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Assessing fans' requirements and consumer behaviour towards sustainability in sports merchandising – The influence of fans' *Sustainability Attitude*

Julia Liermann

Work project carried out under the supervision of:

Pedro Brinca

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Abstract

This master's thesis addresses the topic of sustainability in football merchandising and the growing need for innovative and sustainable strategies. The conducted survey shows that emotional connection to a club has a strong effect on purchase intention, while sustainability attitude has a significant influence on willingness to pay. Low CO2 emissions and sustainability of materials and packaging are the most important sustainability criteria to fans, while transparency proves to be relevant as an attribute of label. This study contributes to a better understanding of merchandise consumer behaviour in the context of sustainability labels and offers practical implications for football clubs.

Key terms: Sport Management, Sustainability, Merchandise, Football, Intention to Purchase, Willingness to Pay, Sustainability Labels.

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FCA	-	1. FC Augsburg
HDH	-	1. FC Heidenheim
KOE	-	1. FC Köln
M05	-	1. FC Mainz 05
FCU	-	1. FC Union Berlin
B04	-	Bayer 04 Leverkusen
FCB	-	FC Bayern Munich
BVB	-	Borussia Dortmund
BMG	-	Borussia Mönchengladbach
DFL	-	Deutsche Fußball Liga
BSC	-	Hertha BSC Berlin
RBL	-	RB Leipzig
SCF	-	SC Freiburg
SGE	-	Sportgemeinschaft Eintracht Frankfurt
D98	-	SV Darmstadt 98
TSG	-	TSG 1899 Hoffenheim
VfB	-	VfB Stuttgart
BOC	-	VfL Bochum
WOB		VfL Wolfsburg
SVW	-	SV Werder Bremen
ITP	-	*Intention to purchase*
IL	-	*Internal Legitimacy*
SA	-	*Sustainability Attitude*
WTP	-	*Willingness to pay*
SCR	-	*Sustainability criteria rating*
PLR	-	*Perceived label relevance*

1. Introduction

Football is one of the most popular sports in the world. Throughout centuries, it has provided immense joy and motivation for people around the world. For many it is not only a source of entertainment, but it can also lead to inspiration and change the life of each individual follower. Sports clubs are in the spotlight of society and therefore have a responsibility to the population. Nonetheless, the large fanbase is not only influenced by football, but in turn also affects the clubs themselves and shapes the world of football to a certain extent too. Therefore, with the growing interest of fans in the environment and sustainability, it is no surprise that many clubs start to engage in more sustainable practices.

In today's modern environment, the beloved sport can assist in protecting the planet by acting as a carrier for encouraging sustainable practices and spreading knowledge about environmental topics. Football has a unique role to play in helping create a more environmentally responsible world. Due to external pressures by governments and society and the rising awareness among fans, football clubs make increasing efforts to implement more sustainable measures, e.g., in merchandising. This research explores the interest of fans in sustainable merchandise as well as their purchasing behaviour. This includes the expectations of consumers regarding certifications and seals for fan articles, as well as the monetary implementation from the perspective of the German football club Bayer 04 Leverkusen (B04). B04 is one of the most successful clubs in the German Bundesliga today and active in international competitions. To meet the growing demand for more sustainability, the club is currently endeavouring to increase sustainability in its merchandising and is therefore planning to introduce its own sustainability label. Hence, this study examines this topic on the basis of fans' requirements. As the majority of the data was collected among football clubs of the First German Bundesliga, the data and insights gained relate to the First Bundesliga for the most part.

2. Situation Analysis

2.1 Football Merchandise Market

2.1.1 Bundesliga

The Bundesliga is the highest German league in football. It is divided into the First and Second Bundesliga, with 18 teams participating in each (transfermarkt.de 2023). Founded over 50 years ago, in 1963, the German Bundesliga is the youngest of the European “big five” leagues, also including the English Premier League, Spanish La Liga, Italien Serie A and French Ligue 1. The German football management system is highly regarded for its emphasis on developing young players and effectively managing club finances and sponsor relations. A primary aspect of this system is the German Football League Association (Deutsche Fußball Liga; DFL), which manages the Bundesliga and distributes its revenue fairly among the 36 clubs. Bundesliga clubs, in comparison to the other major leagues in Europe, more strongly prioritize the satisfaction and affordability of their fan base, with an average attendance of over 40,000 fans per game. This is largely due to their approach of limiting season tickets and offering affordable ticket prices, ensuring that all fans have the opportunity to attend matches (Palchykau and Matvienka 2014). Unlike other major European leagues, the gap between the highest and lowest earning club does not exceed €130 million. Ultimately, financial resources are the key to sporting success, and merchandise plays a significant role in this.

Bain & Company summarizes the most important value levers for sporting success under the foundation of customer value management, sponsoring, stadium & ticketing and merchandising. On top of these, brand positioning and fan mobilization are important factors. The interplay of these components generates the necessary resources to finance sporting success. The more effectively a club uses these components to manage its business, the more likely it is to achieve sporting success in the medium to long term. The study also underlines

the importance of recognizing new trends at an early stage, as the market is still far from reaching its potential (Sinn, et al. 2022).

All current First Bundesliga clubs account for a total accumulated revenue of €3.459 billion in the last financial year (balance sheet date varies from 30.06.22 and 31.12.22). However, only eight out of 18 clubs have a positive after-tax result. Among other things, this is due to the high personnel costs of €1.817 billion across the league, these include player salary. At last, all clubs in the Bundesliga reported total equity of €1.63 billion and total assets of €3.625 billion in fiscal year 2022 (DFL 2023a).

Total merchandising sales in the Bundesliga amounted to €174 million last season. Figure 1 illustrates the development of merchandise sales over the last nine seasons, showing that they have not increased over the last decade. On the contrary, sales reached a low point in the season 2021/22 (Zeppenfeld 2023a).

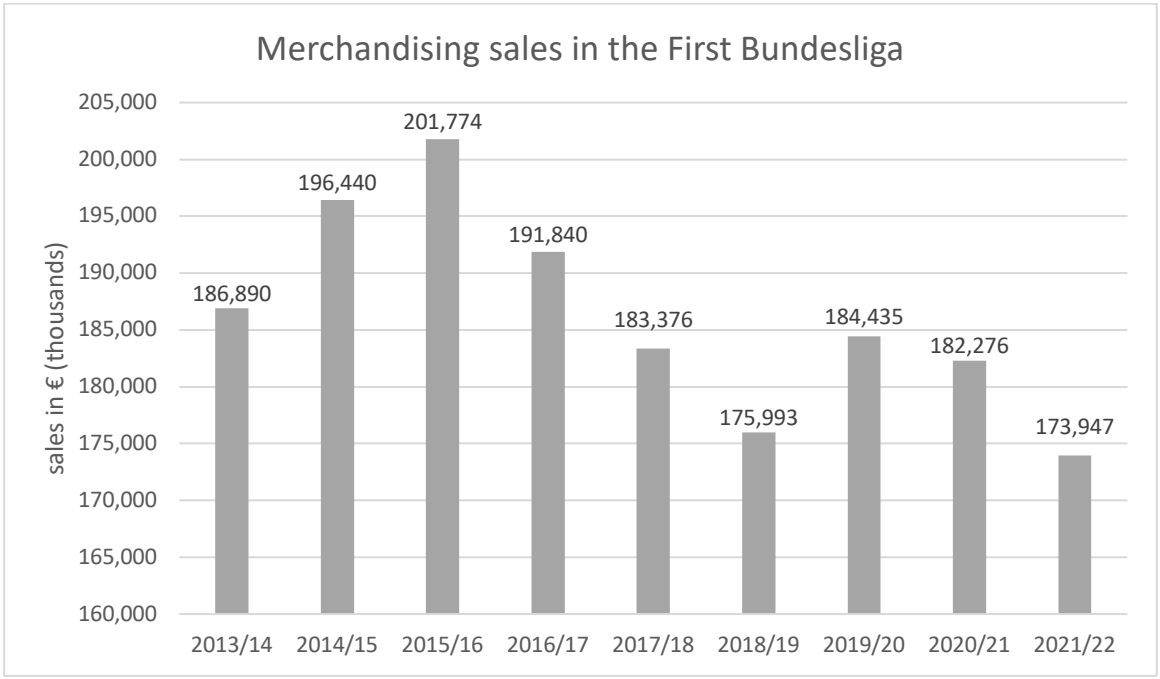

Figure 1: Merchandising sales in the First Bundesliga. Own illustration (Zeppenfeld 2023a)

According to the DFL, merchandise accounted for 4.82% of the companies' total revenue this year. This puts merchandising in fourth place among the strongest revenue drivers, behind media exploitation (38.25%), advertising (25.75%) and transfer revenue (12.73%) (DFL 2023b).

In recent years, Bundesliga clubs have recorded a decline in merchandising sales and show lower sales growth compared to other top European leagues. The reasons for this are market saturation on the one hand and on the other hand, the fact that the two biggest clubs, FC Bayern Munich (FCB) and Borussia Dortmund (BVB), are no longer as successful internationally, when considering an international uptrend after they faced each other in the Champions League Final in 2013. In addition, the needs of consumers were not sufficiently taken into account and there was a lack of innovative ideas, such as digital fan merchandise. The Bundesliga is at a disadvantage compared to other leagues internationally, as too little consideration is given to fast-moving consumers who expect changing product ranges. This is confirmed by Joachim Hilke, Managing Director of Fanatics, an American fan merchandise manufacturer that is responsible for Germany, Austria and Switzerland. The expert blames the decline on the marketing strategies of German clubs. Clubs abroad are more open to the further development of their merchandising products, which is also reflected in declining sales in Germany. One example of the positive success of sales figures is the sharp rise in merchandising sales at Juventus Turin following the signing of Cristiano Ronaldo. This also illustrates the connection between merchandising sales figures and sporting decisions (Ashelm 2019).

