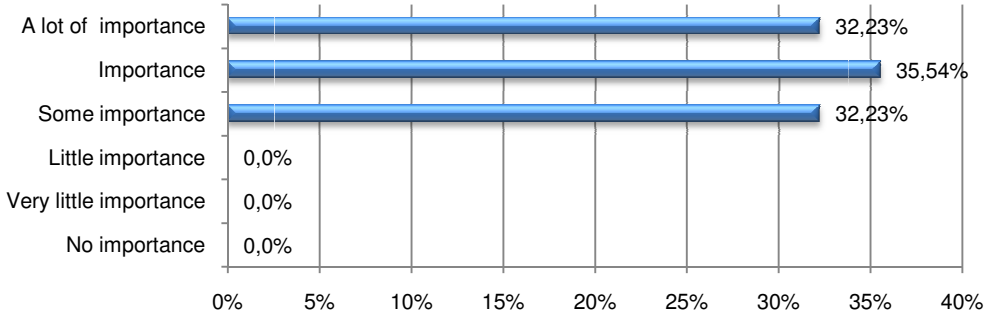
**FIGURE 5.1 - SPACE/COMFORT PERCEPTIONS**




Analysing Figure 5.1 we can state that 45.45% of the respondents classify, on a scale from 1 to 6, the Health Club's space/comfort ratio as a "4", 39.67% regard it as a "5" and 7.44% regard it as a "3". In general, we can conclude that the majority of the respondents classify the space/comfort ratio positively.

***Q3.** What importance do you give to the "space" factor when choosing a Health Club?*

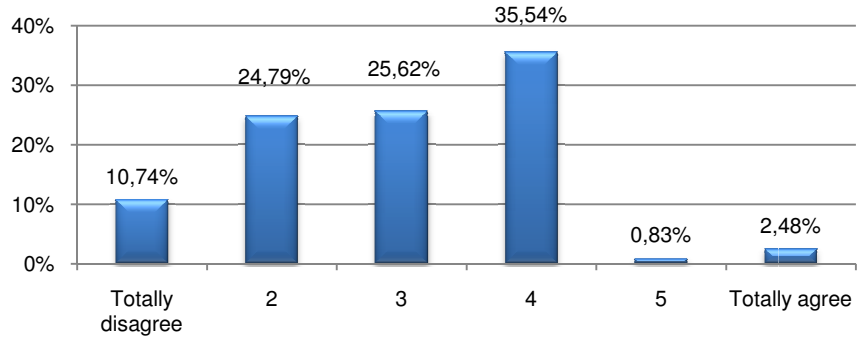
**FIGURE 5.2 – IMPORTANCE GIVEN TO THE SPACE FACTOR**



When analysing Figure 5.2 it is clear that respondents regard space as an important factor when choosing a Health Club, seeing that all of them chose to grade the importance with the values "4" and above with 32.23% stating that they give it some importance, 35.54% give it importance and 32.23% give it a lot of importance.

***Q4*** *The space attributed to the parking lot according to your ideas for the Health Club.*

**FIGURE 5.3 – SPACE IN PARKING LOT PERCEPTIONS**




When asked whether the parking lot is adequate for a Health Club, the majority of the respondents chose to express their opinion by grading this factor negatively as confirmed in Figure 5.3. From the 121 respondents, 10.74% totally disagree, stating that the parking lot is not according to their ideas for a Health Club. Similar opinions were given by respondents that selected "2" and "3" representing 24.79% and 25.62% respectively. Although 35.54% are more inclined to agree that the space attributed to the parking lot is according to their ideas for the Health Club, we can state that the majority disagrees. These values are understandable seeing that the Health Club used in this investigation is part of a condominium and the space reserved for parking is for public use, therefore not able to provide private parking lots for their members.

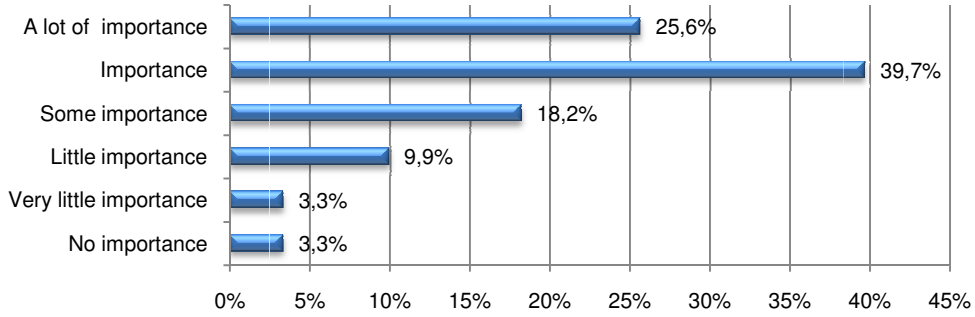
***Q5****. What importance do you give to the "space in the parking lot" factor when choosing a Health Club?*

When the respondents were asked what importance they give to the space in the parking lot, the answers where not unanimous. However, when looking at Figure 5.4, we can state that the majority (18.2%, 39.7% and 25.6%) give importance to the space given for parking.

These results slightly clash with the information withdrawn from Q4. Although the majority regard the Health Club's parking insufficient and seeing as the parking lot is

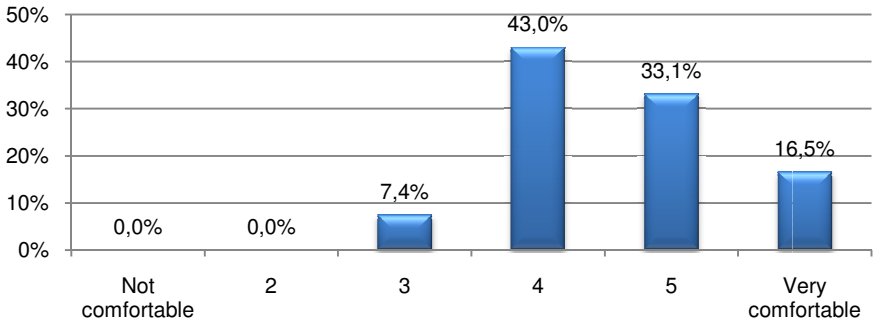
considered as an important factor, the respondents chose to sign up anyway, leaving us with the idea that the parking lot is regarded important but not essential.

**FIGURE 5.4 – IMPORTANCE GIVEN TO SPACE IN PARKING LOT**




***Q6**. How do you classify the Health Club's facilities?*

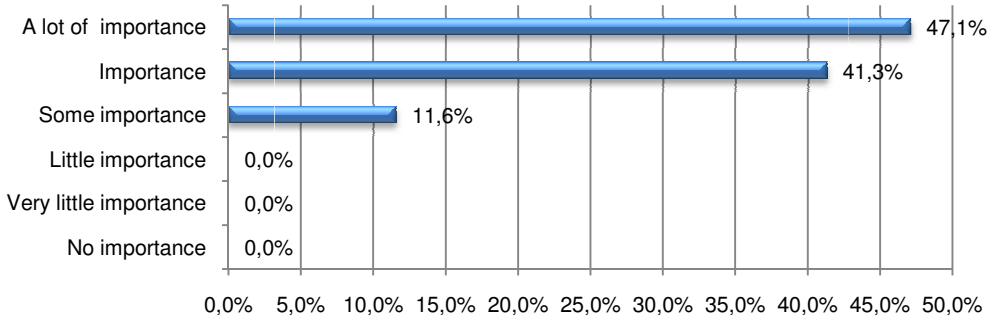
**FIGURE 5.5 – FACILITY PERCEPTIONS**




By analysing Figure 5.5, in general terms, the Health Club's facilities are considered comfortable having selected "4", "5" and "6 – very comfortable" 43.0%, 33.1% and 16.5% respectively, with the majority opting to rate the facility's comfort as a "4".

***Q7**. What importance do you give to the "comfort of the Health Club's facilities" factor when choosing a Health Club?*

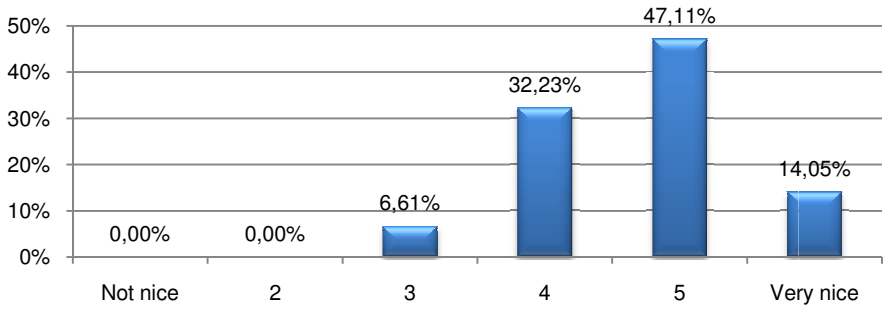
**FIGURE 5.6 – IMPORTANCE GIVEN TO FACILITIES**



Observing Figure 5.6 it is clear that the majority find the comfort of the Health Club's facilities important seeing as 47.1% of the participants said that they give it "a lot of importance".

**Q8.** How do you classify the Health Club's layout?

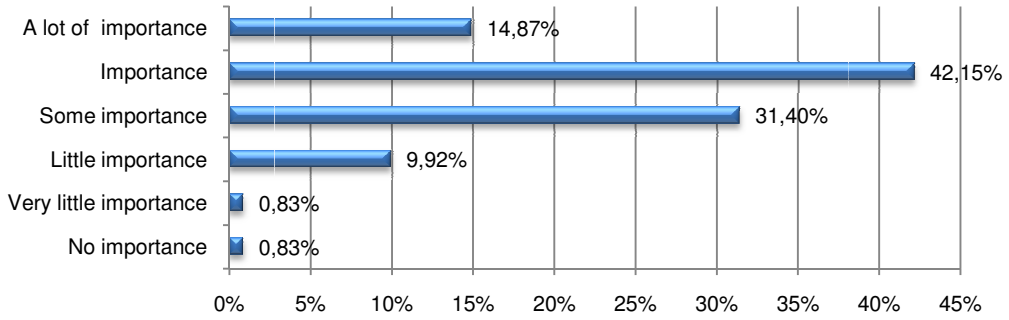
**FIGURE 5.7 – LAYOUT PERCEPTIONS**




When examining Figure 5.7, it is possible to conclude that most of the respondents rated the Health Club's layout positively representing more than 90% of the sample. Only 6.61% were more negatively inclined.

**Q9.** *What importance do you give to the "layout" factor when choosing a Health Club?*

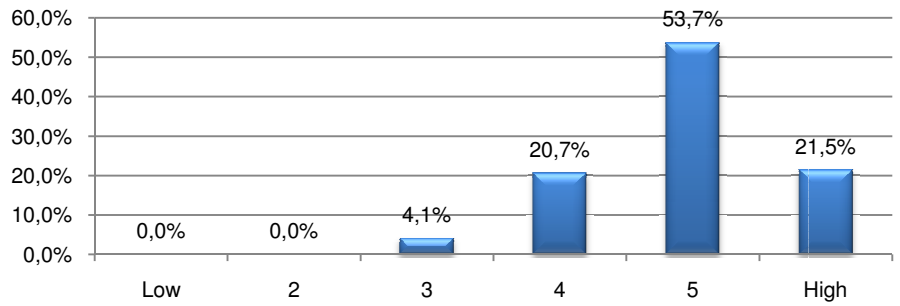
**FIGURE 5.8 – IMPORTANCE GIVEN TO THE LAYOUT**




The majority of the respondents, when asked about the importance given to a Health Club's layout when choosing a club of this nature, stated that they indeed give it importance. This portion of the sample is represented by 31.40%, 42.15% and 14.87% of the participants who give it "some importance", "importance" and "a lot of importance".

***Q10***. *How do you classify the materials used by your Health Club in terms of quality?*

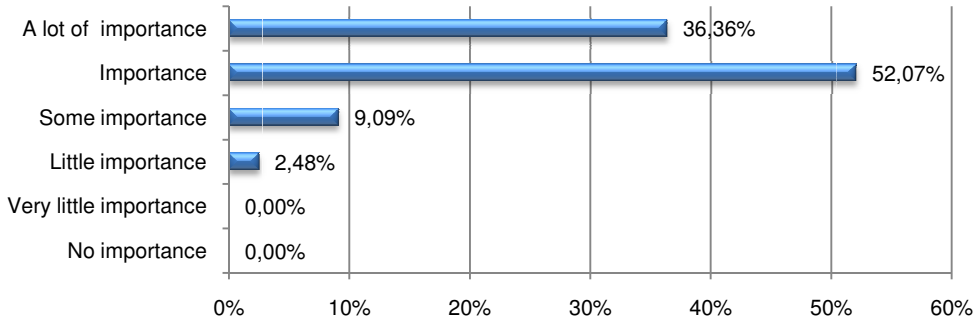
**FIGURE 5.9 – MATERIAL QUALITY PERCEPTIONS**




According to Figure 5.9, we can verify that the respondent's overall material quality perception is positive seeing that more than 95% of the sample selecting options "4", "5" and "6 – High". Only a very small group (4.1%) were more negatively inclined.

**Q11.** *What importance do you give to the "material quality" factor when choosing a Health Club?*

**FIGURE 5.10 – IMPORTANCE GIVEN TO MATERIAL QUALITY**

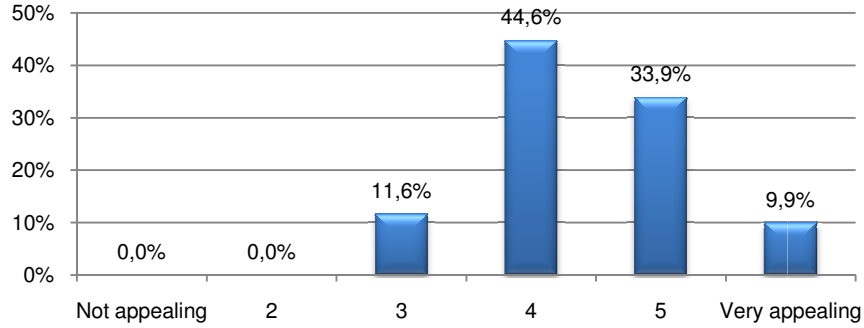



Analysing Figure 5.10, we can conclude that the material quality is important one way or another. The majority (52.07%) of the respondents selected "5– importance" and 36.36% of the respondents said that they give a lot of importance to material quality.

**Q12.** *How do you classify the architecture used by your Health Club?*

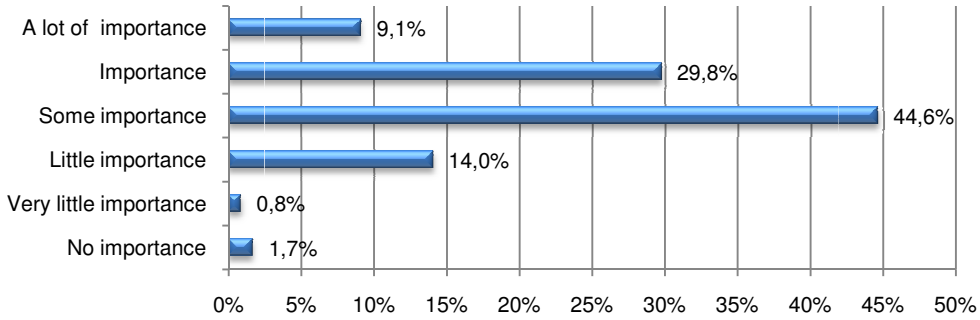
Although the answers were not unanimous, it is possible to conclude that more than 80% of the respondents find the Health Club's architecture appealing. These results are confirmed in Figure 5.11.

**FIGURE 5.11 – ARCHITECTURE PERCEPTIONS**




***Q13.*** *What importance do you give to the "architecture" factor when choosing a Health Club?*

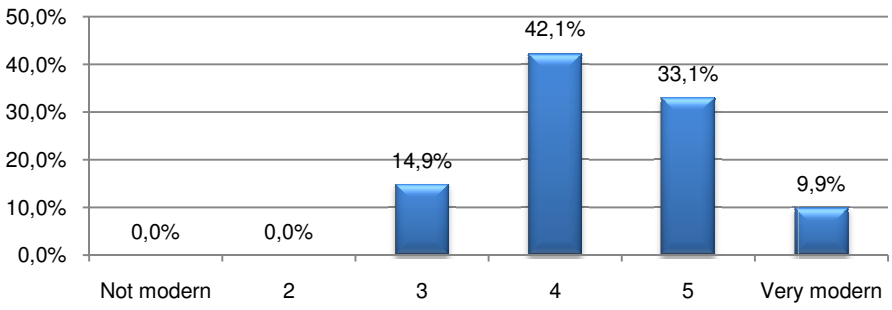
**FIGURE 5.12 – IMPORTANCE GIVEN TO THE ARCHITECTURE**




Examining Figure 5.12, 1.7% of the sample does not consider the architecture of a Health Club influential in their decision to join a club of this nature. On the other hand, 9.1% of the respondents regard that the architecture factor is important to them when signing up. The other respondents stated that they consider the architecture important but do not give it a maximum importance (44.6% and 29.8%).

***Q14.*** *How do you classify the interior design used by your Health Club?*

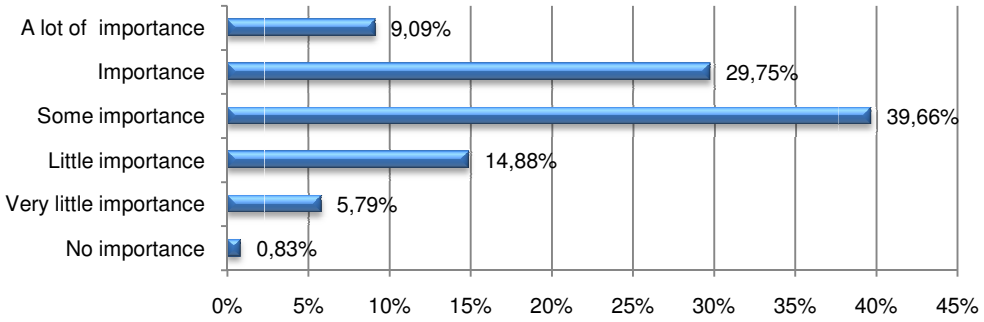
**FIGURE 5.13 – INTERIOR DESIGN PERCEPTIONS**



By analysing Figure 5.13 we can conclude that the majority of the respondents regard, at different levels, that the Health Club's interior design is modern. Only 14.9% were negatively inclined, but not at an accentuated level.

***Q15.*** *What importance do you give to the "interior design" factor when choosing a Health Club?*

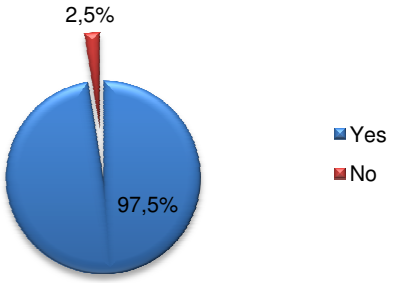
**FIGURE 5.14 – IMPORTANCE GIVEN TO THE INTERIOR DESIGN**




When the respondents were asked whether they regard a Health Club's interior design as an important factor in their decision making process, 0.83% stated that they did not regard it as important and 5.79% stated that they do not give it much importance. On the other hand, 9.09% of the respondents regard the interior design as an important factor which they consider when signing up. The other respondents stated that they consider the interior design important but do not consider it a main concern (39.66% and 29.75%) as shown in Figure 5.14.

***Q16.*** *In your opinion, does the Health Club gain more value because of the fact that it has a snack bar?*

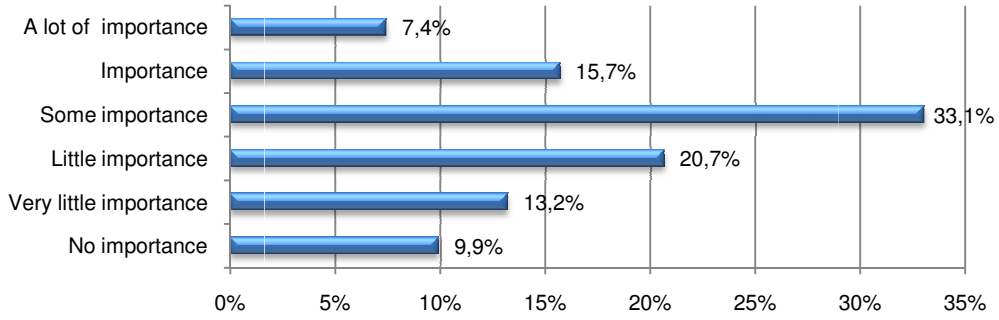
**FIGURE 5.15– SNACK BAR VALUE**




The majority of the respondents (97.5%) consider the snack bar a factor that adds value to the Health Club but 2.5% of the sample disagrees as shown in Figure 5.15.

