

**Management of social and environmental responsibility policies in sports organizations**

A case study of Sport Lisboa e Benfica

Tomás de Oliveira Vargas Carolino

Master's in Management of Services and Technology

Supervisor:

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PhD Teresa Sofia Grilo, Assistant Professor ISCTE Business School, Department of Marketing, Operations and Global Management

November 2021



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## Abstract

The over-exploitation of resources has led to global environmental concerns such as climate change, threats to species and scarcity of natural resources. Companies are pursuing sustainable development goals that benefit themselves and the environment, including sports organizations with high visibility and influence in society. Circular economy is proved to be an effective way to minimize the negative impact of consumption on the environment.

The sports industry represents a business on a global scale with high economic, financial, fiscal, commercial, and media impact, but also demonstrates a human activity with enormous social, cultural, and sporting importance in contemporary societies.

Therefore, the objective of this case study is to understand the measures implemented at the sustainability and social responsibility level of *Sport Lisboa e Benfica* and to evaluate the availability and interest to implement others. This information was acquired through a semi-structured interview with nine members of the organization, including directors and athletes. From this came important outputs for designing the questionnaire.

The present study used an extended version of the Theory of Planned Behaviour, in which it was included two additional constructs to measured consumer green purchase intention and behaviour. To assess the willingness of supporters to adopt sustainable measures, as well as their recycling habits, an online questionnaire was conducted. 104 responses were obtained, in which the data was then analysed using IBM SPSS and AMOS.

Through this mixed approach, it is possible to acquire important conclusions and make recommendations at the end of the case study.

**Keywords:** Corporate Social Responsibility, Circular Economy, Sustainability, Sports Organization, Reusable Cups, Single-use Plastics, Recycling

**JEL Classification System:**

Q56 -Environment and Development, Sustainability; M14- Corporate Culture, Diversity, Corporate Responsibility; Y40- Dissertations

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## Resumo

A exploração excessiva dos recursos levou a preocupações ambientais globais como as alterações climáticas, as ameaças às espécies e a escassez de recursos naturais. As empresas perseguem objetivos de desenvolvimento sustentável que beneficiam a si próprias e o ambiente, incluindo organizações desportivas com grande visibilidade e influência na sociedade. A economia circular provou ser uma forma eficaz de minimizar o impacto negativo do consumo sobre o ambiente.

A indústria do desporto representa um negócio à escala global com elevado impacto económico, financeiro, fiscal, comercial e mediático, mas também demonstra uma atividade humana com enorme importância social, cultural e desportiva nas sociedades contemporâneas.

O objetivo deste estudo de caso é compreender as medidas implementadas ao nível da sustentabilidade e responsabilidade social do Sport Lisboa e Benfica e avaliar a disponibilidade e o interesse em implementar outras. Esta informação foi adquirida através de uma entrevista semiestruturada com nove membros da organização, incluindo diretores e atletas. Daqui resultaram resultados importantes para a conceção do questionário.

O presente estudo utilizou uma versão alargada da Teoria do Comportamento Planeado, na qual foram incluídos dois construtos adicionais para medir a intenção e o comportamento de compra verde do consumidor. Para avaliar a vontade dos adeptos de adotar medidas sustentáveis, bem como os seus hábitos de reciclagem, foi conduzido um questionário online. Foram obtidas 104 respostas, sendo os dados posteriormente analisados utilizando o IBM SPSS e AMOS.

Através desta abordagem mista, é possível obter conclusões importantes e fazer recomendações no final do estudo de caso.

**Palavras-chave:** Responsabilidade Social Corporativa, Economia Circular, Sustentabilidade, Organizações Desportivas, Copos Reutilizáveis, Plásticos de uso único, Reciclagem

### **Códigos de Classificação JEL:**

Q56 -Meio Ambiente e Desenvolvimento, Sustentabilidade; M14- Cultura Corporativa, Diversidade, Responsabilidade Social; Y40- Dissertações

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## **Glossary**

ATT- Attitude

BB- Behavioural Belief

CB- Control Belief

CE- Circular Economy

CSR- Corporate Social Responsibility

EU- European Union

H- Hypothesis

MC- Motivation to Comply

NB- Normative Belief

OE- Outcome Evaluation

PBC- Perceived Behavioural Control

PI- Purchase Intention

PB- Purchase Behaviour

PP- Perceived Power

PV- Perceived Power

SN- Subjective Norm

SUP- Single-use Plastics

TPB- Theory of Planned Behaviour

TRA- Theory of Reasoned Action

UN- United Nations

WPM- Willingness to Pay More

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# **1. Introduction**

## **1.1 Research Motivation**

This project derives from one of my passions, namely sports and the sports industry itself. My main motivation was the opportunity to combine this interest with the possibility of taking on one of the biggest challenges on a global scale, which is pollution caused by the excessive use of plastics, developing a project that might have significant relevance in the habits of thousands of people and thereby implement a culture of environmental and social concern in sports organizations was my main motivation.

In this chapter, I will present an overview of the use of reusable cups and other recyclable products for incorporating smart and sustainable strategies in the sport industry. Besides the environmental aspect, sports organizations face increasing pressure to drive revenue but also have an ethical obligation to act in social interests.

## **1.2 Research framework and research opportunity**

With increasing environmental concerns, actions have been taken against the problem of overuse and disposal of plastic around the world. In Europe, the main challenge that has been faced is the sustainable fate of products with low recovery rates, such as single-use plastics (SUP). Over the years, measures have been taken that have had a positive impact on this problem. In 1950, the world produced “only” 2 million tons per year (Ritchie & Roser, 2018). Since then, annual production has increased, reaching around 365 million tons worldwide in 2019 (Statista, 2020) and is estimated to reach 33 billion tons by 2050 (Almeida, Sousa & Guedes Vaz, 2019). Among many other factors, the purchase of about 1 million plastic bottles per minute worldwide contributes to these high figures (Wallinger, 2018). These numbers are frightening and demonstrate the gravity and the plastic footprint that is forming around the world. According to the UN, this is the most significant environmental challenge of the 21st century (Almeida et al., 2019).

One of the most significant examples is the consumption of SUP bags. Nevertheless, in this regard, two positive factors need to be considered: (i) a 49% decrease in SUP bag production in 2019 compared to 2010 and (ii) the foreseeable reduction of the maximum average number of bags used per person in 2025 (40 units/person/year compared to 176 in 2010). This decrease was possible through the introduction of fees on their consumption.

In addition, as part of a sweeping law against plastic waste, European Union (EU) has voted to ban, by the year of 2021, cutlery, cotton buds, straws and stirrers made of plastic (European Parliament, 2019). Besides that, an additional investment is estimated to stimulate innovative transformation in the plastics value chain, thus allowing the usage of circular economy (Almeida et al., 2019).

All industries are confronted with the need to implement environmental measures and the sport industry is no exception. Being one of the most popular forms of cultural participation, overcoming cultural barriers such as language, religion, geographical boundaries, or manifestations of nationalism, it has an increased responsibility and an even more significant impact on society. Moreover, almost all professional organizations and sports teams are viewed as influential members of the global community and, as such, these organizations have an increased responsibility in matters related to social and environmental concerns, as they can influence the behaviour adopted by the citizens.

Taking on plastic waste is vital to the environmental performance improvement of sports events, which means taking steps from the outset to reduce excessive consumption of this type of waste - reducing SUP items such as cups, straws, disposable packaging, cutlery and plastic bottles. In addition to reducing plastic waste production and consumption to a minimum, it is necessary to work towards keeping products, materials, and resources in the economy for as long as possible. These foundations meet a new production model and consumption of goods and services linked to sustainability. It is in this sense and intending to implement circular economy measures that this case study arises.

For that matter, strategies will be proposed for greater control of SUP consumption and SUP waste management in major Portuguese sports events. It is possible to achieve this goal and avoid situations like those experienced at the London Marathon with 750,000 water bottles collected during the event (University of Gloucestershire, 2018); at the Premier League, where six million plastic cups were thrown away in one single season (Edie, 2020); or at the Super Bowl, one of world's biggest sports events, that produced 40 million tons of plastic garbage in a single day (Environmental Leader, 2020).

All this brings an added responsibility to sports organizations where social and environmental initiatives are introduced to achieve organizational ends (Walzel, Robertson, & Anagnostopoulos, 2018). Hence, numerous initiatives have been developed to address pertinent issues, bearing in mind two significant initiatives: i) reducing their ecological footprint, and ii) contributing to the welfare of society, by using the power and popularity of sports as a means to promote and raise environmental and social awareness.

Although environmental measures are starting to be taken by the whole sport industry (Babiak & Trendafilova, 2011), Bundesliga (the German football league) deserves to be studied since it is the second most viewed league in the world behind the NFL (National Football League). In the season before the COVID-19 pandemic, according to the data presented at *transfermarkt*, in 2018/2019 a total of 13.300

million people visited the 306 matches, at an average of 43.467 per game). Bundesliga best practices are somewhat followed by the supporters, proving that sports could be an example to be followed by others when the environment is concerned.

Besides that, Germany is the country that consumes more plastic in Europe (24.2% of total Europe's consumption). Still, it also stands out as the fourth country that recycles the most plastic packaging, with almost 50% of its products being recycled. From 2006 to 2018, the numbers related to recycling increased by 80%, energy recovery increased by 73% and the practice of landfill decreased by 80%. (PlasticsEurope, 2020)

A remarkable environmental measure used by the Bundesliga is the sale of combined tickets that can be used both for entering to the stadium, as well as for using free public transportation on match days. This is an ecological measure designed to reduce emissions related to individual transportation, but also a social measure that allows fans money to save money whenever travelling to matches. Another measure implemented by five teams was the installation of solar panels in stadiums. Furthermore, clubs are purchasing green electricity. One of those clubs (FSV Mainz 05) implemented a photovoltaic solar roof system on the roof of its OPEL ARENA, saving 470 tons of CO<sub>2</sub> per year (Deutsche Welle, 2020).

Some changes in organizational practices regarding the use of plastics in stadiums have been applied. According to Deutsche Welle (2020) reports, clubs as Werder Bremen, Union Berlin, Borussia Monchengladbach and Bayer 04 Leverkusen are examples important to stress of best practices that deserve to be mentioned. Another curious example occurs at FC Schalke 04's Veltins Arena, where the used plastic cups are gathered after the matches, treated and transformed into granulate, used to produce new cups. The used dishwashers are water-saving, and additionally, a particular process is applied to generate water from all the food waste.

Compared to the rest of Europe, Portugal is about halfway in terms of plastic demand (it is worth noting a decrease from 2018 to 2019), or in terms of packaging recycling with the value of 40%, slightly below the European average of 42% (PlasticsEurope, 2020). Still, 721 million plastic bottles, 259 million disposable cups, one billion straws and 40 million disposable packages are consumed per year in Portugal (Jornal i, 2019).

The present case study arose from the urgent need to change the unrecovered plastic scenario in Portuguese sports organizations and events, enabling a different and sustainable economic, social and environmental approach to deal with this issue.

The Corporate Social Responsibility (CSR) concept i.e., the "*actions by companies over and above their legal obligations towards society and the environment*" (European Commission, 2011), is linked with

the triple Sustainability viewpoint. It aligns with Davis' definition (1973) which explicitly includes the stakeholders' interest over shareholders' interest. Moreover, within a framework for enhancing corporate identity, image and reputation, it must consider the CSR role.

Regarding the Bundesliga, in terms of CSR, 12 of 18 German clubs have created specific institutions/foundations with the most varied responsibilities towards society (Reiche, 2014), which is also already happening in some Portuguese clubs. A survey conducted by Intercampus (Observador, 2019) shows that 94.5% of Portuguese aged above 18 are supporters of Sport Lisboa e Benfica (46%), Futebol Clube do Porto (24.7%) and Sporting Clube de Portugal (23.8%). It is precisely in those clubs that various social activities have been promoted, such as material and financial donations, voluntary activities and regular presences at social solidarity institutions, schools and hospitals (Fundação Benfica, 2020; Fundação Sporting, 2020). Given the above percentages, it's possible to conclude that those three institutions have a positive impact on society.

Thus, the status quo of Portuguese sports companies and organizations related to CSR should be questioned, evaluated, and improved, aiming to develop effective and positive measures and management procedures that impact the way CSR policies are developed and applied.

The above framework offers a new research opportunity addressing: (i) sustainable measures and positive measures and managerial procedures in sports organizations in Portugal that can have an impact on the environment; and (ii) a way to connect the same procedures and measures to CSR policies.

The case study focuses on how environmental and sustainable solutions are being considered in sports facilities and organizations, in particular *Sport Lisboa e Benfica*, and how to currently assess and apply a specific approach in developing a progressive shift towards management policies and approaches in a Circular Economy perspective, thus making the organization more sustainable. This shift towards a greener organizational behaviour is particularly pertinent in sports events that have massive audiences with the presence of thousands of supporters where the practice of more sustainable policies would have a more significant impact. Implementing this practice in the organization contravenes the current linear economic model, defined as "take-make-dispose" (Sariatti, 2013), in which goods are manufactured from raw materials, sold, used, and then disposed of as waste. It is important to change the economic paradigm for a circular economy, with better waste management and where a high recycling rate is key for this transition.

The possibility of studying such an important topic today and being able to complement two components such as environmental sustainability and social responsibility in the sports industry, in which I have always been very interested, were the decisive factors that triggered my choice of this theme. This theme has been the basis for the objectives and research questions, which will be the basis of the whole investigation.



### **1.3 Research Objectives**

Given the crucial role of large organizations in the implementation of circular economy practices; given the challenges that governments and public and private companies face on a daily basis to meet a more sustainable agenda; given the enormous opportunities to improve the efficiency of natural resources used and to increase the quality of products reused, it seems important to propose environmental and social sustainable strategies/policies based on Circular economy concepts aiming at an evolution of sports organizations towards a more sustainable sector.

Thus, the objectives of this research are as follows:

- **O1.** Assess the social responsibility (CSR) and the current state of environmentally and socially sustainable solutions/policies currently implemented in the organization.
- **O2.** Analyse the willingness to change to environmentally and socially sustainable solutions/policies within *Sport Lisboa e Benfica*.
- **O3.** Assess if social and environmental policies in a sports organization represents a factor of differentiation and recognition by society.
- **O4.** Create a sustainable organizational management model that combines social responsibility with its sustainability goals. In this sense, recommendations of environmentally and socially sustainable strategies will be made in the end of this case study, based on Circular Economy concept.

### **1.4 Problem to address and Research Questions**

The present case study focuses on the policy changes that could be implemented in a sportif organization to decrease the plastic footprint. This change will promote an adaptation in the organization in general, but also within supporters.

For the organization, it implies finding strategies to change the consumption of SUP, starting by using non-disposable cups and providing containers for other disposable plastic items.

To this end, it is necessary to address four relevant factors:

1. Environmentally and socially sustainable solutions.
2. Replace the use of SUP with durable, reusable and recyclable materials.
3. Influence/pressure of internal and external stakeholders.

4. Openness to develop partnerships with companies focused in reinforcing circular economy policies.

The research questions have been defined after taking into consideration the objectives that this research aims to achieve. In particular, the following research questions will be explored:

**RQ 1:** What is the current state of environmental and social sustainable solutions currently implemented within sports organization?

**RQ 2:** Do sports organizations address plastic footprint, and CSR improvement, revealing their actions?

**RQ 3:** How available and interested are sports organizations in replacing the use of SUP by durable, reusable, and recyclable materials in particular?

**RQ 4:** How much influence do internal and external stakeholders have concerning the adoption of environmentally and socially sustainable solutions?

**RQ 5:** How available and interested are sports organizations in developing partnerships with companies focused on reinforcing circular economy policies?

**RQ 6:** What are the determinants that affect the most the intention to purchase green products, in particular, reusable cups?

**RQ 7:** In what ways would supporters be willing to change their habits in order to promote environmental sustainability and social responsibility in the sports organization?

## **1.5 Methodological Approach**

Different methods exist to gather information, all of which fall into two categories, primary data which are collected for the first time by the researcher and secondary data, meaning data already collected or produced by others.

The project will be based on a large sports organization that can contribute to environmental well-being and promote social responsibility. It will be focused on how environmental and sustainable solutions are being considered in sports facilities and organizations. A mixed approach was used to assess and apply the circular economy concept.

The first approach to research was made through an interview, a method that serves primarily to understand the reasons and motivations underlying people's attitudes, preferences or behaviour. This interview can generally be conducted on a personal or group basis, but in this project, will only include

personal interviews. The objective is to evaluate what is done today in terms of sustainability and the willingness of the organization to adopt more circular economy-oriented measures and practices.

This change is particularly pertinent in large sports events, with thousands of supporters where more sustainable policies would have a more significant impact. The analysis of these interviews led to a second research tool: a questionnaire. It is an observation technique that comprises a series of items, some of them resulting from the conclusions drawn from the interviews, presented to a respondent via online. A questionnaire was conducted to analyse the supporters recycling habits.

After completing both the interview and the questionnaire, measures will be suggested to meet the conclusions drawn in terms of sustainability and, if possible, to make a link with CSR measures more focused on the welfare of society.

## 1.6 Thesis Structure

As in any project, the **Title** is the first impression that the reader will have of the work. Thus, it is essential to have time to define a succinct, specific and representative title of the themes that will be approached throughout the work.

Then, as it should be, there are the **Acknowledgements**, a page to thank those who contributed to the success of this project. Before the thesis begins there is also an **Executive Summary** and a table of content. Executive Summary serves to provide the reader with a first close-up view of the research project. It allows an understanding of the leading knowledge and conclusions of the research, without having to read the rest of the report.

1. In the **Introduction** there is the theme discussed in the thesis, and its importance and also relevant information about the context in which the project will be developed and the opportunities that arise from it. It also includes the research objectives, the research questions and finally, the methodology used to obtain the intended results.
2. The **Literature Review** supports the object being investigated through extensive analysis of articles from academic journals and books. At the end of this chapter, an empirical model is presented which will serve as a basis for developing the questionnaire making it possible to reach certain conclusions.
3. The **Methodology** chapter explains the types of approaches and the data collected, as well as the software needed to evaluate those.

4. The fourth chapter – **Data Analysis** - presents the obtained results defined previously in the methodology, as well as some discussion through the use of different statistical techniques.
5. **Conclusions** is the last chapter where the leading conclusions on this study will be disclosed. The research questions from the first chapter will be answered by conclusions made about the results and the assessment of the literature presented in the second chapter. Then, limitations of the investigation and suggestions for further research will also be presented.

## 2. Literature Review

### 2.1 Corporate Environmentalism

The research that has been carried out to prove the increasing pollution of our planet is increasing the concern of those who care about the environment. Adding to this growing awareness, management, marketing and strategic scholars have enhanced interest in the impact of organizations on the environment, and the need to develop new environmental resources and opportunities, such as specific cultural values, organizational arrangements and motivated and talented green human capital, as well as in developing environmental products and technological innovation (Martín-de-Castro, 2020).

The complexity of environmental issues requires a flexible and transparent decision-making process that considers different knowledge and values. To that end, an increasing number of stakeholders are involved and included in environmental decision-making (Reed, 2008).

Four factors that have an impact on corporate environmentalism have been identified: public concern (Banerjee, 2002), regulatory pressure (Banerjee, 2001), competitive advantage (Banerjee, Iyer & Kashyap, 2003) and top management commitment (Wijethilake, Munir & Appuhami, 2017). When it comes to public concern, consumers expect more from companies than just high-quality products, namely sustainable values and behaviours. Since a company's economic and financial situation is directly related to its customers, it must pay attention to their interests (Saleem et al., 2020). Stakeholder theory implies that all stakeholders are legitimate partners of the company, which means that it must consider the impact of the actions taken by all stakeholder groups (Banerjee, 2002).

A study conducted by Banerjee (2001) revealed that the more stringent environmental regulations an organization is subject to in each industry, the greater its response to the development and implementation of environmental strategies and measures. Besides that, early adoption of environmental measures is linked to a pre-emptive approach to competition, which creates added value for companies and a higher financial return (De Azevedo Rezende, Bansi, Alves & Galina, 2019). This requires the involvement of top management in the reality of sustainable practices within the company.