To increase merchandising sales again in the future, Bundesliga clubs should focus on new markets and target groups and introduce new innovative types of fan merchandise. Even though, club jerseys are currently the biggest revenue driver in merchandising, the Bundesliga has seen the lowest increase in jersey sales compared to other top leagues. In addition, jersey prices have

risen by 23% in the last ten years, leading to an average price of a First Bundesliga jersey of €81.90, most expensive jersey from FCB (Adidas), Sportgemeinschaft Eintracht Frankfurt (SGE), RB Leipzig (RBL) and Hertha BSC (BSC) (Nike) for €89.95, cheapest jersey from SC Paderborn (Saller) for €69.95, in season 2019/20 (Ashelm 2019).

At last, on the one hand, the general decline in consumption due to the COVID-19 pandemic and the current high inflation demonstrate the current missing demand by fans. On the other hand, they also put the decline in sales figures into perspective compared to other consumer goods (Ha, Kose and Ohnsorge 2021). Overall, it is important that Bundesliga clubs focus more on customer wishes and trends in the future to increase merchandising sales again.

2.1.2 Bayer 04 Leverkusen

Bayer AG, founded over 150 years ago, is a life-science company with core competences in the fields of medicine and agribusiness (Bayer 04 Leverkusen Fußball GmbH 2023a). Bayer AG is the sole shareholder of the football club, which is due to an exemption from the 50+1 rule. This set of rules of the DFL usually implies that a capital company must be majority owned by the parent club to obtain a license to participate in the Bundesliga, which means that the parent club must hold at least 50% of the voting rights plus at least one additional voting right in the meeting of shareholders of the capital company (DFL 2023c). The exemption was only possible because Bayer 04 Leverkusen Fußball GmbH was founded on April 1, 1999, and until then had received insignificant funding from Bayer AG. The club was first founded on July 1, 1904, under a different name (Bayer 04 Leverkusen Fußball GmbH 2023b).

Professional football in Germany reaches a lot of people and enjoys great popularity. A survey of the population in Germany in 2022 showed that about 5% of the respondents in Germany are fans of the B04 club. In addition, the club currently has around 30,000 members and thus ranks twelfth among the clubs with the largest number of members (Zeppenfeld 2023b). Most

recently, B04 recorded equity of €200.5 million and total assets of €375 million. The club generated sales of €273.6 million in fiscal year 2022. After deducting personnel costs of €142.3 million, and descriptions, expenses and taxes of €138.8 million, it generated a loss of €-7.347 million (DFL 2023a). However, the parent company Bayer AG ensures that the equity level stays constant at round about €200 million via a profit transfer agreement with the club at the end of each fiscal year (Zeppenfeld 2023c). The main sources of income are, on the one hand, about €79 million in broadcasting sales. On the other hand, the club earns about €8 million per year by the current jersey sponsor Barmenia in addition to many other sponsors (Zeppenfeld 2023d).

Merchandising is also a significant source of revenue that can finance sporting success, as previously categorised by Sinn et al. (Sinn, et al. 2022)(2022). It is difficult to quantify the market for B04, as specific sales figures are not publicly available. In addition, no precise sales figures were granted by B04 for this study. Based on the published data provided, merchandising sales can be estimated at approximately €13 million (4.82% of €273.6 million). This figure is derived from the total revenue of 2022 and the DFL's published percentage figure for the share of merchandising in the total revenue of First Bundesliga clubs (DFL 2023b).

Bain & Company provides one of the few well-founded key figures on merchandise for B04. The company’s study examined the merchandising sales per fan of all Bundesliga clubs. According to the study, B04 came third on this list with €10.59 in sales per fan (Sinn, et al. 2022). This leads to the assumption that B04's merchandising revenue exceeds the estimated €13 million. Consequently, there are two approaches to further expand the market for B04. Firstly, new fans who buy merchandise can be attracted, and secondly, existing fans can be encouraged to buy more products.

2.2 Sustainability in Sports Merchandise

2.2.1 Sustainability in Football

Sustainability is one of the most pressing challenges in maintaining the prevailing living conditions globally, but it also presents an opportunity for companies to take the lead and gain new or retain current customers in the long run. This is particularly true for the sports industry, including football associations, leagues and teams, many of which have already introduced regulations and guidelines for their daily work. In the report "The Red Way" by English football club Liverpool FC, it is emphasized that merchandising plays a crucial role in the journey towards sustainability. As stated in the report, merchandising accounts for over 70% of Co2 emissions, which have only increased during the corona season (Liverpool FC 2021).

The world of sport and the natural environment are inextricably linked; the latter is essential for humans to survive as well as enjoy playing and watching sport. Still, our practices and patterns of consumption have caused significant damage to the relationship between these two entities. Climate change is at the forefront of public discourse, creating the realization that our behaviour needs to adjust to help preserve the planet. However, implementing changes can be a difficult process, with it being hard for us to comprehend the effects of our day-to-day decisions (McCullough and Kellison 2018).

The growing awareness of environmental responsibility has spurred major football clubs in Europe to take action in minimising their environmental impact while also enhancing their social responsibility. To this end, several collaborative efforts with environmental organisations, sustainability projects, and introduction of eco-friendly regulations have been initiated (Liverpool FC 2021; UNFCCC 2020). Additionally, FIFA has devoted considerable attention to the notion of sustainability, devising a range of programs and initiatives intended to encourage sustainability in football (FIFA 2023).

2.2.2 Bundesliga

As previously described, the Bundesliga is extraordinarily focused on its fans compared to other leagues. Accordingly, as fans (especially Gen Z) increasingly demand more sustainable practices, a positive trend is also developing in terms of sustainability (UNiDAYS 2022). Yet, this also derives from external pressures on football clubs by society, governments, or leagues. At the same time, this is an indicator for increased demand by society for sustainable merchandise. The DFL followed up on this by incorporating sustainability guidelines into its licensing regulations in May 2022. This includes measures to support clubs in implementing and networking in the area of sustainability, such as guidelines and templates for standardized analyses that support the implementation of specific criteria (DFL 2022).

In April 2022, the German Federal Ministry for Economic Cooperation and Development (BMZ) and Brands Fashion launched the "From Field Work to Fan Shop" initiative. The aim is to promote the sustainable cultivation of cotton and support producers in the western Indian region of Gujarat. Nine clubs of the First and Second Bundesliga (1. FC Union Berlin (FCU), Arminia Bielefeld, SGE, Hamburger SV, SV Werder Bremen (SVW), VfB Stuttgart (VfB), VfL Wolfsburg (WOB), BVB and FC St. Pauli have already joined the initiative (INA 2022). In addition, 450 small farmers will be supported in switching to organic farming and 1,000 children and young people from the region will be encouraged through sporting activities. Showcasing the increased relevance of such topics among the associations, a delegation visited the cotton fields in January 2023 and took part in a sports and youth festival to learn more about the initiative. The first fan merchandise made from organically grown cotton from the region was initially planned to be available in fan stores in summer 2023 under the collection name “cotton-in-conversion” (Sport for Development 2023). It remains to be seen when the first products can be realised.

2.2.3 Bayer 04 Leverkusen

B04 is aware of the enormous social significance of football and the responsibility it brings to professional clubs. They themselves want to contribute to positive changes regionally and globally in times of sustainability transformation. Driven by the social influence of football, the aim is to be an attractive employer in terms of social commitment and to use innovation to make new economic challenges more sustainable.

The club defines its goals in three areas: Environment, Society and Club Governance. Within these areas, B04 is already very active, particularly at the social and community level, leaving space for more environmental engagement. They add value to society through numerous projects and initiatives. To name a few examples: On the "Bayer 04 Hilft-Tag" (Bayer 04 helps day) the club joins forces together with coaches and players as well as the city of Leverkusen to enhance a public institution in the city in many ways. This action was initiated in 2015 and has been held annually since then. Furthermore, since 2010, mentally impaired young people have been given the opportunity to pursue their favourite hobby, football, at what are now more than 20 locations throughout Germany. They are accompanied by a team of coaches from the club and the program is specially adapted to young people. In addition to these valuable initiatives and many fundraising activities, the club offers many other opportunities for children, young people, and even older or sick fans at levels of education, closeness to the team and community events.

For several years, the club has been optimizing the resources needed to become more energy efficient and sustainable. Over the last 6 years, the relative reduction in total energy consumption has been in excess of 30%. Facilities are constantly being optimized to operate in a more resource efficient manner. These include water, electricity, gas, and district heating. In addition, the association reinforces the topics of mobility, nutrition, waste, and the CO2 footprint. The latter is one of the most current targets for more sustainable action. The club

website explicitly mentions the pursuit of goals in the areas of fan mobility, catering and merchandising (Bayer 04 Leverkusen Fußball GmbH 2023c).

Accordingly, the current status of the merchandising department is difficult to assess by the public. There already have been some measures in the past, e.g. changing the annual jersey release to two years, which however have been abolished again due to leaking profitability. This example illustrates the conflict between sustainable measures and achieving economic goals. Nevertheless, the latter activities and the association with external consultants show the willpower to make fan merchandise more sustainable.

For 2022, B04 reported to the DFL on sustainability measures in merchandising products. According to the report, items with an environmental label account for 26.1% of total merchandising sales, while items with a fair production label have a share of 20.2%. In terms of production, 13.8% of merchandising items are manufactured in Europe (EU and Schengen area). This year, the outfitter was changed from Jako to Castore at the start of the 2022/23 season. The sustainability measures have tended to take a step backwards with the change of supplier, which resulted from discussions with B04. The club would therefore like to make items produced in-house more sustainable and is working on an eco-label that meets the wishes and requirements of the fans, which shapes the scope of this collaborative study (Bayer 04 Leverkusen Fußball GmbH 2023d).