***Q17.*** *What importance do you give to the "snack bar" factor when choosing a Health Club?*

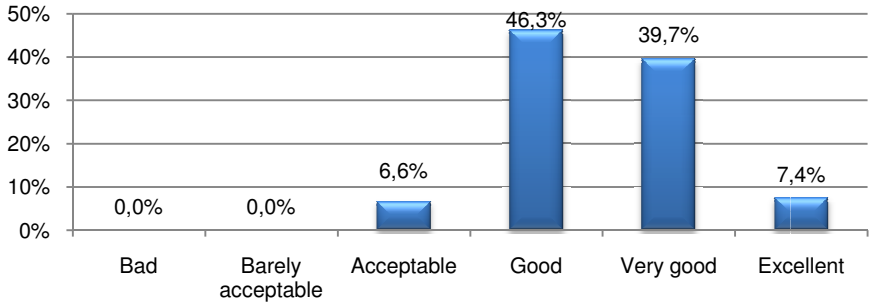
**FIGURE 5.16– IMPORTANCE GIVEN TO THE SNACK BAR**




The respondents' opinions are scattered along the scale, as shown in Figure 5.16. 33.1% of the respondents give the snack bar some importance. 20.7%, 13.2% and 9.9% regard the importance of having a snack bar as "little importance", "very little importance" and "no importance", respectively.

***Q18.*** *Globally, how do you classify the Health Club's design?*

**FIGURE 5.17– OVERALL DESIGN PERCEPTIONS**



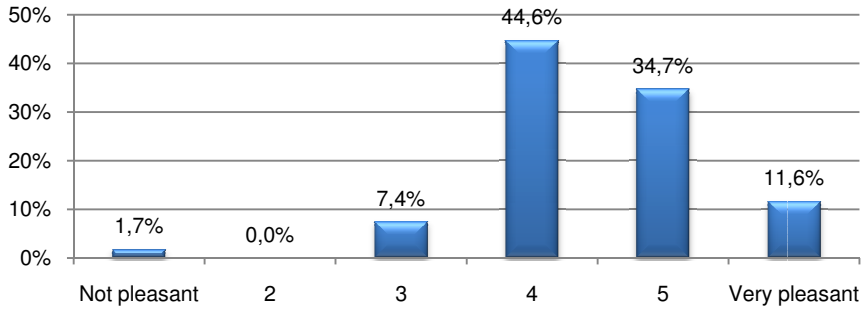

7.4% of the respondents rate the design of the Health Club in question excellent and 46.3% and 39.7% are also positively inclined rating the design "good" and "very good" respectively.

***Q19.*** *How do you classify the scent of your Health Club?*

Looking at Figure 5.18 we can conclude that most of the respondents classified the Health Club's scent as pleasant. 44.6% classified the scent as a "4", 34.7% classified it as a "5" and 11.6% classified it as a "6 – very pleasant". Besides these positive ratings,

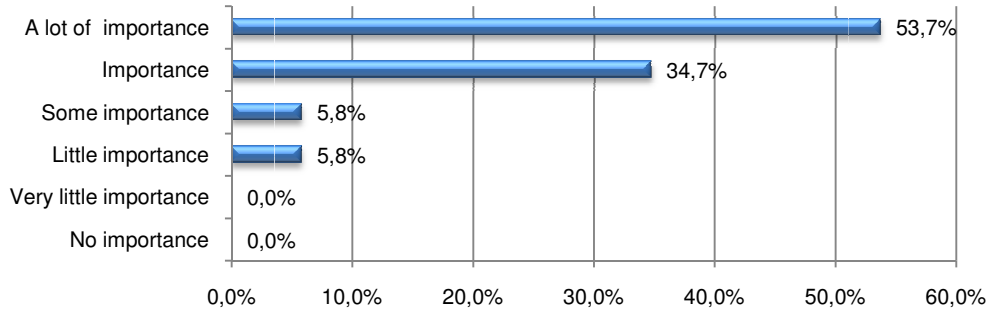
a small percentage of the respondents (1.7%) regard the Health Club's scent not pleasant.

**FIGURE 5.18– SCENT PERCEPTIONS**




***Q20.*** *What importance do you give to the "scent" factor when choosing a Health Club?*

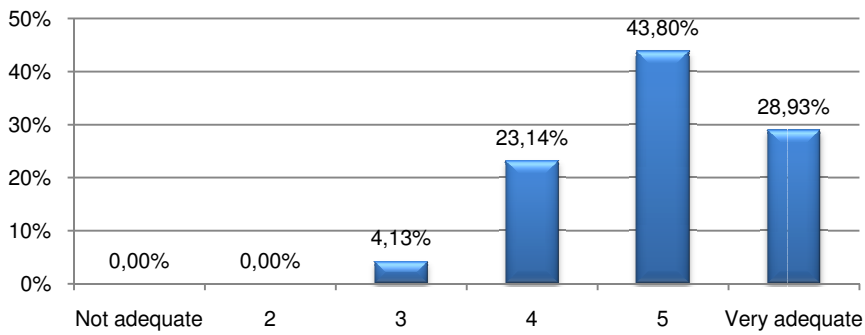
**FIGURE 5.19– IMPORTANCE GIVEN TO A HEALTH CLUB'S SCENT**




According to Figure 5.19, 53.7% of the respondents give a lot of importance to the Health Club's scent. 34.7% of the respondents state that to them the scent is important but do not give it maximum priority. 5.8% of the sample state that they give it little importance.

***Q21.*** *How do you classify the lighting of your Health Club?*

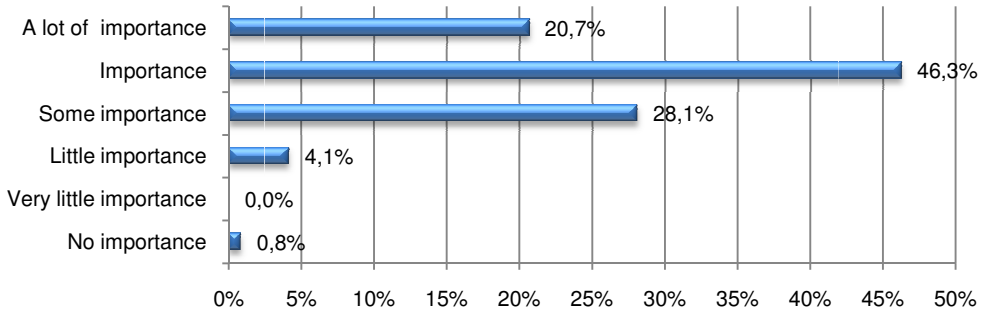
**FIGURE 5.20– LIGHTING PERCEPTIONS**



Examining Figure 5.20 we can conclude that the majority of the respondents regard, at different levels, that the Health Club's lighting is adequate. Only 4.13% were negatively inclined.

***Q22.*** *What importance do you give to the "lighting" factor when choosing a Health Club?*

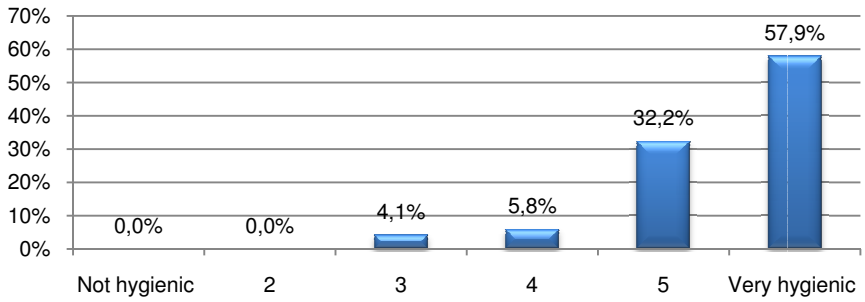
**FIGURE 5.21– IMPORTANCE GIVEN TO THE LIGHTING**




Observing Figure 5.21 we can state that only a minor percentage of the respondents (0.8%) do not give any importance to a Health Club's lighting. 20.7% of the sample affirmed that they give a lot of importance to a Health Club's lighting, 46.3% give it importance and 28.1% give it some importance.

***Q23.*** *How do you classify the hygiene of your Health Club?*

**FIGURE 5.22– HYGIENE PERCEPTIONS**



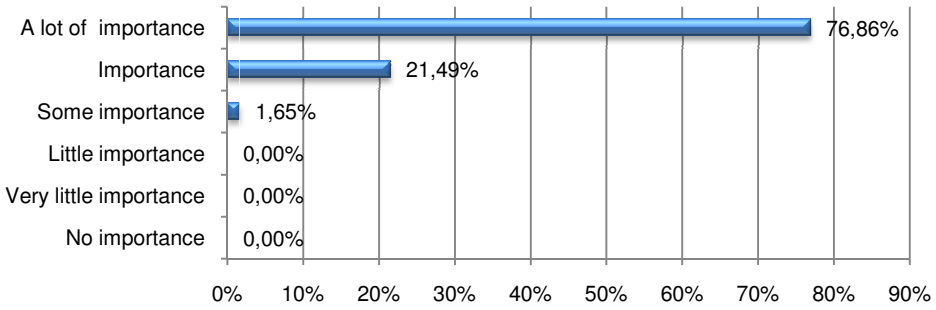

The hygiene perceptions of the Health Club in question are very positive. The majority of the respondents stated that they consider the club very hygienic. 32.2% rated the club's hygiene, on a scale from 1 to 6, as a "5" and 5.8% as a "4".

***Q24.*** *What importance do you give to the "hygiene" factor when choosing a Health Club?*

Analysing Figure 5.23 it is clear that hygiene is considered a very important factor when choosing a Health Club as 76.86% affirm that they give a lot of importance to this

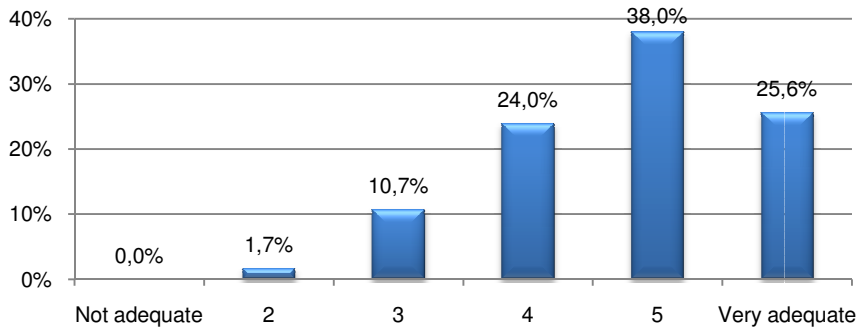
factor. The remaining respondents do not give this factor the greatest importance but do affirm that it is significant when choosing a club of this nature.

**FIGURE 5.23– IMPORTANCE GIVEN TO THE HYGIENE**




***Q25.*** *How do you classify the temperature of your Health Club?*

**FIGURE 5.24– TEMPERATURE PERCEPTIONS**

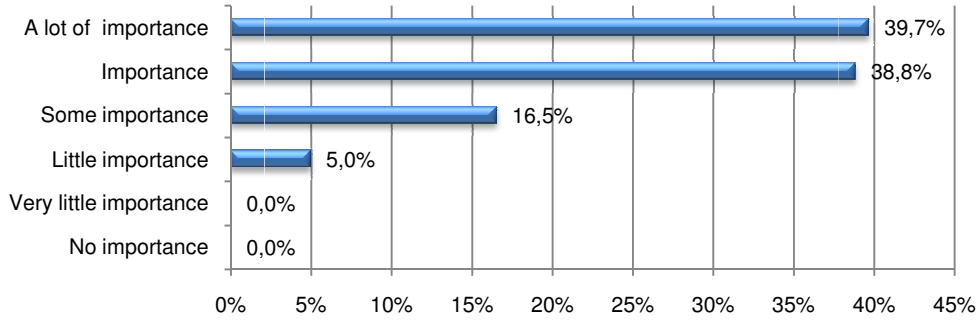



When asked about the Health Club's temperature, the opinions were divergent as shown in Figure 5.24. 1.7% of the respondents do not think that the temperature is very adequate and 10.7% agree but do not rate the Health Club's temperature as negatively, selecting "3". The overall responses were positive, seeing that 25.6% regard the temperature as "very adequate".

***Q26.*** *What importance do you give to the "temperature" factor when choosing a Health Club?*

When the participants were asked whether a Health Club's temperature is taken into consideration when deciding to join one, 39.7% stated that they give it a lot of importance, 38.8% give it importance and 16.5% give it some importance having selected "6 – a lot of importance", "5" and "4" on a scale from 1 to 6, respectively, as observed in Figure 5.25.

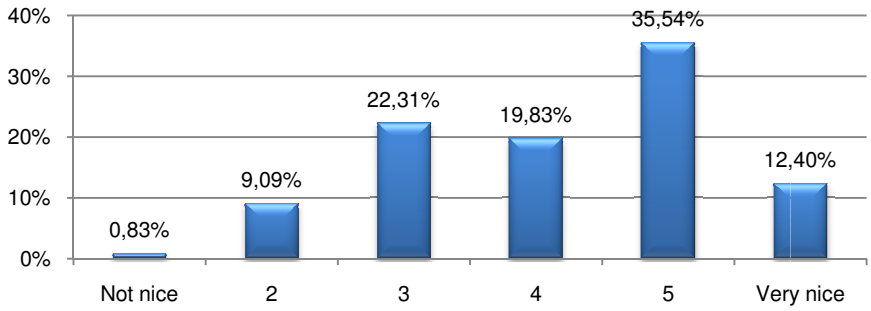
**FIGURE 5.25– IMPORTANCE GIVEN TO THE TEMPERATURE**




***Q27.*** *How do you classify the background music used by your Health Club?*

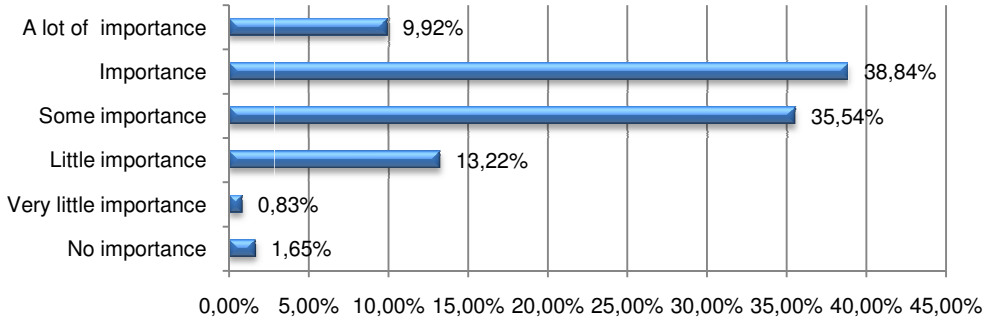
When analysing Figure 5.26, it is clear that respondents have different opinions on the matter. However, the majority of the respondents are more positively inclined, i.e., they regard the Health Club's background music "nice" contrary to 0.83% whom regard the background music as "not nice".

**FIGURE 5.26– BACKGROUND MUSIC PERCEPTIONS**




***Q28.*** *What importance do you give to the "background music" factor when choosing a Health Club?*

**FIGURE 5.27– IMPORTANCE GIVEN TO THE BACKGROUND MUSIC**

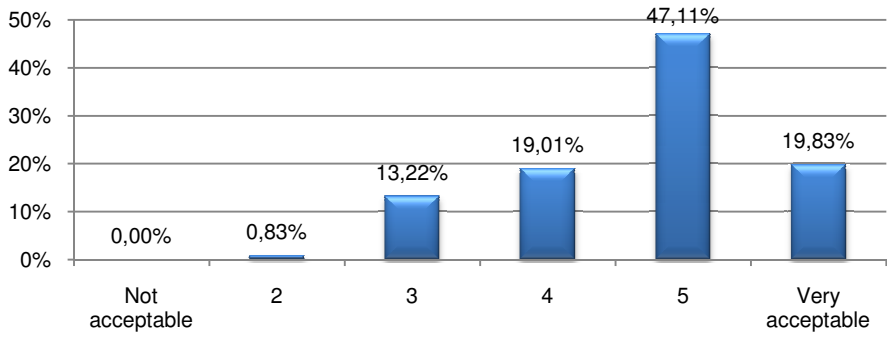



Studying Figure 5.27 it is possible to conclude that a Health Club's background music is some what important, seeing that 35.54% chose to rate the importance given to this

factor as a "4- some importance", 38.84% rate it as a "5-importance" and 9.92% rate it a "6- a lot of importance". On the other hand, 1.65% of the respondents stated that they do not give any importance to the background music.

***Q29.*** *How do you classify the background noise level in your Health Club?*

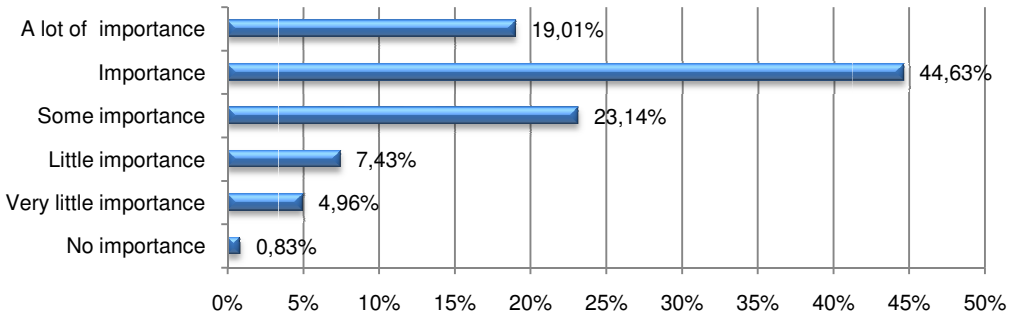
**FIGURE 5.28– BACKGROUND NOISE LEVEL PERCEPTIONS**




Observing Figure 5.28 it is clear that the majority find the Health Club's background noise level acceptable, seeing as 85.95% of the respondents were positively inclined.

**Q30.** *What importance do you give to the "background music" factor when choosing a Health Club?*

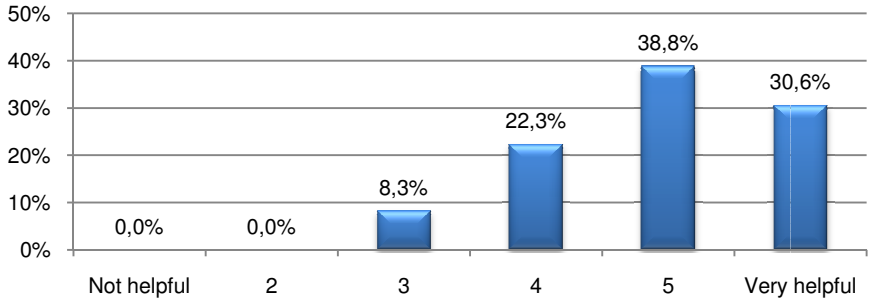
**FIGURE 5.29– IMPORTANCE GIVEN TO THE BACKGROUND NOISE LEVEL**




According to Figure 5.29, 0.83% of the respondents do not give a Health Club's background noise level any importance. 4.96% and 7.43% of the participants do not regard this factor very important in their decision making process. Nevertheless, the majority of the sample state that it is a factor of importance when searching for a Health Club.

**Q31.** *How do you classify the visual signs (e.g.: WC, entrances, exits) in your Health Club?*

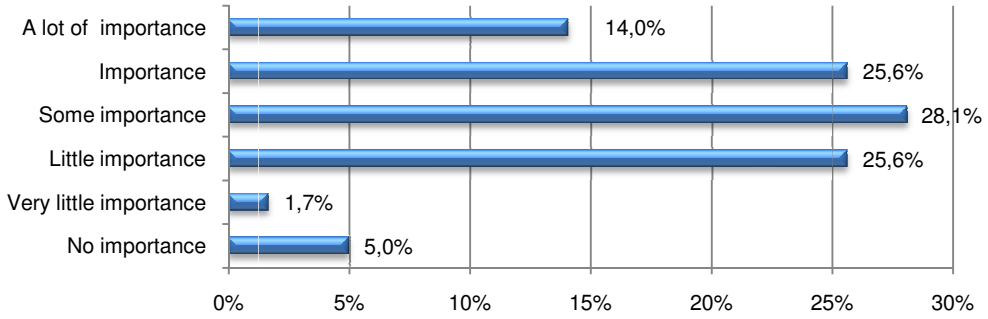
**FIGURE 5.30– VISUAL SIGNS PERCEPTIONS**




Observing Figure 5.30, we conclude that the visual signs used by the Health Club in question are helpful seeing as 22.3% rated this factor as a "4", 38.8% rated it as a "5" and 30.6% rated it as a "6- very helpful" on a scale from 1 to 6.