Due to the increasing consumption of materials, social pressure on environmental issues, stricter regulations and a higher level of competition, companies will have to take environmental considerations into account in their strategic planning and gradually switch to a circular economy (Borowski, 2021).

Several studies have investigated strategies for the recovery of wastes, particularly those made of plastic, since the widespread use of plastic material causes widespread pollution, affecting different eco-

system components. This situation has become a significant source of concern for governments, investors, and other stakeholders (Seltenrich, 2015). Aligned to this global reaction concerning the over-consumption of plastic, more and more companies are voluntarily changing from a linear economy to a circular economy, thus limiting global plastic pollution. Various efforts are codified by engaging global commitments, such as New Plastic Economy Global Commitment, and incorporating individual plastics strategies into sustainability reports. However, no critical analysis of whether these voluntary commitments can alleviate the plastic crisis and lead to the transformation towards a circular economy is made in sports organizations, mainly because they develop their activities with several stakeholders, including thousands of supporters. In any situation, plastic made materials are always present.

## **2.2 Environmental impact of plastic**

Plastic is a material discovered in the 20th century produced from natural, organic materials such as cellulose, coal, natural gas, salt and, of course, crude oil. Crude oil is a complex mixture of thousands of compounds and needs to be processed before it can be used. More than 300 types of plastics exist and those can be divided according to their utilization (Chen, Awasthi, Wei, Tan & Li, 2020).

Plastic packaging has been gaining popularity for sealing or protecting products during distribution, storage, sale, delivery, and use due to its lower price, lighter weight, ease of use and strength. High consumer demands have resulted in huge amounts of plastic waste that need to be managed for treatment and disposal (Jang et. al, 2020).

The current linear economy model also contributes to world plastic production reaching 360 million tons in 2018 and according to the MacArthur Foundation (2017), it is expected to double over the following two decades. The country that contributes most to these figures is China, the largest producer of plastic with about 30% of world production, while Europe produces about 17% (PlasticsEurope, 2019). In terms of plastic recycling rate in Europe, China, and the USA have rates of 30%, 25% and 9%, respectively (Rhodes, 2018).

Other characteristics of plastic are its resistance and durability, which in is more a curse than a blessing since it makes it difficult to have an efficient management through reuse, recycling, incineration and landfill. Those characteristics may have contributed to the production of about 6.3 billion tons of plastic waste between 1950 and 2015, of which 79% were stored in landfills or released directly into the environment, 9% were recycled and 12% incinerated (Rhodes, 2018).

Through the action of physical, chemical and biological factors, environmental plastic waste suffers degradation and disintegration processes, which results in small particles with less than 5 mm. better known as microplastics (MP) (Barnes, Galgani, Thompson, & Barlaz, 2009). The degradation of microplastics can only be assured through exposure to bacterial activity or UV radiation, otherwise they can “survive” in the environment for centuries (Lambert, Sinclair, Boxall A, 2014), which makes MP pollution one of the most widespread and long-lasting anthropogenic changes to the surface of our planet (Barnes et al., 2009).

A variety of human activities and environmental sources might contribute to soil contamination (Souza Machado et al., 2018), for example plastic mulches (Chen et al., 2019), contaminated water courses, atmospheric precipitation, and compost used as an agricultural amendment (Nizzetto, Bussi, Futter, Butterfield & Whitehead, 2016). The non-natural properties and persistence of microplastic terrestrial pollution might qualify these particles to be drivers of environmental changes (Souza Machado et al., 2018).

Approximately nine million tons of plastic waste end up in the ocean each year, threatening our ecosystems, wildlife and human health (National Geographic, 2018). Some threats of MP to the health of marine animals are the blockage and damage of digestive organs, reduced reproduction, impacts on metabolism and damages at organ, tissue and molecular levels (Peng et, al., 2019).

The human body is exposed to MP through ingestion of food containing microplastics, inhalation and by dermal contact. Fortunately, MP eaten by fish remains in the gut and does not migrate to the muscle tissues, which are usually the parts consumed by humans (National Geographic, 2018). However, over the years, MP degrades and disintegrates further, becoming smaller than 0.1 u.m and eventually becoming nanoplastic (NP), which can end up in cells and travel to tissues and organs (National Geographic, 2018). MP can cause respiratory diseases by inhalation and despite percutaneous exposure to MP is considered less important, NP can cross the skin barrier and cause more inflammatory reactions (Prata et. al, 2020).

To confront the SUP waste pollution problem and ease its impact on the environment a wide range of interventional actions have been taken. One of the possible solutions may be the implementation of circular economy, as will be presented in the figure below.

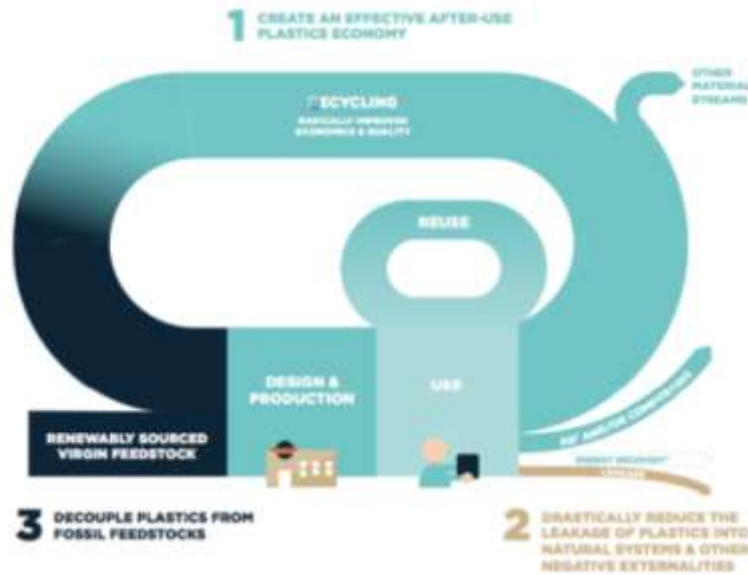


Figure 2.2 - Circular economy applied to plastic (Ellen MacArthur Foundation, 2017)

## 2.3 Circular Economy

The circular model assumes that, at the end of the useful life of products, they return to nature through waste or other forms with less environmental impact (Blomsma & Brennan, 2017). In practice it implies reducing waste to a minimum. In this model, through the valorisation of natural resources, in which waste is considered a resource, it is possible to reduce the costs associated to waste and the extension of the life cycle of products' life cycles. (Business Council for Sustainable Development [BCSD], 2020). Once the end of the life cycle of a given product is reached, the goal is to create more value for that product by maintaining it within the economy whenever possible so it can be used more than once. (European Parliament, 2019).

The rates of plastic recycling in each European country are presented in Figure below. It is possible to see that countries with landfill restrictions of recyclable and recoverable waste have, on average, higher recycling rates of plastic post-consumer waste.



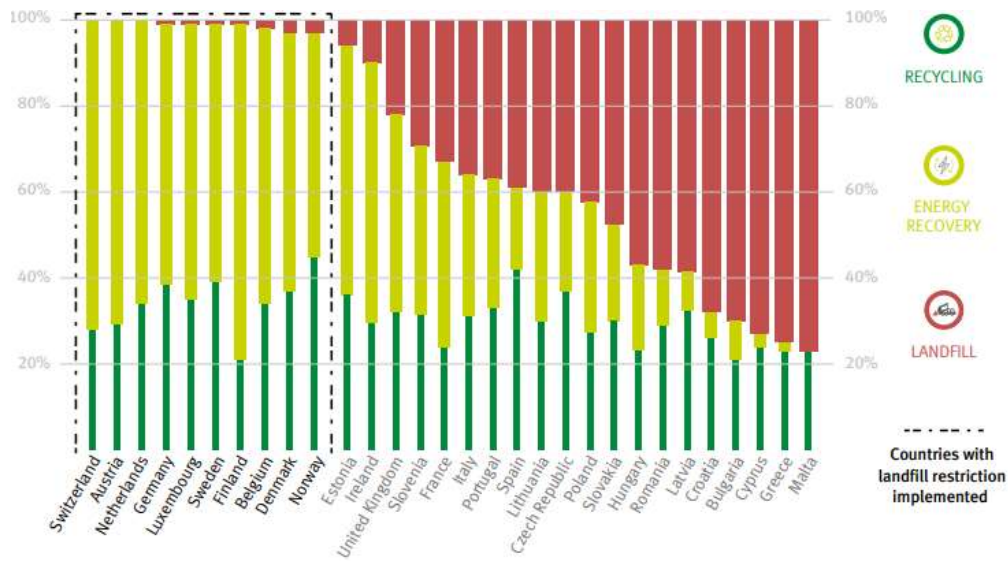


Figure 2.2- Plastic post-consumer rates per country (PlasticsEurope, 2019)

According to BCSD, we should quickly implement this circular model given the scarcity of natural resources, climate changes, high raw material prices and increased material price volatility. Some common elements of circular economy classifications include a focus on improving material and resource efficiency; broader resource efficiency and industrial ecology approaches; renewable energy; increased energy efficiency; and elements of the shared economy (International Labour Organization [ILO], 2018).

In terms of environmental benefits that this change would bring, the Ellen MacArthur Foundation determined that a circular economy path could halve carbon dioxide emissions, reduction of primary material consumption and higher land productivity. Additionally, there would also be economic and social benefits not only for the country making the investment, but also in the neighbouring countries and other trading partners. It is expected that, by 2030, the EU will see through the circular model an increase in GDP by 7%, a saving of EUR 600,000 million and the creation of jobs across the industrial sectors (Business Council for Sustainable Development, 2020).

A study conducted by the Club of Rome aimed to assess carbon emissions and employment opportunities in some EU countries, particularly Finland, France, Netherlands, Spain and Sweden. The number of additional jobs in 2030 is expected to exceed 75,000 in Finland, 100,000 in Sweden, 200,000 in the Netherlands, 400,000 in Spain and half a million in France and the improvement in the trade balance would be about - or even higher than - 1.5% of GDP in all these countries (Wijkman & Skånberg, s.d).

The Ellen MacArthur Foundation was one of the pioneers in promoting the CE through a concept illustrated by the “butterfly diagram”. This model serves as a guideline for companies and stakeholders to implement CE.

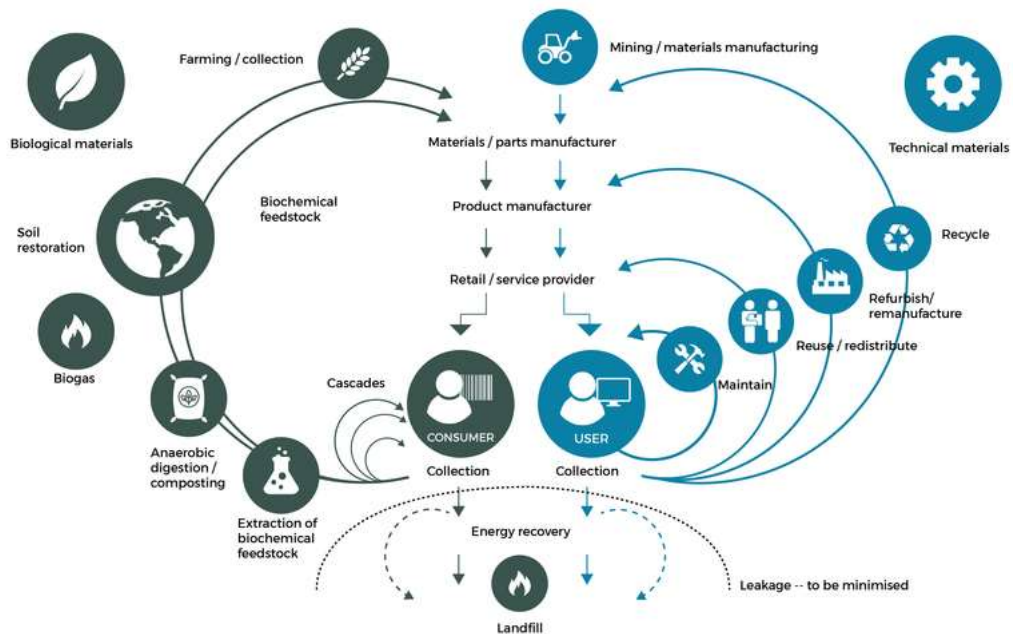


Figure 2.3 - Butterfly diagram (Ellen MacArthur Foundation, 2017)

The right side of the diagram shows the technological cycle and the blockage of the resource cycle, which is facilitated by circular strategies such as reuse, refurbish and recycling; the left side of the picture shows biological cycle, loops and cascades that provide sustainable management of biological resources and generate streams and renewable resources. This economic model aims at to minimizing the extraction of raw materials and the generation of waste.

Data from the last decade indicate a 10% increase in the number of recycled products worldwide (Pluskal, Somplák, Nevrlý, Smejkalová & Pavlas, 2020). These figures are still insufficient taking into account the needs of the planet and the number of new daily products produced, particularly products made of plastic. Plastic pollution is an issue that has raised a lot of concerns all over the world and that translates into the need to change from the current linear model (MacArthur Foundation, 2017) to a “closed-loop model that includes zero-waste as well as cleaner growth targets” (International Institute for Sustainable Development [IISD], 2018).

Portugal is a good example of this, with 83% of the population actively separating residues (Novoverde, 2019). According to a report released by the United Nations (UN), which assesses the performance of 162 countries in the 17 Sustainable Development Goals (SDGs) adopted in Agenda 2030 (ONU, 2019), Portugal ranks 26th on the list of the 30 most sustainable countries in the world.

Fortunately, measures are being taken in Portugal aimed at reducing SUP consumption, namely raising taxes on plastic bags, more pronounced waste recycling and reutilization, and more recently the replacement of disposable cups with reusable cups in social, corporate, and even sports events (National Geographic, 2019).

Following the publication of Law No. 76/2019 on September 2, 2019, food and beverage establishments and the retail sector will no longer be allowed to use and make available single-use plastic. Thus, dining and drinking establishments are prohibited from using and making available cups, packaging, cutlery, straws, plates and bowls made of disposable plastic, and must instead use reusable dishes or, alternatively, dishes made of biodegradable material (AHRESP, 2021).

In the case of cups, less than 1% produced are recycled (Evans, 2019). Over 20 million trees are cut down each year to produce single use paper cups (Foteinis, 2020). Globally approximately 16 billion paper coffee cups are being thrown away every year (Novoradovskaya, Mullan, Hasking & Uren, 2020). It is difficult to recycle disposable coffee cups for several technical, economic and social reasons. But most importantly, the majority of disposable cups are made of a paper body with an attached internal lining made of polyethylene (Zero Waste Scotland, s.d).

The materials from disposable coffee cups are of high volume. but low value, making it uneconomical to transport them over great distances for recycling. But even before that, consumers would have to dispose of single-use cups in appropriate bins or return them to the shop, where they could still end up not being recycled due to contamination with organic materials (Confederation of European Paper Industries [CEPI], 2013).

## **2.4 The Sports industry and Sustainability**

Sport is an optimal platform for raising awareness around environmental sustainability, as they engage in a continuous “bidirectional relationship” (McCullough, Orr & Kellison, 2020).

The sports industry has made great strides in environmental protection, from communicating green values to supporters, to recycling programs, renewable energy at facilities and events, and community

outreach. It has made further progress in sharing best practice within individual organizations and across the sport sector (McCullough, Pfahl & Nguyen, 2016).

In this sense, it is crucial to use its social influence to engage sports spectators and to encourage them to act in a more environmentally responsible manner. Clubs' supporters have a tremendous affinity with their respective club (Fink, Trail, & Anderson, 2002), which can and should be leveraged in such a way that the sports entity to promote and influence sustainable behaviours (McCullough & Kellison, 2016). These behavioural changes can be done in a variety of ways, including green games, sustainability messaging campaigns, and a variety of other initiatives (Mallen & Chard, 2011).

## **2.5 Corporate Social Responsibility**

Beyond more sustainable practices, during the past 70 years, the term CSR has grown rapidly and achieved acceptability as an academic field, with implications for academia, industry, and society (Kiessling, Isaksson, & Yasar, 2016). Nevertheless, in both business and academic world there is no certainty as to the definition of CSR (Yevdokimova et al., 2019).

CSR can be defined as the responsibility assumed by an organization for the impacts of its decisions and activities on society and the environment, through ethical and transparent behaviour that contributes to sustainable development, including the health and well-being of society. (Direção-Geral das Atividades Económicas, s.d).

On the other hand, Maignan and Ralston (2002) developed the concept of CSR as a motivating principle (guided by values, stakeholders, results); a process (programs and actions to implement CSR principles) and stakeholders' issues (community, customers, employees, shareholders, suppliers).

There's an underlying theory related to CSR in regard to stakeholders and the social contract: the stakeholder Theory. The CSR concept stems from stakeholder management theory which maintains that companies have responsibilities toward various groups and view shareholders as being among their many stakeholders (Carroll, 2015).

Sometimes it can raise questions about the distinction between CSR and sustainable development. Therefore, Baumgartner and Lautner (2017) define CSR as a voluntary commitment that is applied immediately to meet the needs of stakeholders, while sustainable development has a long-term perspective that also considers the preservation of the planet and the conservation of resources for future generations.

In addition to the economic and environmental sustainability of organization's operations, social sustainability should also be considered when firms are aiming at achieving sustainable development.

Determining global and universal social sustainability measures and dimensions is challenging, because there is no conceptual clarification (Ahmadi, Kusi-Sarpong & Rezaei, 2017).

Bai and Sarkis (2010) have divided social sustainability criteria into internal and external social criteria. Health and safety factors and employment practices are categorized as internal social criteria while the influence of local communities, contractual stakeholders and other stakeholders are categorized as external social sustainability criteria.

## **2.6 Strategies for behaviour change**

By reducing the use of natural resources, toxic materials, and emissions of waste and pollutants, the term "sustainable consumption" aims to meet basic needs and bring a better quality of life (Paul, Modi & Patel, 2016).

Awareness of climate change has increased over the last decade, as also the intention of reducing plastic footprint, but one of the remaining challenges is to encourage people to join the fight against climate change and decrease the greenhouse gases resulting from plastic production and decay. Environmental preservation has been gaining a greater impact in society, although the satisfaction of personal needs remains central to consumer behaviour (Verbeke, Sioen, Brunsø, De Henauw & Van Camp, 2007). It is therefore important to examine whether individual differences influence attitudes to climate change and how people can be persuaded to prevent further climate change (Feldman & Hart, 2016).

A study conducted this year in which 194 adults were asked to report their belief in climate change concludes that openness, perspective, gender and age are directly related to certain attitudes towards climate change. (Rothermich, Johnson, Griffith & Beingolea, 2021).

At individual, domestic and corporate level, environmental behaviour can be diagnosed according to the different needs, opportunities, and abilities of offenders. According to Vlek (2000), the needs and abilities together determine behavioural motivation, i.e., the motivation for a certain behaviour, as depicted in Figure 2.4. Opportunities and skills together define behavioural control, i.e., the control of an activity.

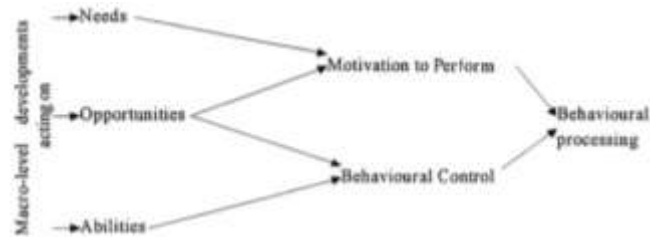


Figure 2.4 - Needs, Opportunities and Abilities (NOA) model (Vlek, 2000)

Analysis of the diagram shows that changing environmental behaviour requires changing needs, opportunities and abilities, and corresponding capacities to support that behaviour, so careful consideration must be given to motivation to perform and behavioural control.