For the current year (1.1.2023 - 05.12.2023), there are no published figures for sustainability in the merchandising area, but the share of sales accounted for by Castore items compared to items produced in-house can be put at 85.88%. In addition, jerseys continue to make up the largest share of the textile range at 67.42% (Bayer 04 Leverkusen Fußball GmbH 2023d). The high proportion of jerseys may be due to the current sporting success, as Bayer 04 Leverkusen is currently leading the First Bundesliga table (first half of the 2023 season), but just 14.12% of

current sales are made up of items produced in-house that are eligible for a self-developed eco-label. Direct changes seem to be difficult to implement due to contract barriers. The current outfitter Castore has a contract with the club until 30th June, 2027 (Bayer 04 Leverkusen Fußball GmbH 2022). Subsequently, changes are most likely latest to be created with a new contract. Therefore, potentials for fan articles of own production are sought first. These are to be implemented in the near future. The research is designed to help B04 identify opportunities and prioritise changes that can be implemented internally, without the need for external decision-makers, and therefore focuses on products directly sourced by the club. The aim is to win new fans through a sustainable approach and to continue to inspire existing fans with B04 merchandise.

2.3 Relevance of Sustainability

Numerous influences, such as environmental, economic, governmental, and corporate, serve as drivers to motivate the transition towards sustainability. This shift requires a comprehensive and well-considered approach to ensure that the long-term benefits of sustainability are realised.

The current state of global climate affairs has encouraged an increase in corporate sustainability initiatives. Consumers' demands for greater environmental protection has urged companies to reduce their carbon footprint and comply with emission standards. A governmental intervention involves the adoption of regulations designed to save the environment and promote social accountability. Furthermore, sustainability initiatives may ultimately provide a commercial benefit by allowing organizations to stay competitive and capitalize upon cost savings in the long term. Therefore, by keeping up with emerging trends and adapting their methods to become more ecologically efficient, organizations are positioned to obtain long-term economic benefits. However, to obtain this advantage, a long and strict compliance with the restructuring process is required (Wijethilake and Upadhaya 2020).

To remain competitive and meet environmental sustainability objectives, businesses must prioritize the reduction of their carbon emissions and energy consumption. This includes investing in renewable energy sources, applying energy efficient technologies, and promoting a circular economy to reduce potential waste. Additionally, organizations should strive to ensure their supply chains are sustainable and prioritize utilizing sustainable production processes and sourcing materials and products from environmentally minded sources. Lastly, the engagement of stakeholders in the dialogue and decision-making processes related to sustainability initiatives can effectively help to meet their expectations and requirements. It is crucial to hold conversations with stakeholders at every step of the process to guarantee that sustainability objectives adequately reflect the needs of all involved parties (Yadav, et al. 2018).

By pursuing sustainability goals, organizations may gain numerous advantages. Consumers are increasingly becoming aware of the social and environmental implications in their consumer behaviour. Especially, as the purchasing power of Gen-Z, who are highly interested in sustainability, increases as time goes on (UNiDAYS 2022). Companies that promote sustainability have the potential to grow trust and loyalty amongst their customers. Additionally, this may also lead to a more favourable image, as customers are significantly motivated to associate with companies that are actively investing in sustainability, which most likely positively influences the sales and customer satisfaction (Niţă and Ştefea 2014).

Insight into the business operations of a company can demonstrably change the perception and individual assessment of the company. If the perception is positive, this can also have a positive impact on consumer behaviour. It can also be applied to aspects of sustainability. Businesses that are transparent and actively engaged in mitigating their environmental footprint are likely to gain the approval and endorsement of their customers (Buell, Shwetha and Yanchong 2019).

However, the switch to a more sustainable production of merchandise also brings several challenges. On the one hand, materials that are often used due to their low prices need to be replaced by more environmentally friendly alternatives, which can be associated with higher costs. On the other hand, improving working conditions and implementing new supply chains also requires investment in the form of training, acquiring new machines, adapt processes and introducing standards and control mechanisms. However, these initial investment costs can be amortized in the long term through various efficiency measures. By avoiding waste, reducing delivery routes or schedules, and cooperating with local trading partners, a return on investment can be achieved. In addition, a more efficient and transparent supply chain can minimize risks such as supply disruptions or loss of reputation, which can further increase customer satisfaction and retain customers in the long term (Nayak, et al. 2019).

Overall, switching to a more sustainable production of merchandise is therefore not only necessary from an ecological perspective, but also offers economic benefits for the company. It contributes to a long-term stable and sustainable business strategy that meets both the needs of consumers and the requirements of responsible corporate governance. It is therefore important that companies are aware of the implied costs and make the necessary investments to pursue a holistic and long-term approach to sustainable merchandise production (Nayak, et al. 2019).

Many of these sustainability trends are included by companies in sustainability labels for product identification. The company is free to decide whether to be certified by an organization and apply this label, or to design its own label that is tailored to customer requirements. B04 is currently planning the latter, indicating a need for research on customer requirements in the context of a club-internal sustainability label. In the following the fundamentals of an eco-label are explained in more detail.

2.4 Sustainability Labels

As global sustainability is becoming increasingly important in the sports merchandise industry, sustainability labels have become more and more relevant. Sustainability labels indicate how eco-friendly a product is produced and how it impacts the environment (UBQ 2021). Yet, the question is not only how to ensure that your merchandise products are sustainably produced but also how to communicate this to the fans.

One possible method is to communicate it with banners through the online and offline fan shops. The VfB, for example, practices this method (appendix 1). A green banner with the word "sustainability" is displayed in the left corner of the club for the promotion of sustainable produce products, while also mentioning it in the product description (VfB Stuttgart 2023).

Several other Bundesliga clubs display eco-labels next to their products in their online stores as well. In the textile industry, there are currently 104 different textile labels. Three of the most used labels in the sport industry are Bluesign, OEKO-TEX, and GOTS (fairlyfab 2021). Table 1 shows an overview of exemplary labels and their attribute and merchandise partners.

Eco Label	**Attributes**	**Merchandise**
Bluesign	Social responsibility, CO2/ water emission, chemicals, resource efficiency, supply chain,	Puma, Adidas, Nike
OEKO-TEX	Prohibited substances, chemicals, labour conditions	Puma, Hummel, JAKO
GOTS	Organic fibres, Social Standards (working conditions), Environmental (chemicals, water waste, colouring)	-
Grüner Knopf	Environmental (chemicals, water waste, colouring, CO2,), Social Standards (working conditions, discrimination, minimal wage)	-
IVN Best	Chemicals, organic fibres, Social Standards (working conditions), colouring	-

Table 1: Overview Eco-Labels. Own creation

The IVN Best label is the most stringent label currently available on the market by regulating not only the production process, but also the raw materials that are permitted to be used.

In accordance with the Global Organic Textile Standard (GOTS), at least 70 percent of the fabric must be made from natural fibres of controlled organic origin. Next to meeting the social standards of the International Labour Organization (ILO), the entire textile value chain is regulated from the point of cultivation to the point of sale as part of GOTS (Greenpeace 2018).

Bluesign is used by the majority of companies in the sport industry, including Nike and Adidas. Among the partner companies are not only retailers and sports companies, but also suppliers. The labels' objective is to eliminate all harmful substances from the manufacturing and supply chain and make the products 100% sustainable by controlling the input factors (Bluesigntechnologies, Bluesign Home 2023). As a prerequisite for receiving the Bluesign label, the company must meet certain requirements (Bluesign criteria), namely: Chemical Consumption, Carbon Emission, Water Consumption, Energy Consumption, Worker Health & Safety.

The OEKO-TEX label was created by several independent textile and leather testing institutes in Europe and Japan. As a result of their collaboration, several test methods have been developed for the evaluation of sustainable products and the determination of limits for several values, such as harmful substances. There are currently seven different OEKO-TEX labels available on the market. For example, the OEKO-TEX® STANDARD 100 and OEKO-TEX® LEATHER STANDARD labels guarantee that products are free from harmful substances. The OEKO-TEX® ORGANIC COTTON labelled products have been tested from the time of cultivation to the time of manufacture for the presence of genetically modified organisms, pesticides, and harmful substances (OEKO-TEX Service GmbH 2023).

Having a "Grüner Knopf" label indicates that a company fulfils its corporate responsibility via a sustainable supply chain. Furthermore, sustainability must extend not only to the supply chain, but also to the products themselves. There are several characteristics of sustainably produced products, including the following: Pesticides and hazardous chemicals are prohibited, hourly limits and fixed employment contracts are in place, anti-discrimination and anti-harassment policies are in place, and occupational safety requirements are in place. This label is an official seal of the German Association for International Cooperation (GIZ) (GIZ 2023). Several Bundesliga Clubs use these eco-labels to proof the sustainability of their products as seen in table 2.

Eco-Label	**Football club**
GOTS	SVW, D98, FCU, VfB, BOC, TSG, M05, KOE, SGE, WOB
Grüner Knopf	D98, FCU, KOE, SCF, SGE, WOB
Fairtrade	FCU, M05, SGE,
OEKO-TEX	KOE, SGE, WOB
Peta	BOC, SGE,
Others:	SGE, D98, TSG,
No labels	FCB, BVB, BMG, RBL, B04, FCA, HDH

Table 2: Bundesliga clubs and their used textile eco label. Own creation

The club TSG 1899 Hoffenheim (TSG) uses a small sustainability label next to their products in their online store to indicate they are "GOTS" (Global Organic Textile Standard) certified (TSG 1899 Hoffenheim Fußball-Spielbetriebs 2023). Among the labels displayed at SGE are the “Grüner Knopf,” the “Cradle to Cradle”, the “GOTS”, and the “Fairtrade” labels. The club has furthermore created a landing page that describes what the club is doing for sustainability and what its sustainability goals are for the next few years (Eintracht Frankfurt Fußball 2023).

Some rankings mention WOB as a pioneer and the greenest club in the Bundesliga (Leagues 2022). As one of the first football clubs to create its own sustainable label, the club is a pioneer in this area. WOB describes its label "Grüne Fährte" as follows: "Grüne Fährte stands for the

trail we want to leave behind as WOB, with the aim of gradually reducing our ecological footprint, starting with the use of sustainable materials, through compliance with ecological and social standards, to resource-saving packaging." (VfL Wolfsburg-Fußball, Nachhaltige Siegel im Wölfeshop 2023).