***Q32.*** *What importance do you give to the "visual signs" factor when choosing a Health Club?*

**FIGURE 5.31– IMPORTANCE GIVEN TO THE VISUAL SIGNS**

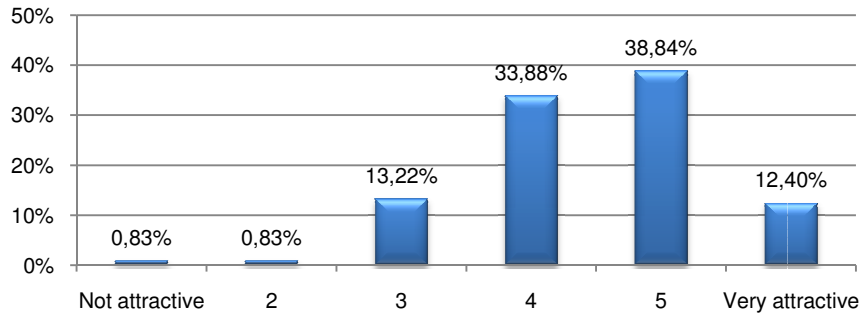



More than 50% of the respondents affirm that the give importance to a Health Club's visual signs. On the other hand, 5.0% give it no importance, 1.7% give it very little importance and 25.6% give it little importance, having selected on the scale "1", "2" and "3" respectively.

***Q33.*** *How do you classify the colour scheme in your Health Club?*

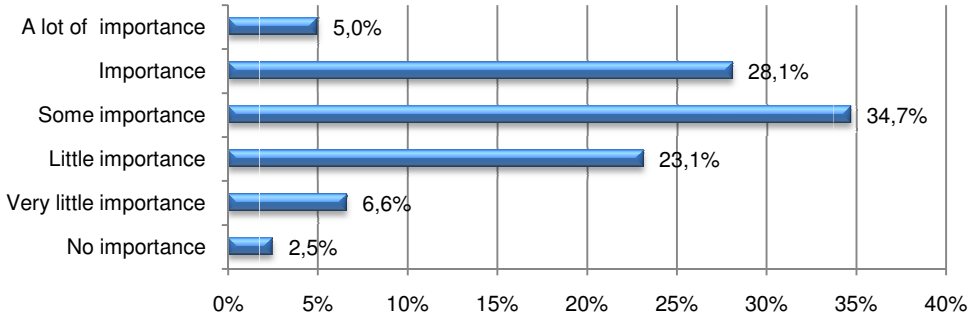
Analysing Figure 5.32 we can state that 33.88% of the respondents classify, on a scale from 1 to 6, the Health Club's colour scheme attractiveness as a "4", 38.84% regard it as a "5" and 12.40% regard it as a "6-very attractive". In general, we can conclude that the majority of the respondents classify the colour scheme positively.

**FIGURE 5.32– COLOUR SCHEME PERCEPTIONS**




***Q34.*** *What importance do you give to the "colour scheme" factor when choosing a Health Club?*

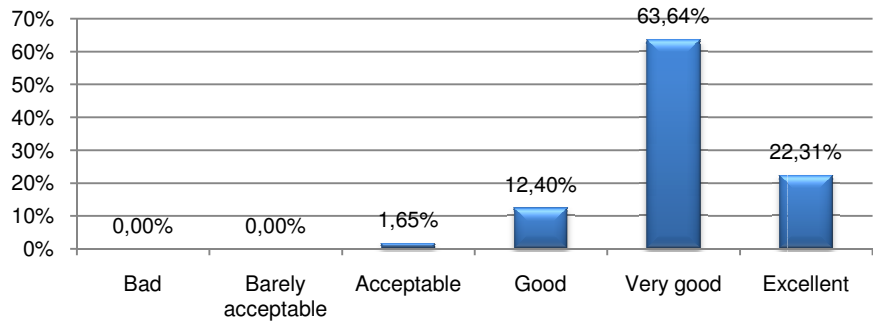
**FIGURE 5.33– IMPORTANCE GIVEN TO THE COLOUR SCHEME**




The respondents, when asked about the importance given to a Health Club's colour scheme when choosing a club of this nature, the majority stated that they indeed give it importance. This portion of the sample is represented by more than 60% of the respondents (34.7%, 28.1% and 5.0%) as shown in Figure 5.33. On the other hand 23.1% give it little importance and 2.5% give it no importance at all.

***Q35.*** *Globally, how do you classify the Health Club's ambient?*

**FIGURE 5.34– OVERALL AMBIENT PERCEPTIONS**



According to Figure 5.34, 22.31% of the respondents rate the ambient of the Health Club in question excellent and 12.4% and 63.64% are also positively inclined rating the ambient "4" and "5" respectively.

***Q36.*** *In your opinion, do you consider the nº of employees of your Health Club sufficient to promote a good service?*

**TABLE 5.2– Nº OF EMPLOYEE PERCEPTION**

| ANSWER | FREQUENCY | % |
|---|---|---|
| Yes | 118 | 97,5% |
| No | 3 | 2,5% |
| **Total** | 121 | 100,0% |

Observing Table 5.2, we conclude that 97.5% of the respondents regard the current number of the Health Club's employees sufficient to promote a good service. Only 2.5% state that there is room for improvement.

***Q37.*** *Do you consider the nº of employees of a Health Club important to promote a good service?*

**TABLE 5.3 – IMPORTANCE GIVEN TO THE NO. OF EMPLOYEES**

| ANSWER | FREQUENCY | % |
|---|---|---|
| Yes | 117 | 96,7% |
| No | 4 | 3,3% |
| **Total** | 121 | 100,0% |

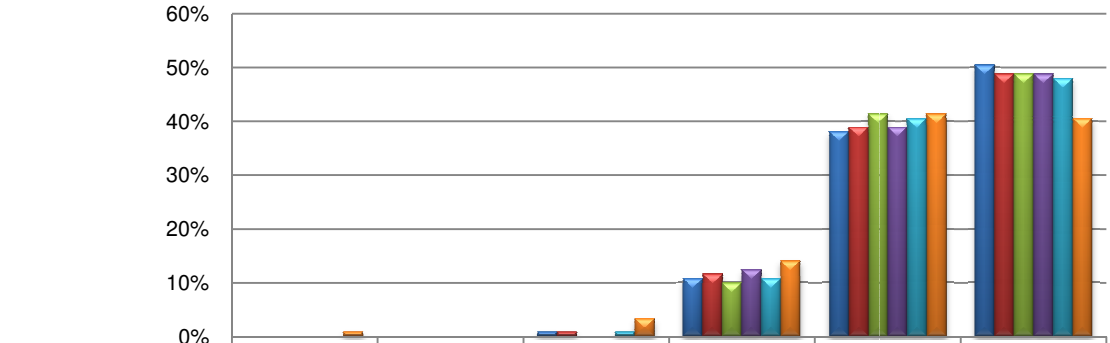
Analysing Table 5.3, we conclude that 96.7% of the respondents regard that the number of a Health Club's employees important to promote a good service. Only 3.3% consider that the number of employees is not important.

***Q38.*** *How do you classify the service provided by the Health Club's staff?*

Studying Figure 5.35, it is possible to conclude that a Health Club's service quality perceptions are very positive. 50.41% of the respondents regard the service provided by the receptionists as excellent, followed by 38.02% who rate it as very good. The service provided by the bar ladies was rated as excellent in 48.76% of the cases followed by 38.84% of the respondents who classified this type of service as very good. The instructors were also positively rated seeing as 41.32% of the sample classify it as very good and 48.76% grade it as excellent. 38.84% and 48.76% also gave positive ratings to

the service provided by the coordinators, rating it as very good and excellent, respectively. The service provided by the cleaning department was rated as excellent by 47.93% of the sample followed by 40.50% of the respondents who classified this type of service as very good. The administration was the only department to get a negative classification from a small percentage of the respondents (0.83%). However, 41.32% disagree by classifying the service provided by this department as very good and 40.50% as excellent giving an overall positive average.

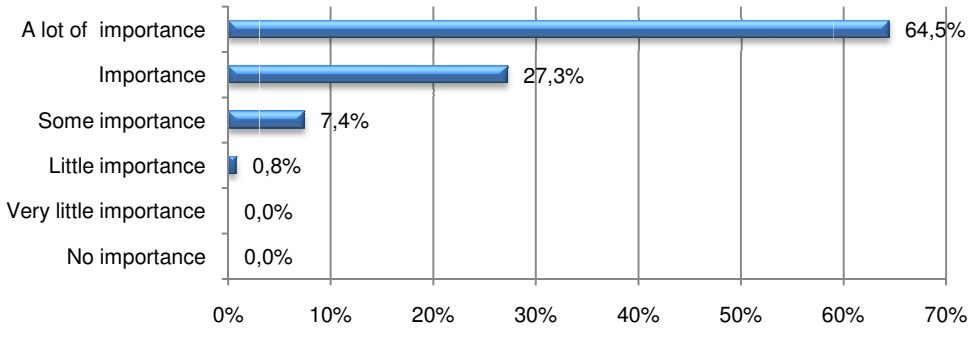
**FIGURE 5.35– SERVICE PERCEPTIONS**




| | Bad | Barely acceptable | Acceptable | Good | Very good | Excellent |
|---|---|---|---|---|---|---|
| Receptionists | 0,00% | 0,00% | 0,83% | 10,74% | 38,02% | 50,41% |
| Bar ladies | 0,00% | 0,00% | 0,83% | 11,57% | 38,84% | 48,76% |
| Instructors | 0,00% | 0,00% | 0,00% | 9,92% | 41,32% | 48,76% |
| Coordinators | 0,00% | 0,00% | 0,00% | 12,40% | 38,84% | 48,76% |
| Cleaning department | 0,00% | 0,00% | 0,83% | 10,74% | 40,50% | 47,93% |
| Administration | 0,83% | 0,00% | 3,31% | 14,04% | 41,32% | 40,50% |

***Q39.*** *What importance do you give to the "service provided by the employees" factor when choosing a Health Club?*

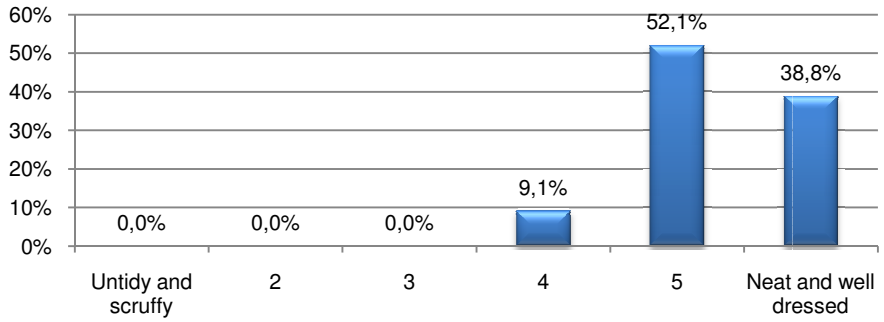
**FIGURE 5.36– IMPORTANCE GIVEN TO THE SERVICE PROVIDED BY THE EMPLOYEES**



The service provided by the employees is given a lot of importance by 64.5% of the respondents when choosing a Health Club. The rest of the sample also gives it importance but not at such a high level.

***Q40.*** *How do you classify the employee's image in your Health Club?*

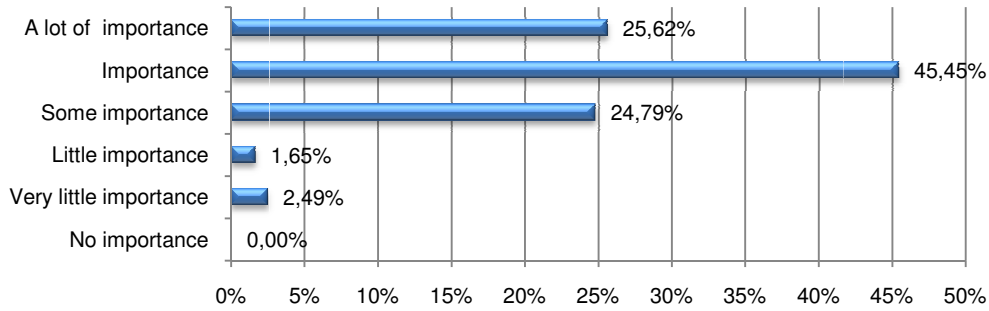
**FIGURE 5.37– EMPLOYEE IMAGE PERCEPTIONS**




The majority of the respondents state that the employees are neat and well dressed, as shown in Figure 5.37.

***Q41.*** *What importance do you give to the employee's image when choosing a Health Club?*

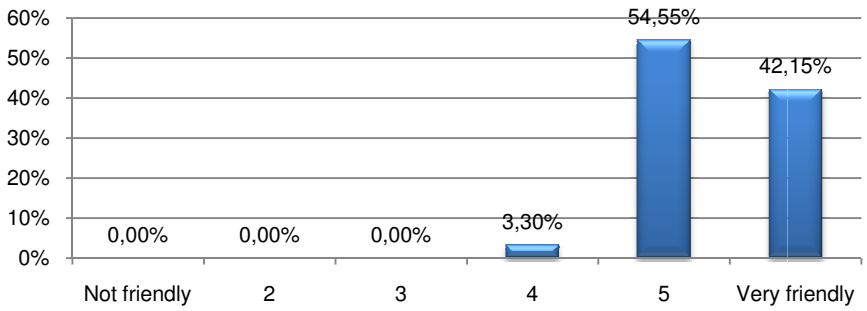
**FIGURE 5.38– IMPORTANCE GIVEN TO EMPLOYEE IMAGE**




The respondents, when asked about the importance given to a Health Club's employee image when choosing a club of this nature, the majority stated that they indeed give it importance. This portion of the sample is represented by more than 95% of the respondents (24.79%, 45.45% and 25.62%) as shown in Figure 5.38.

***Q42.*** *How do you classify the employee's friendliness in your Health Club?*

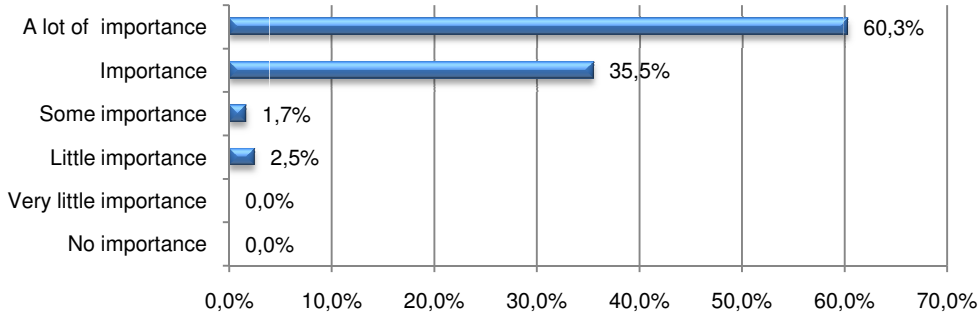
**FIGURE 5.39– EMPLOYEE FRIENDLINESS PERCEPTIONS**




When analysing Figure 5.39 it is clear that respondents regard the Health Club's current employees friendly seeing that all of them chose to grade their friendliness with the values "4" and above.

***Q43.*** *What importance do you give to the employee's friendliness when choosing a Health Club?*

**FIGURE 5.40– IMPORTANCE GIVEN TO EMPLOYEE FRIENDLINESS**

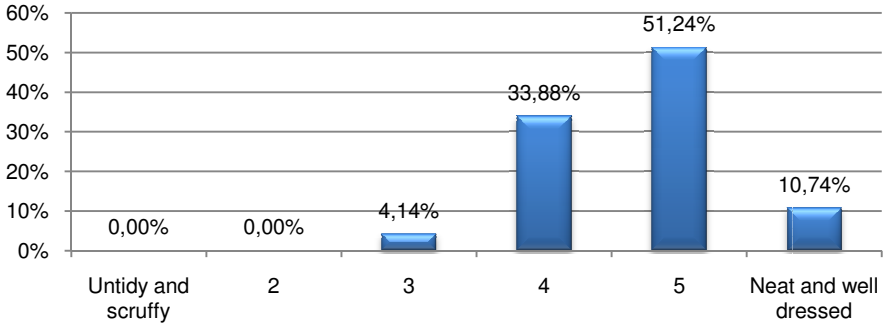



More than 90% of the respondents affirm that they give importance to a Health Club's employee friendliness as shown in Figure 5.40.

***Q44.*** *How do you classify the member's image in your Health Club?*

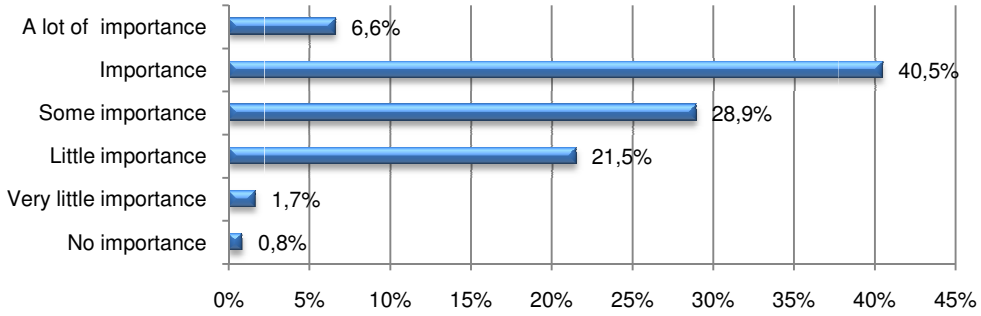
Analysing Figure 5.41 we can state that 33.88% of the participants classify, on a scale from 1 to 6, the Health Club's member image as a "4", 51.24% regard it as a "5" and 10.74% regard it as a "6-neat and well dressed". In general, we can conclude that the majority of the respondents classify the member image positively.

**FIGURE 5.41– MEMBER IMAGE PERCEPTIONS**




***Q45.*** *What importance do you give to the member's image when choosing a Health Club?*

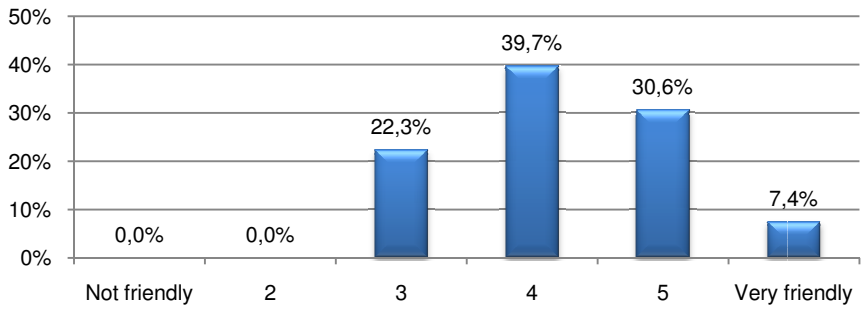
**FIGURE 5.42– IMPORTANCE GIVEN TO MEMBER IMAGE**




Observing Figure 5.42, more than 75% of the respondents affirm that they give importance to a Health Club's member image. On the other hand, 0.8% give it no importance, 1.7% give it very little importance and 21.5% give it little importance, having selected on a scale from 1 to 6 "1", "2" and "3" respectively.

***Q46.*** *How do you classify the member's friendliness in your Health Club?*

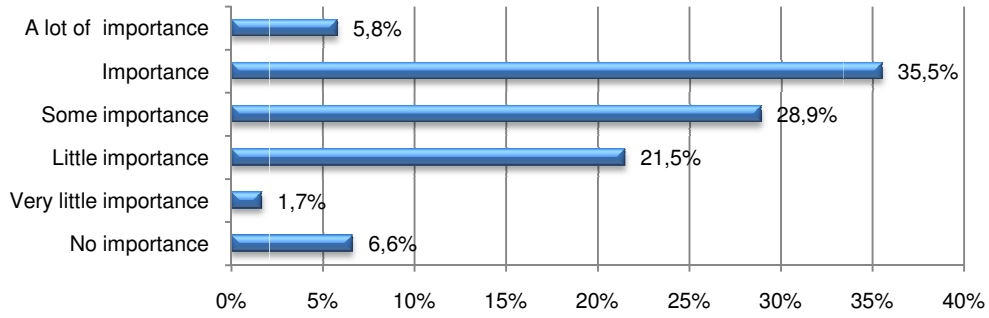
**FIGURE 5.43– MEMBER FRIENDLINESS PERCEPTIONS**



By analysing Figure 5.43, in general terms, the Health Club's member friendliness is considered comfortable having selected "4", "5" and "6 – very friendly" 39.7%, 30.6% and 7.4% respectively, with the majority opting to rate the members' friendliness as a "4" on a scale from 1 to 6.