There are a variety of approaches to behavioural change by Vlek (2000), which lists several informational and structural strategies, including education and information provision, values and ethical requirements, modelling and social support, and the provision of alternative, regulatory and financial instruments.

The NOA resume another one developed by Ajzen (1991) from the Theory of Planned Behaviour (TPB). This model (Figure 2.4) was designed to predict and explain an individual’s behaviour in a specific context (Ajzen,1991) and it has been widely used to explore the decision-making framework concerning ethical behaviour (Randall & Gibson, 1991).

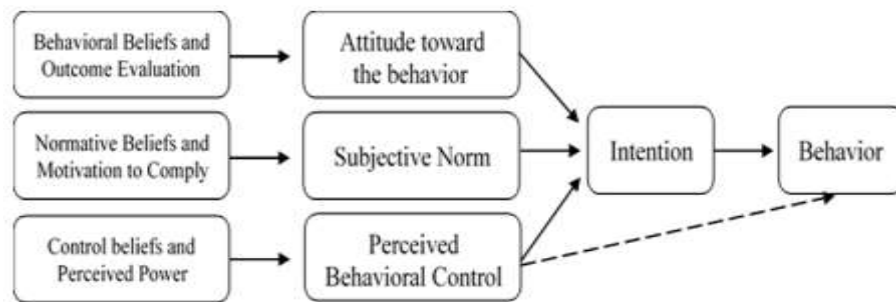


Figure 2.5 - Theory of Planned Behaviour (TPB) Model (adapted from Ajzen, 1991)

This model was first described in 1985 (Ajzen, 1985), and is an extension of the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980) and the multi-attribute attitude model (Fishbein & Ajzen,1975). It has been used to predict intentions in more sustainability-oriented areas with a focus on behavioural levels related to energy conservation and recycling (Davies et al. 2002).

Both theories, TRA and TPB, propose that a person's behavioural intention and attitudes toward a particular behaviour are determined by understanding the person's behaviour and normative beliefs and social norms. The main difference between Rational Action and Planned Behaviour theories is that there is a greater probability of understanding a person's current attitudes through the TBP, which leads to execution of the physical behaviour. The main reason for the more accurate theory of predicted behaviour is the increase in perceived behavioural control, whether a person believes she has control over the behaviour she wants to adopt.

## **2.7 Approaches and Conceptual Model**

A more suitable model for the present study is the one developed by Fishbein and Ajzen that allows to predict behaviour through the evaluation of intention to perform the specified behaviour (Ajzen, 1991), i.e., considers the willingness of an individual to carry out an action, even if it has to make an effort to do so. Besides this consideration, the new model appraises the influence of Attitudes, Subjective Norms, Behavioural Control and Value perceptions as regards a specific behaviour dependent of an intention to act.

### **2.7.1 Hypothesis in the TPB model**

#### **Attitude towards sustainable measures**

Attitude refers to the "degree to which a person has a favourable or unfavourable evaluation of the behaviour in question" (Paul et al., 2016). In 2000, Kotchen and Reiling referred that "attitude is the main important predictor of behavioural intention". Chen and Tung (2014) said that "if attitudes are positive, behavioural intentions tend to be more positive as well". For them attitude is the psychological emotion forwarded through consumers' evaluations.

Attitude is the result of Behavioural Beliefs (BB) and outcome assessments (OE). Behavioural Beliefs refers to an individual's perceptions of the consequences of certain behaviours, while Outcome Evaluation refers to the evaluation of the possible consequences of a behaviour (Ajzen, 1991).

**Hypothesis 1.** Behavioural Beliefs and Outcome Evaluation positively influence the attitude towards the application of sustainable measures.

**Hypothesis 4.** Attitude positively influence the intention to apply sustainable measures.

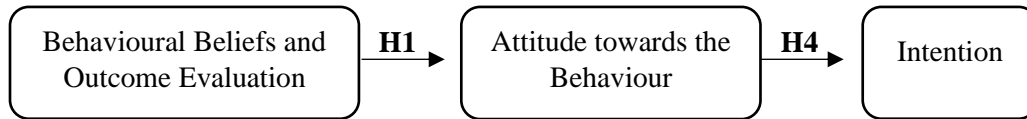


Figure 2.6 - Hypotheses related with the construct of Attitude towards Green Products

### Subjective Norm

The term “subjective norm” is defined as “the perceived social pressure to perform or not to perform the behaviour” (Paul et al., 2016). Moreover, consumers having positive subjective norms towards given behaviour than the concerned behaviour intentions are more likely to be positive (Han, Hsu & Sheu, 2010).

Subjective norm is a result of Normative Belief (NB) and Motivation to Comply (MC). Normative beliefs represent an individual's perception of how others want him or her to behave in each situation, while Motivation to Comply refers to an individual's motivation to conform with the opinions of others (Ajzen, 1991).

**Hypothesis 2.** Normative Beliefs and Motivation to Comply positively influence the subjective norm.

**Hypothesis 5.** Subjective norms positively influence the intention to apply sustainable measures.

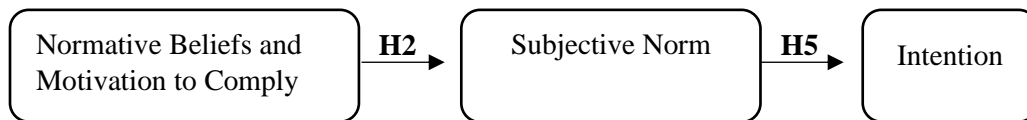


Figure 2.7- Hypotheses related with the construct of Subjective Norm

### Perceived Behavioural Control

The term Perceived Behavioural Control refers to “the perceived ease or difficulty of performing the behaviour” (Paul et al., 2016) and reflects past experiences and anticipated obstacles.

PBC is an element that was added to the Theory of Reasoned Action to overcome some limitations, then forming the Theory of Planned Behaviour. In situations where the individual has complete control over the behaviour, PBC can add a little to the prediction. On the other hand, if there are limitations to the ability to perform a behaviour, it represents a limiting factor on intention (Randall & Gibson, 1991).

Perceived Behavioural Control consists of Control Beliefs (CB) and Perceived Power (PP). Control Beliefs refer to a person's belief that there are certain factors that can facilitate or inhibit the performance of a particular behaviour, such as time, money, and opportunity. Perceived Power is a personal assessment of the influence of these factors on the behaviour that facilitates or inhibits it (Ajzen, 1991).



**Hypothesis 3.** Control beliefs and Perceived Power positively influence the perceived behavioural control.

**Hypothesis 6.** Perceived behaviour control positively influences the intention to apply sustainable measures.

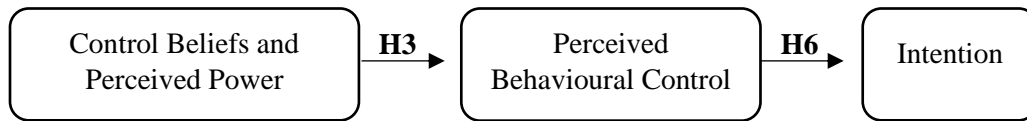


Figure 2.8 - Hypotheses related with the construct of Perceived Behavioural Control

## Intention

In 1980, Ajzen and Fishbein assumed that humans are rational in their systematic use of any available information and that their intentions are the most important predictor of human behaviour.

Behavioural intentions are described as a combination of three factors: attitudes toward the behaviour, subjective norms, and perceived behavioural control (Randall & Gibson, 1991). The importance of these three elements should vary according to the type of behaviour intended and the circumstances in which it is to be performed (Ajzen & Fishbein, 1980).

This theory states that the stronger the intention to perform a certain behaviour, the more likely it is that a person will perform it (Randall and Gibson, 1991). In other words, the more favourable the attitude toward the behaviour, the more favourable the subjective norm, and the greater the perceived control over the behaviour, the stronger the individual's intention to perform it.

Intention can be understood as the expression of an individual's will to behave in a certain way (Ajzen, 1991). This factor occupies an important place in both TRA and TPB theory.

**Hypothesis 9.** Intention to apply sustainable measures positively influences the green attitude and behaviour

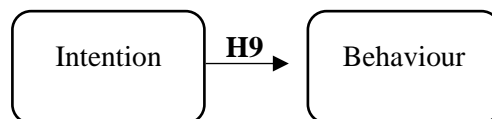


Figure 2.9 - Hypothesis related with the construct of Intention

## 2.7.2 New constructs included in TPB

Ajzen (1991) argues that the Theory of Planned Behaviour (TPB) model is open to extension by adding new constructs if they are found to play a significant role in the variation in intentions or behaviour. The situation dealt in the present work faces new perceptions and consequent attitudes, allowing a new construct.

### Perceived Value

Perceived value is the consumer's overall assessment of the net benefits of a product or service, based on what the consumer gives and what the consumer receives (Zeithaml, 1988). Thus, the relationship between perceived value and choice/purchase intention involves a balance between consumer's benefits from the product and the perceived sacrifice of payment for it, which can be monetary or non-monetary (Ashton, Scott, Solnet and Breakie, 2010).

At present, environmental awareness is a rapidly evolving subject that influences an individual's behaviour and decisions. Therefore, individuals are now more sensitive to organizations that adopt and promote social and ethical practices (Arli, Tan, Tjiptono & Yang, 2018).

This condition means that the greater the consumer's perception of the value of a product, service, or organizational practice, the greater the probability for the consumer to purchase it, adhere to new behaviours, or enhance customer loyalty.

Thus, this study presents a model that extends the TPB by adding two new constructs, perceived value and willingness to pay more (WPM), to the TPB constructs to understand consumers' purchasing behaviour for environmentally friendly products.

**Hypothesis 7.** Perceived Value positively influences the intention to apply sustainable measures.

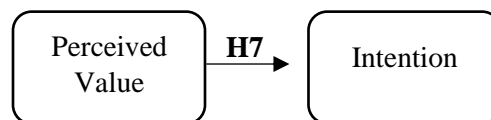


Figure 2.10 - Hypothesis related with the construct of Perceived Value

### Willingness to Pay More (WPM)

Consumers feel that price is a barrier when considering environmentally friendly consumption (Gleim, Smith, Andrews & Cronin, 2013).

Willingness to pay is the maximum amount that a consumer is willing to pay for a product or service. This variable plays an important role in consumer choice behaviour because the adoption of environmentally friendly practices such as green consumption depends on the consumer's willingness to pay a green price (Biswas, 2016).

**Hypothesis 8.** Willingness to pay more (WPM) positively influences the intention to apply sustainable measures, for example the purchase of reusable cups.

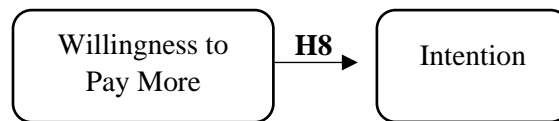


Figure 2.11 - Hypothesis related with the construct of Willingness to Pay More

### 2.7.3 Model presentation

Based on TPB assumptions and previous literature review, the following model was developed and used in this study. The figure below shows all the constructs used and the relationships between them, and the hypothesis developed.

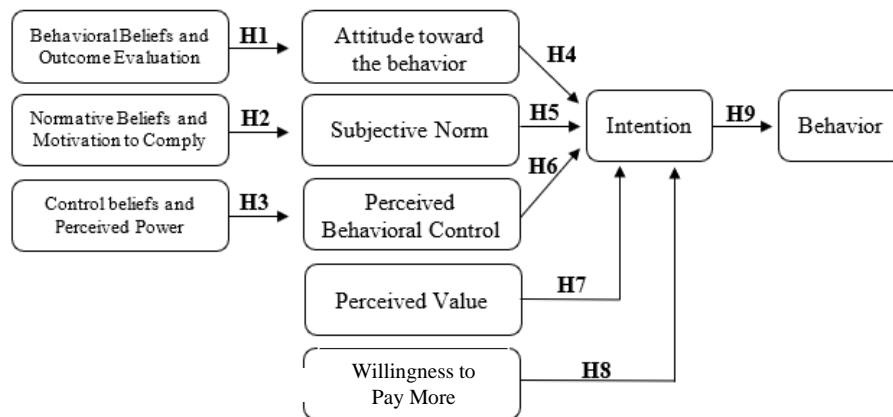


Figure 2.12 - Research Model (adapted from Ajzen, 1991; following Tavares, 2021)

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### 3. Methodology

This chapter includes the methodology that aims to describe and explain how the research will be conducted, highlighting the methods and strategies that will be used in order to answer the research questions and achieve the objectives initially defined.

#### 3.1 Overview

The research will be supported by a mixed-method approach based on the collection and analysis of both primary and secondary data. The secondary data are gathered by a literature review that was initially conducted allowing to understand the current state of the art regarding environmental and CSR policy in businesses, specifically, when implemented within sports organizations – as long as they disclose their actions.

Then, the collection of primary data will consist of two parts which will be explained in detail below: interviews and questionnaires.

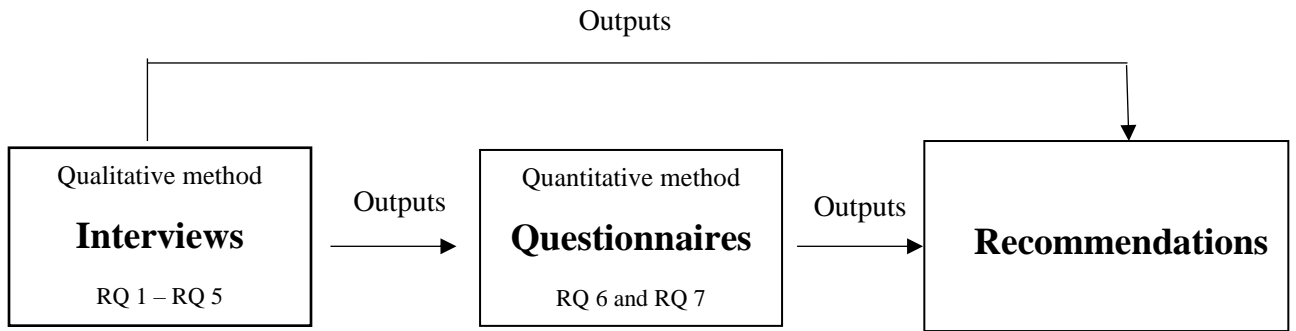


Figure 3.1 - Research Methodologies

#### 3.2 Interviews

It is imperative to understand the perspective of the actual actors, which are practically involved in the process, as they can provide valuable inputs regarding the problem under study. To this end, semi-structured interviews were conducted to answer research questions 1 and 2. Prior to conducting the interviews, a guideline was elaborated to ensure all subjects of interest in study would be covered and a pre-test will be conducted to improve the validity of the study.

With the interview, and in a general perspective, it is intended to (i) verify and assess the perception about the responsiveness of the organization (SLB) in relation to the interruption of the consumption of single-use plastic materials (SUP) and their replacement with durable, reusable and recyclable materials; (ii) investigate whether the relationship between stakeholders (the internal ones, involved in direct relationships with those who run the organization, and the external ones, who do not interrelate directly with the organization) could influence the decision-making in changing to a more sustainable consumption; (iii) clarify to what extent a possible connection of SLB with companies in the plastics recovery and recycling industry could reinforce policies of a circular economy that would give the Club a competitive advantage in the sports sector and at the same time contribute to the well-being of the society and (iv) research the social responsibility (CSR) and social/environmental awareness measures implemented at the Club and how they could be enhanced with this case study.

It was assumed that the most effective mean of recognizing the company's operating demands in the short term of this study was to identify them through consultation and discussion with experts from the company itself.

Before each interview, the purpose of the inquiry and the interview process were planned and designed based on the literature review. A semi-structured approach was used, where the interviewer had a list of general questions or topics but could adjust the sequence of the questions depending on the course of the conversation (Bell and Bryman, 2018). This approach facilitated the procedure to expose and realize more details and possible answers, while leading the conversation to find the most significant attributes which needed to be covered. The participants are free to explore their thoughts, motivations, and feelings.

### **3.2.1 Interview Script**

The interviews will provide useful guidance in understanding the direction that the solution to this case study might take and what specific areas it should focus. The interview analysis will allow some indicators regarding the dimensions around which the script of the interview was designed.

The interview is intentional and has a purpose, thus the interviewer should be provided with a script, that outlines most important points that should be questioned and recorded. In this sense, we sought to develop a semi-structured interview, which is normally conducted based on specific topics from which questions are created. Thus, a script was built to ensure that the desired information is obtained, whereby the thematic sets are presented sequentially.

The script for this interview (Appendix A – Interview Script) involves 42 questions that are organized into three different groups. Group I) Questions related to the consumption of SUP nowadays, both in the organization's daily life and in sports events; Group II) Questions related to the identification of possible measures to fight excessive consumption and to a more efficient recycling of SUP, whilst at the same time contribute to the welfare of society, through a partnership with a company in the plastic recovery sector; and Group III) Questions related to the social actions practiced by the organization.

### 3.2.2 Characterization of the interviewees

With the scope of identifying potential areas for improvement and understanding the various projects developed in the organization for the improvement of the organizational policy on sustainability and CSR, different actors from different departments and athletes of *Sport Lisboa e Benfica* were interviewed.

More specifically, nine interviews were conducted and due to the current pandemic situation and all associated restrictions, the interviews occurred via online communication tools, specifically Zoom. The interviews were recorded with the consent of the interviewees.

At the beginning of each interview, the name, age, position in the organization were questioned, as well as how long they have been working for the organization. At the end of the interview day, duration of the interview as well as considerations considered pertinent were included.

Interviewed	Age	Position	SLB Experience (years)	Interview Date	Degree	Duration
Rui Lança	43	Head of Modalities	10	11/05/2021	Bachelor's Degree in Sports Science	37 min
Catarina Anjos	23	Volleyball Player	3	11/05/2021	Msc of Services and Technology Management	55 min
Gustavo Capdeville	23	Handball Player	11	12/05/2021	High School	47 min
Lúcia Ramos	55	HR Director	29	17/05/2021	Bachelor's Degree in Law	1h02 min
Olivia Alves	44	Environmental Specialist	9	17/05/2021	High School	1h11 min
Nuno Costa	42	Fundação Benfica Director	12	20/05/2021	Msc in Social Organizations Management	1h24 min
Bélone Moreira	30	Handball Player	7	21/05/2021	Bachelor's Degree in Medicine	54 min
Jorge Castanheira	40	Head of Brand and Digital	17	28/05/2021	Bachelor's Degree in Marketing	55 min
Pedro Félix	46	Infrastructures Director	10	04/06/2021	Bachelor's Degree in Civil Engineering	37 min

Table 3.1 - Interviewees

### 3.3 Questionnaires

The third part of the study will be operated via a quantitative method by using the questionnaire (Appendix B – Questionnaire in Portuguese) that targets the previously referred indicators, as well as the doubts

expressed in the research questions. The majority of primary data was obtained from closed-ended questions, as these provide answers that are easier to interpret and to analyse.

The data collection method applied for this study is a questionnaire with two types of questions, multiple choice and five-point Likert response scale. Most of the questions in this questionnaire had been previously validated. While not changing these questions, extra questions were added to meet the outputs gathered from the content analysis of the interviews with members of the *Sport Lisboa e Benfica* organization.

The questionnaire was realized through Google Forms and will be administered to a convenience sample, clubs' supporters or not, being able to attend sporting events without having a club preference, giving rise to a quantitative relation to the data.

The statistical analyses will be performed by using IBM SPSS statistics software (version 26). The results from the questionnaire are going to be analysed through statistical inference to draw some conclusions from the sample.

### **3.3.1 Pre-test of the Survey**

The validity of the questionnaire content was verified before sending it to the respondents. A pre-test was conducted with some respondents from different age groups and levels of education to identify potential problems which might have been overlooked and to remove any possible ambiguity from the questions.

With the pre-tests, it was possible to reformulate an expression to better suit the original questionnaire and add extra information to help respondents better understand what is asked. The process, therefore, resulted in some minor changes.