Furthermore, the 1. FC Köln (KOE) has developed its sustainability label "der Grüne Hennes", which is named after its mascot. In creating the label, four sustainability goals from the UN were considered (United Nations 2023): Goal 1: No poverty, Goal 3: Promoting health and well-being for people of all ages, Goal 4: Quality education, Goal 13: Climate action. Aside from this, the German football club has a partnership with other already existing textile labels, like the "GOTS" or the "Grüner Knopf" (1. FC Köln 2023).

There is, however, little information available about the underlying purpose of the certificate. To make an informed purchase decision, fans often need to dig deep to find all the information they need. There are several football clubs, such as WOB, SGE, and KOE, that have their own sustainability label. Throughout the fan shops and on their websites, they inform their fans about the labels and how they promote sustainability. Other clubs, such as Borussia Monchengladbach, lack information regarding sustainability and the merchandise they sell. Furthermore, interestingly there are mostly sustainable merchandise products like fan t-shirts or hoodies but little sustainable jerseys.

3. Literature Analysis

3.1 Sustainability Labels

The purpose of sustainability labels is to inform consumers about the sustainability of the supply chain and the product as already mentioned in Chapter 2.3. Labels have specified criteria that must be met by a minimum value and therefore ensure that the labelled products satisfy those criteria. Typically, sustainability labels emphasize characteristics such as those associated with responsible sourcing of raw materials, carbon footprints, composability, recyclability, etc. (UBQ™ 2021). The use of these labels is voluntary and is not regulated by the government. By using such labels, companies can raise awareness about their sustainability measures and differentiate themselves from their competitors (fairlyfab 2021). Labelling is a means to encourage consumers to purchase products that meet high social and environmental standards – "green products" (Morris, Koep and Damert 2021). Hence, through the provision of information about the sustainability of the production process, companies hope to, for example, increase demand for their products.

There are three key problems in the production process of textiles: "Human ecology, production ecology and waste disposal". Ecological problems are associated with the production process (dyeing, printing, and washing), societal problems are related to the countries in which production is conducted, and waste disposal refers to the frequency of change in the industry – "fast fashion industry" (Koszewska 2011).

Labels can be classified into ecological, social and sustainability labels. It is the ISO-Norm 14024 that governs the labels to determine which labels may refer to themselves as eco-friendly, socially responsible, etc. (fairlyfab 2021). There are three types of ISO Eco-labelling (Type 1, 2 and 3) and three additional types of eco labels. The first type of labelling is industry labelling, which is specific to a particular industry. Secondly, there is corporate labelling, which is used

by organizations that manufacture or sell goods. Furthermore, packaging labelling informs the customer about the product's packaging (Koszewska 2011). However, eco-labels can be differentiated in a variety of ways. There is also the possibility of making a distinction between first party and third party labels. Generally, a first party label indicates the environmental impact of a product without having been verified by an independent source. The purpose of this is to demonstrate the environment friendliness of the products or production methods of a company, its overall environmental friendliness, or its sustainable philosophy and values to the customer. Considering that the labelling is an individual initiative by the company, the focus is usually on the positive aspects of the product or behaviour from the company in terms of sustainability. To enhance the credibility of the label, companies may align it with industry standards or appropriate business and social behaviour. There are also occasions when companies provide their customers with negative information on their production process / products with their labels, often if the information becomes public anyway. In contrast, third-party labelling refers to a label that makes claims about the environmental impact of a product on behalf of a third party. The decision on this claim is based on certain standards and criteria. It is possible for the label to be voluntary or mandatory (Jones and Lansdell 2001). As mentioned in Chapter 2.3, there are currently 104 eco-labels available in the textile industry (Ecolabel 2023). Each of these numerous eco-labels has its own set of requirements, although they can change over time, which in total can be confusing or overwhelming for consumers. Therefore, it is essential to communicate effectively for customers to understand what the label represents and what sustainable requirements are met (Greenpeace 2018). According to several studies, problems like unreliable and untrustworthy eco-labelling are often caused by poor eco-labelling design, a lack of clarity, and insufficient formation (Raziuddin Taufique, et al. 2019).

An organization can benefit from labelling its products if there is a competitive business advantage over other companies. An effective label can enhance the reputation of a company

or its brand as well as increase the number of sales and customers' willingness to pay (*WTP*) (Morris, Koep and Damert 2021). To ensure the success of these labels, it is essential to conduct auditing. In addition to being an important step for the credibility of the label, ensuring that the audit is accurate and not biased is very difficult. However, transparency and the transfer of information are some of the most important aspects of business today (Koszewska 2011). A consumer may also conclude that a missing label indicates that the aspect may not be applicable to the product, due to the large number of claims and labels available on the market. As an example, a missing organic claim on food products indicates that the food is not organic.

How much impact a label has on the purchase decision of a customer is different for each customer and depends furthermore on three important things: the size, format, and placement of the label; and the information provided by other sources like a webpage etc. (Jones and Lansdell 2001). There are several challenges associated with labelling. To obtain the label, the entire value chain must meet the requirements and strictly adhere to the sustainable production methods. Changing from a conventional approach to a sustainable one requires that all parts of the value chain align and shift their perspectives (Morris, Koep and Damert 2021). In addition, third-party labels are often expensive, resulting in an increase in the price of the product most of the time. It is possible that the price difference between a labelled product and a non-labelled product is too large for the customer to use the given information to make an informed purchase (Jones and Lansdell 2001).

Nevertheless, it is also important that the customer recognizes the good quality and the sustainable production methods that have been used (Morris, Koep and Damert 2021). To develop a label on its own, it is essential to put the customer's informational benefit as well as transparency throughout the entire value chain first. When assessing eco-labelling, companies should consider several aspects including consumer knowledge, consumer awareness and

involvement, credibility of environmental quality, consumer trust, design and visibility of the label, persuasiveness, information clarity, and private benefits. Consumer knowledge refers to the consumer's familiarity with various eco-labels, considering terms and labelling schemes. These familiarities are essential to forming subjective knowledge and therefore what is believed to be known by the customer. Meanwhile, consumer awareness and involvement refer to the extent to which the customer is aware of the eco-label and the extent to which the customer is involved in gathering information about the label. A greater level of involvement is accompanied by a greater level of awareness and a higher likelihood to buy eco-labelled products (Raziuddin Taufique, et al. 2019). Consumers' trust in the credibility of a labels environmental quality depends on the believability of the intention of the company as well as the communication of the information. Environmental labelling information must relate to the product's environmental characteristics and must indicate the product's environmental superiority over non-eco-labelled products. Customers are greatly influenced by the design and visibility of the label. Environmental images are important for triggering emotional associations, such as a label depicting a pine tree making the customer feel that the product is environmentally friendly. Eco-label information is one of the most important components of the eco-label and must be persuasive. In this regard, it is crucial to ensure that the claims and label information are clear. As an example, the label should explain what the term "made from recycled material" means, potentially resulting in indicating the shares of old and new plastic within a product. As a future goal, it should also be possible to define these terms similarly for the consumer (Raziuddin Taufique, et al. 2019).

As a final point, consumers must always find a benefit in purchasing products with a sustainable label. This can be applied to several reasons, such as increasing their wellbeing or gaining recognition from others. In the presence of such a personal additional benefit, a higher *WTP* may result (Raziuddin Taufique, et al. 2019).

3.2 Intention to purchase

As already described, an increasing number of consumers are concerned about their consumption and its impact on the environment. As a result, they are seeking more information on products and their production processes and have higher *Intentions to purchase* (*ITP*) eco-friendly or green products (Vazifehdousta, et al. 2013). The selection and purchase of products (or services) that minimize negative environmental impacts over their life cycle is referred to as "green purchasing" and is adding price and performance criteria when making purchasing decisions with the goal of reducing environmental impacts (Vazifehdousta, et al. 2013).

According to the theory of reasoned action (TRA), behavioural intention is shaped by two factors: the attitude towards performing the behaviour and the subjective norm (Lee, et al. 2010), i.e., the perception of social pressure to adopt a specific behaviour. Attitudes are a set of beliefs about a specific object or action, which can be translated into the intention to perform the action. Intention, in turn, is the determination to act in a certain way (Ramayah, Lee and Osman 2010). Attitudes impact the intentions held and the more favourable the attitude, the bigger the intention to perform the behaviour will be. Moreover, as attitudes are predictors of purchase intentions, they eventually influence purchase behaviour. In general, empirical studies have shown a significant positive relationship between environmental intention and environmental behaviour (Chan 2001; Vazifehdousta, et al. 2013). Consequently, the greater the positive attitudes, the more likely the purchase intention and thus the more likely the consumer is to buy environmentally friendly products instead of conventional products.

Regarding football fans, other important factors need to be considered. The consumer behaviour of sport fans is highly emotionally driven and can be influenced by various motives, which reflects why people seek sport consumption experiences and engage with their favourite team or club. These motives include the desire to connect and maintain relationships with others

through sport, to recognise excellence in sport, the desire to feel pride and belonging, and the longing for a break from the daily routine through enjoyable sporting activities (Funk, Beaton and Alexandris 2012). The main motives driving the purchase of team-licensed merchandise include loyalty and identification with the team, celebration of team success, and belonging to a community of other team supporters (Apostolopoulou, et al. 2013; Kwon and Kwak 2014). Depending on their personal history, fans associate symbolic meanings to their team's merchandise, which emphasize aspects such as fan identity, team support, social connection, personal values and self-expression. Wearing team apparel is considered to be a public demonstration of loyalty and love for the team and allows fans to identify themselves as supporters (Apostolopoulou, et al. 2013). The higher the levels of loyalty and team identification among the fans, the more likely they are to buy and regularly wear team-licensed merchandise because team identification provides emotional rewards, such as pride and excitement. Furthermore, team identification has a direct positive effect on the perceived quality and value of the licensed product, especially for hedonistic products like jerseys, shirts or scarfs, and can influence the *ITP*. Also, team performance can mitigate the influence of team identification on product evaluation. When a team is successful, fans place more value on team-licensed merchandise, while value may decrease when the team is not performing well (Kwon and Kwak 2014).