***Q47.*** *What importance do you give to the member's friendliness when choosing a Health Club?*

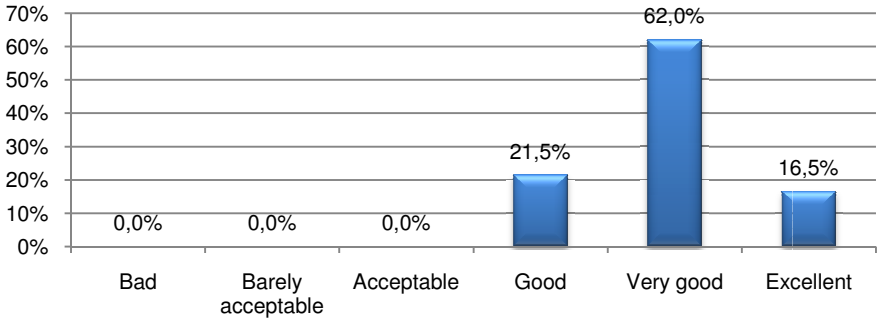
**FIGURE 5.44– IMPORTANCE GIVEN TO MEMBER FRIENDLINESS**




The respondents' opinions are scattered along the scale, as shown in Figure 5.44. 35.5% of the respondents give the member friendliness importance, 28.9% give it some importance, and 5.8% give it a lot of importance. 6.6% of the sample stated that they do not give any important to member friendliness.

***Q48.*** *Globally, how do you classify the Health Club's social factor?*

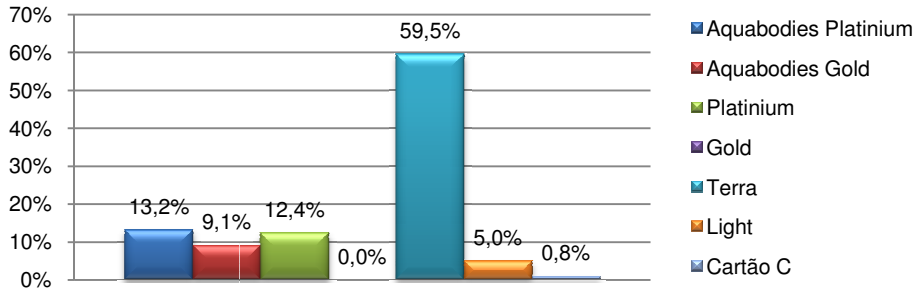
**FIGURE 5.45– OVERALL SOCIAL PERCEPTIONS**




16.5% of the respondents rate the social cue of the Health Club in question excellent and 62.0% and 21.5% are also positively inclined rating the social factor as "very good" and "good" respectively.

***Q49.*** *Which of the following is your card?*

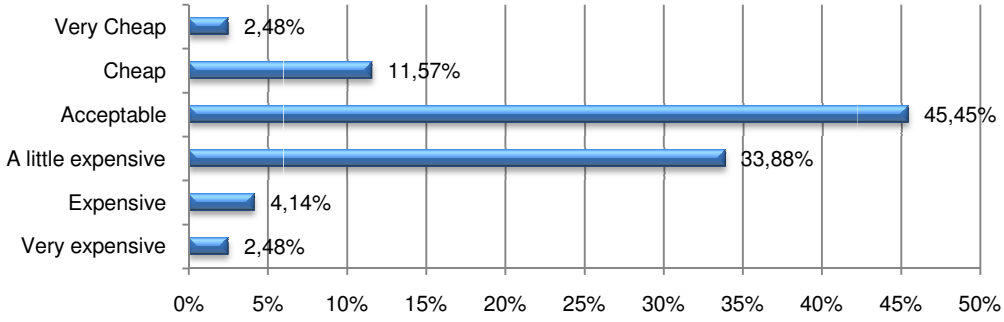
**FIGURE 5.46– DISTRIBUTION OF PACKAGES**




According to Figure 5.46, the sample consists of mostly members who possess the *Terra* package, representing 59.5% of the respondents. The second largest group (13.2%) acquired the *Aquabodies Platinium* package and the third largest group have the *Platinium* card. None of the Gold members took part in this investigation. The remaining packages, *Light* and *Cartão C*, were represented by 5.0% and 0.8% of the respondents respectively.

***Q50****. How do you classify the prices of your Health Club?*

**FIGURE 5.47– PRICE CLASSIFICATION**




Observing Figure 5.47 we can conclude that many of the respondents (45.45%) consider that the Universalbodies prices are acceptable. 33.88% of the sample regard the prices a little expensive, 4.14% regard it as expensive and 2.48% regard it as very expensive. On the opposite side, 11.57% regard the prices cheap and 2.48% regard it as very cheap.

***Q51**. In your opinion, is the investment worth it?*

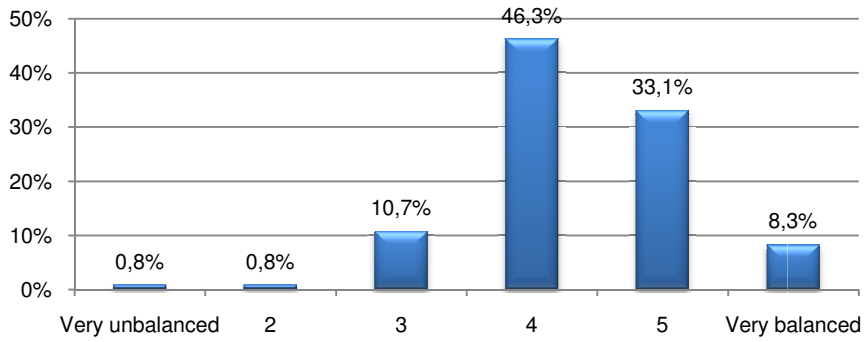
**TABLE 5.4– INVESTMENT EVALUATION**

| ANSWER | FREQUENCY | % |
|---|---|---|
| Yes | 112 | 92,6% |
| No | 9 | 7,4% |
| Total | 121 | 100,0% |

The respondents, when asked whether they consider their investment worth it, the majority (92.6%) stated yes. Only 7.4% of the sample regard that their investment is not worth it as shown in Table 5.4.

***Q52**. How do you classify the service quality/price ratio?*

**FIGURE 5.48– SERVICE QUALITY/PRICE RATIO**




Observing Figure 5.48, more than 8.3% of the respondents affirm that they consider the Health Club's service quality/price ratio very balanced. On the other hand, 0.8% of the sample states that it is very unbalanced. The majority of the respondents (46.3%) give the club's service quality/price ratio a "4" on a scale from 1 to 6.

***Q53**. Do you intend to renew your contract?*

**TABLE 5.5 – CONTRACT RENEWAL**

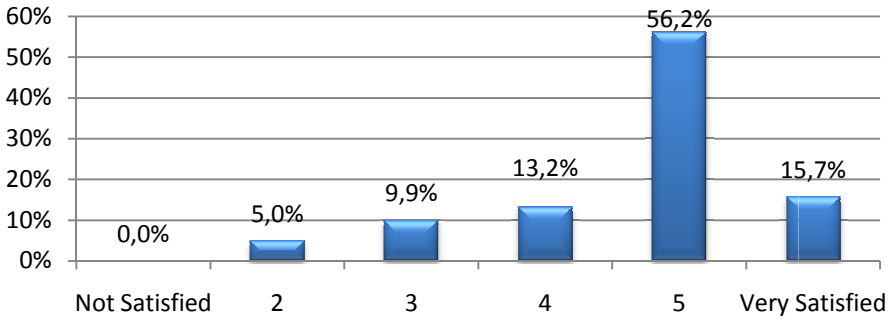
| ANSWER | FREQUENCY | % |
|---|---|---|
| Yes | 109 | 90,1% |
| No | 12 | 9,9% |
| **Total** | 121 | 100% |

Observing the data presented above in Table 5.5 we are able do conclude that the majority of the members that took part in this investigation (90.1%) state that they do

intend to renew their contract. Only 9.9% of the respondents replied negatively to this question.

***Q54**. On a scale from 1 to 6, how do you rate your global satisfaction with your Health Club?*

**FIGURE 5.49 – GLOBAL SATISFACTION**




According to Figure 5.49, we can verify that the respondents' global satisfaction is positive seeing that more than 85% of the sample selected options "4", "5" and "6 – Very Satisfied". Only a very small group (14.9%) were more negatively inclined.

Many constructs that are of interest to social scientists cannot be observed directly (Hill, 2000). Such constructs can only be measured indirectly by means of observable indicators i.e. a group of other variables. These directly unobservable variables are what we call latent variables. Taking this into consideration, in order to test our hypothesis it is necessary to identify the latent variables. Our model is composed of seven latent variables: (1) Design; (2) Ambient; (3) Social, (4) Service quality, (5) Price, (6) Image and (7) Joining intentions.

Table 5 lists, in a summarized manner, the variables that define each latent variable. These items will be taken into account when determining the measurement model of each of the latent variables.

**TABLE 5.6 – COMPOSITION OF LATENT VARIABLES**

| | LATENT VARIABLES | VARIABLES (COMPONENTS) | QUESTIONS |
|---|---|---|---|
| ***Environmental Cues*** | *Design* | – Space<br>– Space in parking lot<br>– Facilities<br>– Layout<br>– Material quality<br>– Architecture<br>– Interior design<br>– Snack bar | *Q1; Q4; Q6; Q8; Q10; Q12; Q14; Q16* |
| | *Ambient* | – Scent<br>– Temperature<br>– Background music<br>– Background noise level<br>– Visual signs<br>– Colour scheme<br>– Lighting<br>– Hygiene | *Q19; Q21; Q23; Q25; Q27; Q29; Q31; Q33* |
| | *Social* | – Nº of employees<br>– Employee image<br>– Employee friendliness<br>– Member image<br>– Member friendliness<br>– Service quality | *Q36; Q40; Q42; Q44; Q46; Q48* |
| ***Choice Criteria*** | *Service quality* | – Receptionist service quality<br>– Bar Ladies service quality<br>– Instructor service quality<br>– Coordinator service quality<br>– Cleaning department service quality<br>– Administration service quality | *Q38* |
| | *Price* | – Price classification<br>– Investment evaluation<br>– Service quality/price ratio | *Q50; Q51; Q52* |
| | *Image* | – Space/comfort<br>– Ambient perceptions<br>– Employee friendliness<br>– Employee image<br>– Service quality perceptions<br>– Price classification | *Q2; Q35; Q40;Q42;Q48; Q50* |
| ***Joining Intentions*** | *Joining intentions* | – Global Satisfaction<br>– Renew Contract<br>– Investment evaluation | *Q51; Q53; Q54* |

## 4.3 Latent Variable Measurement Models

According to Hill (2000), for a latent variable to be considered as adequate, it needs to be reliable, valid and unidimensional. SPSS allows us to determine whether or not these conditions are met. Once all the data is gathered and inserted into the SPSS system, we have to (1) determine which items are more appropriate to define the latent variable and (2) determine the adequacy of the variables that measure the latent variable in question.

The first step is to calculate the item-total correlation. This is a necessary step seeing that each item should contribute for the formation of each variable. Statistically speaking, for the items to be regarded as statistically relevant, a relatively strong correlation should exist between the items and the total value, obtaining values ranging from 0.4 to 0.7. According to the same author it is also necessary to calculate the inter-item correlation. This calculation allows us to identify the correlation that exists between items. These correlations should be between 0.4 and 0.7, be all positive and significant. The items with low correlation values are removed from the group of items that initially represented the latent variable.

Once the first step is complete and the items that showed no or very little statistical significance towards the subject in analysis are removed, we go on to step 2. Step 2 consists of verifying whether or not the group of items are unidimensional. This is done by doing a Factor Analysis in order to determine how many latent variables are being measured (Hill, 2000). To test the adequacy of this type of analysis, we need to analyze the correlations. For this, we use the statistic called Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) (Hill, 2000). In numerical terms, KMO values below 0.5 signify that the factorial analysis should not be done, values equal or greater than 0.9 are very good and 0.8 is considered as a good value.

Once the unidimensionality of the latent variable is concluded, we proceed to the third and last step of this part of the investigation. This is where we test the reliability and validity of the variables. The reliability test is done using Cronbach's Alpha ($\alpha$). The reliability evaluation is made by using the following table:

| **Excellent** | **Good** | **Reasonable** | **Weak** | **Unacceptable** |
|---|---|---|---|---|
| > 0.9 | 0.8 - 0.9 | 0.7 - 0.8 | 0.6 - 0.7 | < 0.6 |

The existence of an adequate reliability is necessary but not sufficient to guarantee an adequate validity (Hill, 2000). In order to evaluate the validity, we used the technique Factor Analysis and the method Maximum Likelihood.

We applied these steps to each of the variables under investigation: "Design"; "Ambient"; "Social"; "Service Quality"; "Price"; "Store Image" and "Joining Intentions". The most important tables are presented bellow.

### 4.3.1 Design Variable

Using SPSS, we were able to perform a Reliability Analysis, using the model Alpha to determine the Item-Total statistics as well as Inter-Item Correlation Matrix. These values are presented in Table 6.1and 6.2 respectively.

**TABLE 6.1 – ITEM-TOTAL STATISTICS**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| **Space** | 26,96 | 15,673 | **,339** | ,187 | ,818 |
| Space in parking lot | 24,89 | 11,213 | ,521 | ,411 | ,806 |
| Facility | 23,29 | 12,057 | ,626 | ,431 | ,776 |
| Layout | 23,19 | 11,872 | ,727 | ,583 | ,761 |
| Material quality | 22,95 | 12,781 | ,571 | ,373 | ,785 |
| Architecture | 23,45 | 11,783 | ,712 | ,673 | ,762 |
| Interior design | 23,50 | 12,002 | ,631 | ,605 | ,775 |
| **Snack bar** | 26,90 | 16,340 | **,102** | ,095 | ,828 |

Analysing Table 6.1, we note that the correlations vary from 0.102 to 0.727. According to Hill (2000), for the correlations to be considered as "good", they should not be less than 0.4. In this case, the items that do not meet this condition are "Space" and "Snack bar". This being said, these variables were removed and were not used when analysing the hypothesis. Observing Table 6.2, we can state that all the design cues presented have a positive correlation with one another except for the correlation between "Snack bar" and "Space" representing a value of -0.048. This value allows us to exclude, once again, the items "Snack bar" and "Space" from the latent variable in question. Besides this negative value, the correlation values with these factors and the remaining 6 factors

are very low and do not attain the minimum requirement of 0.4, ranging from 0.009 to 0.335.

**TABLE 6.2 – INTER-ITEM CORRELATION MATRIX**

| | Space | Space in parking lot | Facility | Layout | Material quality | Architecture | Interior design | Snack bar |
|---|---|---|---|---|---|---|---|---|
| Space | **1,000** | | | | | | | |
| Space in parking lot | **,260** | 1,000 | | | | | | |
| Facility | **,313** | ,396 | 1,000 | | | | | |
| Layout | **,335** | ,582 | ,482 | 1,000 | | | | |
| Material quality | **,246** | ,409 | ,501 | ,399 | 1,000 | | | |
| Architecture | **,264** | ,318 | ,558 | ,610 | ,512 | 1,000 | | |
| Interior design | **,133** | ,321 | ,478 | ,590 | ,386 | ,737 | 1,000 | |
| Snack bar | **-,048** | **,138** | **-,015** | **,138** | **,054** | **,147** | **,009** | **1,000** |

This being said, the items that compose the variable "Design" are: "Space in parking lot", "Facility", "Layout", "Material quality", "Architecture" and "Interior design". We used the statistic KMO to determine the legitimacy of the application of Factor Analysis. These results are presented in Table 6.3.

**TABLE 6.3 – KMO AND BARTLETT'S TEST**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | ,802 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 312,422 |
| | df | 15 |
| | Sig. | ,000 |

As shown in Table 6.3, the KMO value is 0.802 which is considered as a good value, indicating that the technique Factor Analysis is utilizable.

In order to determine how many variables are being measured, we applied the technique Factor Analysis and method Maximum Likelihood. The values are presented in Table 6.4. The table tells us that the Factor Analysis found only one factor to explain the correlation amongst the 6 design cues. This factor explains 49.23% of the total variance. Using the Kaiser criteria (columns found on the left hand side of the table), we note that only one factor has an eigenvalue over 1. This indicates that the correlations of the 6

components are explained by one factor, thus proving the unidimensionality of the latent variable.

**TABLE 6.4 – TOTAL VARIANCE EXPLAINED**

| | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|
| Factor | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | **3,449** | 57,479 | 57,479 | **2,953** | **49,216** | **49,216** |
| 2 | ,827 | 13,783 | 71,262 | | | |
| 3 | ,697 | 11,615 | 82,877 | | | |
| 4 | ,484 | 8,072 | 90,948 | | | |
| 5 | ,311 | 5,180 | 96,128 | | | |
| 6 | ,232 | 3,872 | 100,000 | | | |

Extraction Method: Maximum Likelihood.

Table 6.5 indicates the factor loadings and it shows the contribution of each of the variables to the common factor. In this case we can state that all the components indicate high values and therefore all of them contribute to define the factor in a significant way. It is important to note that the each of the components contribute at different levels. "Architecture" contributes the most seeing as it has a value of 0.856 and "Space in parking lot" contributes the least, representing a value of 0.502

**TABLE 6.5 – FACTOR MATRIX [(a)]**

| | Factor |
|---|---|
| | 1 |
| Space in parking lot | ,502 |
| Facility | ,661 |
| Layout | ,745 |
| Material quality | ,587 |
| Architecture | ,856 |
| Interior design | ,795 |

Extraction Method: Maximum Likelihood.
a 1 factors extracted. 4 iterations required.

The communalities, presented in Table 6.6, indicate how much the factoring solution accounts for the variance in each variable. These extractions are estimates of the variance in each variable accounted for by the components. In terms of the variables "Layout", "Architecture", "Interior design", the factor explains more than 50% of the variable's variance. However the opposite occurs with the variables "Space in parking lot", "Facility" and "Material quality", having acquired values 0.252, 0.437 and 0.345 respectively.

**TABLE 6.6 – COMMUNALITIES**

| | Initial | Extraction |
|---|---|---|
| Space in parking lot | ,402 | ,252 |
| Facility | ,410 | ,437 |
| Layout | ,566 | ,555 |
| Material quality | ,371 | ,345 |
| Architecture | ,654 | ,733 |
| Interior design | ,578 | ,631 |

Extraction Method: Maximum Likelihood.

Observing Table 6.7, we can state that the Chi-Square value is very low (43.42), thus allowing us to conclude that one factor is sufficient to explain the correlations between the variables.

**TABLE 6.7 – GOODNESS-OF-FIT TEST**

| Chi-Square | df | Sig. |
|---|---|---|
| 43,415 | 9 | ,000 |

Now that the unidimensionality as well as the validity of the variable is confirmed, we tested the reliability of the factor using Cronbach's Alpha as shown in Table 6.8.

**TABLE 6.8 – RELIABILITY STATISTICS**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|---|---|---|
| ,839 | ,850 | 6 |

Table 6.8 shows that the Cronbach's Alpha is 0.839. This value is good and it indicates that the measurement of the variable “Design”, done by adding the six design cues, has an adequate reliability value.

### 4.3.2 Ambient Variable

Applying the same process as in 4.3.1, we note that the Corrected Item-Total Correlations of the ambient cues taken into consideration in this study represent values that vary from 0.330 to 0.769, as shown in Table 6.9. Although all these values are positive, in order to have a good correlation, the minimum value for the correlation should be 0.4, which does not occur for the item “Temperature”, excluding it from being used as a measurement item for the variable “Ambient”.

On the other hand, by analysing Table 6.10 we can state that all the ambient cues presented have a good correlation with one another except for the items "Temperature" and "Colour scheme" representing values between 0.094 and 0.451. These low values allow us to exclude the items "Temperature" and "Colour scheme" from the component we call "Ambient".