### **3.3.2 Questionnaire structure**

The questionnaire starts with an introduction where respondents are informed that the questionnaire is part of an academic study with the purpose of obtaining a master's degree in Management of Services and Technology at ISCTE Business School. Secondly, the objectives of the study are briefly described and finally confidentiality and anonymity are ensured to all participants.

The questionnaire is divided into five sections:



The first section intends to collect data on the respondent with four questions which included age, gender, academic qualifications and club preferences.

The following three sections are related to the social impact of applying sustainable measures in sports events and are used to evaluate the constructs of the conceptual model presented in the literature review. In these sections were added extra questions after the analysis of the interviews. The first of these sections provides answers to the following constructs: Behavioural Belief and Outcome Evaluation, Normative Belief and Motivation to Comply and Control Belief and Perceived Power; the second section is related to the determinants (Attitude, Subjective Norm, Perceived Behavioural Control, Perceived Value and Willingness to Pay More); and the third section is related to the intention and behaviour.

Finally, the last section aims to find out the recycling habits of the respondents and to measure the acceptance of more efficient recycling by consumers during sports events.

### **3.3.3 Sample's characterization**

This questionnaire is intended for individuals over 16 years old who usually attend sports events. It was limited to this age since they are usually mature enough to address important societal issues, such as environmental sustainability and social responsibility. According to Paul et al. (2016), adults have a greater ability to compare and evaluate the available options and make a conscious choice, so they were the target chosen to collect the necessary data and highly educated people tend to more easily understand the topic under consideration.

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## 4. Data Analysis

### 4.1 Interviews

In this section the interviews will be summarized, based on the transcription of some interviewees' answers and conclusions drawn by the interviewer, according to the following categories identified and linked with the research questions: i) SUP consumption (RQ 1 and RQ 2); ii) availability to adopt sustainable policies (RQ 3); iii) pressures to change (RQ 4); iv) partnership with a company in the plastic recovery sector reinforcing circular economy policies and v) social responsibility (RQ 1 and RQ 5). It should be noted that the transcripts of the interviewees' answers were later translated from Portuguese into English.

#### 4.1.1 SUP consumption in *Sport Lisboa e Benfica*

In order to understand how SUP waste is produced, consumed and managed in the sports organization, the questions described in the interview script were elaborated (see Appendix A – Interview Script).

These questions were related to identifying what is done or could be done within the *Sport Lisboa e Benfica* organization. Additionally, it was to understand the roles associated with each of these actors and the tasks/actions performed by them and in each department.

"ECO Benfica is a project that aims to be an aggregating hat between the various actions taken by the club, since in the beginning there were many separate measures and today there is a specialized team working solely and exclusively on sustainability."

When questioned about the role that major sports institutions should play in this issue, it was found that the "emotional aspect" has a prime effect, and influences the feedback concerning environmental issues. Thus, for most of the respondents, the sports institutions should be the first to "set an example and implement measures", using the "media exposure to raise awareness" among supporters and society in general.

Among the various waste management initiatives implemented by SLB, it is worth highlighting the provision of Eco points in strategic locations of common use, the installation of supports for the collection of cigarette butts and chewing gum, the provision of water dispensers in the corridors, the reduction of plastic cups and utensils in the day-to-day running of the organization and the awareness raising of employees and external suppliers present in the stadium.

However, the initiative that stands out the most is the creation of the ECO Centre, which is a centre that ensures the collection, sorting, storage and forwarding for recycling of about 200 tons of waste per sports

season and has been in operation since 2011. There has been a significant increase in the selective separation of wastes, a substantial increase in the amounts of paper and plastic packaging waste delivered and a significant reduction in the amount of undifferentiated waste. Due to the processes implemented and the entire control and sorting system carried out in the facilities, ECO Centre can ensure almost a 100% rate of recovery regarding material destined for recycling.

All this will only be possible with the contribution of the supporters, who should have a high degree of participation in the separation of waste, since it is considered a "civic act to channel the waste consumed to the respective equipment".

#### **4.1.2 Availability to adopt sustainable policies**

*Sport Lisboa e Benfica* has a fundamental role not only “because it moves the masses, but also because it can be seen as a vehicle of dynamism and influence in society”. In this sense, the organization intends to position itself as a reference when it comes to the adoption of sustainable measures.

Proof of this are the recognitions obtained so far, such as the MOVE+ certification, a system for evaluating and classifying the energy performance of automobile fleets, which aims to promote efficient mobility, leading the transition to a sustainable reality, and the fact of being the first and only sports club to join the Lisbon European Green Capital 2020 initiative in the areas of energy, water, mobility, waste and green infrastructures.

Besides that, all the interviewees agree with the implementation of reusable cups instead of disposable cups in sports events, being the costs residual and that should be shared between Benfica and the supporter. This measure would lead to "a drastic decrease in the consumption of these products".

When questioned about the challenges faced by the organization, the most important are: raising people's awareness, since there is a lack of culture in the Portuguese people regarding this issue; managing the large amounts of waste produced on game days; and a substantial improvement in terms of communicating the good practices done at SLB, both internally and externally, since even athletes are not aware of most of the actions taken by the organization.

#### **4.1.3 Pressures to change**

The interviewees were asked whether there is pressure from internal and external stakeholders (society in general included) for large institutions to become more sustainable and socially responsible. Most believe

that there is pressure, however it could and should be greater, since "the consumer increasingly gives more relevance to what companies do" and this forces organizations to submit to what consumers want, in this case an organization with a more sustainable and socially responsible vision.

Human beings are influenced by various stimuli that arise from different sources. External stakeholders play different kinds of roles.

One of the biggest sources of influence in social construction and in the way we perceive what is going on around us is the media, and for many people it is the main way to access facts, events, stories, and images. They don't tell people what to think, but they are instrumental in defining what they should think about, through the way events, topics and individuals are highlighted and represented.

Supporters can and should influence other supporters and society in general to adopt these types of measures and suppliers should make an effort in terms of product design, packaging and distribution chain to become more environmentally friendly.

#### **4.1.4 Partnership with a company in the plastic recovery sector**

In order to understand the importance given by the interviewees regarding a possible partnership between the SLB and a company in the plastics recovery sector, a block of questions described in the interview script was prepared (see Appendix A – Interview Script).

There is widespread approval for the partnership, promoting the work that is already done at ECO Centre and circular economy, however, it depends on the level of investment required, whether there is trust and whether it is beneficial to both parties.

Regarding whom could be responsible for the coordination and management of the partnership, during the interview it was clear that it would require the collaboration of several departments of the organization - "Benfica Foundation, sustainability department, marketing and communication" - in order to be successful.

The fact that this partnership does not aim to generate any type of profit for SLB is seen as normal by the interviewees, since "there are several partnerships whose goal is social welfare, mainly at the level of the Benfica Foundation. On the other hand, the ECO Benfica project does not aim to generate profit, but rather "generate savings"".

When asked if they think that supporters would be interested/willing to contribute to the success of the partnership by taking care when separating waste from the products consumed during the sports events that

will later be recycled, the answer was affirmative, and it would promote the supporters' understanding of "what is the end of the waste", leading them to be more careful.

However, when asked if they considered that this partnership and its objectives would have any impact on the business practices of the remaining Portuguese sports organizations, the interviewees said that since SLB is a major brand that is frequently present in the media, developing differentiating ideas and having the ability to "positively influence" given its size and visibility, it would be very likely that other Portuguese sports organizations would follow its example.

### 4.1.5 Social Responsibility

Regarding the social actions carried out by SLB, the main objectives of the questions presented in the interview guide (see Appendix A – Interview Script) aim to understand what the Benfica Foundation does and how we can associate the sustainability aspect to CSR.

Regarding the role of organizations in society, at SLB in particular, and what the obstacles are to the adoption of more social practices, it can be concluded that large organizations have the obligation to contribute to the welfare of society SLB takes several actions of social nature, both nationally and internationally, being the lack of monetary resources the main obstacle to the adoption of more similar actions.

A positive factor to come out of the interviews is related to a possible union among several sports clubs to contribute together to the welfare of society, since the response was unanimous and the union between several sports clubs is seen in a positive way, however, actions must be adjusted to the size of each organization.

In terms of the Benfica Foundation, it aims to "realize what is the so-called social work of *Sport Lisboa e Benfica*" and its funding is supported by city councils, IRS consignment and donations from employees and supporters. Unfortunately, although many actions are taken and many people are helping through the foundation, the interviewees feel that there is a lack of "dimension, that is, being able to help more people, but that implies greater financial investment".

On the other hand, the existence of the foundation creates recognition and an image in society of a club concerned with social responsibility. It is also believed that the adoption of this type of practice will have repercussions on the daily lives of the supporters.

Finally, when asked about the benefits and challenges they see in a change of organizational vision more directed towards society, it is concluded that the benefits are intrinsic to the actions, that is, the well-being of society, with the biggest challenge being the existence of a "structured plan for the coming years and stronger communication".

## 4.2 Questionnaire

The questionnaire made for this study starts with a sample sociodemographic characterization. The detailed results of the responses to each of the constructs present in the conceptual model will be presented next.

It ends with a section that aims to evaluate the sustainable recycling habits of the respondents.

### 4.2.1 Sample Profile

To characterize the sample, the following variables were used: gender, age, education, and club preferences. Appendix D presents both absolute and relative frequencies for these variables, allowing the characterization of the sample.

According to **gender**, it is possible to verify a relatively balanced distribution with 49% for the feminine and 51% for the male gender respondents in the sample.

Regarding the independent variable **age**, this variable was aggregated into 2 groups to facilitate statistical interpretation, “more than 40 years” and “40 years or less”. According to this categorization, the sample shows that 51% of the respondents are 40 or less years old and 49% are over 40.

For the **education level**, a substantial part of the respondents in the sample, 73,1%, have already completed their bachelor or are close to, revealing a well-educated sample.

Finally, considering the **club preference**, half of the respondents are supporters of Sport Lisboa e Benfica. The other half is divided between 3 clubs and 9 respondents who have no preference (8,7% of the sample): 26 are Sporting Clube de Portugal supporters (25% of the sample), 15 support Clube de Futebol "Os Belenenses" (14,4% of the sample), and the remaining 2 are supporters for Futebol Clube do Porto (1,9% of the sample).

### 4.2.2 Reliability of Conceptual Model

In order to apply the conceptual model presented, it is important to analyse the validity of these constructs in the context of the sample used. Internal consistency between items in general and between domains was analysed using Cronbach's alpha, a reliability coefficient that assesses the effectiveness of a set of items in measuring a latent construct and depends on the number of items and average correlations (Andaleeb, 2001). It is not considered a statistical test.



The values for each construct will be presented in the table below.

Construct	Cronbach's Alpha
Behavioural Belief	0,939
Outcome Evaluation	0,770
Normative Belief	0,797
Motivation to Comply	0,847
Control Belief	0,484
Perceived Power	0,691
Attitude	0,809
Subjective Norm	0,830
Perceived Behavioural Control	0,537
Perceived Value	0,715
Willingness to Pay More	0,707
Purchase Intention	0,869
Purchase Behaviour	0,856

Table 4.1- Cronbach's Alpha Analysis

While Cronbach's alpha less than 0,6 is considered low, Cronbach's alpha values between 0,6 and 0,8 are considered moderate but acceptable. A Cronbach's alpha between 0,8 and 1 is considered very good. (Azhar, Daud, Khidzir & Ismail, 2018).

Analysing Table 4.1 we conclude that there are two constructs with values below 0,6: **Control Belief** and **Perceived Behavioural Control**.

Therefore, through the SPSS program, in terms of the Control Belief construct, the intention was to remove some of the questions in order to obtain the desired values, as can be seen in the table below.

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
<b>CB1:</b> To purchase/use green products in my club, the location and distribution of the products must be convenient.	0,286	0,416
<b>CB2:</b> Purchasing/using green products takes time and effort.	0,443	0,098
<b>CB3:</b> My club provides me with green products and encourages me to use them.	0,204	0,545

(Source: prepared by the author)

Table 4.2 – Control Belief if Item Deleted

This was not possible, since the highest value would be 0,545, which remains below the desired 0.6. It was therefore decided to eliminate this construct from subsequent analyses due to its weak internal consistency.

Contrary to what happened in the Control Belief construct, in the Perceived Behavioural Control construct, when the last question was removed, Cronbach's alpha increased to 0,631. This construct remains valid since it shows good internal consistency (Cronbach's alpha higher than 0,6). Results are presented in the table below.

	<b>Corrected Item-Total Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
<b>PBC1:</b> Whether or not I buy green product at place of conventional non-green product is completely up to me	0.202	0.570
<b>PBC2:</b> I have resources, time and opportunities to buy green products.	0.481	0.333
<b>PBC3:</b> I am confident that if I want to, I can buy green product at place of conventional non-green product.	0.561	0.276
<b>PBC4:</b> In the sports events I will attend, I will only use/buy green products on site instead of conventional ones, if the club offers them.	0.144	0.631

(Source: prepared by the author)

*Table 4.3- Perceived Behavioural Control if item deleted*

Information regarding each construct is presented in the following chapter.

### 4.2.3 Constructs Analysis

The **Behavioural Belief** about the purchase of green products was assessed using five indicators (see Appendix E). It was found that the five indicators have almost identical mean values, with only a difference of 0,2. a construct of Behavioural Belief regarding the purchase of green products was constructed. Appendix F shows information about this construct, obtained through the SPSS program.

In terms of the construct **Outcome Evaluation**, it was also evaluated using five indicators with different values, ranging from 2,7 to 4,0 (see Appendix E). Based on the average, a synthetic index of Outcome Evaluation regarding the purchase of green products was constructed. Appendix G shows more information about this construct, obtained through the SPSS program.

The construct **Normative Belief** was evaluated using five indicators that have different mean values, ranging from 2,8 to 3,5 (see Appendix E). A construct was constructed, with the distribution among respondents presented in Appendix H that shows more information about this construct.

The construct **Motivation to Comply** was evaluated using three indicators (see Appendix E). It shows the mean values for each question, ranging from 2,7 to 3,5.

Based on the average of the five indicators, a synthetic index of Motivation to Comply regarding the purchase of green products was constructed, with the distribution among respondents presented in Appendix I.

The construct **Control Belief** was evaluated using three indicators (see Appendix E). Appendix J shows more information about this construct.

The construct **Perceived Power** was evaluated using three indicators (see Appendix E) that show the mean values (ranging from 3,1 to 3,8). Based on the average of the indicators, a synthetic index of Perceived Power regarding the purchase of green products was constructed, with the distribution among respondents presented in Appendix K.

The construct **Attitude** was evaluated using six indicators on a 5-point semantic differential scale (see Appendix E). A synthetic index of Attitude was constructed, with the distribution among respondents presented in Appendix L.

The construct **Subjective Norm** was evaluated using four indicators on a 5-point Likert scale (see Appendix E). Here is possible to see that two items have equal mean values, namely, 3,4, and two other items have 2,7. Based on the average of the four indicators, a construct of Subjective Norm was constructed, with the distribution among respondents presented in Appendix M.

The construct **Perceived Behavioural Control** was evaluated using four indicators (see Appendix E). Appendix N shows information about this construct before and after remove the last question, obtained through the SPSS program.

The construct **Perceived Value** was evaluated using six indicators (see Appendix E). Items presented in the Appendix 13 show mean values with discrepancy, ranging from 3,5 to 4,1. Based on the average of the six indicators, a construct of Perceived Value regarding the purchase of green products was constructed, with the distribution among respondents presented in Appendix O.

The construct **Willingness to Pay More** was evaluated using two indicators (see Appendix E). A synthetic index of Willingness to Pay More regarding the purchase of green products was constructed according to the close mean values, namely, 3,3 and 3,6. It is presented in Appendix P.

The construct **Purchase Intention** was evaluated using five indicators (see Appendix E). The five items have discrepancies, ranging from 3,3 to 3,9. A construct of Purchase Intention regarding the purchase of green products was constructed, with the distribution among respondents presented in Appendix Q.

The construct **Purchase Behaviour** was evaluated using three indicators (see Appendix E). The five items have a wide discrepancy in terms of mean values, ranging from 2,4 to 3,4. Based on it, a construct of Purchase Behaviour regarding the purchase of green products was constructed, with the distribution among respondents presented in Appendix R.

The table below shows the mean values for each construct by sex, age and education. According to the data presented, there were no significant differences justifying an analysis of each of these variables. The fact that the survey has a small sample, it may also have led to less dispersion in the responses.

		<b>BB</b>	<b>OE</b>	<b>NB</b>	<b>MC</b>		<b>PP</b>	<b>ATT</b>	<b>SN</b>	<b>PBC</b>	<b>PV</b>	<b>WPM</b>	<b>PI</b>	<b>PB</b>
<b>Sex</b>	Female	4,1	3,5	3,3	3,0		3,4	4,4	2,9	3,8	3,8	3,5	3,7	3,1
		<b>4,3</b>	3,0	3,1	3,2		3,5	4,3	3,1	3,5	3,9	3,5	3,6	2,9
	Male	4,2	3,3	3,2	3,1		3,4	4,3	3,0	3,7	3,8	3,5	3,6	3,0
		<b>4,4</b>	3,1	3,0	3,0		3,6	4,3	2,9	3,5	3,8	3,6	3,6	2,8
<b>Age</b>	<= 40 years old	4,1	3,4	3,4	3,2		3,2	4,4	3,2	3,9	3,9	3,4	3,7	3,2
		<b>4,2</b>	3,3	3,2	3,1		3,4	4,3	3,0	3,7	3,8	3,5	3,7	3,0
	Total	4,2	3,2	3,2	3,0		3,4	4,3	3,0	3,6	3,8	3,8	3,7	3,0
		<b>4,5</b>	3,2	3,2	3,0		3,4	4,3	3,0	3,6	3,8	3,8	3,7	3,0
<b>Education</b>	With Higher Education	4,2	3,2	3,2	3,0		3,4	4,3	3,0	3,6	3,8	3,8	3,7	3,0
	Without Higher Education	<b>4,5</b>	3,5	3,1	3,2		3,6	4,3	3,2	3,7	4,0	3,9	3,5	2,8
	Total	4,3	3,3	3,2	3,1		3,5	4,3	3,1	3,7	3,9	3,9	3,6	3,0

Table 4.4- Constructs by sex, age, and education

#### 4.2.4 Structural Model

The model presented below was generated using IBM SPSS AMOS 26 and illustrates the model used in this thesis.

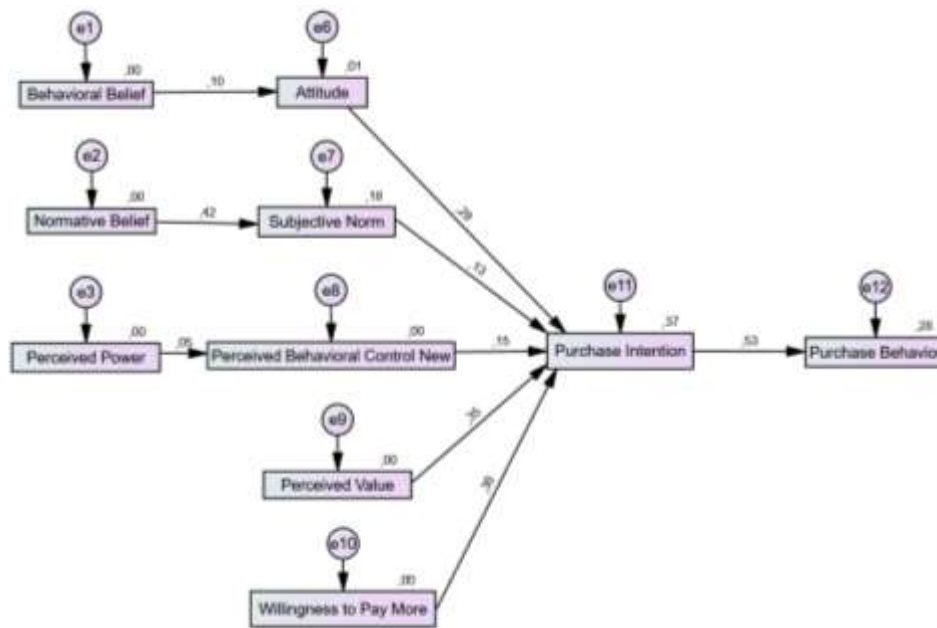


Figure 4.1 - Structural Model

To see the analysis output generated in the Amos software, see Appendix T.