But how do sustainability measures influence the purchasing behaviour of fans and what motivates them to buy sustainable products? Walker and Kent (2009) state that CSR activities can improve brand image, enhance corporate reputation, increase sales, and strengthen customer loyalty (Walker and Kent 2009). Specifically in the sports industry, CSR can create 'secondary value' for organisations by creating an emotional connection with consumers. CSR activities can influence buying behaviour and be a significant predictor of word of mouth. Fans with high identification tend more to buy team-related products, attend games, and speak

favourably about the club they support. If they feel that their club also has a good reputation through CSR activities, these behaviours are reinforced. Also, Blumrodt, Bryson and Flanagan (2012) found that CSR engagement positively influences customer-based brand equity for football clubs (Blumrodt, Bryson and Flanagan 2012). The study indicates that CSR activities enhance customers' perceptions of the brand, leading to increased brand loyalty and positive word-of-mouth. Furthermore, it highlights the importance of communicating CSR initiatives to customers. Football clubs that communicate their mission, business objectives and CSR commitment on their website are more likely to improve their brand image and customer-related brand equity, which in turn influences customer purchase intentions. Moreover, it helps addressing consumers' concerns about greenwashing, which has negative impact on attitudes towards sustainable products and purchase intentions. Consumers' scepticism about the credibility of sustainability claims made by companies may discourage their *ITP*. Therefore, companies need to increase transparency and provide reliable information about their sustainable practices to reduce consumer doubts and increase the intention to buy sustainable products (Rausch and Kopplin 2021; Sharma, Aswal and Paul 2023).

3.3 Willingness to pay

The continuous growth of demand for more sustainable products is opposed by different potential barriers on the supply side, such as uncertain price premiums or longer lead times. Therefore, strategies are needed to help football clubs cope with risks, solve strategic challenges, and capture price premiums. For this purpose, it is essential to collect valid information on purchasing behaviour, or more precisely on the *Willingness to pay* (*WTP*), to assess the feasibility of more sustainability and its financial consequences. In theory, *WTP* is a basic economic concept defined as the amount a person is willing to sacrifice in exchange for a particular good or service (Hanemann 1991). However, measuring *WTP* is challenging for many reasons, such as the complexity of human preferences, information constraints,

behavioural biases, or potential strategic behaviour in surveys. These challenges require sophisticated survey methods, statistical procedures, and experimental designs to improve the accuracy and reliability of *WTP* measurements. Despite ongoing efforts, *WTP* measurement is a multi-faceted task due to the complexity of human decision making and judgement.

Consumer characteristics such as environmental concern and eco-literacy play an important role in customers' *WTP* for environmentally friendly products. Environmental concern refers to a consumer's general attitude towards protecting the environment and has been shown to be a powerful predictor of environmentally friendly intention and behaviour, including the purchase of environmentally friendly products. Eco-literacy, or environmental competence, on the other hand, refers to the extent to which consumers understand environmental issues and environmentally friendly products. These consumer characteristics are important predictors of different cognitive and behavioural responses to green products. Consumers with a higher level of environmental awareness and knowledge are more likely to adopt environmentally friendly behaviour and are more willing to pay a premium for green products (Schmuck, Matthes and Naderer 2018; Diekmann and Preisendörfer 2003).

Furthermore, research has shown that consumer participation influences consumers' *WTP* as well (Wei, Ang and Jancenelle 2018; Franke, Schreier and Kaiser 2010). Consumer participation refers to the extent to which consumers are involved in the design, production and delivery of goods and services by contributing effort, knowledge, information, and other resources (Dong and Sivakumar 2017). When consumers are given the opportunity to participate in the production and delivery process, it can enhance their perceived consumer effectiveness and increase their *WTP* for green products (Wei, Ang and Jancenelle 2018). In this context, fan engagement plays a crucial role too. Fan engagement is a specific form of customer engagement in the sport context and refers to strategies and activities that sport

organizations use to connect with their fans on a deeper level (Biscaia, Johan Cruyff Institute 2021). Thereby, they are fostering a sense of belonging, loyalty, and emotional attachment. This is especially important for football clubs as they heavily depend on the involvement of their fans, economically and emotionally, as fan engagement encompasses various transactional and non-transactional interactions and experiences that go beyond the actual sporting events. Especially through the increasing usage of social media, fan engagement has extremely grown in importance. It increases brand loyalty, fosters revenue generation and marketing opportunities, and enhances the emotional connection of the fans and thus the fan experience (Yoshida, et al. 2014; Biscaia, Johan Cruyff Institute 2021). With regards to merchandising this could be translated into an increased *ITP* and higher *WTP*.

In a study that analysed Slovenian consumers and their purchasing habits in relation to eco-labels, only 13% stated that they pay attention to the environmental impact of production when buying clothing. Interestingly, only 29% were not willing to pay more for eco-labelled products than for non-labelled alternatives. Of those who were willing to pay more, the majority (47%) were happy with a premium of up to 10%, while 19% were open to a premium of 10-20%. Health considerations emerged as the main motive for a higher *WTP* (43%), followed by environmental concerns (38%) and perceived better product attributes (19%). Another study revealed different results regarding the willingness to pay a premium for clothing with a certified eco-label: Only 45% had a clear motive for such a willingness, 36% expressed reluctance and 19% remained neutral. Remarkably, this study also found a higher *WTP* among female participants (Rutten 2022).

Another study conducted by Ha-Brookshire and Norum (2011) explored the elements that influence consumers' *WTP* for sustainable cotton apparel and found that more than half of the respondents were willing to pay more for such shirts (Ha-Brookshire and Norum 2011). The

survey was conducted by telephone among 500 nationally representative respondents. On average, consumers said they would be willing to pay $5.54 more for shirts made from sustainable cotton. Several factors influencing consumers' *WTP* extra for socially responsible cotton clothing were identified, including attitude towards the environment, age, gender and product evaluation criteria such as brand name, washing requirements, colour and fit. In particular, a strong attitude towards environmental protection and socially responsible consumption was correlated with a greater likelihood of paying a premium for these apparel alternatives. In addition, the study identified age and gender as significant demographic factors influencing consumers' *WTP* a premium for organic clothing. For instance, younger participants as well as female respondents had a higher *WTP* for the sustainable cotton shirts.

Concludingly, consumers *ITP* and *WTP* regarding sustainable products are influenced by various factors. The most important ones are their attitude towards sustainability or sustainable products, demographics like age and gender, a company's CSR activities or communication measurements and the usage of sustainability labels. Particularly for football fans, their emotional connection with their favourite club has a strong impact on *ITP* and *WTP* for merchandise in general. Also, fan participation and fan engagement can positively influence fans' *ITP* and *WTP*. However, for the specific context of this research study the literature is lacking in sufficient information and shows great research gaps. There were no particular studies found on the purchasing behaviour of football fans regarding sustainable merchandise or the consumer behaviour for sustainable sports merchandise in general. Also, the influence of sustainability labels in this specific context has not been measured yet.

4. Theoretical framework and hypothesis formulation

A pairing of Likert scale constructs and a combination of a conjoint and Gabor-Granger analysis is used as the theoretical foundation for determining the relevant analysis criteria. The dependent target variables in this research framework are the two constructs *ITP* and *WTP*. In this thesis, *ITP* is defined as the tendency of fans to buy a certain fan article, neglecting the area of sustainability at first. Meanwhile, the construct *WTP* connects to this by examining the extent to which fans are willing to spend more money on a product with such a sustainability label than on an ordinary merchandise item without it. By using these two target variables, precise conclusions can be drawn at the end of the research about the extent to which sustainability labels influence the consumer behaviour of fans and what this influence depends on.

As a first independent variable, participants' emotional connection to their respective favourite club is explored to evaluate fan identity, as previous research indicates that team identification serves as a precursor to decisions related to sport consumption (Bodet and Bernache-Assollant 2011). Therefore, fan identity is a crucial dimension to be measured in the evaluation of fan consumer behaviour. This study focuses on the internal dimension of fan identity by incorporating how the participants view themselves as dedicated supporters of the club. For this purpose, the construct of *Internal Legitimacy (IL)* is utilized, which has already been developed and applied by Biscaia et al. to conceptualise and measure fan identity (Biscaia, Hedlund, et al. 2018).

Fans often show the importance of a sports club to them by wearing the team’s merchandise to express their support and show affiliation (Apostolopoulou, et al. 2013; Fetchko, Roy and Clow 2018). Therefore, this study infers the following hypotheses regarding the two consumer behaviour dimensions *ITP* and *WTP*:

H1: *IL* has a significant positive effect on (a) *ITP* and (b) *WTP*.