**TABLE 6.9 – ITEM-TOTAL STATISTICS**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Scent | 33,44 | 21,115 | ,606 | ,521 | ,806 |
| Lighting | 32,92 | 21,526 | ,624 | ,603 | ,806 |
| Hygiene | 32,45 | 21,900 | ,615 | ,550 | ,808 |
| **Temperature** | 33,14 | 22,822 | **,330** | ,250 | ,843 |
| Background music | 33,72 | 18,670 | ,650 | ,598 | ,801 |
| Background noise level | 33,17 | 19,578 | ,769 | ,737 | ,783 |
| Visual signs | 32,98 | 21,808 | ,504 | ,490 | ,819 |
| Colour scheme | 33,43 | 22,114 | ,444 | ,350 | ,827 |

**TABLE 6.10 – INTER-ITEM CORRELATION MATRIX**

| | Scent | Lighting | Hygiene | Temperature | Background music | Background noise level | Visual signs | Colour scheme |
|---|---|---|---|---|---|---|---|---|
| Scent | 1,000 | | | | | | | |
| Lighting | ,553 | 1,000 | | | | | | |
| Hygiene | ,569 | ,605 | 1,000 | | | | | |
| Temperature | **,232** | **,389** | **,359** | **1,000** | | | | |
| Background music | ,399 | ,463 | ,450 | **,197** | 1,000 | | | |
| Background noise level | ,623 | ,545 | ,475 | **,185** | ,731 | 1,000 | | |
| Visual signs | ,330 | ,138 | ,371 | **,271** | ,388 | ,536 | 1,000 | |
| Colour scheme | **,263** | **,318** | **,149** | **,094** | **,465** | **,451** | **,400** | **1,000** |

After completing the correlation analysis, the items selected to be included in the ambient measurement model are: "Scent", "Lighting", "Hygiene", "Background music", "Background noise level" and "Visual signs" and consequently were used in the Factor Analysis and Reliability tests presented in Tables 6.11 to 6.16.

As shown in Table 6.11, the KMO value is 0.730 which is considered as a reasonable value. This value indicates that the technique Factor Analysis is applicable.

**TABLE 6.11 – KMO AND BARTLETT'S TEST**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | ,730 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 336,173 |
| | df | 15 |
| | Sig. | ,000 |

In terms of the unidimensionality of the latent variable, Table 6.12 tells us that the Factor Analysis found only one factor to explain the correlation amongst the 6 ambient components. This factor explains 49.13% of the total variance. Using the Kaiser criteria, we note that only one factor has an eigenvalue over 1, indicating that the correlations of the 6 components are indeed explained by one factor, therefore proving the unidimensionality of the latent variable.

**TABLE 6.12 – TOTAL VARIANCE EXPLAINED**

| | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|
| Factor | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 3,431 | 57,190 | 57,190 | 2,948 | 49,127 | 49,127 |
| 2 | ,936 | 15,601 | 72,791 | | | |
| 3 | ,647 | 10,781 | 83,572 | | | |
| 4 | ,484 | 8,063 | 91,635 | | | |
| 5 | ,332 | 5,528 | 97,163 | | | |
| 6 | ,170 | 2,837 | 100,000 | | | |

Extraction Method: Maximum Likelihood.

Table 6.13 indicates that all the items contribute, at different levels, to define the factor, seeing as the values are all high. “Background noise level” contributes the most seeing as it has a value of 0.903 and “Visual signs” contributes the least, representing a value of 0.534.

**TABLE 6.13 – FACTOR MATRIX [(a)]**

| | Factor |
|---|---|
| | 1 |
| Scent | ,691 |
| Lighting | ,640 |
| Hygiene | ,619 |
| Background music | ,759 |
| Background noise level | ,903 |
| Visual signs | ,534 |

Extraction Method: Maximum Likelihood.
a 1 factors extracted. 6 iterations required.

Observing Table 6.14, in terms of the variables "Background music" and "Background noise level", the factor explains more than 50% of the variable's variance. However, in terms of the variables "Scent", "Lighting", "Hygiene" and "Visual signs", the factor explains less than 50% of the variable's variance having acquired values 0.478, 0.410, 0.383 and 0.285, respectively.

**TABLE 6.14 – COMMUNALITIES**

| | Initial | Extraction |
|---|---|---|
| Scent | ,520 | ,478 |
| Lighting | ,526 | ,410 |
| Hygiene | ,513 | ,383 |
| Background music | ,568 | ,576 |
| Background noise level | ,728 | ,815 |
| Visual signs | ,383 | ,285 |

Extraction Method: Maximum Likelihood.

Analysing Table 6.15, we can state that the Chi-Square value is low (66.00), therefore allowing us to conclude that one factor is sufficient to explain the correlations between the variables.

**TABLE 6.15 – GOODNESS-OF-FIT TEST**

| Chi-Square | df | Sig. |
|---|---|---|
| 66,001 | 9 | ,000 |

After the unidimensionality as well as the validity of the variable was confirmed, we tested the reliability of the factor using Cronbach's Alpha as shown in Table 6.16. The Cronbach's Alpha is 0.841. This value is good and it indicates that the measurement of the variable "Ambient", done by adding the six ambient cues, has an adequate reliability value.

**TABLE 6.16 – RELIABILITY STATISTICS**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|---|---|---|
| ,841 | ,846 | 6 |

### 4.3.3 Social Variable

Applying the same procedures as in 4.3.1 and 4.3.2, we note that the Corrected Item-Total Correlation values presented in Table 6.17 are all positive. However, two items do not reach the minimum requirement of 0.4. These items are "Nº of employees" and

"Member friendliness", indicating correlations with the values 0.046 and 0.318, respectively.

In terms of the Inter-Item Correlation Matrix analysis, presented in Table 6.18, we can state that the items "Nº of employees" and "Member friendliness" represent a negative correlation of -0.18 amongst the two of them and very low correlations with the outstanding 4 items. The items "Nº of employees" and "Member friendliness" are therefore excluded.

**TABLE 6.17 – ITEM-TOTAL STATISTICS**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| **Nº of employees** | 24,55 | 6,383 | ,120 | **,046** | ,784 |
| Employee image | 20,23 | 4,713 | ,512 | ,438 | ,717 |
| Employee friendliness | 20,14 | 4,688 | ,629 | ,475 | ,691 |
| Member image | 20,84 | 4,300 | ,565 | ,399 | ,702 |
| **Member friendliness** | 21,30 | 4,094 | ,456 | **,318** | ,755 |
| Service quality | 20,58 | 4,229 | ,745 | ,570 | ,653 |

**TABLE 6.18 – INTER-ITEM CORRELATION MATRIX**

| | **Nº of employees** | Employee image | Employee friendliness | Member image | Member friendliness | Service quality |
|---|---|---|---|---|---|---|
| **Nº of employees** | **1,000** | | | | | |
| Employee image | **,161** | 1,000 | | | | |
| Employee friendliness | **,112** | ,600 | 1,000 | | | |
| Member image | **,079** | ,375 | ,372 | 1,000 | | |
| **Member friendliness** | **-,018** | **,191** | **,412** | **,378** | **1,000** | |
| Service quality | **,160** | ,512 | ,545 | ,622 | ,495 | 1,000 |

This being said, the items that compose the variable "Social" are: "Employee image", "Employee friendliness", "Member image" and "Service quality".

Once again, we applied the statistic KMO to determine the legitimacy of the application of Factor Analysis. The results are presented in Table 6.19. The KMO value is 0.729 which is considered as a relatively good value, indicating that it is reasonable to use the technique Factor Analysis.

**TABLE 6.19 – KMO AND BARTLETT'S TEST**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | ,729 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 161,871 |
| | df | 6 |
| | Sig. | ,000 |

In order to determine whether or not the latent variable is unidimensional, we examined Table 6.20 presenting us with the values of the Total Variance Explained. Table 6.20 tells us that the Factor Analysis found only one factor to explain the correlation amongst the four social cues. This factor explains 51.13% of the total variance. Using the Kaiser criteria, we note that only one factor has an eigenvalue over 1. This indicates that the correlations of the 4 components are indeed explained by only one factor, thus establishing that the latent variable is unidimensional.

**TABLE 6.20 – TOTAL VARIANCE EXPLAINED**

| | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|
| Factor | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 2,518 | 62,957 | 62,957 | 2,045 | 51,128 | 51,128 |
| 2 | ,742 | 18,553 | 81,510 | | | |
| 3 | ,406 | 10,143 | 91,653 | | | |
| 4 | ,334 | 8,347 | 100,000 | | | |

Extraction Method: Maximum Likelihood.

Extraction communalities are estimates of the variance in each variable accounted for by the components. The communalities in Table 6.21 vary from 0.440 to 0.692, which indicates that the extracted components represent the variables fairly well.

The factor loadings, shown in Table 6.22, indicate that each of the variables contribute to the common factor. The contributions are made at different levels, i.e. “Service quality” contributes more seeing as it obtained the highest value of the list (0.832).

**TABLE 6.21 – COMMUNALITIES**

| | Initial | Extraction |
|---|---|---|
| Employee friendliness | ,437 | ,472 |
| Employee image | ,411 | ,440 |
| Member image | ,391 | ,441 |
| Service quality | ,521 | ,692 |

Extraction Method: Maximum Likelihood.

**TABLE 6.22 – FACTOR MATRIX [(a)]**

| | Factor |
|---|---|
| | 1 |
| Employee friendliness | ,687 |
| Employee image | ,664 |
| Member image | ,664 |
| Service quality | ,832 |

Extraction Method: Maximum Likelihood.
a 1 factors extracted. 5 iterations required.

Analysing Table 6.23, we can state that the Chi-Square value is very low (16.29), thus allowing us to conclude that one factor is sufficient to explain the correlations between the variables.

**TABLE 6.23 – GOODNESS-OF-FIT TEST**

| Chi-Square | df | Sig. |
|---|---|---|
| 16,286 | 2 | ,000 |

In order to test the reliability of the factor, we used Cronbach's Alpha as shown in Table 6.24. The Cronbach's Alpha is 0.797. This value is considered reasonable and it indicates that the measurement of the variable “Social”, done by adding the four social cues, has a reasonable reliability value.

**TABLE 6.24 – RELIABILITY STATISTICS**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|---|---|---|
| ,797 | ,803 | 4 |

### 4.3.4 Service Quality Variable

In this unique case, analysing the correlations presented in Tables 6.25 and 6.26, we can state that all of the values are considered statistically relevant and therefore not one of the factors were excluded. This being said, the items that were included in the service quality measurement model are: "Receptionist service quality", "Bar Ladies service quality", "Instructor service quality", "Coordinator service quality", "Cleaning department service quality" and "Administration service quality"

**TABLE 6.25 – ITEM-TOTAL STATISTICS**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Receptionist service quality | 26,63 | 9,502 | ,735 | ,728 | ,892 |
| Bar Ladies service quality | 26,65 | 9,662 | ,684 | ,642 | ,899 |
| Instructor service quality | 26,62 | 10,054 | ,650 | ,617 | ,903 |
| Coordinator service quality | 26,64 | 9,014 | ,893 | ,816 | ,869 |
| Cleaning department service quality | 26,65 | 9,545 | ,730 | ,574 | ,892 |
| Administration service quality | 26,84 | 8,350 | ,796 | ,721 | ,885 |

**TABLE 6.26 – INTER-ITEM CORRELATION MATRIX**

| | Receptionist service quality | Bar Ladies service quality | Instructor service quality | Coordinator service quality | Cleaning department service quality | Administration service quality |
|---|---|---|---|---|---|---|
| Receptionist service quality | 1,000 | | | | | |
| Bar Ladies service quality | ,780 | 1,000 | | | | |
| Instructor service quality | ,356 | ,391 | 1,000 | | | |
| Coordinator service quality | ,730 | ,675 | ,685 | 1,000 | | |
| Cleaning department service quality | ,560 | ,522 | ,665 | ,686 | 1,000 | |
| Administration service quality | ,639 | ,535 | ,654 | ,833 | ,637 | 1,000 |

Once again, in order to determine whether or not to apply the Factor Analysis, we used the statistic KMO. The results are presented in Table 6.27. The KMO value is 0.831 which is considered as a good value, indicating that the use of the technique Factor Analysis is adequate.

**TABLE 6.27 – KMO AND BARTLETT'S TEST**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | ,831 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 540,296 |
| | df | 15 |
| | Sig. | ,000 |

**TABLE 6.28 – TOTAL VARIANCE EXPLAINED**

| | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|
| Factor | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 4,136 | 68,933 | 68,933 | 3,785 | 63,085 | 63,085 |
| 2 | ,852 | 14,203 | 83,135 | | | |
| 3 | ,398 | 6,627 | 89,763 | | | |
| 4 | ,310 | 5,164 | 94,927 | | | |
| 5 | ,169 | 2,813 | 97,740 | | | |
| 6 | ,136 | 2,260 | 100,000 | | | |

Extraction Method: Maximum Likelihood.

In terms of the unidimensionality of the latent variable, Table 6.28 tells us that the Factor Analysis found only one factor to explain the correlation amongst the 6 service quality components. This factor explains 63.09% of the total variance. Using the Kaiser criteria, we note that only one factor has an eigenvalue over 1 indicating that the correlations of the 6 components are indeed explained by one factor, consequently confirming the unidimensionality of the latent variable.

The communalities shown in Table 6.29 indicate that the extracted components represent the variables well.

**TABLE 6.29 – COMMUNALITIES**

| | Initial | Extraction |
|---|---|---|
| Receptionist service quality | ,728 | ,583 |
| Bar Ladies service quality | ,642 | ,501 |
| Instructor service quality | ,617 | ,499 |
| Coordinator service quality | ,816 | ,917 |
| Cleaning department service quality | ,574 | ,541 |
| Administration service quality | ,721 | ,745 |

Extraction Method: Maximum Likelihood.

Table 6.30 indicates that all the items contribute very strongly to define the factor (although at slightly different levels) seeing as the values are all high. “Coordinator service quality” contributes the most seeing as it has a value of 0.958 and “Instructor service quality” contributes the least, representing a value of 0.706.

**TABLE 6.30 – FACTOR MATRIX [(a)]**

| | Factor 1 |
|---|---|
| Receptionist service quality | ,764 |
| Bar Ladies service quality | ,708 |
| Instructor service quality | ,706 |
| Coordinator service quality | ,958 |
| Cleaning department service quality | ,735 |
| Administration service quality | ,863 |

Extraction Method: Maximum Likelihood.
a 1 factors extracted. 5 iterations required.

Analysing Table 6.31, we can state that the Chi-Square value is low (80.54), thus allowing us to conclude that one factor is sufficient to explain the correlations between the variables.

**TABLE 6.31 – GOODNESS-OF-FIT TEST**

| Chi-Square | df | Sig. |
|---|---|---|
| 80,538 | 9 | ,000 |

In order to test the reliability of the factor, we turned to Cronbach's Alpha. The Cronbach's Alpha is 0.907, as indicated in Table 6.32. This value is considered excellent and it indicates that the measurement of the variable “Service Quality”, done by adding the six service quality components, has an excellent reliability level.

**TABLE 6.32: RELIABILITY STATISTICS**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|---|---|---|
| ,907 | ,908 | 6 |

### 4.3.5 Price Variable

Examining Table 6.33, we note that the item "Investment evaluation" is the only item that represents a low Corrected Item-Total Correlation of 0.283. This value allows us to exclude the item as a component that measures the price factor in this investigation.

As shown in Table 6.34 the correlations between the item "Investment evaluation" and the items "Price classification" and "Service quality/price ratio" are very low representing values 0.208 and 0.294, respectively. This fact allows us to safely eliminate the item "Investment evaluation". Therefore, the only items that were taken into consideration are "Price classification" and "Service quality/price ratio".

**TABLE 6.33 – ITEM-TOTAL STATISTICS**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Price classification | 5,27 | ,967 | ,554 | ,317 | ,280 |
| **Investment evaluation** | 8,02 | 2,500 | **,283** | ,089 | ,719 |
| Service quality/price ratio | 4,60 | 1,010 | ,589 | ,348 | ,199 |

**TABLE 6.34 – INTER-ITEM CORRELATION MATRIX**

| | Price classification | Investment evaluation | Service quality/price ratio |
|---|---|---|---|
| Price classification | 1,000 | | |
| Investment evaluation | **,208** | 1,000 | |
| Service quality/price ratio | ,561 | **,294** | 1,000 |

In order to determine whether or not to apply the Factor Analysis, we used the statistic KMO. However, seeing as in this case the number of degrees of freedom (-1) is not positive, the factor analysis could not be done using the method "Maximum Likelihood" as in the cases illustrated above. Therefore, we applied the "Principal Axis Factoring" method which enabled us to obtain the following results:

**TABLE 6.35 – KMO AND BARTLETT'S TEST**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | ,512 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 44,859 |
| | df | 1 |
| | Sig. | ,000 |

As shown in Table 6.35, the KMO value is 0.512. Although this value is relatively low, it is still above 0.5 and therefore we can state that the Factor Analysis can be done.

Studying the unidimensionality of the latent variable, Table 6.36 tells us that the Factor Analysis found only one factor to explain the correlation amongst the 2 price components. This factor explains 56.04% of the total variance. Using the Kaiser criteria, we note that only one factor has an eigenvalue over 1 indicating that the correlations of the two components are indeed explained by one factor, therefore concluding that the latent variable is unidimensional.

**TABLE 6.36 – TOTAL VARIANCE EXPLAINED**

| | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|
| Factor | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 1,561 | 78,069 | 78,069 | 1,121 | 56,042 | 56,042 |
| 2 | ,439 | 21,931 | 100,000 | | | |

Extraction Method: Principal Axis Factoring.

Observing Table 6.37, in both cases ("Price classification" and "Service quality/price ratio"), the factor explains more than 50% of the variable's variance.

**TABLE 6.37 – COMMUNALITIES**

| | Initial | Extraction |
|---|---|---|
| Price classification | ,315 | ,560 |
| Service quality/price ratio | ,315 | ,560 |

Extraction Method: Principal Axis Factoring.

Table 6.38 indicates that both the items contribute very strongly and at the same level, to define the factor, seeing as both of the items represent a value of 0.749.

**TABLE 6.38 – FACTOR MATRIX [(a)]**

| | Factor |
|---|---|
| | 1 |
| Price classification | ,749 |
| Service quality/price ratio | ,749 |

Extraction Method: Principal Axis Factoring.
a 1 factors extracted. 8 iterations required.

Since "Principal Axis Factoring" was used as the extraction method for the price factor in this investigation, we were unable to apply the Goodness-of-fit Test. This being said, we were unable to conclude whether one factor is sufficient to explain the correlations between the variables.

Last but not least, in order to test the reliability of the factor, we used the Cronbach's Alpha. The Cronbach's Alpha, in this case is 0.719, as indicated in Table 6.39. This value is considered reasonable and it indicates that the measurement of the variable "Price", done by adding the two price components, has a reasonable reliability level.

**TABLE 6.39 – RELIABILITY STATISTICS**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|---|---|---|
| ,719 | ,719 | 2 |

### 4.3.6 Image Variable

Examining Table 6.40, we note that the Corrected Item-Total Correlations of the "Image" components taken into consideration vary approximately from 0.4 to 0.6, therefore being considered as relatively good correlations.

**TABLE 6.40 – ITEM-TOTAL STATISTICS**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Space/comfort | 24,37 | 5,236 | ,521 | ,430 | ,693 |
| Ambient perceptions | 23,71 | 5,591 | ,562 | ,476 | ,684 |
| Employee friendliness | 23,39 | 6,023 | ,508 | ,504 | ,703 |
| Employee image | 23,48 | 6,118 | ,385 | ,494 | ,729 |
| Service quality perceptions | 23,83 | 5,478 | ,640 | ,490 | ,665 |
| Price classification | 25,11 | 5,330 | ,364 | ,215 | ,757 |

**TABLE 6.41 – INTER-ITEM CORRELATION MATRIX**

| | Space/comfort | Ambient perceptions | Employee friendliness | Employee image | Service quality perceptions | Price |
|---|---|---|---|---|---|---|
| Space/comfort | 1,000 | | | | | |
| Ambient perceptions | ,561 | 1,000 | | | | |
| **Employee friendliness** | **,154** | **,326** | **1,000** | | | |
| **Employee image** | **,245** | **,116** | **,600** | **1,000** | | |
| Service quality perceptions | ,405 | ,492 | ,545 | ,512 | 1,000 | |
| Price classification | ,375 | ,363 | ,222 | ,042 | ,265 | 1,000 |

However, by analysing Table 6.41, we can state that all the image components presented have a positive correlation with one another. Nevertheless, the items "Employee friendliness" and "Employee image" represent very low Inter-Item Correlation values with the outstanding items. These low values allow us to exclude the items "Employee friendliness" and "Employee image" from the component we call "Image".

After completing the correlation analysis, the items selected to be included in the image measurement model were: "Space/comfort", "Ambient perceptions", "Service quality perceptions", and "Price classification" and consequently were used in the Factor analysis and Reliability tests presented in Tables 6.42 to 6.49.

Observing Table 6.42, the KMO value is 0.739 which is considered as a reasonable value. This value indicates that the technique Factor Analysis is applicable. The extraction method used in this case was "Maximum Likelihood".

**TABLE 6.42 – KMO AND BARTLETT'S TEST**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | ,739 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 104,278 |
| | df | 6 |
| | Sig. | ,000 |

In order to determine whether or not the latent variable is unidimensional, we examined Table 6.43 presenting us with the values of the Total Variance Explained. Table 6.43 tells us that the Factor Analysis found only one factor to explain the correlation amongst the four image components. This factor explains 43% of the total variance. Using the Kaiser criteria, we note that only one factor has an eigenvalue over 1. This indicates that the correlations of the 4 components are indeed explained by only one factor, thus concluding that the latent variable is unidimensional.