#### 4.2.5 Structural Model Analysis

The present research used the Theory of Planned Behaviour and incorporated two new constructs, respectively, Perceived Value and Willingness to Pay More (WPM) to the original model with the aim of understand the behaviour of Portuguese clubs' supporters.

In relation to the salient belief constructs of the TPB, Behavioural Belief, Normative Belief and Perceived Power were found to have a positive influence on their respective predictor construct (Attitude and Subjective Norm and Perceived Behavioural Control, respectively). Moving forward, it's possible to see that most predictor constructs influenced the Purchase Intention regarding green products, which in turn influences their Purchase Behaviour. All these constructs show a positive influence in relation to Purchase Intention.

Considering the constructs added, both have close and high values. Perceived Value was reported to have a significant positive influence on the Purchase Intention which highlights the role of the Perceived Value of green products in decision making, such as the construct Willingness to Pay More that demonstrate to have a significant impact on the consumer's green Purchase Intention.

The research hypotheses were supported, in which the model explains 0,53 of Purchase Behaviour. In addition, it also supported the inclusion of constructs to the original model, as they made it possible to improve the predictive power of the TPB in determining the intention and behaviour.

#### 4.2.6 Recycling Habits

The data collected regarding the respondents' recycling habits in their homes compared to the importance they place on recycling at sports events are illustrated in the following graphs.

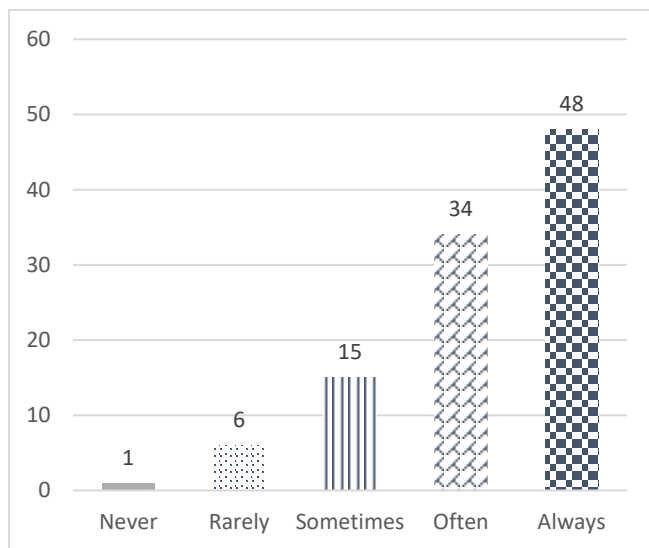


Figure 4.2 - Recycling Frequency at Home

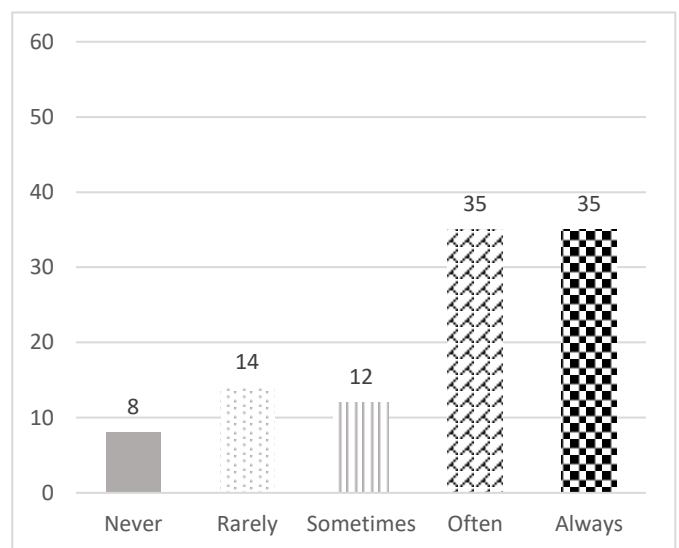


Figure 4.3 - Recycling Frequency at Sports Facilities

Fig. 4.2 shows that a large portion of the individuals surveyed (48 respondents) always recycle in their homes, which corresponds to 43% of the sample. About 33% of the respondents recycle often (34 respondents), 15 respondents sometimes recycle (14% of the sample) and only 6 rarely recycle (6% of the sample). Finally, only one respondent never recycles.

It is also important to be able to make the comparison between what respondents do in their homes with what they do in other places, in this case at sports events/facilities.

Fig. 4.3 addresses this question "During a sports game or event, how often do you recycle at sports facilities?". There was a decrease in environmental concern when compared to Fig. 4.3 - Recycling at home. 8 respondents never recycle, 14 rarely do, 12 sometimes do, and 35 respondents often do, with another 35 always doing it.

	Mean
I usually do everything necessary to recycle in my sports club.	3,60
Doing everything necessary to recycle at sports facilities is something that I do without consciously having to remember to do it.	3,80
It makes me feel bad if I don't do everything necessary to recycle at sports facilities.	3,84
It would require effort not to do everything necessary to recycle at sports facilities.	3,41
I would have a hard time not doing everything that is required to recycle at sports facilities.	3,32
I often do everything necessary to recycle at sports facilities.	3,78
Doing everything necessary to recycle at sports facilities is something that is typically "mine".	3,77
Doing everything necessary to recycle at sports facilities is something I have been doing for a long time.	3,66

Scale: 1- totally disagree; 5-totally agree

*Table 4.4- Recycling Habits at Sports Facilities*

In order to analyse the recycling habits of the respondents in sports facilities it was asked to classify eight sentences from one to five, being one "totally disagree" and five "totally agree" in order to access their level of agreement with each sentence. The following table presents the sentences for the respondents and the average results obtained for each sentence.

Therefore, to measure an individual's attitude towards recycling the respondents were asked whether the attitude towards recycling is bad-good, undesirable-desirable, harmful-beneficial, useless-useful and unfavourable-favourable on a five-point Likert scale.

	Mean
Extremely bad (1) / extremely good (5)	4,66
Extremely undesirable (1) / extremely desirable (5)	4,75
Extremely harmful (1) / extremely beneficial (5)	4,88
Extremely useless (1) / extremely useful (5)	4,82
Extremely unfavourable (1) / extremely favourable (5)	4,81

Scale: 1- totally disagree; 5-totally agree

Table 4.5- Attitude towards recycling

Finally, subjective norm refers to the perception of other supporters regarding waste recycling at sporting events. The measurement scale for subjective norms contained one statement and the respondents were asked to indicate their level of agreement.

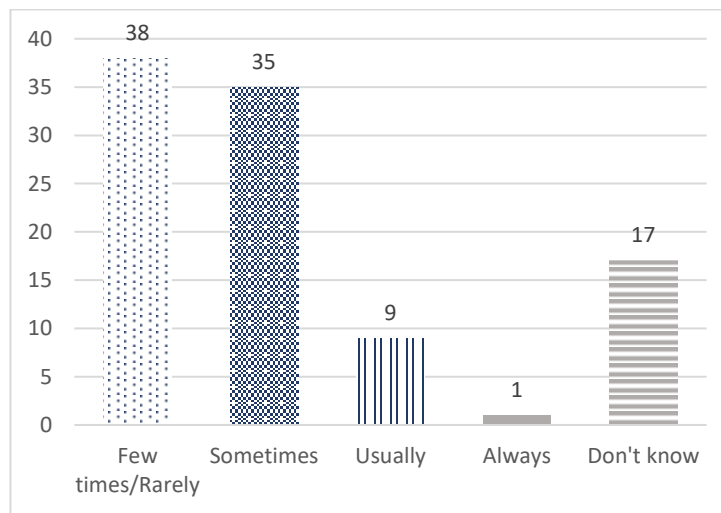


Figure 4.4 - Recycling Habits of other Supporters

Therefore, interesting conclusions can be drawn regarding the recycling habits of the respondents.

1. There is a significantly greater concern for recycling at home compared to sports facilities.
2. Respondents consider the topic of recycling very important, useful and beneficial.
3. The vast majority have the perception that other fans do not recycle at all.
4. Sports organizations should play a leading role in promoting recycling at sports facilities and events.



## 5. Conclusions

This chapter highlights the main conclusions of this research. The research questions will be answered as and the achievement of the objectives proposed in Chapter 1 will be discussed, resorting to the analysis in the previous one. Limitations are also presented, as well as suggestions for conducting future investigations.

### 5.1 Answers to the Research Questions

Throughout the research were tried to answer the research questions, which were:

#### 5.1.1. RQ 1

*“What is the current state of environmentally and socially sustainable solutions currently implemented within sports organization?”*

The implementation of measures to avoid serious and irreversible consequences for the planet has increasingly been at the forefront of the international agenda. Indeed, numerous examples suggest that for business change this can mean more than responding to the global challenge of the impact of climate change, biodiversity loss, poverty, and social justice. This leads to tangible operational and economic results, such as reduced costs in terms of energy, water, and waste, increased visibility, and the opening of new business possibilities.

As the sport industry is one of the largest in the world, environment is gaining consideration when planning competitions, major sports events and in the daily life of sports organizations.

*Sport Lisboa e Benfica* stands out in Portugal for having a specific sustainability department to address issues in which its functions are to ensure and improve the organization to become more sustainable and be recognized nationally and internationally as a reference in this area.

In terms of CSR, it was pointed out that has a specific CSR institution, specifically the Benfica Foundation. It is a non-profit institution that promotes sports, through the conception, planning and implementation of several social, educational, environmental and health projects, as a way to contribute to the quality of life of the human being, particularly of children and youth.

### **5.1.2. RQ 2**

*“Do sports organizations address plastic footprint, and CSR improvement, disclosing their actions?”*

Plastic production is proving to be a global problem reaching 360 million tons in 2018, and it is expected to double over the following two decades (Ellen MacArthur Foundation, 2017).

An effective strategy leading to a reduction in the impact of waste and at the same time to a decrease in the need for raw material extraction is known as circular economy and the 3R's policy: *Reduce* (the amount of unnecessary or non-recyclable products), *Reuse* (finding a new function for an obsolete product) and *Recycle* (conserving raw materials within the system, saving energy and non-renewable resources). In terms of circular economy, Benfica has ECO Centre that was created in 2011 and guarantees the collection, sorting, storage, and forwarding for recycling of about 200 tons of waste per season.

During this study it was possible to conclude that sports organizations, *Sport Lisboa e Benfica* in particular, develop several actions of social nature and environmental sustainability. However, there is poor communication of these actions, both internally within the organization and externally, since supporters and athletes themselves are not aware of what is done in this area.

### **5.1.3 RQ 3**

*“How available and interested are sports organizations in replacing the use of SUP with durable, reusable, and recyclable materials?”*

Regarding what is done nowadays in terms of sustainability, it was noticeable that SLB is an organization that is concerned about the environment, since, in addition to the various measures already implemented, it has recently created a specific department that focuses exclusively on this topic.

*Sport Lisboa e Benfica* organization was already developing projects to replace disposable cups at sports events with reusable cups. Unfortunately, when the project was almost implemented, the Covid-19 pandemic broke out and everything was postponed. The implementation of reusable cups could increase the environmental consciousness of consumers and so the interest in other ways of consuming in a more ecological way.

In terms of the remaining products, the organization is working to replace the SUP with durable, reusable and recyclable materials being available to receive any suggestion and proposal that meets this objective.

#### **5.1.4 RQ 4**

*“How much influence do internal and external stakeholders have concerning the adoption of environmentally and socially sustainable solutions?”*

At the level of internal stakeholders, those involved in direct and continuous relationships with those who run the organization, such as employees and athletes, for example, should be the first to adopt this type of measure since they are the image of the organization and many of them are references for the supporters, which may lead to greater awareness of the issues addressed. For this, the organization can also use staff training in environmental, social, and cultural issues, through external experts.

On the other hand, external stakeholders are those who are not directly interrelated with the organization and have different types of influence on the adoption of environmental and social solutions. The media have the power to influence society as a whole; supporters can and should influence other supporters and society in general to adopt these types of measures, and suppliers should make an effort in terms of product design, packaging and distribution chain to become environmentally friendly.

#### **5.1.5 RQ 5**

*“How available and interested are sports organizations to develop partnerships with companies focused on reinforcing circular economy policies?”*

As SLB is such an important sports organization in Portugal that is often present in the media, developing differentiating ideas and having the ability to "positively influence" other sports organizations, non-sports organizations, and society in general, it showed itself totally available to develop partnerships whose goal is to reinforce circular economy policies.

Naturally, there are dependent factors, such as the investment required for this happen, and whether there are benefits for both the sports organization and the company with which the partnership would be signed, and for the environment and society.

For the success of this partnership, it requires the collaboration of several organizational departments, such as the Benfica Foundation, Marketing department, Sustainability department and Communications department.

### **5.1.6 RQ 6**

*“What are the determinants that most affect the intention to purchase green products, in particular, reusable cups?”*

This study tested five determinants regarding the purchase of green products: Attitude, Subjective Norm, Perceived Behavioural Control, Perceived Value and Willingness to Pay More. Of them all, Perceived Value proved to be a relevant variable in explaining intention and green behaviour, however the variable with the greatest influence on behavioural intention was the Willingness to Pay More.

It turned out that only 10 respondents would not be willing to pay more for a product that targets environmental well-being (see Appendix 14) and that 67 respondents would be willing to pay more between 1% and 10% of the value of the product, which corresponds to about 64.4% of the sample and lead to conclude that it is the value range that should be added to each product.

### **5.1.7 RQ 7**

*“Would supporters be willing to change their habits in order to promote environmental sustainability and social responsibility in the sports organization?”*

Considering the last question, it is necessary to analyse the last section of the questionnaire that addresses the recycling habits of the respondents.

First, analyzing the respondents' answers regarding their recycling habits at home and at the sports facilities shows a significant difference, with respondents recycling more at their homes.

Since most of the answers in the questionnaire regarding what they think about recycling (Table 4.5) were positive, with the average for each of the answers being greater than 4, it shows that supporters are aware of the importance of this habit.

Finally, when asked about their perception of the other supporters' habits at sports facilities, it was found that most of the sample states that other supporters rarely/few times recycle (38 answers) and sometimes (35 answers). These numbers are disheartening, and it is up to sports organizations to promote recycling and other types of sustainable measures to their members and supporters.

## 5.2 Final Remarks

Based on the results obtained through the mixed approach in this case study it would be interesting for *Sport Lisboa e Benfica* to celebrate a partnership with a company in the plastic recycling and recovery sector, for example *Extruplás*. It is a company that recycles, collects and recovers mixed plastics from which it produces urban furniture, in 100% recycled plastic, thus preventing this waste from having landfill as its destination. It currently has a factory in Seixal, which is a common point, since Benfica's training center is precisely in this location.

Therefore, the products coming from the ECO Centre would be forwarded to this company in order to promote the circular economy. The final products from this partnership – indoor and outdoor furniture made of recycled plastic – would be delivered to retirement homes, children's "Centros de Acolhimento Temporário" and beaches in Portugal, promoting corporate social responsibility in a sports organization, allied with environmental sustainability.

In terms of the introduction of reusable plastic cups, the storage of those needs to be discussed, since it represents an extra cost for the organization, and also to the supporters' reaction to this change, as not all of them might be willing to accept it. For supporters, this change of paradigm includes a raise in prices and a change of habit.

Given the concern of supporters with sustainability and their recycling habits, it's possible to conclude that they would be willing to adopt more measures to promote environmental and social well-being.

## 5.3 Limitations

Throughout this study, there was an effort to conduct it as rigorous and enriching as possible, there are indeed limitations in this case. Limitations of this study will be explained and used to guide future research on this topic.

1. Results presented in this study are the consequences of limitations arising from the small sample research. The sample is therefore neither sufficiently probable nor large enough to extrapolate its characteristics to the Portuguese population, as it is an exploratory study aimed at capturing opinions on the issues analysed.
2. This research measured green products, with a particular focus on reusable cups, and the results might have been different if other types of sustainable products had been studied.

3. The conceptual model presented was adapted from the Theory of Planned Behaviour, and two variables were added, which are Willingness to Pay More and Perceived Value. More variables can be included in future research.
4. Conducting this research comes at a time when the crisis caused by the Covid-19 pandemic is ongoing, calling for respondents to answer according to the habits they had in pre-Covid times. This time difference may cause a change in the answers given.

## **5.4 Future Research Recommendations**

Following the mentioned limitations, it could be an interesting direction for future studies to attempt to generalize the investigation to other sports organizations, making possible a more complete analysis of the Portuguese club's context. Another possibility is also to extend the sample in the questionnaire. The combination of these two factors represents a key research opportunity to assess how the implementation of sustainable measures will be accepted in the various sports clubs. It would also be interesting, instead of studying Portuguese clubs in general, to compare between geographical locations. For example, between the North and the South, or between Mainland Portugal and the archipelagos.

In addition, for future research it might be curious to include the perspective of suppliers, since they are part of the distribution chain and from which they have another point of view, which may bring interesting contributions.

Future research should test the proposed model and apply it to different types of green products, and may also try to include other constructs, to increase the understanding about the green consumer behaviour and provide more insights.

Finally, it would be interesting to do a study in post-Covid times to see if the answers regarding the respondents' habits remain the same or differ.

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## 7.Appendix

### Appendix A – Interview Script

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## Introdução

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### Legitimação e motivação da entrevista

As questões que irão ser apresentadas integram uma pesquisa académica em desenvolvimento no âmbito do Mestrado em Gestão de Serviços e Tecnologias do Instituto Universitário de Lisboa, ISCTE-IUL. A pesquisa, que está sendo realizada por Tomás Carolino sob orientação das Professoras Doutoras Isabel Duarte de Almeida e Teresa Sofia Grilo, incide sobre a procura de um modelo de gestão sustentável e de desempenho da sustentabilidade em organizações desportivas.

O foco do projeto incide na forma como as soluções ambientais e sustentáveis estão a ser consideradas em instalações desportivas e organizações, como o SLB, e de como avaliar e aplicar atualmente uma abordagem específica no que respeita ao desenvolvimento de uma mudança progressiva para políticas de gestão e abordagens numa perspetiva de Economia Circular, tornando assim a organização mais sustentável. Esta mudança para um comportamento organizacional mais verde é particularmente pertinente em eventos desportivos com a presença de milhares de adeptos onde a prática de políticas mais sustentáveis iriam ter um impacto mais significativo.

Com a entrevista, e numa perspetiva geral, pretende-se

- (i) verificar e avaliar a perceção sobre a capacidade de resposta da organização (SLB) à interrupção do consumo de materiais de plástico de uso único (SUP) e sua substituição por materiais duradouros, reutilizáveis e recicláveis e
- (ii) pesquisar se o relacionamento entre *stakeholders* (os internos, envolvidos em relacionamentos diretos com aqueles que dirigem a organização, e os externos, que não se inter-relacionam diretamente com a organização) poderá influenciar a tomada de decisão em mudar para um consumo mais sustentável;
- (iii) esclarecer em que medida uma eventual ligação do SLB a empresas da indústria de recuperação e reciclagem de plásticos poderá reforçar políticas de uma economia circular que dariam ao



SLB uma vantagem competitiva no sector desportivo e ao mesmo tempo contribuiriam para o bem-estar da sociedade

- (iv) pesquisar as medidas de responsabilidade social (CSR) e de sensibilização social/ambiental implementadas no Clube e de que modo poderão ser potenciadas com este projeto.

#### Entrevistado

- Sexo (Feminino, Masculino)
- Idade
- Formação
- Função na organização
- Tempo na organização

#### Definições Gerais

Economia Circular - a economia circular implica a redução do desperdício ou dos resíduos ao mínimo. Quando um produto chega ao fim do seu ciclo de vida, os seus materiais são mantidos dentro da economia sempre que possível, podendo ser utilizados uma e outra vez, o que permite assim criar mais valor.