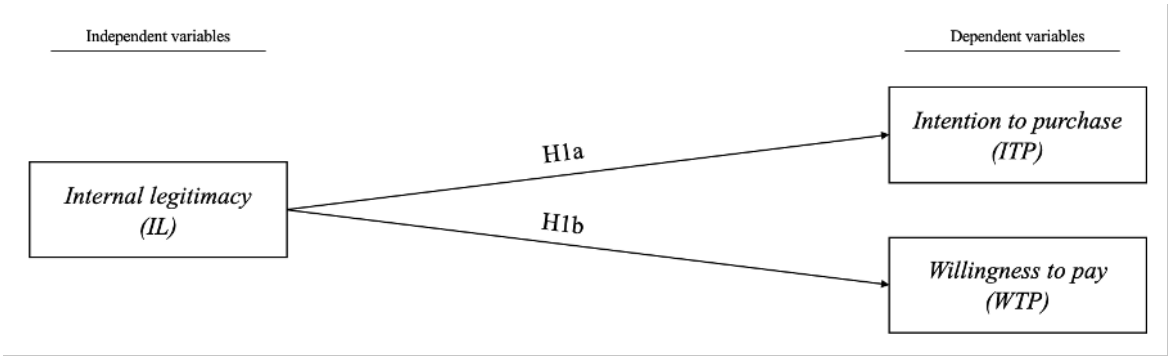

Figure 2: IL has a significant positive effect on (a) ITP and (b) WTP. Own illustration

Furthermore, previous research has shown that pro-environmental attitude towards sustainable clothing, even in the presence of an intention-behaviour gap, is significantly influencing the purchase intention (Chaturvedi, Kulshreshtha and Tripathi 2020; Rausch and Kopplin 2021; Chi, et al. 2014). Meanwhile, other studies suggest that sustainably conscious individuals with eco-friendly consumption patterns have a higher *WTP* for sustainable fashion products than consumers with lower awareness of sustainability (Rausch and Kopplin 2021). Based on these theoretical implications, the following hypotheses regarding the relationship between *SA* and *ITP* and *WTP* respectively are concluded:

H2: *SA* has a significant positive effect on (a) *ITP* and (b) *WTP*.

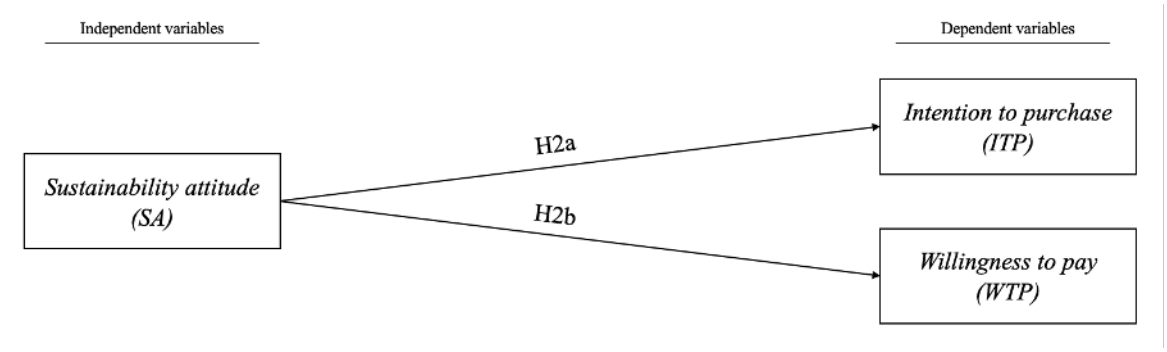

Figure 3: SA has a significant positive effect on (a) ITP and (b) WTP. Own illustration

Additionally, individuals' awareness and concerns about the environment have a proven influence on their requirements for and general acceptance of sustainability labels (Testa, et al. 2015). At the same time, a sustainability label also functions as an information carrier for consumers, which is why such labels become increasingly relevant in purchasing decisions the better a consumer is informed about environmental issues (D'Souza, Taghian and Lamb 2006). Therefore, two additional dependent variables are created, *Sustainability criteria rating (SCR)* and *Perceived labelling relevance (PLR)*, which analyse the requirements and importance of certain attributes of sustainability certificates as well as measure the perceived relevance of such seals, and derive the following hypotheses:

H3: *SA* has a significant positive effect on (a) *SCR* and (b) *PLR*.

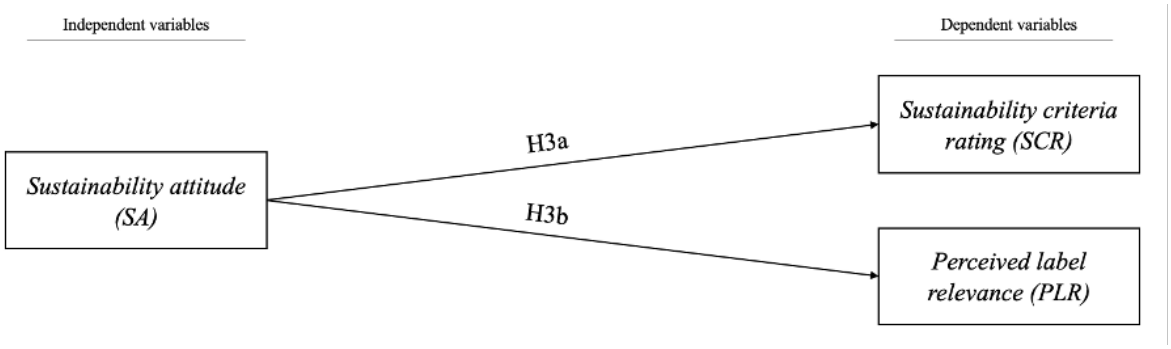

Figure 4: SA has a significant positive effect on (a) SCR and (b) PLR. Own illustration

Furthermore, to provide additional valuable insights into drivers of positive consumer behaviour change, the relationship between the individual *SCR* and the corresponding *ITP* and *WTP* is explored. This enables a more in-depth understanding of which attributes of sustainability labels have a particularly positive influence on the *ITP* and *WTP*:

H4: *SCR* has a significant positive effect on (a) *ITP* and (b) *WTP*.

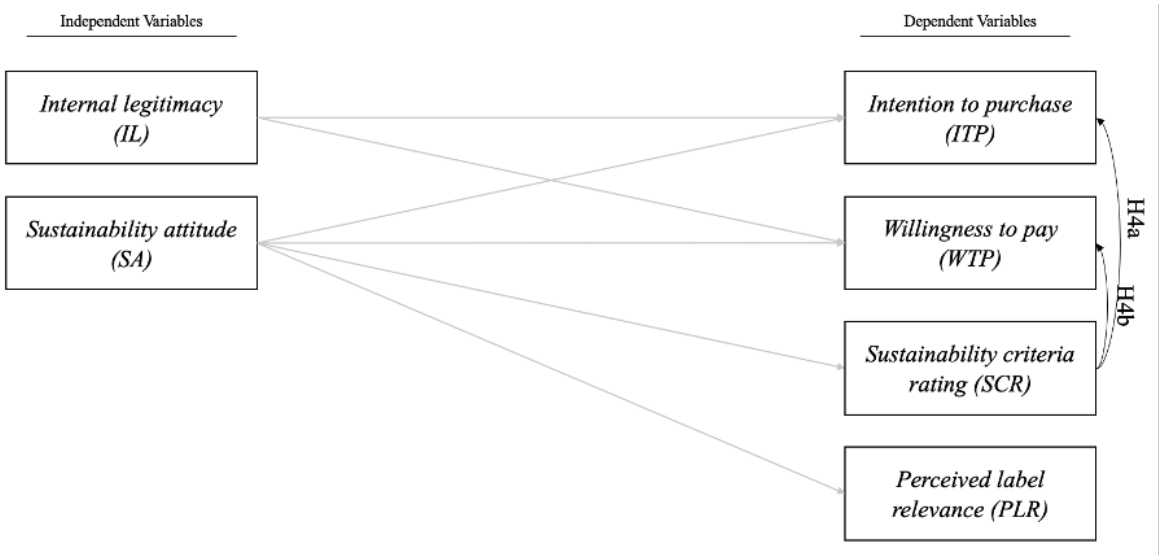

Figure 5: SCR has a significant positive effect on (a) ITP and (b) WTP. Own illustration

Finally, to provide further insights into the antecedents of consumer behaviour, demographic factors are examined for their potentially moderating relationships to the respective individual variables. This, in combination with the hypotheses defined above, leads to the following overall research model:

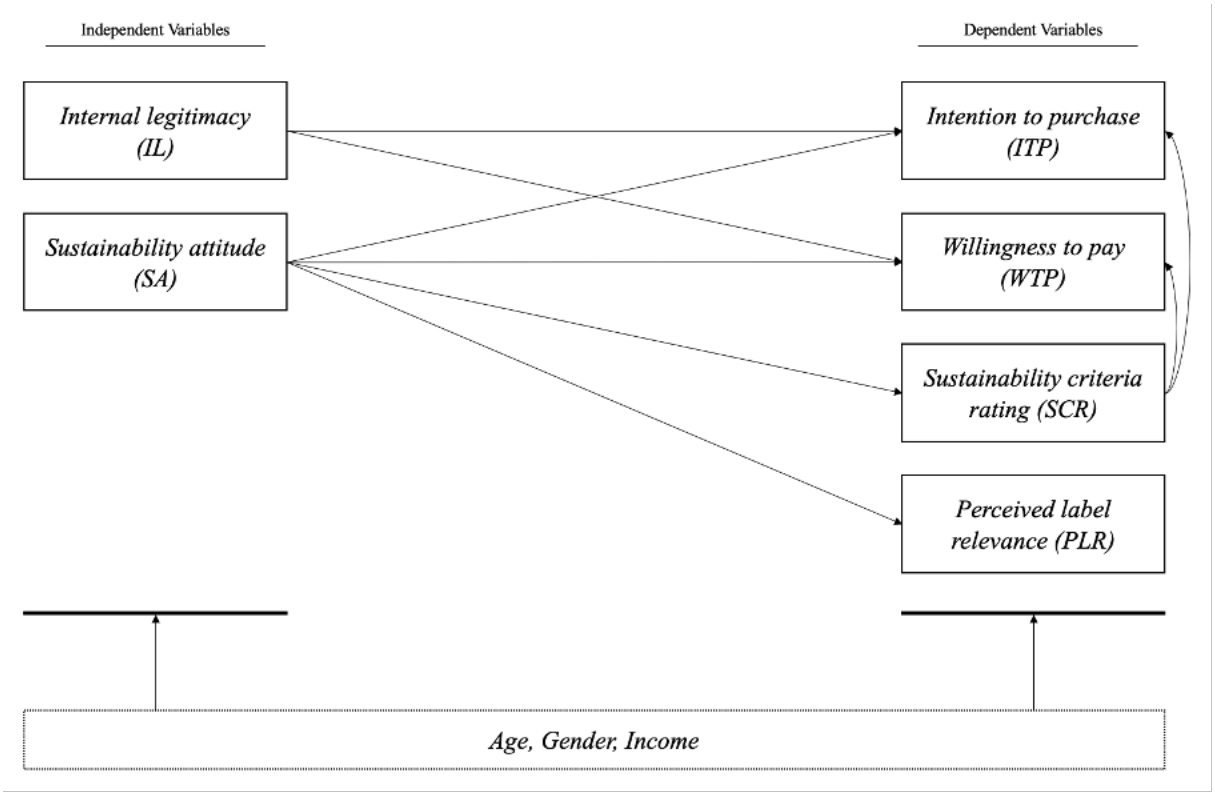

Figure 6: Overall research model. Own illustration

5. Methodology

5.1 Research Design

To test the hypotheses and relationships of this thesis, a quantitative approach is applied. This is based on an empirical survey conducted from October to November 2023, which focuses on the areas of emotional connection to the club, relevance of sustainability in fan merchandise, perception of and demands on sustainability seals, as well as resulting changes in consumer behaviour. For the former, the concept of *IL* by Biscaia et al. and corresponding questions are used to measure emotional fan identity (Biscaia, Hedlund, et al. 2018). Relevance of and attitudes towards sustainability in fan merchandise is measured via interrogating preferences in personal consumption, basic acceptance of additional costs for sustainable products as well as perceptions on football clubs' responsibilities and sufficiency of current actions in the context of sustainability. Regarding sustainability label perceptions, the participants are asked to rank or evaluate different aspects of such certificates in terms of importance and trustworthiness. Finally, the changes in consumer behaviour due to such sustainability labels are explored using a mixed approach of conjoint analysis and the Gabor-Granger method.

To enable a cross-club analysis, the survey was not limited to B04 fans but was expanded to include all 18 clubs in the First Bundesliga in the 2023/24 season. Consequently, at the beginning of the survey, club identification was queried so that the participant could then be asked personalised questions and shown visuals depending on their favourite club. Clubs that exceed the participant threshold of 30 are further analysed individually as consequently normal distribution of the results can be assumed (Scharnbacher and Holland 2013). To be able to determine the distinct preferences of the actual end buyers of football fan merchandise, it was necessary to specifically survey actual football fans. While non-football fans (or fans of clubs not included in the survey) could also participate in the survey to create a control group, the

clear focus on actual fans of football clubs is essential for the detailed evaluation of the research question in the context of football merchandising. These communicate extensively in official and unofficial fan groups on social media, so that the dissemination of the survey was largely implemented on these forums. This is in line with the targeted benefits of online survey research in social media, which include increased reach through enhanced networking and participation effects as well as reduced use of resources such as financial resources or time required for the survey (Kayam and Hirsch 2012; Oeldorf-Hirsch and Sundar 2015).

In addition, the survey was sent to all registered fans of the club via the newsletter and social media channels of our partner club B04 to reach a significant number of participants especially in this focus group. The survey was made available in German and English, but only placed and distributed in German networks of the fan groups on the social platforms.

A total of 1342 clicks on the link to the online survey have been generated, whereas 1042 of these clicks (78%) referred to the general survey including all First Bundesliga clubs, leaving 295 clicks (22%) coming from B04's own channels. Of these 1342 clicks, 636 entries successfully completed the survey. Overall, there is a larger proportion of male participants (492 men [77.4%]; 139 women [21.9%]; 3 diverse [0.5%]), while the average age of the entire sample is 33.6 years. The grouped age structure of the sample is shown in figure 7.

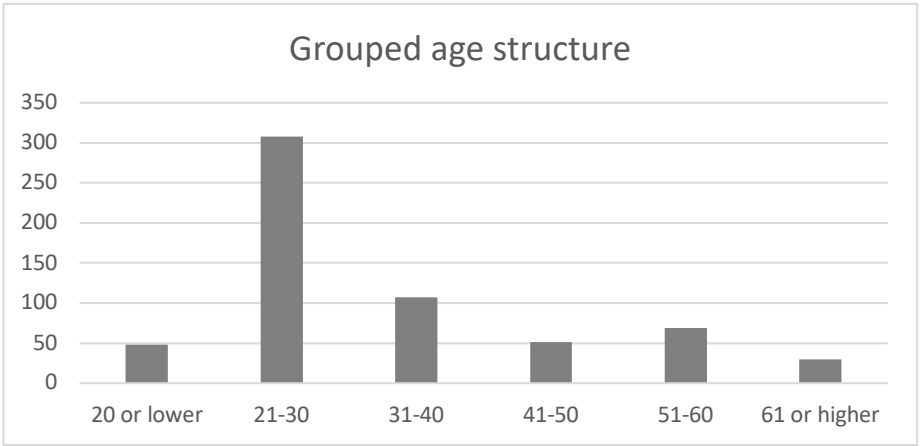

Figure 7: Grouped age structure. Own illustration. Adapted from survey data

B04 represents the club that most participants identify as a fan of (24.2%), followed by FCB (9.7%) and BVB and SGE (9.1% respectively). In total, nine clubs reached the threshold of 30 participants, so that statistical normal distribution can be assumed for their results (Scharnbacher and Holland 2013). 57 participants (9.0%) stated that they were a fan of a club not covered in this study, whereas 18 respondents (2.8%) are not a football fan at all. The full distribution of club identification is illustrated in figure 8.

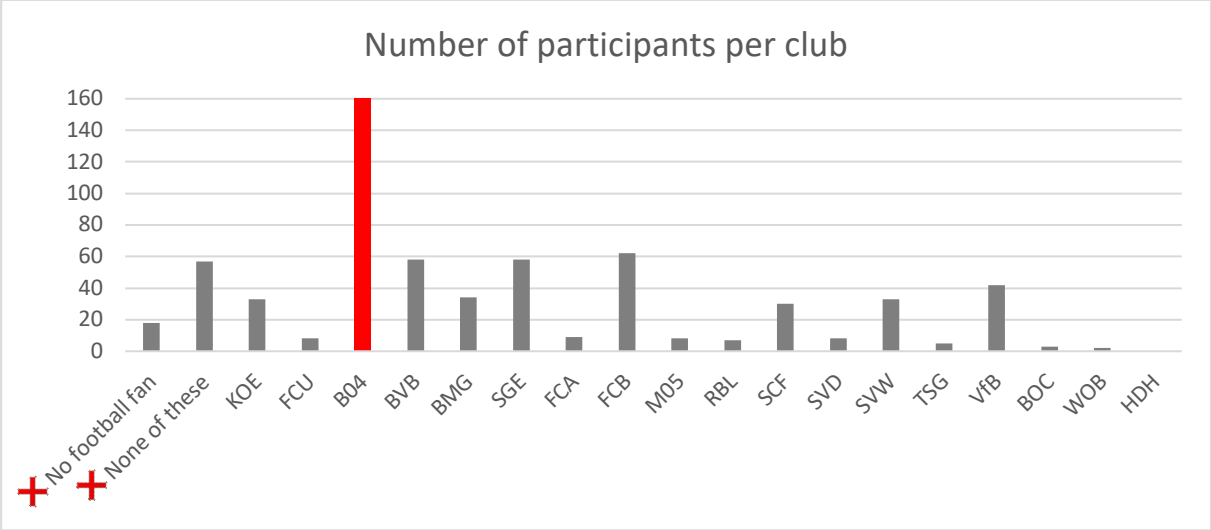

Figure 8: Number of participants per club. Own illustration. Adapted from survey data

The empirical approach and analysis of the model includes Spearman's correlation (r_s) and ordinal regression analysis (regression parameter = b). The statistical application SPSS was used to apply these statistical methods.

5.2 Methodical approach

The structure and content of the survey is based on relevant, context-specific literature. Apart from the quantitative questions and rankings, the scale constructs are defined by seven-point Likert scales. The anchors of the Likert scales are always either "Disagree at all" (empirical value: one) and "Totally agree" (empirical value: seven) as well as once "Not important at all" (empirical value: one) and "Very important" (empirical value: seven). Based on this approach,

these items are considered ordinally and hence, an ordinal regression will be applied for statistical analyses.

After an introductory survey on the participants' club identification on the basis of 20 options (current eighteen First Bundesliga clubs plus the two special cases of non-football fans and club not listed), the two antecedent constructs are investigated. *IL* and its survey items are all based on the study by Biscaia et al. (2018) and are accordingly explored using a seven-point Likert scale, while *SA* was constructed and intensively tested by us.

The construct *SCR* requires a variation of more complex questions to enable a comparative assessment of the individual dimensions and characteristics of sustainability labels. Consequently, eight attributes of fan articles are evaluated regarding their relevance for the sustainability of the product on a scale of zero to ten with ten showcasing the highest relevance, before subsequently the importance of sustainability seals for the individual consumption of fan articles is asked using a seven-point Likert scale. Finally, eight different attributes of sustainability labels need to be ranked based on their relevance to the trustworthiness of a label (most relevant to most irrelevant), enabling a deeper analysis on which of these attributes are valued comparably more important than the others.

After assessing *ITP* via the Gabor Granger-related query on the general intention to buy a presented fan t-shirt, the participant is confronted with a comparison of the item with and without the sustainability label at the same price. In this setting, the assumption holds that the sustainability seal verifies all of the participant's requirements for a sustainable fan article. The participant must finally decide on one of the two options presented visually. The images of the products differed only in the addition of the sustainability seal (appendix 2). As long as the decision is made in favour of the article with the sustainability label, a further comparison of the two articles is shown afterwards, whereby the price of the sustainable article increases by

€2 at each step while the price of the ordinary article remains constant. This procedure starts at the price point of €19.99 and goes on until a comparison of €27.99 for the sustainable product versus the common article still being at €19.99. Consequently, the maximum potential number of purchase decisions is five, which would occur if the participant always chose the sustainable option. By using such a mixed method of conjoint and Gabor Granger method, an assessment of an approximate *WTP* for a fan article with sustainability label in comparison to an ordinary product as well as an analysis of this in relation to antecedent variables can be conducted. The full questionnaire can be examined in appendix 2.