**TABLE 6.43 – TOTAL VARIANCE EXPLAINED**

| | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|
| Factor | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 2,247 | 56,179 | 56,179 | 1,720 | 42,997 | 42,997 |
| 2 | ,752 | 18,810 | 74,989 | | | |
| 3 | ,578 | 14,460 | 89,449 | | | |
| 4 | ,422 | 10,551 | 100,000 | | | |

Extraction Method: Maximum Likelihood.

The communalities shown in Table 6.44 vary from 0.227 to 0.501. In terms of the variables "Space/comfort" and "Ambient perception" the factor explains more than 50% of the variable's variance. On the other hand the opposite occurs with the variables "Service quality perception" and "Price classification".

**TABLE 6.44 – COMMUNALITIES**

| | Initial | Extraction |
|---|---|---|
| Space/comfort | ,365 | ,501 |
| Ambient perception | ,415 | ,636 |
| Service quality perception | ,270 | ,356 |
| Price classification | ,179 | ,227 |

Extraction Method: Maximum Likelihood.

Table 6.45 indicates that all the items contribute to define the factor. "Ambient perceptions" contributes the most seeing as it has a value of 0.798 and "Instructor service quality" contributes the least, representing a value of 0.476.

**TABLE 6.45 – FACTOR MATRIX [(a)]**

| | Factor |
|---|---|
| | 1 |
| Space/comfort | ,708 |
| Ambient perceptions | ,798 |
| Service quality perceptions | ,597 |
| Price classification | ,476 |

Extraction Method: Maximum Likelihood.
a 1 factors extracted. 4 iterations required

Analysing Table 6.46, we can state that the Chi-Square value is very low (0.86), therefore allowing us to conclude that one factor is sufficient to explain the correlations between the variables.

**TABLE 6.46: GOODNESS-OF-FIT TEST**

| Chi-Square | df | Sig. |
|---|---|---|
| ,858 | 2 | ,651 |

In order to evaluate the reliability of the factor, we analysed Cronbach's Alpha which is identified in Table 6.47. The Cronbach's Alpha is 0.717. This value is considered reasonable and it indicates that the measurement of the variable "Image", done by adding the four image components, has a reasonable reliability level.

**TABLE 6.47 – RELIABILITY STATISTICS**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|---|---|---|
| ,717 | ,736 | 4 |

### 4.3.7 Joining Intentions Variable

Now that we have analysed the environmental cues under investigation as well as the Health Club choice criteria, we now need to apply the same process as in the cases above in order to determine which components best measure the latent variable "Joining Intentions". The Corrected Item-Total Correlations represent values that vary from 0.562 to 0.758, as shown in Table 6.48. Seeing that all the values are above 0.4, we can state that the items have a good correlation.

**TABLE 6.48 – ITEM-TOTAL STATISTICS**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Investment evaluation | 5,58 | 1,563 | ,562 | ,318 | ,557 |
| Renew Contract | 5,60 | 1,408 | ,708 | ,509 | ,428 |
| Global Satisfaction | 1,83 | ,228 | ,758 | ,587 | ,601 |

By analysing Table 6.49 we can state that all the items presented have a positive correlation with one another, ranging from 0.433 to 0.713. This being said, all three items were used to measure the latent variable "Joining Intentions".

**TABLE 6.49 – INTER-ITEM CORRELATION MATRIX**

| | Investment evaluation | Renew Contract | Global Satisfaction |
|---|---|---|---|
| Investment evaluation | 1,000 | | |
| Renew Contract | ,433 | 1,000 | |
| Global Satisfaction | ,562 | ,713 | 1,000 |

As shown in Table 6.50, the KMO value is 0.644 which is considered as a reasonable value. This value indicates that the technique Factor Analysis is applicable.

**TABLE 6.50 – KMO AND BARTLETT'S TEST**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | ,644 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 128,990 |
| | df | 3 |
| | Sig. | ,000 |

In terms of the unidimensionality of the latent variable, Table 6.51 tells us that the Factor Analysis found only one factor to explain the correlation amongst the 3 "Joining Intentions" components. This factor explains 60.52% of the total variance. Using the Kaiser criteria, we note that only one factor has an eigenvalue over 1 indicating that the correlations of the 3 components are indeed explained by one factor, therefore proving the unidimensionality of the latent variable.

**TABLE 6.51 – TOTAL VARIANCE EXPLAINED**

| Factor | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 2,146 | 71,538 | 71,538 | 1,816 | 60,518 | 60,518 |
| 2 | ,588 | 19,592 | 91,129 | | | |
| 3 | ,266 | 8,871 | 100,000 | | | |

Extraction Method: Maximum Likelihood.

Table 6.52 indicates that all the items contribute, at different levels, to define the factor, seeing as the values are all high. "Global Satisfaction" contributes the most seeing as it has a value of 0.962 and "Investment evaluation" contributes the least, representing a value of 0.584.

**TABLE 6.5 – FACTOR MATRIX [(a)]**

| | Factor |
|---|---|
| | 1 |
| Global Satisfaction | ,962 |
| Renew Contract | ,741 |
| Investment evaluation | ,584 |

Extraction Method: Maximum Likelihood.
a 1 factors extracted. 18 iterations required.

Observing Table 6.53, in terms of the variables "Global Satisfaction" and "Renew Contract", the factor explains more than 50% of the variable's variance. However, in terms of the variable "Investment evaluation", the factor explains less than 50% of the variable's variance having acquired a value of 0.342.

**TABLE 6.53 – COMMUNALITIES**

| | Initial | Extraction |
|---|---|---|
| Global Satisfaction | ,587 | ,925 |
| Renew Contract | ,509 | ,549 |
| Investment evaluation | ,318 | ,342 |

Extraction Method: Maximum Likelihood.

After the unidimensionality as well as the validity of the variable is confirmed, we tested the reliability of the factor using Cronbach's Alpha as shown in Table 6.54. The Cronbach's Alpha is 0.604. This value is considered “weak” but still acceptable.

**TABLE 6.54 – RELIABILITY STATISTICS**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|---|---|---|
| ,604 | ,799 | 3 |

## 4.4 Hypotheses Testing

Now that all the latent variables have been tested and the variables which best measure them were selected, we now need to analyse the hypotheses proposed in this investigation. The conceptual model proposed in Figure 4 in Section 3 allowed us to formulate 12 hypotheses. The hypotheses under investigation are presented below, in Table 6.55, in a summarized manner.

**TABLE 6.55 – GENERAL HYPOTHESES**

| | |
|---|---|
| $H_{1a}$ | Design Cues→ Service Quality |
| $H_{1b}$ | Design Cues→ Price |
| $H_{1c}$ | Design Cues → Image |
| $H_{2a}$ | Ambient Cues → Service Quality |
| $H_{2b}$ | Ambient Cues → Price |
| $H_{2c}$ | Ambient Cues → Image |
| $H_{3a}$ | Social Cues → Service Quality |
| $H_{3b}$ | Social Cues → Price |
| $H_{3c}$ | Social Cues → Image |
| $H_4$ | Service Quality → Joining Intentions |
| $H_5$ | Price → Joining Intentions |
| $H_6$ | Image → Joining Intentions |

Section 4.3 allowed us to filter the variables that best measured each latent variable. Using Principal Component Analysis (PCA) we grouped the selected variables and created a new variable – the latent variable. These new variables are neither nominal nor ordinal but yes interval/ratio. The principal components are continuous variables, with mean = 0, standard deviation and uncorrelated variables. We chose to apply PCA instead of FA (Factor analysis) because the first case doesn't have any assumptions whereas in the second case (FA) one of the assumptions includes multivariate normality between the variables which in this case does not occur.

With the intention of analyzing the hypothesis formulated, we used a statistical technique called correlation. Correlation shows the relationship between two different variables.

In order to study the correlations between the variables, two correlation methods can be used: the Parametric Pearson Method and the Non-parametric Spearman Method.

The **Pearson Method** has two principal assumptions:

a) The two variables have a Normal Distribution

b) The relationship between the two variables is linear.

To test the first assumption we used the Kolmogorov-Smirnov Test of Normality. In this project we considered a confidence interval of 95% ($\alpha = 0.05$). The null hypothesis is as follows:

*$H_0$: the sample comes from a population with a normal distribution*

In order to reject or accept $H_0$ we analyze the significance value (Sig.). If the significance value is less than 0.05, we reject $H_0$. However, if the significance value is equal or more than 0.05 we accept the null hypothesis. In other words:

$$\textit{Sig.} < 0.05 \Rightarrow \textit{Reject } H_0$$

$$\textit{Sig.} \geq 0.05 \Rightarrow \textit{Accept } H_0$$

To check if the variables have a linear relationship, we used the Graph option in SPSS.

When these assumptions were not met, that is, when one or both the variables are neither normally distributed nor linear, we applied the Non-parametric **Spearman Method**.

When examining the correlation values, the further the coefficient is from 0, (positive or negative), the stronger the relationship between the two variables. The positive coefficients tell us that there is a direct relationship: when one variable increases, the other increases. The negative coefficients tell us that there is an indirect relationship: when one variable increases, the other decreases.

It is important to note that just because we can show a correlation between two variables it doesn't mean that one variable necessarily depends on the other. Our objective in this study is simply to find out if a relationship exists between the respective variables and if these are positively or negatively related.

Assumption verifications:

### *a) Normality Test*

*$H_0$: the sample comes from a population with a normal distribution*

**TABLE 6.56 – TESTS OF NORMALITY**

| | Kolmogorov-Smirnov(a) | | |
|---|---|---|---|
| | Statistic | df | Sig. |
| Design | ,067 | 121 | ,200(*) |
| Ambient | ,140 | 121 | ,000 |
| Social | ,117 | 121 | ,000 |
| Service Quality | ,218 | 121 | ,000 |
| Price | ,186 | 121 | ,000 |
| Image | ,131 | 121 | ,000 |
| Joining Intentions | ,354 | 121 | ,000 |

* This is a lower bound of the true significance.
a Lilliefors Significance Correction

Observing Table 6.56, we can state that the variable "Design" is the only variable that we can consider as normally distributed, seeing that $0.20 \geq 0.05$, accepting the $H_0$. On the other hand, "Ambient", "Social", "Service Quality", "Price", "Image" and "Joining Intentions" are not normally distributed variables, seeing as $Sig. < 0.05$, allowing us to reject $H_0$. This being said, the Parametric Pearson Method is not appropriate. Instead we shall use the Non-parametric Spearman's rho correlation test to calculate the correlation between these variables.

**$H_{1a}$ - The consumer's perception of the Health Club's design positively influences the consumer's perception of the service quality.**

*$H_0$: No linear relationship exists between the variables "Design" and "Service Quality"*

**TABLE 6.57 – CORRELATIONS**

| | | | Design | Service Quality |
|---|---|---|---|---|
| Spearman's rho | Design | Correlation Coefficient | 1,000 | ,481(**) |
| | | Sig. (2-tailed) | . | ,000 |
| | | N | 121 | 121 |
| | Service Quality | Correlation Coefficient | ,481(**) | 1,000 |
| | | Sig. (2-tailed) | ,000 | . |
| | | N | 121 | 121 |

** Correlation is significant at the 0.01 level (2-tailed).

As shown in the correlations table above, the correlation between the two variables "Design" and "Service Quality" is 0.481. This is considered a relatively good value and also allows us to conclude that when the design perception increases, the service quality perception also increases. Since the significance value is less than 0.05, we can reject the null hypothesis.

This being said, we can state that a relationship exists ($r = 0.481 \neq 0$), it is in the predicted direction (positive) and we can generalize the results to the population ($p<0.05$).

**$H_{1b}$ - The consumer's perception of the Health Club's design positively influences the consumer's perception of the price range.**

*$H_0$: No linear relationship exists between the variables "Design" and "Price"*

**TABLE 6.58 – CORRELATIONS**

| | | | Design | Price |
|---|---|---|---|---|
| Spearman's rho | Design | Correlation Coefficient | 1,000 | ,386(**) |
| | | Sig. (2-tailed) | . | ,000 |
| | | N | 121 | 121 |
| | Price | Correlation Coefficient | ,386(**) | 1,000 |
| | | Sig. (2-tailed) | ,000 | . |
| | | N | 121 | 121 |

** Correlation is significant at the 0.01 level (2-tailed).

Analyzing Table 6.58, we note that the correlation between the two variables "Design" and "Price" is 0.386. This is a relatively weak correlation but we can state that a relationship in fact exists. These values allow us to conclude that when the design perception increases, the price perception also increases.

Since the significance value is less than 0.05, we can reject $H_0$. Taking into consideration the values presented in Table 6.58, we can state that a relationship does exist (r = 0. 386 ≠0), it is in the predicted direction (positive) and we can generalize the results to the population (p < 0.05).

**$H_{1c}$ - The consumer's perception of the Health Club's design positively influences the consumer's perception of the Health Club's image.**

*$H_0$: No linear relationship exists between the variables "Design" and "Image"*

**TABLE 6.59 – CORRELATIONS**

| | | | Design | Image |
|---|---|---|---|---|
| Spearman's rho | Design | Correlation Coefficient | 1,000 | ,698(**) |
| | | Sig. (2-tailed) | . | ,000 |
| | | N | 121 | 121 |
| | Image | Correlation Coefficient | ,698(**) | 1,000 |
| | | Sig. (2-tailed) | ,000 | . |
| | | N | 121 | 121 |

** Correlation is significant at the 0.01 level (2-tailed).

Examining Table 6.59, the rho value between the two variables "Design" and "Image" is 0.698. This is a good value and seeing that it is positive, we can conclude that when the design perception increases, the health club image perception also does. Since the significance value is less than 0.05, we can reject the null hypothesis.

To conclude, we can state that a relationship between "Design" and "Image" does exist (r=0.698≠0), it is in the predicted direction (positive) and we can generalize the results to the population (p < 0.05).

**$H_{2a}$ - The consumer's perception of the Health Club's ambient positively influences the consumer's perception of the service quality.**

*$H_0$: No linear relationship exists between the variables "Ambient" and "Service Quality"*

**TABLE 6.60 – CORRELATIONS**

| | | | Ambient | Service Quality |
|---|---|---|---|---|
| Spearman's rho | Ambient | Correlation Coefficient | 1,000 | ,632(**) |
| | | Sig. (2-tailed) | . | ,000 |
| | | N | 121 | 121 |
| | Service Quality | Correlation Coefficient | ,632(**) | 1,000 |
| | | Sig. (2-tailed) | ,000 | . |
| | | N | 121 | 121 |

** Correlation is significant at the 0.01 level (2-tailed).

Analyzing Table 6.60, we note that the correlation value between the two variables "Ambient" and "Service Quality" is 0.632. This is a good value and seeing that the value is positive we can conclude that when the ambient perception increases, the service quality perception also increases. Since the significance value is less than 0.05, we can reject $H_0$.

After observing the values presented in Table 6.60, we can affirm that a relationship does in fact exist ($r = 0.632 \neq 0$). It is in the predicted direction (positive) and we can generalize the results to the population ($p < 0.05$).

**$H_{2b}$ - The consumer's perception of the Health Club's ambient positively influences the consumer's perception of the price range.**

*$H_0$: No linear relationship exists between the variables "Ambient" and "Price"*

**TABLE 6.61 – CORRELATIONS**

| | | | Ambient | Price |
|---|---|---|---|---|
| Spearman's rho | Ambient | Correlation Coefficient | 1,000 | ,394(**) |
| | | Sig. (2-tailed) | . | ,000 |
| | | N | 121 | 121 |
| | Price | Correlation Coefficient | ,394(**) | 1,000 |
| | | Sig. (2-tailed) | ,000 | . |
| | | N | 121 | 121 |

** Correlation is significant at the 0.01 level (2-tailed).

As shown in the correlations Table 6.61, the correlation between the two variables "Ambient" and "Price" is 0.394 which represents a relatively weak relationship. Nevertheless, since the significance value is less than 0.05, we can reject the null hypothesis.

Finalizing, we can state that a relationship between the variables does exist ($r = 0.394 \neq 0$) and we can generalize the results to the population ($p < 0.05$).

**$H_{2c}$ - The consumer's perception of the Health Club's ambient positively influences the consumer's perception of the Health Club's image.**

*$H_0$: No linear relationship exists between the variables "Ambient" and "Image"*

When analyzing Table 6.62, it is possible to state that the rho value between the two variables "Ambient" and "Image" is 0.782. This is a good value and the fact that it is positive allows us to conclude that when the design perception increases, the health club

image perception also does. Since the significance value is less than 0.05, we can reject $H_0$.

**TABLE 6.62 – CORRELATIONS**

| | | | Ambient | Image |
|---|---|---|---|---|
| Spearman's rho | Ambient | Correlation Coefficient | 1,000 | ,782(**) |
| | | Sig. (2-tailed) | . | ,000 |
| | | N | 121 | 121 |
| | Image | Correlation Coefficient | ,782(**) | 1,000 |
| | | Sig. (2-tailed) | ,000 | . |
| | | N | 121 | 121 |

** Correlation is significant at the 0.01 level (2-tailed).

This being said, we can state that a good relationship exists ($r = 0.782 \neq 0$), it is in the predicted direction (positive) and we can generalize the results to the population ($p<0.05$).

**$H_{3a}$ - The consumer's perception of the Health Club's social factors positively influences the consumer's perception of the service quality.**

*$H_0$: No linear relationship exists between the variables "Social" and "Service Quality"*

Table 6.63 allows us to affirm that the rho between the two variables "Social" and "Service Quality" is 0.678. This value represents a relatively good correlation. It allows us to conclude that when the social perception increases, the service quality perception also increases. The significance value is less than 0.05 thus allowing us to reject the null hypothesis.

**TABLE 6.63 – CORRELATIONS**

| | | | Social | Service Quality |
|---|---|---|---|---|
| Spearman's rho | Social | Correlation Coefficient | 1,000 | ,678(**) |
| | | Sig. (2-tailed) | . | ,000 |
| | | N | 121 | 121 |
| | Service Quality | Correlation Coefficient | ,678(**) | 1,000 |
| | | Sig. (2-tailed) | ,000 | . |
| | | N | 121 | 121 |

** Correlation is significant at the 0.01 level (2-tailed).

This being said, we can state that a relationship between the variables "Social" and "Service Quality" does in fact exist ($r=0.481 \neq 0$), it is in the predicted direction (positive) and we can generalize the results to the population ($p < 0.05$).

**$H_{3b}$ - The consumer's perception of the Health Club's social factors positively influences the consumer's perception of the price range.**

*$H_0$: No linear relationship exists between the variables "Social" and "Price"*

**TABLE 6.64 – CORRELATIONS**

| | | | Social | Price |
|---|---|---|---|---|
| Spearman's rho | Social | Correlation Coefficient | 1,000 | ,484(**) |
| | | Sig. (2-tailed) | . | ,000 |
| | | N | 121 | 121 |
| | Price | Correlation Coefficient | ,484(**) | 1,000 |
| | | Sig. (2-tailed) | ,000 | . |
| | | N | 121 | 121 |

** Correlation is significant at the 0.01 level (2-tailed).

Observing Table 6.64, we note that the rho value between the two variables "Social" and "Price" is 0.484. This is a relatively good value and seeing that it is positive we can conclude that when the social perception increases, the price perception also does. Since the significance value is less than 0.05, we can reject the null hypothesis.

Finally, we can state that a relationship exists ($r=0.484 \neq 0$), it is in the predicted direction (positive) and we can generalize the results to the population ($p < 0.05$).

**$H_{3c}$ - The consumer's perception of the Health Club's social factors positively influences the consumer's perception of the Health Club's image.**

*$H_0$: No linear relationship exists between the variables "Social" and "Image"*

**TABLE 6.65 – CORRELATIONS**

| | | | Social | Image |
|---|---|---|---|---|
| Spearman's rho | Social | Correlation Coefficient | 1,000 | ,626(**) |
| | | Sig. (2-tailed) | . | ,000 |
| | | N | 121 | 121 |
| | Image | Correlation Coefficient | ,626(**) | 1,000 |
| | | Sig. (2-tailed) | ,000 | . |
| | | N | 121 | 121 |

** Correlation is significant at the 0.01 level (2-tailed).

The correlation value between the two variables "Social" and "Image" is 0.626. This is considered a good value and seeing that it is positive we can conclude that when the

social perception increases, the image perception also increases. Since the significance value is less than 0.05, we can reject the null hypothesis.

After observing the values presented in Table 6.65, we can state that a relationship does in fact exist ($r = 0.626 \neq 0$). It is in the predicted direction (positive) and we can generalize the results to the population ($p < 0.05$).