SUP (*Single-use plastic*) – como o próprio nome indica, são materiais de plástico para consumo utilizados por um período rápido antes de serem descartados.

CSR - incorporação de elementos éticos no planeamento da estratégia empresarial, tais como o bem-estar da sociedade e a preocupação ambiental.

#### Estrutura da Entrevista

O guião desta entrevista envolve 42 questões que estão organizadas em três grupos, respetivamente: Grupo I) questões relacionadas com o consumo de SUP nos dias de hoje, quer no dia-a-dia da organização, quer nos eventos desportivos; Grupo II) questões relacionadas com a identificação de possíveis medidas para combater o consumo excessivo e uma reciclagem mais eficiente de SUP e ao mesmo tempo contribuir para o bem-estar da sociedade, através de uma parceria com uma empresa no setor da recuperação de plástico; e Grupo III) questões relacionadas com as ações de cariz social praticadas pela organização.

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## Grupo I – Consumo de SUP

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Um dos maiores desafios à escala global é a poluição causada pelo uso excessivo de plástico. A implementação desta prática na organização contraria o atual modelo económico linear, definido como "take-make-dispose" (MacArthur, 2013), em que os bens são fabricados a partir de matérias-primas, vendidos, utilizados, e depois eliminados como resíduos. É importante ter uma mudança no paradigma económico para uma economia circular, com uma melhor gestão de resíduos e onde a alta taxa de reciclagem é uma chave para esta transição.

Quais são as barreiras subjacentes enfrentadas pelas organizações desportivas na gestão de resíduos sólidos, em particular os SUP e, como é que o SLB aborda a gestão dos mesmos?

- 1.1 Como descreveria a situação atual do SLB, na perspetiva da sustentabilidade e de implementação de práticas sustentáveis? É feito algum acompanhamento do impacto dessas práticas? Se sim, que indicadores são utilizados?
- 1.2 Numa perspetiva económica, ambiental e social, acredita que os princípios da Economia Circular são reconhecidos e estão implementados no clube?
- 1.3 Os Administradores de clubes desportivos, gestores de instalações, diretores e trabalhadores devem interagir com os seus *Stakeholders* de muitas maneiras e a diversos níveis. Qual é, para si, o peso dos seguintes *Stakeholders* do clube/sector desportivo nesta inovação e mudança para uma ótica mais sustentável?
  - a) os internos (envolvidos em relacionamentos diretos e continuados com aqueles que dirigem a organização → gestores de instalações, trabalhadores, atletas);
  - b) os externos (que não se inter-relacionam diretamente com a organização → os utilizadores das instalações, os espectadores, os media, os organizadores de eventos, os patrocinadores, doadores e fornecedores).
- 1.4 No dia-a-dia, e em relação aos resíduos sólidos produzidos, como o SLB leva a cabo a redução da produção destes (concertada com a eficiente utilização de materiais) e o aumento da percentagem de resíduos valorizados, reutilizados e reciclados;
- 1.5 Tem perceção da quantidade e diversidade de resíduos SUP criados nos eventos desportivos?
- 1.6 A maioria dos resíduos produzidos em eventos desportivos não é aproveitada, apesar das alternativas existentes como a reutilização ou reciclagem. Isto é particularmente grave quando se trata de plástico, muito do qual é de uso único (SUP), como é o caso de copos, palhinhas, embalagens de snacks, e que tem um enorme impacto ambiental.
  - a) Encontra alguma justificação para que isto aconteça?

- b) Qual seria a melhor solução para a resolução deste problema?
- 1.7 Quem toma decisões relativamente à aquisição de produtos SUP? Isto é, estes produtos são consumidos/adquiridos por opção do clube ou são imposições por parte dos fornecedores desses produtos (no caso das bebidas)?
- 1.8 De que forma no Sport Lisboa e Benfica se procede à gestão de resíduos SUP?
- 1.9 Quais são os maiores desafios encontrados pela organização quando se trata de gestão de resíduos SUP?
- 1.10 Quais são os papéis que as organizações desportivas deveriam desempenhar face ao problema inerente que é a gestão de resíduos SUP?

A criação de processos de recolha mais eficientes para reciclagem nos recintos desportivos facilitará a adoção de práticas sustentáveis por parte dos adeptos? Será possível a mudança de utilização de copos descartáveis para copos reutilizáveis?

- 1.11 No setor desportivo, dada a sua vivência e experiência, considera que o processo de recolha de produtos para reciclagem nos recintos desportivos é feita de uma forma fácil e intuitiva? Poderiam ser criados processos de recolha mais eficientes? Como?
- 1.12 Qual o grau de participação dos adeptos na gestão de resíduos SUP?
- 1.13 Para além da implementação de processos mais eficientes de recolha de resíduos, que outras medidas considera importantes adotar numa ótica de sustentabilidade?
- 1.14 O que pensa da mudança de utilização de copos SUP descartáveis para copos reutilizáveis nos eventos desportivos? Que outras soluções poderia antever para a eliminação de copos SUP descartáveis?
- 1.15 De acordo com a sua percepção, haveria impacto financeiro para o clube se esta mudança for implementada?

Até que ponto a existência de valores e preocupações ambientais na organização, assim como a existência de infraestruturas que permitam a implementação do projeto são percebidas como as condições base para a adoção de medidas?

- 1.16 Acredita que existe uma cultura de preocupação a nível ambiental na organização?
- 1.17 Considera que deveria ser feito um investimento a nível de infraestruturas de modo a promover a sustentabilidade quer no dia-a-dia da organização, quer nos dias de eventos desportivos? Porquê?
- 1.18 Qual seria o benefício para a organização em posicionar-se como uma instituição desportiva a ter claramente preocupação e responsabilidade ambiental?

- 1.19 Tem conhecimento do projeto ECO Benfica?
- a) Quais são os objetivos do projeto?
  - b) Quais as ações praticadas até à data? E quais estão previstas ser tomadas no futuro?

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## **Grupo II – Parceria com uma empresa “X” do setor de reciclagem de plásticos**

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A ideia passa pela criação de uma parceria entre o Sport Lisboa e Benfica e uma empresa presente no setor da reciclagem e recuperação de plásticos. Trata-se de uma empresa que recicla, recolhe e recupera produtos SUP e a partir dos quais produz mobiliário urbano, em plástico 100% reciclado, evitando assim que estes resíduos tenham como destino final o aterro, evitando também que sejam utilizados recursos naturais.

A empresa prossegue uma estratégia empresarial a médio/longo prazo baseada no conceito de crescimento sustentado, promovendo a importância da reciclagem de plásticos e a sua valorização em produtos com boas especificações e valor acrescentado, apoiando-se na eficiência produtiva e qualidade, inovação e investigação e na internacionalização.

A criação de uma parceira com uma empresa no ramo da recuperação de plásticos facilita a implementação de medidas CSR no Sport Lisboa e Benfica.

2.1 Que importância teria para o SLB o estabelecimento de uma parceria com uma empresa que permitisse a reutilização dos resíduos de plástico produzidos no clube?

2.2 Qual o grau de curiosidade que poderia haver sobre os novos produtos fabricados a partir dos plásticos descartados e o seu destino? A escolha da empresa em questão estaria influenciada pelos novos produtos que fabricaria ou esse aspeto é irrelevante?

2.3 Ao longo da sua experiência, alguma vez surgiu a hipótese de se criar uma parceria cujo objetivo não seria lucro, mas o de promover o bem-estar social e ambiental?

2.4 De acordo com a sua experiência opinião, que fatores influenciam o sucesso desta parceria?

2.5 Considera que os adeptos estariam interessados/dispostos em contribuir para o sucesso da parceria através de um maior cuidado aquando da separação dos resíduos dos produtos consumidos durante os eventos desportivos que irão posteriormente ser reciclados?

2.6 Caso a empresa fabricasse mobiliário e estruturas de exterior com plástico reciclado oriundo do SLB,

- a) Na sua opinião, o SLB teria interesse em adquirir os produtos fabricados por esta empresa ou preferiria apenas enviar para esta empresa os resíduos provenientes da reciclagem realizada nos eventos desportivos e no dia-a-dia da organização?
  - b) Até que ponto veria como provável o Benfica impor condições a nível de descontos no mobiliário e estruturas de apoio para equipar lares, orfanatos, jardins, praias...?
- 2.7 Na sua opinião e de acordo com a sua experiência, considera que esta parceria e os objetivos da mesma teriam algum impacto nas práticas empresariais das restantes organizações desportivas portuguesas?

As condições base para o desenvolvimento da parceria são a existência de valores e objetivos comuns e nível de confiança nos parceiros.

- 2.8 Qual o valor que atribui à existência de confiança organizacional entre os parceiros?
- 2.9 Considera que o facto de os parceiros confiarem no trabalho um do outro é suficiente para a criação de uma parceria?
- 2.10 Quem poderia ser responsável pela gestão e coordenação desta parceria?

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## **Grupo III – Responsabilidade Social**

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A indústria do desporto, sendo uma das formas mais populares de participação cultural, ultrapassando barreiras culturais tais como língua, religião, fronteiras geográficas, ou manifestações de nacionalismo, tem uma responsabilidade acrescida e um impacto ainda maior na sociedade.

Além disso, quase todas as organizações profissionais e equipas desportivas são vistas como membros influentes da comunidade global. Como membros influentes, estas organizações têm uma maior responsabilidade em assuntos relacionados com preocupações sociais e ambientais, uma vez que têm a facilidade de mudar o comportamento dos cidadãos.

A existência de práticas de cariz social pelas organizações desportivas leva a um aumento do reconhecimento por parte dos adeptos e sociedade.

- 3.1 Na sua opinião, qual o papel das organizações junto da sociedade?
- 3.2 Dada a sua experiência, que tipos de ações de cariz social são praticadas pelo Sport Lisboa e Benfica?
- 3.3 Na sua opinião, existem ações que poderiam/deveriam ser tomadas pelas organizações desportivas com o objetivo de melhorar o bem-estar da sociedade?
  - a) Que ações seriam essas? De que forma poderiam ser implementadas?

- b) Qual seria o impacto na vida dessas pessoas?
- c) Quais são as maiores barreiras que vê para a adoção de mais ações de cariz social?
- d) De que forma é que essas práticas iriam afetar o reconhecimento dos adeptos e da sociedade em geral?

3.4 Acredita que as restantes organizações desportivas iriam adotar medidas iguais ou similares?

3.5 Vê com bons olhos uma possível união entre vários clubes desportivos para juntos contribuírem para o bem-estar da sociedade?

A Fundação Benfca tem um papel importante na sociedade.

3.6 Qual o papel da Fundação Benfca junto da sociedade?

3.7 Quais são as formas de financiamento da Fundação Benfca?

3.8 O que sente que falta à Fundação Benfca? De que formas poderia melhorar?

3.9 Quais os benefícios que vê para a organização em ter este tipo de Fundações?

A existência de uma visão mais direccionada para a responsabilidade social e ambiental leva a um aumento do reconhecimento por parte dos adeptos e sociedade.

3.10 Como vê o papel das organizações desportivas em influenciar os adeptos para que estes adotem melhores práticas ambientais e sociais, dentro e fora dos recintos desportivos? Acredita que as grandes organizações têm um papel influenciador na sociedade e que, ao adotarem estas medidas, podem influenciar a que os adeptos e a sociedade em geral deem mais atenção a estes tema?

3.11 Quais os benefícios que vê numa mudança de visão da organização mais direccionada para a sociedade?

3.12 Quais os maiores desafios a enfrentar para essa mudança?

3.13 Existe alguma pressão da sociedade para que as grandes instituições se tornem socialmente mais responsáveis?

## **Appendix B – Questionnaire in Portuguese**

**Title:** Sustentabilidade nas Organizações Desportivas

### **Introduction:**

Caro (a) participante,

O presente estudo de investigação insere-se no âmbito da Dissertação de Mestrado em Gestão de Serviços e Tecnologia pelo ISCTE-IUL Business School (ISCTE IBS) e tem como principal objetivo analisar o impacto que as organizações desportivas têm nos seus adeptos no que toca a implementação de práticas sustentáveis, assim como a aceitação destas medidas nos eventos desportivos por parte dos mesmos.

A sua participação é voluntária e não existem respostas certas ou erradas, pelo que se pretende que responda de forma mais honesta possível.

Sublinha-se que todos os dados recolhidos são absolutamente confidenciais e anónimos e serão exclusivamente utilizados para tratamento estatístico neste estudo académico. O tempo estimado de resposta é de, aproximadamente, 8 minutos.

Antecipadamente grato pela sua disponibilidade e colaboração,

Tomás Carolino

## 1<sup>st</sup> Section – Demographic Information

Introduction:

São necessários alguns dados de cariz pessoal por forma a caraterizar a amostra.

	Idade

	Sexo
	Masculino
	Feminino
	Prefere não dizer

	Educação
	Frequento/Frequentei o Ensino superior
	Nunca frequentei o Ensino superior

	Clube
	Não tenho
	Sport Lisboa e Benfica
	Sporting Clube de Portugal
	Futebol Clube do Porto
	Sporting Clube de Braga
	Clube de Futebol “Os Belenenses”
	Vitória Sport Club
	Outro



## 2<sup>nd</sup> Section – Evaluation of Model Variables (Belief Constructs)

Introduction:

Este questionário mede diferentes variáveis como crenças, atitudes, intenção, controlo, influência de grupos, entre outros; com o objetivo de compreender o modo como as pessoas veem e agem com o meio à sua volta.

Considere "produtos verdes" como aqueles que são fabricados segundo uma política deliberada de gestão ambiental, onde a produção é efetuada segundo critérios de eficiência energética, conservação de recursos naturais, preocupação com a saúde do consumidor, segurança ambiental, facilidade de reutilização, durabilidade e biodegradabilidade.

Naturalmente que com a pandemia do COVID-19 muitas das perguntas apresentadas não poderão ser respondidas, visto que muita coisa mudou, por isso apelo a que retorne aos hábitos que tinha em tempos de pré-pandemia.

Por favor, leia cuidadosamente cada afirmação e responda a cada pergunta de acordo com o seu grau de concordância.

<b>Behavioural Belief</b>	<b>Adquirir/usar um produto verde permitir-me-ia...</b>				
	<b>Discordo Totalmente</b>			<b>Concordo Totalmente</b>	
ajudar a salvar o meio ambiente.	[1]	[2]	[3]	[4]	[5]
ser um cidadão responsável.	[1]	[2]	[3]	[4]	[5]
viver num ambiente melhor e limpo	[1]	[2]	[3]	[4]	[5]
realizar práticas amigas do ambiente	[1]	[2]	[3]	[4]	[5]
implementar iniciativas verdes na minha vida	[1]	[2]	[3]	[4]	[5]

Outcome Evaluation	Escolha o grau de importância com que mais se identifica				
	Nada Importante			Muito Importante	
ajudar a salvar o meio ambiente.	[1]	[2]	[3]	[4]	[5]
ser um cidadão responsável.	[1]	[2]	[3]	[4]	[5]
viver num ambiente melhor e limpo	[1]	[2]	[3]	[4]	[5]
realizar práticas amigas do ambiente	[1]	[2]	[3]	[4]	[5]
implementar iniciativas verdes na minha vida	[1]	[2]	[3]	[4]	[5]

Normative Belief	Sinto influência para comprar/usar produtos verdes no lugar dos convencionais não verdes, por parte...				
	Discordo Totalmente			Concordo Totalmente	
da minha família.	[1]	[2]	[3]	[4]	[5]
dos meus amigos.	[1]	[2]	[3]	[4]	[5]
dos meus colegas.	[1]	[2]	[3]	[4]	[5]
do meu clube	[1]	[2]	[3]	[4]	[5]
da sociedade.	[1]	[2]	[3]	[4]	[5]

Motivation to Comply	Quão provável é para si fazer o que...				
	Muito Improvável			Muito Provável	
a sua família acha que deve fazer	[1]	[2]	[3]	[4]	[5]
os meus amigos acham que deve fazer.	[1]	[2]	[3]	[4]	[5]
os meus colegas acham que deve fazer.	[1]	[2]	[3]	[4]	[5]
o seu clube acha que deve fazer	[1]	[2]	[3]	[4]	[5]
a sociedade acha que deve fazer.	[1]	[2]	[3]	[4]	[5]

<b>Control Belief</b>	Com base nos fatores mencionados, indique o seu grau de concordância em relação ao peso que estes apresentam na compra de produtos verdes.				
	Discordo Totalmente		Concordo Totalmente		
Para adquirir produtos verdes no meu clube, a localização e distribuição dos produtos precisa ser conveniente	[1]	[2]	[3]	[4]	[5]
Adquirir/usar produtos verdes requer tempo e esforço.	[1]	[2]	[3]	[4]	[5]
O meu clube facilita-me produtos verdes e incentive-me a usá-los.	[1]	[2]	[3]	[4]	[5]

<b>Perceived Power</b>	Com base nos fatores condicionantes mencionados, para a tomada de decisão de compra de produtos verdes, indique o seu grau de concordância.				
	Discordo Totalmente		Concordo Totalmente		
A localização/distribuição facilitada de produtos verdes no meu clube é um fator crítico na tomada de decisão de os adquirir/usar	[1]	[2]	[3]	[4]	[5]
O tempo e o esforço necessários para adquirir/usar produtos verdes são muito importantes na tomada de decisão de os adquirir/usar	[1]	[2]	[3]	[4]	[5]
O meu clube facilita-me produtos verdes e incentive-me a usá-los.	[1]	[2]	[3]	[4]	[5]

### 3<sup>rd</sup> Section – Evaluation of Model Variables

Introduction:

Relativamente à atitude perante a intenção de compra de produtos verdes, na sua perspetiva, escolha a opção mais adequada nas seguintes afirmações.

<b>Attitude</b>	<b>Adquirir/usar produtos verdes é:</b>					
Muito Mau	[1]	[2]	[3]	[4]	[5]	Muito Bom
Muito Indesejável	[1]	[2]	[3]	[4]	[5]	Muito Desejável
Muito Aborrecido	[1]	[2]	[3]	[4]	[5]	Muito Divertido
Muito Desfavorável	[1]	[2]	[3]	[4]	[5]	Muito Favorável
Muito Insensato	[1]	[2]	[3]	[4]	[5]	Muito Sensato
Muito Desagradável	[1]	[2]	[3]	[4]	[5]	Muito Agradável

<b>Subjective Norm</b>	<b>Relativamente ao seu contexto social, indique o grau de concordância com as seguintes afirmações:</b>				
	Discordo Totalmente		Concordo Totalmente		
A maioria das pessoas que me é importante quer que eu adquira/use produtos verdes	[1]	[2]	[3]	[4]	[5]
A maioria das pessoas que me é importante considera que eu deveria adquirir/usar produtos verdes	[1]	[2]	[3]	[4]	[5]
A maioria dos adeptos do clube entende que deveria adquirir/usar produtos verdes	[1]	[2]	[3]	[4]	[5]
A direção, os atletas e os empresários desportivos do meu clube encorajam-me e os adeptos a adquirir/usar produtos verdes	[1]	[2]	[3]	[4]	[5]

<b>Perceived Behavioural Control</b>	Com base na percepção do control que possui, indique o grau de concordância com as seguintes afirmações				
	Discordo Totalmente		Concordo Totalmente		
Se eu uso/adquiro ou não um produto verde no lugar de um produto convencional não verde depende totalmente de mim	[1]	[2]	[3]	[4]	[5]
Tenho recursos, tempo e oportunidades para adquirir/usar produtos verdes	[1]	[2]	[3]	[4]	[5]
Estou confiante de que, se quiser, posso adquirir/usar produtos verdes no lugar de produtos convencionais não verdes	[1]	[2]	[3]	[4]	[5]
Nos eventos desportos a que irei assistir, só irei usar/adquirir no local produtos verdes em vez dos convencionais se o clube os oferecer	[1]	[2]	[3]	[4]	[5]

<b>Perceived Value</b>	Com base na sua percepção do valor dos produtos verdes, indique o grau de concordância com as seguintes afirmações:				
	Discordo Totalmente		Concordo Totalmente		
As características ambientais dos produtos verdes proporcionam um bom valor para mim	[1]	[2]	[3]	[4]	[5]
As características ambientais dos produtos verdes proporcionam um bom valor para o meu clube	[1]	[2]	[3]	[4]	[5]
O desempenho ambiental dos produtos verdes corresponde às minhas expectativas	[1]	[2]	[3]	[4]	[5]
Eu adquiro produtos verdes porque têm melhor desempenho ambiental do que os não verdes	[1]	[2]	[3]	[4]	[5]
Se eu estiver num evento desportivo, uso/adquiro produtos verdes porque valoriza a imagem do meu clube	[1]	[2]	[3]	[4]	[5]
Se o meu clube valoriza as questões ambientais, sinto que devo seguir as suas ideias, e por isso, comprar produtos verdes nos eventos desportivos	[1]	[2]	[3]	[4]	[5]

<b>Willingness to Pay More</b>	Relativamente à disposição para pagar mais pela compra de produtos verdes, indique o grau de concordância com as seguintes afirmações:				
	Discordo Totalmente		Concordo Totalmente		
Eu pagaria mais por um produto verde que se esforça para ser ambientalmente sustentável.	[1]	[2]	[3]	[4]	[5]
Eu pagaria mais por um produto verde para ajudar o meu clube a tornar-se ambientalmente sustentável.	[1]	[2]	[3]	[4]	[5]
Escolha a percentagem que acrescentaria ao valor do próprio produto com que mais se identifica	0%	1% a 5%	6% a 10%	11% a 15%	16% a 20% >20%

## 4<sup>th</sup> Section – Evaluation of Model Variables

Introduction:

Relativamente ao seu comportamento perante a intenção de adquirir/usar produtos verdes, escolha a opção que considera mais adequada em cada uma das seguintes afirmações:

<b>Purchase Intention</b>	Relativamente à intenção do comportamento de compra, indique o grau de concordância com as seguintes afirmações				
	Discordo Totalmente		Concordo Totalmente		
Vou comprar produtos verdes para uso pessoal	[1]	[2]	[3]	[4]	[5]
Vou comprar produtos verdes no estádio para uso no próprio	[1]	[2]	[3]	[4]	[5]
Estou disposto a comprar produtos verdes para uso no estádio	[1]	[2]	[3]	[4]	[5]
Farei esforço para comprar produtos verdes	[1]	[2]	[3]	[4]	[5]
Estarei disposto a comprar produtos verdes no meu clube porque é uma forma deste melhorar a sua imagem	[1]	[2]	[3]	[4]	[5]

<b>Purchase Behaviour</b>	Relativamente ao comportamento de compra, indique o grau de concordância com as seguintes afirmações				
	Discordo Totalmente		Concordo Totalmente		
Tenho comprado produtos verdes regularmente	[1]	[2]	[3]	[4]	[5]
Tenho comprado no estádio ou no meu clube produtos verdes, habitualmente	[1]	[2]	[3]	[4]	[5]
Tenho um comportamento de compra verde para os meus produtos de necessidades diárias	[1]	[2]	[3]	[4]	[5]
Tenho um comportamento de compra verde nos últimos seis meses	[1]	[2]	[3]	[4]	[5]
É para beneficiar a imagem do meu clube que eu compro produtos verdes que são promovidos pelo clube	[1]	[2]	[3]	[4]	[5]

## 5<sup>th</sup> Section – Recycling Habits

Introduction:

Nesta última secção pretende-se que responda a um conjunto de perguntas relativas aos seus hábitos de reciclagem.

	Com que frequência faz tudo o que é necessário para reciclar em sua casa?
	Sempre
	Frequentemente
	Por vezes
	Raramente
	Nunca

	Durante um jogo ou evento desportivo, com que frequência recicla nos recintos desportivos
	Sempre
	Frequentemente
	Por vezes
	Raramente
	Nunca

Para cada uma das afirmações, indique o grau de concordância:					
	Discordo Totalmente			Concordo Totalmente	
Normalmente faço tudo o que é necessário para reciclar no meu clube	[1]	[2]	[3]	[4]	[5]
Fazer tudo o que é necessário para reciclar nos recintos desportivos é algo que eu faço sem ter de me lembrar conscientemente de o fazer	[1]	[2]	[3]	[4]	[5]
Faz-me sentir mal se não fizer tudo o que é necessário para reciclar nos recintos desportivos	[1]	[2]	[3]	[4]	[5]



Exigiria esforço da minha parte não fazer tudo o que é necessário para reciclar nos recintos desportivos	[1]	[2]	[3]	[4]	[5]
Teria dificuldade em não fazer tudo o que é necessário para reciclar nos recintos desportivos.	[1]	[2]	[3]	[4]	[5]

Indique com que frequência as seguintes questões se aplicam a si:					
	Nunca	Raramente	Por vezes	Frequentemente	Sempre
Com que frequência os seus hábitos ajudaram a reciclar nos recintos desportivos?	[1]	[2]	[3]	[4]	[5]
Com que frequência as rotinas que segue ajudaram a reciclar nos recintos desportivos?	[1]	[2]	[3]	[4]	[5]
Com que frequência os procedimentos operacionais do seu clube ajudaram a reciclar nos recintos desportivos?	[1]	[2]	[3]	[4]	[5]
Quantas vezes fazer as tarefas da mesma maneira ajudou a reciclar nos recintos desportivos?	[1]	[2]	[3]	[4]	[5]

	Reciclar nos eventos desportivos é:					
Muito Mau	[1]	[2]	[3]	[4]	[5]	Muito Bom
Muito Indesejável	[1]	[2]	[3]	[4]	[5]	Muito Desejável
Muito Prejudicial	[1]	[2]	[3]	[4]	[5]	Muito Benéfico
Muito Inútil	[1]	[2]	[3]	[4]	[5]	Muito Útil
Muito Desfavorável	[1]	[2]	[3]	[4]	[5]	Muito Favorável

	Quais são os hábitos em termos de reciclagem dos restantes adeptos nos recintos desportivos?
	Reciclam sempre
	Normalmente reciclam
	Por vezes reciclam
	Poucas vezes ou raramente reciclam
	Não tenho conhecimento

## Appendix C – Constructs and measuring items

Constructs	Question	Measuring Items
<b>Behavioral Belief (BB)</b> (1- strongly disagree / 5- strongly agree)	Buying a green product would enable me to	BB1: help save the environment. BB2: be a responsible citizen. BB3: stay in a clean & better environment. BB4: perform eco- friendly practices. BB5: implement green initiatives in my life.
<b>Outcome Evaluation (OE)</b> (1- not at all important / 5- extremely important)	Regarding the following statements, choose the degree of importance with which you most identify.	OE1: to me helping to save the environment is OE2: to me being responsible towards society is OE3: to me staying in clean and better environment is OE4: to me performing eco-friendly practices is OE5: to me implementing green initiatives in my life is
<b>Normative Belief (NB)</b> (1- strongly disagree / 5- strongly agree)	I sense influence to buy/use green products in place of conventional non-green products, by...	NB1: my family NB2: my friends NB3: my colleagues NB4: my club NB5: society
<b>Motivation to Comply (MC)</b> (1- extremely unlikely / 5- extremely likely)	How likely is it for you to do what...	MC1: your family thinks you should do MC2: your friends think you should do MC3: your colleagues think you should do MC4: your club thinks you should do MC5: society thinks you should do
<b>Control Belief (CB)</b> (1- strongly disagree / 5- strongly agree)	Based on the factors mentioned, please indicate your degree of agreement regarding their importance in buying	CB1: To purchase/use green products in my club, the location and distribution of the products must be convenient CB2: Purchasing/using green products takes time and effort CB3: My club provides me with green products and encourages me to use them
<b>Perceived Power (PP)</b> (1- strongly disagree / 5- strongly agree)	Based on the mentioned conditioning factors for making a decision to purchase green products, please indicate your degree of agreement	PP1: easy location/distribution of green products in my club is a critical factor in making the decision to purchase/use them. PP2: time and effort needed to buy is very important while making decision to buy green products. PP3: if my club wants to have green products for use by supporters, I will only purchase/use them if they are free and very affordable
<b>Attitude (ATT)</b>	Buying green product is	ATT1: extremely bad (1)/extremely good (5) ATT2: extremely undesirable (1)/extremely desirable (5) ATT3: extremely unenjoyable (1)/extremely enjoyable (5) ATT4: extremely foolish (1)/extremely wise (5) ATT5: extremely unfavourable (1)/extremely favourable (5) ATT6: extremely unpleasant (1)/extremely pleasant (5)
<b>Subjective Norm (SN)</b> (1- strongly disagree / 5- strongly agree)	Regarding your social context, please indicate the degree to which you agree with the following statements	SN1: most people who are important to me would want me to purchase eco-friendly products SN2: most people who are important to me would think I should purchase green products. SN3: most supporters of my club and that I know understand that I should buy/use green products SN4: management, athletes and sports entrepreneurs of my club encourage me and the other supporters to buy/use green products
<b>Perceived Behavior Control (PBC)</b> (1- strongly agree / 5- strongly disagree)	Based on your perception of control, please indicate the degree to which you agree with the following statements:	PBC1: whether or not I buy green product at place of conventional non-green product is completely up to me PBC2: I have resources, time and opportunities to buy green products. PBC3: I am confident that if I want to, I can buy green product at place of conventional non-green product. PBC4: In the sports events I will attend, I will only use/buy green products on site instead of conventional ones, if the club offers them.

<p><b>Perceived Value (PV)</b> (1-strongly disagree / 5- strongly disagree)</p>	<p>Based on your perception of the value of green products, please indicate the degree to which you agree with the following statements</p>	<p>PV1: the green product's environmental functions provide good value to me.  PV2: the green product's environmental functions provide good value to my club.  PV3: the green product's environmental performance meets my expectations.  PV4: I purchase green product because it has more environmental benefit than non-green products.  PV5: I am at a sporting event at my club's facilities, I buy/use green products on site instead of non-green ones because I know it adds value to my club.  PV6: my club values environmental issues, so I feel that I should follow their ideas and therefore buy green products at the facilities during a sporting event.</p>
<p><b>Willingness to Pay More (WPM)</b> (1-strongly disagree / 5- strongly disagree)</p>	<p>Regarding the willingness to pay more for buying green products, please indicate the degree to which you agree with the following statements:</p>	<p>WPM1: I would pay more for a green product that is making efforts to be environmentally sustainable.  WPM2: I would pay more for a green product that help my club being environmentally sustainable.  WPM3: I would be willing to pay this extra percentage on the green products to support the organization's/product efforts to be environmentally sustainable. (1) 0% (2) 1–5% (3) 6–10% (4) 11–15% (5) 16–20% (6) &gt;20%</p>
<p><b>Purchase Intention (PI)</b> (1-strongly disagree / 5- strongly disagree)</p>	<p>Regarding purchase behavior intention, please indicate the degree to which you agree with the following statements:</p>	<p>PI1: I will purchase green products for personal use.  PI2: I will purchase green products to use it in sports facilities  PI3: I am willing to purchase green products to use it in sports facilities  PI4: I will make an effort to purchase green products.  PI5: I will be willing to buy green products from my club because it is a way to improve its image</p>
<p><b>Purchase Behavior (PB)</b> (1-strongly disagree / 5- strongly disagree)</p>	<p>Regarding purchase behavior, please indicate the degree to which you agree with the following statements:</p>	<p>PB1: I have been purchasing green products at regular basis  PB2: I have been purchasing green products in sports facilities at regular basis  PB3: I have green purchasing behaviour for my daily needs products  PB4: I have green purchasing behaviour over the past six months  PB5: It is to benefit my club's image that I buy green products that are promoted by the club</p>

## Appendix D- Sample Characterization

Independent Variable		AF	RF (%)
Gender	Male	53	51
	Female	51	49
	<b>Total</b>	104	100
Age	<= 40 years old	53	51
	>40 years old	51	49
	<b>Total</b>	104	100
Education	With Higher Education	76	73,1
	Without Higher Education	28	26,9
	<b>Total</b>	104	100
Club preferences	Sport Lisboa e Benfica	52	50
	Sporting Clube de Portugal	26	25
	Futebol Clube do Porto	2	1,9
	Clube de Futebol "Os Belenenses"	15	14,4
	No club	9	8,7
	<b>Total</b>	104	100

## Appendix E – Synthetic Index

Index	Indicators	Minimum	Maximum	Mean	Standard Deviation	Cronbach's Alpha
<b>Behavioural Belief</b>	Help save the environment	1	5	4,1	1,02	0,939
	Be a responsible citizen	1	5	4,3	,98	
	Stay in a clean and better environment	1	5	4,3	1,05	
	Perform eco-friendly practices	1	5	4,3	1,01	
	Implement green initiatives in my life	1	5	4,1	,99	
	<b>Behavioural Belief</b>	<b>1</b>	<b>5</b>	<b>4,2</b>	<b>,91</b>	
<b>Outcome Evaluation</b>	To me helping to save the environment is	1	5	3,4	1,92	0,770
	To me being responsible towards the society is	1	5	3,5	1,90	
	To me staying in clean and better environment is	1	5	4,0	1,74	
	To me performing eco-friendly practices is	1	5	2,8	1,98	
	To me implementing green initiatives in my life is	1	5	2,6	1,89	
	<b>Outcome Evaluation</b>	<b>1</b>	<b>5</b>	<b>3,3</b>	<b>1,36</b>	
<b>Normative Belief</b>	Family	1	5	3,2	1,09	0,797
	Friends	1	5	3,3	,86	
	Colleagues	1	5	3,1	,95	
	Club	1	5	2,8	1,16	
	Society	1	5	3,5	1,08	
	<b>Normative Belief</b>	<b>1</b>	<b>5</b>	<b>3,2</b>	<b>,77</b>	
<b>Motivation to Comply</b>	Family	1	5	3,5	1,00	0,847
	Friends	1	5	3,3	,82	
	Colleagues	1	5	2,9	,89	
	Club	1	5	2,6	1,05	
	Society	1	5	3,1	,97	
	<b>Motivation to Comply</b>	<b>1</b>	<b>5</b>	<b>3,1</b>	<b>,75</b>	
<b>Perceived Power</b>	Easy location/distribution of green products in my club is a critical factor in making the decision to purchase/use them.	1	5	3,5	1,01	0,691
	Time and effort required to purchase/use green products are very important in making the decision to purchase/use them.	2	5	3,8	,90	
	If my club wants to have green products for use by fans, I will only purchase/use them if they are free and very affordable	1	5	3,0	1,14	
	<b>Perceived Power</b>	<b>2</b>	<b>5</b>	<b>3,4</b>	<b>,80</b>	
<b>Attitude</b>	Extremely bad (1) / extremely good (5)	3	5	4,5	,62	0,809
	Extremely undesirable (1) / extremely desirable (5)	2	5	4,4	,75	
	Extremely unenjoyable (1) / extremely enjoyable (5)	2	5	3,6	,72	
	Extremely foolish (1) / extremely wise (5)	3	5	4,7	,56	
	Extremely unfavourable (1) / extremely favourable (5)	3	5	4,5	,68	
	Extremely unpleasant (1) / extremely pleasant (5)	3	5	4,2	,73	
	<b>Attitude</b>	<b>3</b>	<b>5</b>	<b>4,3</b>	<b>,51</b>	
<b>Subjective Norm</b>	Most people who are important to me would want me to purchase eco-friendly products	1	5	3,4	,93	0,830

	Most people who are important to me would think I should purchase green products	1	5	3,4	,90	
	Most supporters of my club and that I know understand that I should buy/use green products	1	5	2,7	,80	
	The management, athletes and sports entrepreneurs of my club encourage me and the supporters to buy/use green products	1	5	2,7	,95	
	<b>Subjective Norm</b>	1	5	3,0	,73	
<b>Perceived Behavioural Control</b>	Whether or not I buy green product at place of conventional non-green product is completely up to me	2	5	3,8	,73	0,631
	I have resources, time and opportunities to buy green product	1	5	3,7	,94	
	I am confident that if I want to, I can buy green product at place of conventional non-green product	2	5	3,8	,89	
	<b>Perceived Behavioural Control</b>	2	5	3,7	,76	
<b>Perceived Value</b>	The green product's environmental functions provide good value to me.	1	5	4,0	,79	0,715
	The green product's environmental functions provide good value to my club.	2	5	3,8	,79	
	The green product's environmental performance meets my expectations	2	5	3,7	,74	
	I purchase green product because it has more environmental concern than non-green products	2	5	4,2	,76	
	If I am at a sporting event at my club's facilities, I buy/use green products on site instead of traditional ones because I know it adds value to my club.	1	5	3,5	,91	
	If my club values environmental issues, I feel I should follow their ideas and therefore purchase green products at the stadium during a sporting event.	1	5	3,7	,92	
	<b>Perceived Value</b>	3	5	4	1	
<b>Willingness to Pay More</b>	I would pay more for a green product that is making efforts to be environmentally sustainable	1	5	3,7	,96	0,707
	I would pay more for a green product to help my club become environmentally sustainable.	1	5	3,3	1,06	
	<b>Willingness to Pay More</b>	1	5	3,5	,89	
<b>Purchase Intention</b>	I will purchase green products for personal use	1	5	3,9	,81	0,869
	I will purchase green products at the stadium	1	5	3,3	1,00	
	I am willing to purchase green products to use at the stadium	1	5	3,6	,97	
	I will make an effort to purchase green products	2	5	3,9	,80	
	I am willing to purchase green products from my club because it is a way to improve its image	1	5	3,5	,98	
	<b>Purchase Intention</b>	1	5	3,6	,74	
<b>Purchase Behaviour</b>	I have been purchasing green products at regular basis	1	5	3,3	1,03	0,856
	I have usually purchased green product at my club facilities	1	5	2,4	1,14	
	I have green purchasing behaviour for my daily needs' products	1	5	3,3	1,12	
	I have green purchasing behaviour over the past six months	1	5	3,4	1,03	

	It is to benefit my club's image that I buy green products that are promoted by the club	1	5	2,7	1,09	
	<b>Purchase Behaviour</b>	1	5	3,0	,86	

## Appendix F- Behavioural Belief Construct

Behavioural Belief		N	Mean	Std. Deviation	Std. Error Mean
Gender	Female	51	4,137	1,1045	0,1547
	Male	53	4,332	,6574	0,0903
Age	<= 40	53	4,396	,5554	0,0763
	> 40	51	4,071	1,1460	0,1605
Education	With Higher Education	76	4,158	,9354	0,1073
	Without Higher Education	28	4,450	,7956	0,1504

Behavioural Belief		Levene's test for Equality of Variances		Test-t for Equality Means					95% Confidence interval of the Difference	
				F	Sig.	t	df	Sig. (2 tailed)	Mean Difference	Std. Error Difference
Gender	Equal Variances Assumed	4,846	0,030	-1,098	102	,275	-,1948	,1774	-,5468	,1571
	Equal Variances not Assumed			-1,089	80,866	,280	-,148	,1791	-,5512	,1615
Age	Equal Variances Assumed	7,203	,008	1,855	102	,067	,3256	,1756	-,0226	,6739
	Equal Variances not Assumed			1,833	71,636	,071	,3256	,1777	-,0286	,6799
Education	Equal Variances Assumed	,486	,487	-1,467	102	,145	-,2921	,1991	-,6870	,1028
	Equal Variances not Assumed			-1,581	56,253	,119	-,2921	,1847	-,6621	,0779



## Appendix G- Outcome Evaluation Construct

Outcome Evaluation		N	Mean	Std. Deviation	Std. Error Mean
Gender	Female	51	3,506	1,3922	,1949
	Male	53	3,008	1,2991	,1784
Age	<= 40	53	3,075	1,2693	,1744
	> 40	51	3,435	1,4421	,2019
Education	With Higher Education	76	3,179	1,3516	0,1550
	Without Higher Education	28	3,450	1,3959	0,2638