**$H_4$ - The consumer's perception of the service quality positively influences the consumer's intention to join the club.**

*$H_0$: No linear relationship exists between the variables "Service Quality" and "Joining Intentions"*

**TABLE 6.66 – CORRELATIONS**

| | | | Service Quality | Joining Intentions |
|---|---|---|---|---|
| Spearman's rho | Service Quality | Correlation Coefficient | 1,000 | ,180(*) |
| | | Sig. (2-tailed) | . | ,048 |
| | | N | 121 | 121 |
| | Joining Intentions | Correlation Coefficient | ,180(*) | 1,000 |
| | | Sig. (2-tailed) | ,048 | . |
| | | N | 121 | 121 |

* Correlation is significant at the 0.05 level (2-tailed).

Examining Table 6.66, we note that the rho value between the two variables "Service Quality" and "Joining Intentions" is 0.180 which represents a very low correlation. The significance value is equal to 0.05. These results allow us to accept the null hypothesis.

To conclude, we can state that a very weak relationship exists between the variables "Service Quality" and "Joining Intentions" ($r = 0.180 \neq 0$) but due to the fact that Sig.=0.05 we reject $H_4$.

**$H_5$ - The consumer's perception of the price range positively influences the consumer's intention to join the club.**

*$H_0$: No linear relationship exists between the variables "Price" and "Joining Intentions"*

Table 6.67 allows us to affirm that the rho between the two variables "Price" and "Joining Intentions" is 0.089. This is a value very close to 0, allowing us to conclude that the relationship between these two variables is very weak and almost nonexistent. The significance value is more than 0.05 thus allowing us to accept the null hypothesis

and therefore state that there is no linear relationship between the variables "Price" and "Joining Intentions".

**TABLE 6.67 – CORRELATIONS**

| | | | Price | Joining Intentions |
|---|---|---|---|---|
| Spearman's rho | Price | Correlation Coefficient | 1,000 | ,089 |
| | | Sig. (2-tailed) | . | ,332 |
| | | N | 121 | 121 |
| | Joining Intentions | Correlation Coefficient | ,089 | 1,000 |
| | | Sig. (2-tailed) | ,332 | . |
| | | N | 121 | 121 |

We can state that an extremely weak correlation between "Price" and "Joining Intentions" exists ($r = 0.089 \neq 0$), but this value has no significance seeing as the Sig.>0.05. This allows us to firmly reject $H_5$.

**$H_6$ - The consumer's perception of the Health Club's image positively influences the consumer's intention to join the club.**

*$H_0$: No linear relationship exists between the variables "Image" and "Joining Intentions"*

**TABLE 6.68 – CORRELATIONS**

| | | | Image | Joining Intentions |
|---|---|---|---|---|
| Spearman's rho | Image | Correlation Coefficient | 1,000 | ,049 |
| | | Sig. (2-tailed) | . | ,596 |
| | | N | 121 | 121 |
| | Joining Intentions | Correlation Coefficient | ,049 | 1,000 |
| | | Sig. (2-tailed) | ,596 | . |
| | | N | 121 | 121 |

Observing Table 6.68 we can state that the correlation between the two variables "Image" and "Joining Intentions" is 0.049. This is a very weak correlation, seeing as the value is approximately 0. The significance value is more than 0.05, (0.596 to be exact) allowing us to accept the null hypothesis and therefore state that there is no linear relationship between the variables "Image" and "Joining Intentions".

After this analysis we can state that there is a very weak correlation (almost absent) between the variables "Price" and "Joining Intentions" ($r = 0.049 \neq 0$), but this value has no significance seeing as the Sig.>0.05. These results enable us to reject the possibility of the consumer's perception of the Health Club's image positively influencing the consumer's intention to join the club ($H_6$).

A summary of our findings is presented in Table 6.69.

**TABLE 6.69 – HYPOTHESIS TEST RESULTS**

| | Correlation Coefficient (rho) | Significance value (Sig.) | Conclusion: Hypothesis |
|---|---|---|---|
| $H_{1a}$ | 0.481 | 0.000 | Accepted |
| $H_{1b}$ | 0.386 | 0.000 | Accepted |
| $H_{1c}$ | 0.698 | 0.000 | Accepted |
| $H_{2a}$ | 0.632 | 0.000 | Accepted |
| $H_{2b}$ | 0.394 | 0.000 | Accepted |
| $H_{2c}$ | 0.782 | 0.000 | Accepted |
| $H_{3a}$ | 0.678 | 0.000 | Accepted |
| $H_{3b}$ | 0.484 | 0.000 | Accepted |
| $H_{3c}$ | 0.626 | 0.000 | Accepted |
| $H_4$ | 0.180 | 0.048 | Rejected |
| $H_5$ | 0.089 | 0.332 | Rejected |
| $H_6$ | 0.049 | 0.596 | Rejected |

As show in Table 6.69, nine of the twelve hypotheses studied were accepted, having shown a significant relationship. These are: $H_{1a}$ - The consumer's perception of the Health Club's design positively influences the consumer's perception of the service quality; $H_{1b}$ - The consumer's perception of the Health Club's design positively influences the consumer's perception of the price range; $H_{1c}$ - The consumer's perception of the Health Club's design positively influences the consumer's perception of the Health Club's image; $H_{2a}$ - The consumer's perception of the Health Club's ambient positively influences the consumer's perception of the service quality; $H_{2b}$ - The consumer's perception of the Health Club's ambient positively influences the consumer's perception of the price range; $H_{2c}$ - The consumer's perception of the Health Club's ambient positively influences the consumer's perception of the Health Club's image; $H_{3a}$ - The consumer's perception of the Health Club's social factors positively influences the consumer's perception of the service quality; $H_{3b}$ - The consumer's perception of the Health Club's social factors positively influences the consumer's

perception of the price range; and $H_{3c}$ - The consumer's perception of the Health Club's social factors positively influences the consumer's perception of the Health Club's image.

On the other hand, our tests rejected the remaining three hypotheses: $H_4$ - The consumer's perception of the service quality positively influences the consumer's intention to join the club; $H_5$ - The consumer's perception of the price range positively influences the consumer's intention to join the club; $H_6$ - The consumer's perception of the Health Club's image positively influences the consumer's intention to join the club.

In the following section we shall discuss our research findings and draw our conclusions. We shall explain the meaning of our findings, analyze their consistency with existing theories and give our suggestions for future studies.

# 5 Conclusion

The aim of this section is to bring to a close our investigation by presenting what we learnt about the influence that a Health Club's image and atmospherics has upon the consumer's choice criteria. In this part of the investigation, we shall discuss how the environmental cues and Health Club choice criteria are associated as well as whether or not the choice criteria presented influence a client's decision of joining a club of this nature.

We start by identifying our major findings and thereafter highlight the implications of our investigation. We finalize this study by identifying the limitations encountered and give our own suggestions for further research.

## 5.1 Summary of Major Findings

This project allowed us to study the environmental cues of a Health club and how these effect the client's choice criteria. The environmental cues studied were: (1) Design, (2) Ambient and (3) Social. The choice criteria analyzed were: (1) Service quality, (3) Price and (3) Image. The investigation aimed to study how these factors influenced a client's joining intentions with the help of a conceptual model developed for that purpose.

Our conclusions were drawn by analyzing the opinions of a sample which consisted of 121 members, with the ages 18 years and above, of a private Health Club called Universalbodies, Lda., situated in Torres Vedras, Portugal.

Our quantitative research indicated that the design cues that are given more emphasis are: (1) material quality (88.6%), facility comfort (88.4%) and layout (57%). In reference to the ambient cues, hygiene (98.4%), scent (88.4%) and temperature (78.5%) are given most importance. In terms of the social cues of a Health Club, the participants stated that they gave most importance to the factors employee friendliness (95.6%) and the service they provide (91.8%).

However, the participants were not only enquired on the importance given to each environmental cue. They were also asked to rate the Health Club in question on the same environmental cues. In terms of the design, 46.28% of the participants classify it as "good", 39.67% classify it as "very good" and 7.44% stated that they regard it as "excellent". The design cues with highest ratings (scores of "5" and "6") were also material quality, layout and facility comfort, representing a population of 75.21%, 61.16% and 49.59%, respectively.

In terms of the ambient cues of Universalbodies, Lda., 12.4% of the participants classify it as "good", 63.64% classify it as "very good" and 22.31% stated that they regard it as "excellent". The ambient cues given the highest scores were: visual signs (69.42%), lighting (72.73%) and hygiene (90.08%). The factors scent and temperature were not far behind, seeing as they were positively rated by 46.28% and 63.64%, respectively.

Finally, in what refers to the social cues of the Health Club in question, our research shows that the factors employee image (90.91%), employee friendliness (96.69%) and member image (61.98%) were the three most highly scored cues. These results are similar to the importance level given by the respondents to these social cues.

The conceptual model proposed in this investigation required the formation of seven latent variables: (1) "Design"; (2) "Ambient"; (3) "Social"; (4) "Service quality"; (5) "Price"; (6) "Image" and (7) "Joining intentions". The variable "Design" was measured by using the components: "Space in parking lot", "Facility", "Layout", "Material quality", "Architecture" and "Interior design". As for the variable "Ambient", the items used were "Scent", "Lighting", "Hygiene", "Background music", "Background noise

level" and "Visual signs". In terms of the variable "Social", we used the components Employee image", "Employee friendliness", "Member image" and "Service quality". In regards to the Health Club choice criteria, the variable "Service quality" was measured using the items "Receptionist service quality", "Bar Ladies service quality", "Instructor service quality", "Coordinator service quality", "Cleaning department service quality" and "Administration service quality". As for the variable "Price", the factors used were "Price classification" and "Service quality/price ratio". In order to measure the "Image variable" we used the components "Space/comfort", "Ambient perceptions", "Service quality perceptions", and "Price classification". Last, but not least, to measure the variable "Joining intentions" we used the components "Investment evaluation", "Renew contract" and "Global satisfaction".

Putting our conceptual model to use, we were able to formulate 12 hypotheses. In 9 of the cases our theory was confirmed and 3 of the cases were disconfirmed. Our results were as follows:

- The consumer's perception of the Health Club's design, ambient and social factors, positively influences the consumer's perception of the service quality ($H_{1a}$, $H_{2a}$ and $H_{3a}$);
- The consumer's perception of the Health Club's design, ambient and social factors, positively influences the consumer's perception of the price range ($H_{1b}$, $H_{2b}$ and $H_{3b}$);
- The consumer's perception of the Health Club's design, ambient and social factors, positively influences the consumer's perception of the Health Club's image ($H_{1c}$, $H_{2c}$ and $H_{3c}$);
- The consumer's perception of the service quality does not influence the consumer's intention to join the club ($H_4$);
- The consumer's perception of the price range does not influence the consumer's intention to join the club ($H_5$);
- The consumer's perception of the Health Club's image does not influence the consumer's intention to join the club ($H_6$).

## 5.2 Findings Implications

As previously stated, our conceptual model aimed to study three variables: environmental cues, choice criteria and joining intentions of clients or potential clients of a Health Club. Next we shall study our findings of each of these variables individually.

The hypotheses formulated that aimed to study the relationship between the environmental cues and the choice criteria under investigation were: $H_{1a}$, $H_{1b}$, $H_{1c}$, $H_{2a}$, $H_{2b}$, $H_{2c}$, $H_{3a}$, $H_{3b}$ and $H_{3c}$. We learnt that the design, ambient and social factors of a Health Club influence the member's service quality, price and image perceptions, though at different levels.

The relationships that were established were all relatively good. However, some of the variables were able to establish a stronger relationship than others. This occurred with the relationships between the variables "Ambient" and "Image" (rho = 0.782), "Design" and "Image" (rho = 0.698) and "Social" and "Service quality" (rho = 0.678). The remaining relationships were not as strong.

Nonetheless, to our knowledge, our research is the first attempt to examine a client's Health Club joining intentions. This being said, there is no literature background to which we can compare our findings to. However, Baker *et al*, (2002) analyzed some of the variables that we analyzed in a retail point of view. According to the authors' research, store design perceptions have a positive impact on perceived monetary price. In our case, a relationship does in fact exist, but it is regarded as relatively weak.

The authors also state that both social and design cues affect service quality perceptions. Our research allows us to affirm the existence of a relationship between these two environmental cues and service quality. However, the relationship between the social perceptions and service quality perceptions is quite significant whereas in the case of design it isn't as significant.

Our research allows us to state that the Health Club's image is the most influenced choice criteria by the club's design, ambient and social cues. Service quality is mostly influenced by the ambient and social cues. As previously stated, a relationship does exist between the variables "Design" and "Service quality", but it is relatively weak. In

terms of the price perceptions, we can state that relationships do exist between this variable and the three environmental cues but they are not as significant. This means that, according to our research, there are other attributes that relate at a higher level to the consumer's price perceptions.

Finally, in conclusion to our findings, we can state that the consumer's perception of the Health Club's service quality, price and image does not influence the consumer's intention to join the club ($H_4$, $H_5$, and $H_6$). This being said, it is possible that other choice criteria may influence the client's choice to join the club other than service quality, price or image and it may be wise to study other possibilities in future studies.

## 5.3 Limitations of the Study

This investigation presented a few shortcomings during its elaboration the first of which is the fact that the sample is based on a non-random selection of the members of only one Health Club. However, although convenience sampling has the disadvantage of being bias, we attempted to seek participants of all age groups above 18, of both genders and that fell into different package categories in order to maintain our sample heterogynous and representative of the Health Club population.

The fact that we only used one Health Club to observe the member perceptions of the environmental cues, instead of a larger amount, limited the conclusion of this investigation to Health Clubs with the same characteristics as the Health Club in question.

Another limitation encountered in this investigation is the fact that it is almost impossible to evaluate each and every design, ambient and social cue. Nonetheless, with the help of the literature review done in Section 2 of this dissertation, we were able to identify the cues that have greater impact and consequently study them in a Health Club context.

To finalize, very little research has been done in terms of atmospherics in a service outlet, more specifically in a Health Club. However, we were able to adapt the existing research done in retail outlets to an establishment of this nature. We hope that our study opens doors for future studies in this field.

## 5.4 Suggestions for Further Research

We suggest that investigations to follow should be done using a more representative sample. Secondly, we recommend analysis of member perceptions of more than one Health Club in order to compare findings with the different settings of the environmental cues in question. Thirdly, we suggest that the choice criteria to be used in future research be different to those chosen of this investigation in order to determine which choice criteria influence the consumer's joining intentions. Last, but not least, we recommend applying different statistical tests in order to find a better approximation of the relationship between the variables.

# 6 Bibliographic References


Alexandris, Konstantinos; Zahariadis, Panagiotis; Tsorbatzoudis, Charalambos; Grouios, George (2004) , *An Empirical Investigation of the relationships among Service Quality, Customer Satisfaction and Psychological Commitment in a Health Club Context*, European Sport Management Quarterly, pp.36-52

American Marketing Association, Consulted on June 26, 2008, http://www.marketingpower.com/Pages/default.aspx

Baker, Julie (1987), The Role of the Environment in Marketing Services: The Consumer Perspective, in: John A. Czepiel, Carole A. Congram and James Shanahan, Editors, *The Service Challenge: Integrating for Competitive Advantage,* American Marketing Association, pg.79–84

Baker, Julie; Grewal, Dhruv; Levy, Michael (1992), An Experimental Approach to Making Retail Store Environment Decisions, *Journal of Retailing,* Vol. 64 Issue 4, pp.445-460

Baker, Julie; Parasuraman, A.; Grewal, Dhruv (1994), The Influence of Store Environment on Quality Inferences and Store Image, *Journal of the Academy of Marketing Science*, Vol. 22, No. 4, pp.328-339

Baker, Julie; Parasuraman, A.; Grewal, Dhruv ; Voss, Glenn B. (2002), The Influence of Multiple Store Environment Cues on Perceived Merchandise Value and Patronage Intentions, *Journal of Marketing*, Vol. 66 Issue 2, pp.120-141

Berkowitz, Eric N.; Walton, John R. (1980), Contextual Influences on Consumer Price Responses: An Experimental Analysis, *Journal of Marketing Research*, Vol. 17, pp.349-358

Berman, Berry; Evans, Joel (1995), *Retail Management – A Strategic Approach*, Prentice Hall, New Jersey

Bitner, M.J (1992), Servicescapes: The Impact of Physical Surroundings on Customers and Employees, *Journal of Marketing*, Vol.56, Nº 2, pp.57 - 71

Bitner, M.J. and Booms, B. (1981), *Marketing Strategies and Organizational Structures for Service Firms*, in Donnelly, J. and George, W. Marketing, American Marketing Association, Chicago

Borden, Neil H. (1964), The Concept of the Marketing Mix, *Journal of Advertising Research*, Vol. 4, pp.2-7

Correia, Eduardo; Vasconcelos, Fernando; Silvério, Filipe; Santos, Cristina (2004), *Gestão.com*, Vol.1, Edições Sílabo, Lisbon

Cunha, Susana Marques da (2006), *A Importância da Promoção de Vendas Como Critério de Escolha de um Ponto de Venda,* Lisbon, PhD. Thesis in Management, Instituto Superior de Ciências do Trabalho e da Empresa - ISCTE

Donovan, Robert J.; Rossiter, John R. (1982), Sore Atmosphere: An Environmental Psychology Approach, Journal of Retailing, Vol. 58, Nº 1, pp.34-57

Foxall, Gordon (2003), The Behavior Analysis of Consumer Choice: An Introduction to The Special Issue, *Journal of Economic Psychology*, Vol. 24 Issue 5, pp.581

Ghosh, Avijit (1994), *Retail Management*, The Dryden Press, Forth Wort

Gould-Williams, Julian (1999), The Impact of Employee Performance Cues on Guest Loyalty, Perceived Value and Service Quality, *The Service Industries Journal*, Vol. 19. Nº3, pp.97-118

Grewal, Dhruv; Baker, Julie; Levy, Michael; Voss, Glenn B. (2003), The Effects of Wait Expectations and Store Atmosphere Evaluations on Patronage Intentions in Service-Intensive Retail Stores, *Journal of Retailing*, Vol. 79, pp.259–268

Hightower, Roscoe; Brady, Michael K.; Baker, Thomas L. (2002), Investigating the Role of the Physical Environment in Hedonic Service Consumption: An Exploratory Study of Sporting Events, *Journal of Business Research*, Vol. 55, pp.697-707

Hill, Arthur V.; Collier, David A; Froehle, Craig M.; Goodale, John C.; Metters, Richard D.; Verma, Rohit (2002), Research Opportunities in Service Process Design, *Journal of Operations Management*, Vol. 286, pp.1-14

Hill, Manuela Magalhães e Hill, Andrew (2000), *Investigação por Questionário*, Edições Sílabo, 1st Edition, Lisbon.