Outcome Evaluation		Levene's test for Equality of Variances		Test-t for Equality Means					95% Confidence interval of the Difference	
		F	Sig.	t	df	Sig. (2 tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Gender	Equal Variances Assumed	,625	,431	1,888	102	,062	,4983	,2639	-,0252	1,0281
	Equal Variances not Assumed			1,886	100,827	,062	,4983	,2643	-,0259	1,0226
Age	Equal Variances Assumed	2,035	,157	-1,352	102	,179	-,3598	,2661	-,8877	,1680
	Equal Variances not Assumed			-1,349	99,283	,180	,3598	,2668	-,8892	,1695
Education	Equal Variances Assumed	,002	,969	-,899	102	,371	-,2711	,3014	-,8689	,3268
	Equal Variances not Assumed			-,886	46,860	,380	-,2711	,3060	-,8867	,3446

## Appendix H- Normative Belief Construct

Normative Belief		N	Mean	Std. Deviation	Std. Error Mean
Gender	Female	51	3,227	,8050	,1127
	Male	53	3,102	,7345	,1009
Age	<= 40	53	2,985	,6712	,0922
	> 40	51	3,349	,8245	,1154
Education	With Higher Education	76	3,176	,6458	,0741
	Without Higher Education	28	3,129	1,0459	,1977

Normative Belief		Levene's test for Equality of Variances		Test-t for Equality Means					95% Confidence interval of the Difference	
		F	Sig.	t	df	Sig. (2 tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Gender	Equal Variances Assumed	,124	,725	,832	102	,408	,1256	,1510	-,1740	,4251
	Equal Variances not Assumed			,830	100,301	,408	,1256	,1513	-,1746	,4257
Age	Equal Variances Assumed	1,224	,271	-2,474	102	,015	-,3641	,1472	-,6560	-,0722
	Equal Variances not Assumed			-2,464	96,409	,015	-,3641	,1477	-,6574	-,0709
Education	Equal Variances Assumed	9,755	,002	,280	102	,780	,0477	,1707	-,2908	,3863
	Equal Variances not Assumed			,226	34,869	,822	,0477	,2111	-,3808	,4763

## Appendix I- Motivation to Comply Construct

Motivation to Comply		N	Mean	Std. Deviation	Std. Error Mean
Gender	Female	51	2,973	,8410	,1178
	Male	53	3,181	,6316	,0868
Age	<= 40	53	2,962	,5100	,0701
	> 40	51	3,200	,9191	,1287
Education	With Higher Education	76	3,039	,6299	,0723
	Without Higher Education	28	3,186	1,0006	,1891

Motivation to Comply		Levene's test for Equality of Variances		Test-t for Equality Means					95% Confidence interval of the Difference	
		F	Sig.	T	df	Sig. (2 tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Gender	Equal Variances Assumed	6,457	,013	-1,434	102	,155	-,2086	,1455	-,4971	,0800
	Equal Variances not Assumed			-1,426	92,734	,157	-,2086	,1463	-,4990	,0819
Age	Equal Variances Assumed	13,472	,000	-1,639	102	,104	-,2377	,1450	-,5254	,0499
	Equal Variances not Assumed			-1,622	77,475	,109	-,2377	,1465	-,5295	,0540
Education	Equal Variances Assumed	7,892	,006	-,887	102	,377	-,1462	,1650	-,4734	,1810
	Equal Variances not Assumed			-,722	35,190	,475	-,1462	,2024	-,5571	,2647

## Appendix J- Control Belief Construct

Control Belief		N	Mean	Std. Deviation	Std. Error Mean
Gender	Female	51	3,268	0,8028	,1124
	Male	53	3,409	,5870	,0806
Age	<= 40	53	3,352	,5899	,0810
	> 40	51	3,327	,8069	,1130
Education	With Higher Education	76	3,285	,6782	,0779
	Without Higher Education	28	3,488	,7508	,1419

Control Belief		Levene's test for Equality of Variances		Test-t for Equality Means					95% Confidence interval of the Difference	
		F	Sig.	T	df	Sig. (2 tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Gender	Equal Variances Assumed	3,304	,072	-1,024	102	,308	-,1408	,1375	-,4136	,1320
	Equal Variances not Assumed			-1,1018	91,418	,311	-,1408	,1383	-,4156	,1340
Age	Equal Variances Assumed	2,293	,133	,184	102	,855	,0254	,1382	-,2488	,2996
	Equal Variances not Assumed			,183	91,404	,855	,0254	,1390	-,2508	,3016
Education	Equal Variances Assumed	,039	,844	-1,314	102	,192	-,2030	,1545	-,5895	,1034
	Equal Variances not Assumed			-1,254	44,289	,216	-,2030	,1619	-,5292	,1231

## Appendix K- Perceived Power Construct

Perceived Power		N	Mean	Std. Deviation	Std. Error Mean
Gender	Female	51	3,366	,8544	,1196
	Male	53	3,503	,7500	,1030
Age	<= 40	53	3,629	,8182	,1124
	> 40	51	3,235	,7403	,1037
Education	With Higher Education	76	3,377	,8062	,0925
	Without Higher Education	28	3,595	,7823	,1478

Perceived Power		Levene's test for Equality of Variances		Test-t for Equality Means					95% Confidence interval of the Difference	
				T	df	Sig. (2 tailed)	Mean Difference	Std. Error Difference	Lower	Upper
		F	Sig.							
Gender	Equal Variances Assumed	,379	,540	-,871	102	,386	-,1371	,1575	-,4495	,1752
	Equal Variances not Assumed			-,869	99,196	,387	-,1371	,1579	-,4504	,1761
Age	Equal Variances Assumed	,377	,540	2,570	102	,012	,3936	,1532	,0898	,6975
	Equal Variances not Assumed			2,575	101,620	,011	,3936	,1529	,0904	,6969
Education	Equal Variances Assumed	,183	,669	-1,233	102	,220	-,2180	,1768	-,5688	,1327
	Equal Variances not Assumed			-1,250	49,531	,217	-,2180	,1744	-,5684	,1323

## Appendix L- Attitude Construct

Attitude		N	Mean	Std. Deviation	Std. Error Mean
Gender	Female	51	4,373	,5412	,0758
	Male	53	4,252	,4676	,0642
Age	<= 40	53	4,277	,4656	,0640
	> 40	51	4,346	,5476	,0767
Education	With Higher Education	76	4,331	,4856	,0557
	Without Higher Education	28	4,310	,5679	,1073

Attitude		Levene's test for Equality of Variances		Test-t for Equality Means					95% Confidence interval of the Difference	
				T	Df	Sig. (2 tailed)	Mean Difference	Std. Error Difference		
		F	Sig.					Lower	Upper	
Gender	Equal Variances Assumed	,566	,454	1,221	102	,225	,1210	,0991	-,0755	,3175
	Equal Variances not Assumed			1,218	98,674	,226	,1210	,0993	-,0761	,3181
Age	Equal Variances Assumed	3,533	,063	-,700	102	,486	-,0697	,0995	-,2671	,1278
	Equal Variances not Assumed			-,698	98,115	,487	-,0697	,0998	-,2678	,1285
Education	Equal Variances Assumed	2,079	,152	,017	102	,987	,0019	,1125	-,2212	,2249
	Equal Variances not Assumed			,016	42,401	,988	,0019	,1209	-,2421	,2458

## Appendix M- Subjective Norm Construct

Subjective Norm		N	Mean	Std. Deviation	Std. Error Mean
Gender	Female	51	2,931	,8618	,1207
	Male	53	3,146	,5642	,0775
Age	<= 40	53	2,896	,6694	,0920
	> 40	51	3,191	,7658	,1072
Education	With Higher Education	76	3,000	,7047	,0808
	Without Higher Education	28	3,152	,7974	,1507

Subjective Norm		Levene's test for Equality of Variances		Test-t for Equality Means						
									95% Confidence interval of the Difference	
		F	Sig.	T	Df	Sig. (2 tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Gender	Equal Variances Assumed	8,459	,004	-1,510	102	,134	-,2149	,1423	-,4971	,0674
	Equal Variances not Assumed			-1,498	85,729	,138	-,2149	,1434	-,5000	,0703
Age	Equal Variances Assumed	,410	,524	-2,093	102	,039	,2950	,1409	-,5744	-,0155
	Equal Variances not Assumed			-2,088	99,064	,039	-,2950	,1413	-,5752	-,0147
Education	Equal Variances Assumed	,323	,571	-,940	102	,349	-,1518	,1615	-,4721	,1685
	Equal Variances not Assumed			-,888	43,480	,380	-,1518	,1710	-,4965	,1930

## Appendix N- Perceived Behavioural Control Construct

Perceived Behavioural Control		N	Mean	Std. Deviation	Std. Error Mean
Gender	Female	51	3,750	,6519	,0913
	Male	53	3,547	,6318	,0868
Age	<= 40	53	3,448	,6170	,0847
	> 40	51	3,853	,6168	,0864
Education	With Higher Education	76	3,618	,5937	,0681
	Without Higher Education	28	3,723	,7798	,1474

Perceived Behavioural Control		Levene's test for Equality of Variances		Test-t for Equality Means						
									95% Confidence interval of the Difference	
		F	Sig.	T	Df	Sig. (2 tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Gender	Equal Variances Assumed	,025	,874	1,611	102	,110	,2028	,1259	-,0469	,4525
	Equal Variances not Assumed			1,610	101,500	,110	,2028	,1260	-,0470	,4527
Age	Equal Variances Assumed	,110	,741	-3,346	102	,001	-,4048	,1210	-,6448	-,1648
	Equal Variances not Assumed			-3,346	101,849	,001	-,4048	,1210	-,6448	-,1648
Education	Equal Variances Assumed	2,264	,135	-,731	102	,466	-,1048	,1433	-,3890	,1794
	Equal Variances not Assumed			-,646	39,121	,522	-,1048	,1623	-,4331	,2235



Perceived Behavioural Control		N	Mean	Std. Deviation	Std. Error Mean
Gender	Female	51	3,841	,7670	,1074
	Male	53	3,658	,7444	,1022
Age	<= 40	53	3,539	,7452	,1024
	> 40	51	3,965	,7141	,1000
Education	With Higher Education	76	3,775	,7228	,0829
	Without Higher Education	28	3,675	,8542	,1614

Perceived Behavioural Control		Levene's test for Equality of Variances		Test-t for Equality Means						
									95% Confidence interval of the Difference	
		F	Sig.	T	Df	Sig. (2 tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Gender	Equal Variances Assumed	,836	,363	1,233	102	,221	,1827	,1482	-,1113	,4766
	Equal Variances not Assumed			1,233	101,520	,221	,1827	,1483	-,1115	,4768
Age	Equal Variances Assumed	2,359	,128	-2,977	102	,004	-,4264	,1432	-,7104	-,1423
	Equal Variances not Assumed			-2,980	101,999	,004	-,4264	,1431	-,7102	-,1425
Education	Equal Variances Assumed	1,777	,185	,597	102	,552	,1003	,1680	-,2329	,4334
	Equal Variances not Assumed			,552	42,069	,584	,1003	,1815	-,2660	,4665

## Appendix O- Perceived Value Construct

Perceived Value		N	Mean	Std. Deviation	Std. Error Mean
Gender	Female	51	3,837	,5411	,0758
	Male	53	3,780	,5166	,0710
Age	<= 40	53	3,742	,4843	,0665
	> 40	51	3,876	,5645	,0791
Education	With Higher Education	76	3,761	,5252	,0602
	Without Higher Education	28	3,935	,5199	,0982

Perceived Value		Levene's test for Equality of Variances		Test-t for Equality Means						
									95% Confidence interval of the Difference	
		F	Sig.	T	Df	Sig. (2 tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Gender	Equal Variances Assumed	,009	,926	,547	102	,586	,0567	,1037	-,1490	,2624
	Equal Variances not Assumed			,546	101,267	,586	,0567	,1038	-,1492	,2626
Age	Equal Variances Assumed	,019	,891	-1,298	102	,197	-,1337	,1030	-,3380	,0707
	Equal Variances not Assumed			-1,294	98,430	,199	-,1337	,1033	-,3387	,0713
Education	Equal Variances Assumed	,389	,534	-1,499	102	,137	-,1736	,1158	-,4032	,0561
	Equal Variances not Assumed			-1,506	48,645	,139	-,1736	,1152	-,4052	,0581

## Appendix P- Willingness to Pay More Construct

Willingness to Pay More		N	Mean	Std. Deviation	Std. Error Mean
Gender	Female	51	3,500	,8485	,1188
	Male	53	3,462	,9295	,1277
Age	<= 40	53	3,575	,7557	,1038
	> 40	51	3,382	1,0029	,1404
Education	With Higher Education	76	3,761	,5252	,0602
	Without Higher Education	28	3,935	,5199	,0982

Willingness to Pay More		Levene's test for Equality of Variances		Test-t for Equality Means						
									95% Confidence interval of the Difference	
		F	Sig.	T	Df	Sig. (2 tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Gender	Equal Variances Assumed	,0829	,365	,216	102	,829	,0377	,1747	-3,088	,3843
	Equal Variances not Assumed			,216	101,723	,829	,0377	,1744	-3,082	,3837
Age	Equal Variances Assumed	3,989	,048	1,112	102	,269	,1931	,1737	-,1514	,5377
	Equal Variances not Assumed			1,106	92,897	,272	,1931	,1746	-,1537	,5399
Education	Equal Variances Assumed	,389	,534	-1,499	102	,137	-,1736	,1158	-,4032	,0561
	Equal Variances not Assumed			-1,506	48,645	,139	-,1736	,1152	-,4052	,0581

	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
<b>0</b>	10	9,6	9,6
<b>1% a 5%</b>	33	31,7	41,3
<b>6% a 10%</b>	34	32,7	74
<b>11% a 15%</b>	18	17,3	91,3
<b>16 a 20%</b>	7	6,7	98
<b>&gt;20%</b>	2	1,9	100
<b>Total</b>	104	100	

## Appendix Q- Purchase Intention Construct

Purchase Intention		N	Mean	Std. Deviation	Std. Error Mean
Gender	Female	51	3,647	,7742	,1084
	Male	53	3,630	,7162	,0984
Age	<= 40	53	3,558	,6954	,0955
	> 40	51	3,722	,7849	,1099
Education	With Higher Education	76	3,687	,6543	,0751
	Without Higher Education	28	3,507	,9404	,1777

Purchase Intention		Levene's test for Equality of Variances		Test-t for Equality Means					95% Confidence interval of the Difference	
				T	Df	Sig. (2 tailed)	Mean Difference	Std. Error Difference		
Gender	Equal Variances Assumed	,410	,523	,115	102	,908	,0169	,1462	-,2731	,3068
	Equal Variances not Assumed			,115	100,636	,908	,0169	,1464	-,2735	,3073
Age	Equal Variances Assumed	0,627	,430	-1,122	102	,264	-,1631	,1453	-,4512	,1251
	Equal Variances not Assumed			-1,120	99,484	,265	-,1631	,1456	-,4520	,1259
Education	Equal Variances Assumed	5,941	,017	1,097	102	,275	,1797	,1638	-,1452	,5046
	Equal Variances not Assumed			,931	37,064	,358	,1797	,1929	-,2112	,5706

## Appendix R- Purchase Behaviour Construct

Purchase Behaviour		N	Mean	Std. Deviation	Std. Error Mean
Gender	Female	51	3,133	,8896	,1246
	Male	53	2,913	,8828	,1138
Age	<= 40	53	2,819	,7828	,1075
	> 40	51	3,231	,8974	,1257
Education	With Higher Education	76	3,053	,8082	,0927
	Without Higher Education	28	2,936	1,0053	,1900

Purchase Behaviour		Levene's test for Equality of Variances		Test-t for Equality Means					95% Confidence interval of the Difference	
				T	Df	Sig. (2 tailed)	Mean Difference	Std. Error Difference		
		F	Sig.					Lower	Upper	
Gender	Equal Variances Assumed	,043	,837	1,306	102	,194	,2201	,1685	-,1142	,5544
	Equal Variances not Assumed			1,304	100,793	,195	,2201	,1688	-,1147	,5549
Age	Equal Variances Assumed	1,194	,277	-2,501	102	,014	-,4125	,1650	-,7397	-,0853
	Equal Variances not Assumed			-2,494	98,991	,014	-,4125	,1654	-,7407	-,0843
Education	Equal Variances Assumed	2,792	,098	,612	102	,542	,1169	,1912	-,2623	,4961
	Equal Variances not Assumed			,553	40,563	,583	,1169	,2114	-,3101	,5440

## Appendix S- Outcome Analysis regarding the structural model

### Notes for Model (Default model)

#### Computation of degrees of freedom (Default model)

Number of distinct sample moments: 55  
 Number of distinct parameters to be estimated: 19  
 Degrees of freedom (55 - 19): 36

#### Result (Default model)

Minimum was achieved  
 Chi-square = 134,360  
 Degrees of freedom = 36  
 Probability level = ,000

#### Estimates (Group number 1 - Default model)

##### Scalar Estimates (Group number 1 - Default model)

##### Maximum Likelihood Estimates

##### Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	PLabel
SN <--- NB	,399	,085	4,704	***
ATT <--- BB	,058	,055	1,056	,291
PBCN <--- PP	,047	,093	,509	,611
PI <--- ATT	,344	,097	3,559	***
PI <--- SN	,109	,067	1,622	,105
PI <--- PBCN	,127	,065	1,970	,049
PI <--- PV	,409	,093	4,403	***
PI <--- WPM	,252	,055	4,577	***
PB <--- PI	,688	,110	6,270	***

##### Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
SN <--- NB	,421
ATT <--- BB	,103
PBCN <--- PP	,050
PI <--- ATT	,279
PI <--- SN	,127
PI <--- PBCN	,155
PI <--- PV	,345
PI <--- WPM	,359
PB <--- PI	,526

**Variances: (Group number 1 - Default model)**

	Estimate	S.E.	C.R.	PLabel
e1	,812	,113	7,176	***
e2	,585	,082	7,176	***
e3	,637	,089	7,176	***
e6	,251	,035	7,176	***
e7	,434	,061	7,176	***
e8	,567	,079	7,176	***
e9	,275	,038	7,176	***
e10	,778	,108	7,176	***
e11	,244	,034	7,176	***
e12	,478	,067	7,176	***

**Squared Multiple Correlations: (Group number 1 - Default model)**

	Estimate
PP	,000
BB	,000
NB	,000
WPM	,000
PV	,000
PBCN	,003
ATT	,011
SN	,177
PI	,366
PB	,276



## Model Fit Summary

### CMIN

Model	NPAR	CMIN	DF	PCMIN/DF	
Default model	19	134,360	36	,000	3,732
Saturated model	55	,000	0		
Independence model	10	282,973	45	,000	6,288

### RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	,109	,769	,648	,504
Saturated model	,000	1,000		
Independence model	,147	,546	,445	,447

### Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	,525	,406	,602	,483	,587
Saturated model	1,000		1,000		1,000
Independence model	,000	,000	,000	,000	,000

## Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	,800	,420	,469
Saturated model	,000	,000	,000
Independence model	1,000	,000	,000

## NCP

Model	NCP	LO 90	HI 90
Default model	98,360	66,594	137,707
Saturated model	,000	,000	,000
Independence model	237,973	188,581	294,868

## FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	1,304	,955	,647	1,337
Saturated model	,000	,000	,000	,000
Independence model	2,747	2,310	1,831	2,863

## RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	,163	,134	,193	,000
Independence model	,227	,202	,252	,000

## AIC

Model	AIC	BCC	BIC	CAIC
Default model	172,360	176,904	222,604	241,604
Saturated model	110,000	123,152	255,441	310,441
Independence model	302,973	305,364	329,417	339,417

## ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	1,673	1,365	2,055	1,718
Saturated model	1,068	1,068	1,068	1,196
Independence model	2,941	2,462	3,494	2,965

## HOELTER

Model	HOELTER	HOELTER
	.05	.01
Default model	40	45
Independence model	23	26