Hutcheson, Graeme D.; Moutinho, Luiz (1998), Measuring Preferred Store Satisfaction Using Consumer Choice Criteria as a Factor, *Journal of Marketing Management*, Vol. 14, pp.705-72

Instituto Nacional de Estatística - Statistics Portugal, Consulted on May 23, 2009, http://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_indicadores&indOcorrCod=0000611&selTab=tab0

Kotler, Philip (1973), Atmospherics as a Marketing Tool, *Journal of Retailing*, Vol. 49, No. 4, pp.48-64

Kotler, Philip (2003), *Marketing Management*, 11th Edition, Prentice Hall

Leeflang, Peter S.H.; Van Raaij, Fred (1995), The Changing Consumer in the European Union: A Meta-Analysis, *International Journal of Research in Marketing*, Vol. 12, pp.373-387

Lin, Ingrid Y. (2004), Evaluating a Servicescape: The Effect of Cognition and Emotion, *International Journal of Hospitality Management*, Vol. 23, pp.163-178

Martineau, Pierre (1985), The Personality of a Retail Store, *Harvard Business Review*, Vol. 36 Issue 1, pp.45-54

Mathur, Anil; Sherman, Elaine; Smith, Ruth B. (1997), Store Environment and Consumer Purchase Behavior: Mediating Role of Consumer Emotions, *Psychology & Marketing,* Vol. 14(4), pp.361-378

Mattila, Anna S.; Jochen, Wirtz (2001), Congruency of Scent and Music as a Driver of In-Store Evaluations and Behavior, *Journal of Retailing*, Vol.77, pp. 273-289

Mauro, Frota (2008), Ginásios, que Futuro?, *Sport Manual: Sport Life*, Issue 10, pp74-75

Milliman, L. W.; Turley, Ronald E. (2000), Atmospheric Effects on Shopping Behavior: A Review of the Experimental Evidence, *Journal of Business Research*, Vol.49, pp.193-211

Milliman, R.E. (1986), The Influence of Background Music on the Behavior of Restaurant Patrons. *Journal of Consumer Research*, Vol.13, pp.286-289

Monroe, Kent B. (1973), Buyers' Subjective Perceptions of Price, *Journal of Marketing Research*, Vol. 10, pp.70-80

Nicosia, Francesco M. (1968), Advertising Management, Consumer Behavior, and Simulation*, Journal of Advertising,* Vol. 8, No. 1, pp.29-37

O'Cass, Aron; Grace, Debora (2008), Understanding the Role of Retail Store Service in Light of Self-Image-Store Image Congruence, *Psychology & Marketing*, Vol. 25 Issue 6, pp.521-537

Roy, Abhik; Tai, Susan T. C. (2003), Store Environment and Shopping Behavior: The Role of Imagery Elaboration and Shopping Orientation, *Journal of International Consumer Marketing*, Vol. 15 Issue 3, p.71

Shiffman, Leon; Leslie Kanuk (2007), *Consumer Behavior*, 9th Edition, Prentice Hall

Spangenberg, Eric R.; Crowley, Ayn E.; Henderson, Pamela W. (1996), Improving the Store Environment: Do Olfactory Cues Affect Evaluations and Behaviors?, *Journal of Marketing*, Vol. 60, pp.67-60

Summers, Teresa A.; Hebert, Paulette R. (2001), Shedding Some Light on Store Atmospherics Influence of Illumination on Consumer Behavior, *Journal of Business Research*, Vol. 54, pp.145– 150

Tai, Susan H.C; Fung, Agnes M.C (1997), Application of an Environmental Psychology Model to In-Store Buying Behaviour, *The International Review of Retail, Distribution and Consumer Research*, Vol. 7 Issue 4, pp.311-336

Tax, Stephen S.; Stuart, Ian (1997), Designing and Implementing New Services: The Challenges of Integrating Service Systems, *Journal of Retailing*, Vol. 73, No1, pp.105-34

Zimmer, Mary R ( 1988), Impressions of Retail Store: A Content Analysis of Consumer Images, *Journal of Retailing*, Vol. 64 Issue 3, pp.235

# 7 Appendices

## 7.1 Appendix A. – Questionnaire in English

### INQUIRY TO THE MEMBERS OF THE HEALTH CLUB, UNIVERSALBODIES

*The purpose of this study is essentially to analyze how consumers are influenced by a Health Club's environment and the impact of this environment when it comes to the Club choice criteria.*

*In average, the reading and answering of each one of the questions is done in 10 to 15 seconds, in which the total time to fill in the questionnaire varies between 9 to 14 minutes.*

*This questionnaire is part of a research for a master's thesis done by a student in the ISCTE Business School. I would like to highlight that your cooperation is crucial to the success of the ongoing investigation.*

**The information collected will be treated with confidentially thereby ensuring its anonymity.**

**Note:** There are no right or wrong answers, therefore your sincerity will be deeply appreciated.

**A – DESIGN**

1. Do you regard the space provided to you by your Health Club sufficient?
   a. Yes
   b. No

2. How do you classify the space/comfort ratio in your Health Club?

| Very weak | | | | | Excellent |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

3. What importance do you give to the "space" factor when choosing a Health Club?

| No importance | | | | | A lot of importance |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

4. The space attributed to the parking lot according to your ideas for the Health Club.

| Totally disagree | | | | | Totally agree |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

5. What importance do you give to the “space in the parking lot” factor when choosing a Health Club?

| No importance | | | | | A lot of importance |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

6. How do you classify the Health Club’s facilities?

| Not comfortable | | | | | Very comfortable |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

7. What importance do you give to the “comfort of the Health Club’s facilities” factor when choosing a Health Club?

| No importance | | | | | A lot of importance |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

8. How do you classify the Health Club’s layout?

| Not nice | | | | | Very nice |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

9. What importance do you give to the “layout” factor when choosing a Health Club?

| No importance | | | | | A lot of importance |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

10. How do you classify the materials used by your Health Club in terms of quality?

| Low | | | | | High |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

11. What importance do you give to the “material quality” factor when choosing a Health Club?

| No importance | | | | | A lot of importance |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

12. How do you classify the architecture used by your Health Club?

| Not appealing | | | | | Very appealing |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

13. What importance do you give to the “architecture” factor when choosing a Health Club?

| No importance | | | | | A lot of importance |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

14. How do you classify the interior design used by your Health Club?

| Not modern | | | | | Very modern |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

15. What importance do you give to the “interior design” factor when choosing a Health Club?

| No importance | | | | | A lot of importance |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

16. In your opinion, does the Health Club gain more value because of the fact that it has a snack bar?
    a. Yes
    b. No

17. What importance do you give to the “snack bar” factor when choosing a Health Club?

| No importance | | | | | A lot of importance |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

18. Globally, how do you classify the Health Club’s design?

| Bad | | | | | Excellent |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

## B – AMBIENT

19. How do you classify the smell of your Health Club?

| Not pleasant | | | | | Very pleasant |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

20. What importance do you give to the “smell” factor when choosing a Health Club?

| No importance | | | | | A lot of importance |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

21. How do you classify the lighting of your Health Club?

| Not nice | | | | | Very nice |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

22. What importance do you give to the “lighting” factor when choosing a Health Club?

| No importance | | | | | A lot of importance |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

23. How do you classify the hygiene of your Health Club?

| Not hygienic | | | | | Very hygienic |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

24. What importance do you give to the “hygiene” factor when choosing a Health Club?

| No importance | | | | | A lot of importance |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

25. How do you classify the temperature of your Health Club?

| Not adequate | | | | | Very adequate |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

26. What importance do you give to the "temperature" factor when choosing a Health Club?

| No importance | | | | | A lot of importance |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

27. How do you classify the background music used by your Health Club?

| Not nice | | | | | Very nice |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

28. What importance do you give to the "background music" factor when choosing a Health Club?

| No importance | | | | | A lot of importance |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

29. How do you classify the background noise level in your Health Club?

| Not acceptable | | | | | Very acceptable |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

30. What importance do you give to the "background noise level" factor when choosing a Health Club?

| No importance | | | | | A lot of importance |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

31. How do you classify the visual signs (e.g.: WC, entrances, exits) in your Health Club?

| Not helpful | | | | | Very helpful |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

32. What importance do you give to the "visual signs" factor when choosing a Health Club?

| No importance | | | | | A lot of importance |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

33. How do you classify the colour scheme in your Health Club?

| Not attractive | | | | | Very attractive |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

34. What importance do you give to the "colour scheme" factor when choosing a Health Club?

| No importance | | | | | A lot of importance |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

35. Globally, how do you classify the Health Club's ambient?

| Bad | | | | | Excellent |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

## C – SOCIAL

36. In your opinion, do you consider the nº of employees of your Health Club sufficient to promote a good service?
    a) Yes
    b) No

37. Do you consider the nº of employees of a Health Club important to promote a good service?
    a) Yes
    b) No

38. How do you classify the service provided by:

| | Bad | | | | | Excellent |
|---|---|---|---|---|---|---|
| Receptionists | 1 | 2 | 3 | 4 | 5 | 6 |
| Bar ladies | 1 | 2 | 3 | 4 | 5 | 6 |
| Instructors | 1 | 2 | 3 | 4 | 5 | 6 |
| Coordinators | 1 | 2 | 3 | 4 | 5 | 6 |
| Cleaning and maintenance dep. | 1 | 2 | 3 | 4 | 5 | 6 |
| Administration | 1 | 2 | 3 | 4 | 5 | 6 |

39. What importance do you give to the "service provided by the employees" factor when choosing a Health Club?

| No importance | | | | | A lot of importance |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

40. How do you classify the employee's image in your Health Club?

| Untidy and scruffy | | | | | Neat and well dressed |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

41. What importance do you give to the employee's image when choosing a Health Club?

| No importance | | | | | A lot of importance |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

42. How do you classify the employee's friendliness in your Health Club?

| Not friendly | | | | | Very friendly |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

43. What importance do you give to the employee's friendliness when choosing a Health Club?

| No importance | | | | | A lot of importance |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

44. How do you classify the member's image in your Health Club?

| Untidy and scruffy | | | | | Neat and well dressed |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

45. What importance do you give to the member's image when choosing a Health Club?

| No importance | | | | | A lot of importance |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

46. How do you classify the member's friendliness in your Health Club?

| Not friendly | | | | | Very friendly |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

47. What importance do you give to the member's friendliness when choosing a Health Club?

| No importance | | | | | A lot of importance |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

48. Globally, how do you classify the Health Club's service quality?

| Bad | | | | | Excellent |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

## D- PRCE

49. Which of the following is your card?

| | |
|---|---|
| Aquabodies Platinium | ☐ |
| Aquabodies Gold | ☐ |
| Platinium | ☐ |
| Gold | ☐ |
| Terra | ☐ |
| Light | ☐ |
| Cartão C | ☐ |

50. How do you classify the prices of your Health Club?

| Very expensive | | | | | Acceptable |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

51. In your opinion, is the investment worth it?
    a. Yes
    b. No
52. How do you classify the service quality/price ratio?

| Very unbalanced | | | | | Very balanced |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

53. Do you intend to renew your contract?
    a. Yes
    b. No

54. On a scale from 1 to 6, how do you rate your global satisfaction with your Health Club?

| Not Satisfied | | | | | Very Satisfied |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

## D- PERSONAL INFORMATION

55. Age:

| | |
|---|---|
| 18 a 20 | ☐ |
| 21 a 30 | ☐ |
| 31 a 40 | ☐ |
| 41 a 50 | ☐ |
| 51 a 60 | ☐ |
| ≥60 | ☐ |

56. Gender:

| | |
|---|---|
| Masculine | ☐ |
| Feminine | ☐ |

57. Income (in €):

| | |
|---|---|
| <400 | ☐ |
| 400 a 600 | ☐ |
| 601 a 800 | ☐ |
| 801 a 1000 | ☐ |
| 1001 a 1500 | ☐ |
| >1501 | ☐ |

**Thank you for your cooperation.**

## 7.2 Appendix B. – Questionnaire in Portuguese

# INQUÉRITO AOS MEMBROS DO *HEALTH CLUB* UNIVERSALBODIES

*Este projecto tem como objectivo analisar a influência das percepções do ambiente, do design e do serviço prestado pelos colaboradores na escolha de um Health Club, estudando as motivações e os principais critérios de escolha de um Health Club.*

*Em média, a leitura e a resposta a cada uma das afirmações em análise é feita em 10 a 15 segundos, pelo que o tempo total para preenchimento do questionário varia entre 9 a 14 minutos.*

*O presente questionário insere-se numa investigação para uma tese de mestrado realizada por uma aluna do ISCTE Business School. Gostaria de sublinhar que a sua colaboração é decisiva para o sucesso da investigação em curso.*

**Os dados recolhidos serão tratados confidencialmente assim garantindo o seu anonimato.**

**Nota importante:** Neste questionário não há respostas certas nem erradas, apenas se pretende que responda da forma mais sincera possível.

## A – DESIGN

1. Considera que o espaço facultado pelo seu ginásio para praticar exercício é suficiente para si?
   a. Sim
   b. Não

2. Como é que classifica o rácio espaço/conforto no ginásio?

| Muito fraco | | | | | Excelente |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

3. Qual é o grau de importância do factor "espaço" para si no que diz respeito à escolha de um *Health Club*?

| Nenhuma importância | | | | | Muito importante |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

4. O parque de estacionamento está de acordo com as suas ideias do espaço que de um *Health Club* devia ter.

| Discordo totalmente | | | | | Concordo totalmente |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

5. Qual é o grau de importância do factor "espaço no parque de estacionamento" para si no que diz respeito à escolha de um *Health Club*?

| Nenhuma importância | | | | | Muito importante |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

6. Como classifica as instalações do ginásio?

| Pouco confortáveis | | | | | Muito confortáveis |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

7. Qual é o grau de importância do factor "conforto das instalações" para si no que diz respeito à escolha de um *Health Club*?

| Nenhuma importância | | | | | Muito importante |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

8. Como classifica o *layout* do ginásio?

| Pouco agradável | | | | | Muito agradável |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

9. Qual é o grau de importância do factor "*layout*" no que diz respeito à escolha de um *Health Club*?

| Nenhuma importância | | | | | Muito importante |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

10. Como classifica os materiais utilizados do seu ginásio a nível de qualidade?

| Baixa qualidade | | | | | Alta qualidade |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

11. Qual é o grau de importância do factor "qualidade dos materiais" no que diz respeito à escolha de um *Health Club*?

| Nenhuma importância | | | | | Muito importante |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

12. Como classifica a arquitectura do ginásio?

| Pouco apelativa | | | | | Muito apelativa |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

13. Qual é o grau de importância da arquitectura no que diz respeito à escolha de um *Health Club*?

| Nenhuma importância | | | | | Muito importante |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

14. Como classifica o design interior do ginásio?

| Pouco moderno | | | | | Muito moderno |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

15. Qual é o grau de importância do design interior no que diz respeito à escolha de um *Health Club*?

| Nenhuma importância | | | | | Muito importante |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

16. Na sua opinião, o facto de o ginásio ter um *snack bar* acrescenta valor ao ginásio?
    a. Sim
    b. Não

17. Qual é o grau de importância do *snack bar* no que diz respeito à escolha de um *Health Club*?

| Nenhuma importância | | | | | Muito importante |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

18. De um modo geral, como classifica o design do ginásio?

| Péssimo | | | | | Excelente |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

## B – AMBIENTE

19. Como classifica o odor do interior do ginásio?

| Pouco agradável | | | | | Muito Agradável |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

20. Qual é o grau de importância do odor no que diz respeito à escolha de um *Health Club*?

| Nenhuma importância | | | | | Muito importante |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

21. Como classifica a iluminação do ginásio?

| Pouco agradável | | | | | Muito Agradável |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

22. Qual é o grau de importância da iluminação no que diz respeito à escolha de um *Health Club*?

| Nenhuma importância | | | | | Muito importante |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

23. Como classifica a limpeza do ginásio?

| Má | | | | | Boa |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

24. Qual é o grau de importância do factor limpeza no que diz respeito à escolha de um *Health Club*?

| Nenhuma importância | | | | | Muito importante |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

25. Como classifica a temperatura no interior do ginásio?

| Pouco agradável | | | | | Muito Agradável |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

26. Qual é o grau de importância do factor "temperatura" no que diz respeito à escolha de um *Health Club?*

| Nenhuma importância | | | | | Muito importante |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

27. Como classifica a música de fundo do ginásio?

| Pouco agradável | | | | | Muito Agradável |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

28. Qual é o grau de importância do factor "música de fundo" no que diz respeito à escolha de um *Health Club*?

| Nenhuma importância | | | | | Muito importante |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

29. Como classifica o ruído de fundo do ginásio?

| Não é aceitável | | | | | Muito Aceitável |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

30. Qual é o grau de importância do factor "não ter ruído de fundo" no que diz respeito à escolha de um *Health Club*?

| Nenhuma importância | | | | | Muito importante |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

31. Como classifica os sinais visuais (ex: WC, entradas, saídas, etc.) do ginásio?

| Nada útil | | | | | Muito útil |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

32. Qual é o grau de importância do factor "sinais visuais" no que diz respeito à escolha de um *Health Club*?

| Nenhuma importância | | | | | Muito importante |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

33. Como classifica o esquema de cores utilizadas pelo ginásio?

| Pouco atraente | | | | | Muito atraente |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

34. Qual é o grau de importância do factor "esquema de cores" no que diz respeito à escolha de um *Health Club*?

| Nenhuma importância | | | | | Muito importante |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

35. De um modo geral, como classifica o ambiente do ginásio?

| Péssimo | | | | | Excelente |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

## C – SOCIAL

36. No seu ponto de vista considera que o nº de colaboradores do ginásio é suficiente para promover um bom serviço?
    a) Sim
    b) Não

37. Considera o nº de colaboradores do ginásio é importante para promover um bom serviço?
    a) Sim
    b) Não

38. Como é que classifica o serviço prestado pelos (as):

| | Péssimo | | | | | Excelente |
|---|---|---|---|---|---|---|
| Recepcionistas | 1 | 2 | 3 | 4 | 5 | 6 |
| *Bar lady* | 1 | 2 | 3 | 4 | 5 | 6 |
| Professores | 1 | 2 | 3 | 4 | 5 | 6 |
| Coordenadores | 1 | 2 | 3 | 4 | 5 | 6 |
| Pessoal de limpeza e manutenção | 1 | 2 | 3 | 4 | 5 | 6 |
| Administração | 1 | 2 | 3 | 4 | 5 | 6 |

39. Qual é o grau de importância do serviço prestado pelos colaboradores do ginásio no que diz respeito à escolha de um *Health Club*?

| Nenhuma importância | | | | | Muito importante |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

40. Como é que classifica a imagem dos colaboradores do ginásio?

| Pouco arrumado e mal vestido | | | | | Muito arrumado e bem vestido |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

41. Qual é o grau de importância da imagem dos colaboradores no que diz respeito à escolha de um *Health Club*?

| Nenhuma importância | | | | | Muito importante |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

42. Como classifica a simpatia dos colaboradores do ginásio?

| Pouco simpáticos | | | | | Muito simpáticos |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

43. Qual é o grau de importância da simpatia dos colaboradores no que diz respeito à escolha de um *Health Club*?

| Nenhuma importância | | | | | Muito importante |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

44. Como classifica a imagem dos outros sócios frequentadores do ginásio?

| Pouco arrumado e mal vestido | | | | | Muito arrumado e bem vestido |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

45. Qual é o grau de importância da imagem dos outros sócios no que diz respeito à escolha de um *Health Club*?

| Nenhuma importância | | | | | Muito importante |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

46. Como classifica a simpatia dos outros sócios do ginásio?

| Pouco simpáticos | | | | | Muito simpáticos |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

47. Qual é o grau de importância da simpatia dos outros sócios no que diz respeito à escolha de um *Health Club*?

| Nenhuma importância | | | | | Muito importante |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

48. De um modo geral, como classifica a qualidade do serviço do ginásio?

| Péssimo | | | | | Excelente |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

## D- PREÇO

49. Qual é o cartão que possui?

| | |
|---|---|
| Aquabodies Platinium | ☐ |
| Aquabodies Gold | ☐ |
| Platinium | ☐ |
| Gold | ☐ |
| Terra | ☐ |
| Light | ☐ |
| Cartão C | ☐ |

50. Como classifica os preços praticados pelo ginásio?

| Muito Caros | | | | | Muito acessíveis |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

51. Na sua opinião vale a pena o investimento que tem feito no seu ginásio?
    a) Sim
    b) Não

52. Como classifica o rácio qualidade serviço/preço no ginásio?

| Muito desequilibrado | | | | | Muito equilibrados |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

53. Pretende renovar o seu contracto?
    a) Sim
    b) Não

54. Numa escala de 1 a 6, como classifica a sua satisfação global com o seu ginásio?

| Insatisfeito | | | | | Muito Satisfeito |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

## D- DADOS PESSOAIS

55. Idade:

| | |
|---|---|
| ≤20 | ☐ |
| 21 a 30 | ☐ |
| 31 a 40 | ☐ |
| 41 a 50 | ☐ |
| 51 a 60 | ☐ |
| ≥60 | ☐ |

56. Sexo:

| | |
|---|---|
| Masculino | ☐ |
| Feminino | ☐ |

57. Rendimento (em €):

| | |
|---|---|
| <400 | ☐ |
| 400 a 600 | ☐ |
| 601 a 800 | ☐ |
| 801 a 1000 | ☐ |
| 1001 a 1500 | ☐ |
| >1501 | ☐ |

**Muito obrigado pela sua colaboração.**

## 7.3 Appendix C. – Torres Vedras Resident Population

Statistical table extracted on May 23, 2009 (18:27:22)

| Sex | Age group (by life cycles) | Resident population (No.) by Place of residence, Sex and Age group (by life cycles) |
|---|---|---|
| | | Data reference period |
| | | 2007 |
| | | Place of residence |
| | | Torres Vedras |
| | | 16B1113 |
| | | No. |
| MF | Total | 65319 |
| | 15 - 24 years | 8697 |
| | 25 - 64 years | 42604 |
| | 65 and more years | 14018 |
| M | Total | 31711 |
| | 15 - 24 years | 4414 |
| | 25 - 64 years | 21191 |
| | 65 and more years | 6106 |
| F | Total | 33608 |
| | 15 - 24 years | 4283 |
| | 25 - 64 years | 21413 |
| | 65 and more years | 7912 |

Resident population (No.) by Place of residence, Sex and Age group (by life cycles) - Annual; Statistics Portugal, Annual estimates of resident population

This data last updated: May 29, 2008

**Font: http://www.ine.pt**