For the elements of the constructs to be considered representative, both the reliability and validity of the survey and the constructs created must be evaluated. All constructs were tested for reliability and validity prior to the survey using a test sample and in the final results. Since all values for Cronbach's alpha are above 0.7, all constructs achieve sufficient internal reliability (Cronbach 1951). This is further confirmed by the composite reliability values calculated via Confirmatory Factor Analysis, which both exceed the threshold of 0.6 for *IL* and *SA*, showcasing strong internal consistency within the constructs (Shrestha 2021). In addition, the average extracted variance of the constructs exceeds the threshold value of 0.5 respectively so that the convergence validity of the constructs can be assumed. Furthermore, the square root of the average extracted variance of each construct is greater than any of their correlations with each other. Consequently, the Fornell-Larcker criterion is fulfilled and sufficient discriminant validity of the constructs of this model can be assumed (Fornell and Larcker 1981).

Construct	Cronbach's Alpha	Composite reliability	Average Variance Extracted
IL	0.900	0.930067	0.769039
SA	0.869	0.911058	0.720154

Table 3: Statistical reliability and validity values. Own creation

6. Findings - Influence of *SA* on (a) *ITP* and (b) *WTP*.

To measure the *SA* of fans, Q12 to Q15 were summarized into a new, holistic variable. The sample reveals that the 636 football fans, who participated in the survey, have a clearly positive attitude towards sustainability (mean = 4.94; median = 5.25). Only 20.3% of respondents achieved a value of less than 4, i.e., sustainability is not that important to them, and over two thirds (69.8%) reached a score above 4 points, i.e., they indicate to have a positive attitude towards sustainability. Additionally, as many as 29.1% even achieved a score of 6 or more scale points, which demonstrates a strongly positive *SA* (figure 11).

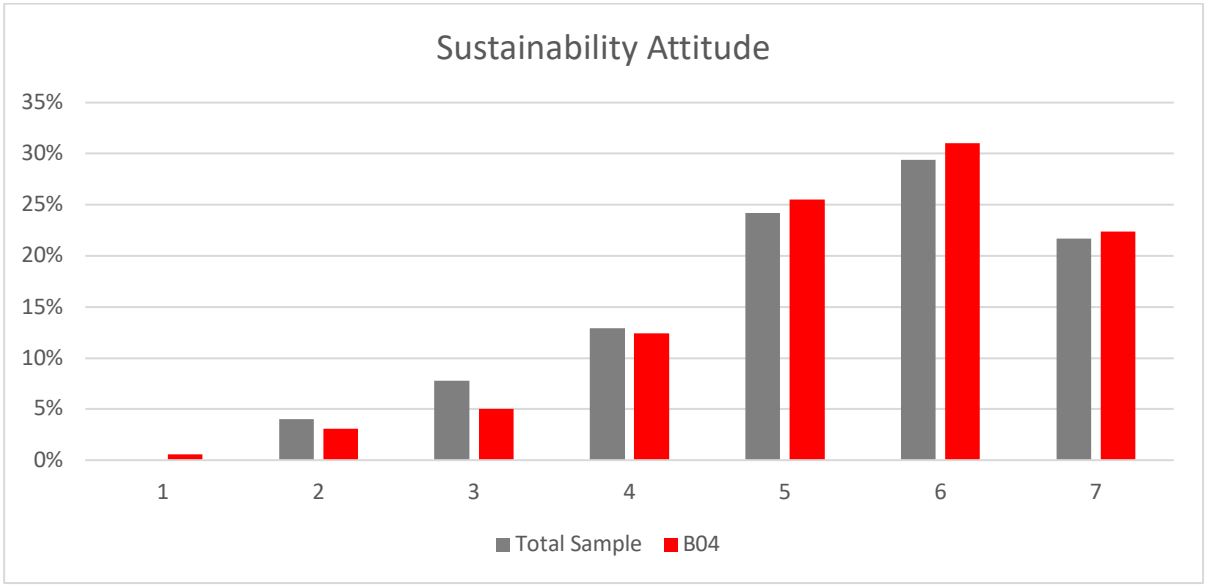

Figure 9: SA distribution. Own illustration. Adapted from SPSS data

Taking a look at the mean values of the individual clubs, fans of BMG (5.20), SCF (5.17), B04 (5.05) and FCB (5.04) show the highest scores for *SA* and are above the average of the entire sample. Therefore, it can be assumed that these fans have a more positive attitude towards sustainability and in particular towards sustainable fan merchandise. They indicated to prefer sustainable merchandise over normal merchandise and see a clear responsibility for their favourite club to engage in sustainability measures. In contrast, fans of BVB, SGE, KOE, indicating that the perceived attitude towards sustainability tends to be lower among these fan

bases. The lowest average values were measured among fans outside the First Bundesliga (4.57). The median values give an impression of the central tendency of the data and are less prone to outliers. In this case, the median values are closely related to the mean values and show similar patterns (see table 8).

Club	Mean	Median
Total sample	4.94	5.25
B04	5.05 (3)	5.25
FCB	5.04 (4)	5.50
BVB	4.85 (7)	5.13
SGE	4.81 (8)	4.75
VfB	4.90 (6)	5.13
SCF	5.17 (2)	5.50
BMG	5.20 (1)	5.38
SVW	4.95 (5)	5.00
KOE	4.77 (9)	4.75
Other Clubs	4.57 (10)	4.75

Table 4: Means and Median of SA among football fans separated by clubs. Adapted from SPSS Data

The results show that the majority of the fans, nearly 70%, have a positive *SA*. Additionally, the average of all clubs is above 4 points, which shows a positive trend towards sustainability. The fans of B04 are among the fans with the highest score for *SA* and show a clearly positive interest in sustainability regarding their club and in particular regarding fan merchandise.

For H2, to examine the effects of the fan's *SA* on their *ITP* and their *WTP*, a correlation analysis following Spearman was conducted. A significance level of 0.05 should be considered. Table 9 summarizes the variables related to the relationship between *SA* and *ITP* or *WTP*.

Club	*SA-ITP* Spearman correlation	*SA-WTP* Spearman correlation
Total sample	0.114**	0.456***
B04	0.148	0.480***
FCB	0.090	0.485**
BVB	0.143	0.435**
SGE	0.143	0.598***
VfB	-0.029	0.231
SCF	-0.137	0.529**
BMG	0.194	0.594***
SVW	0.191	0.372
KOE	-0.112	0.355
Other Clubs	0.274*	0.225

Table 5: Correlation parameters for SA-WTP and SA- ITP. Adapted from SPSS Data
**Correlation is significant at a 0.05 level (2-tailed).*
***Correlation is significant at a 0.01 level (2-tailed).*
****Correlation is significant at a 0.001 level (2-tailed).*

The comprehensive analysis of the relationship between *SA* of football fans and their *ITP* provides a detailed perspective on the available data. At the level of the entire sample, a positive and significant correlation is shown, which is emphasised by the calculated Spearman correlation value of r_s=0.102 with a p-value of 0.01. This statistical relationship indicates that there is a weak trend: as fans' sustainable attitude increases, their *ITP* also increases. However, the results change when the analysis is conducted at the level of the individual clubs. Here, the analysis indicates that there is no significant correlation between the independent variable *SA* and the dependent variable *ITP*, as all p-values are above the significance level of 0.05. Only the analyses for fans of Other Clubs show a weakly positive and significant correlation between *SA* and *ITP* (r_s=0.274; p<0.05). However, as the results for all other clubs are very consistent, this difference could be attributed to the small sample size and the varying preferences of the respondents.

Also, to investigate the assumptions of H2 an ordinal regression analysis was conducted (table 10). To analyse the model fit, the chi-square value was measured, which tests the hypothesis that the model explains the data well. A small p-value ($p<0.05$) indicates that the model fits the data significantly better than a null model without predictors. The Chi-square of 6.762 and the p-value of 0.009 demonstrate a very good fit of the model.

However, the goodness-of-fit information revealed the contrary. The Pearson chi-square value of 197.539 with a p-value of 0.002 indicates that the observed and expected frequencies differ significantly from each other. The small p-value of 0.002 indicates that the differences between the observed and expected frequencies are not random. The model could not be optimally fitted to the data. It is possible that the model is too complex, especially when using many predictors. A complex model may tend to fit strongly to the training data, which can lead to a good fit of the model fitting information. At the same time, however, this could cause difficulties when generalizing to new data, which is also referred to as the problem of overfitting. While the ordinal regression for the whole sample indicates a positive significant relation between *SA* and *ITP* ($p=0.006$), the regression analyses, which were carried out for the clubs individually, confirmed the results from the correlation analysis and showed, that there is no statistically significant relationship between the two variables. Only the fans of B04 and the clubs outside the First Bundesliga show an influence of sustainable attitude on the *ITP*.

Club	*SA-ITP* Estimate	*SA-ITP* Odds ratio	*SA-WTP* Estimate	*SA-WTP* Odds ratio
Total sample	*0.138***	1.147	*0.731****	2.077
B04	*0.214**	1.238	*0.907****	2.476
FCB	*0.104*	1.109	*0.739***	2.093
BVB	*0.257*	1.293	*0.614**	1.847
SGE	*0.089*	1.093	*0.820****	2.270
VfB	*-0.126*	0.881	*0.624*	1.866
SCF	*-0.250*	0.778	*0.948***	2.580
BMG	*-0.058*	0.943	*1.254****	3.504
SVW	*0.348*	1.416	*1.027**	2.792
KOE	*-0.164*	0.848	*0.613**	1.845
Other Clubs	*0.369**	1.446	*0.346*	1.413

Table 6: Regression parameters for SA-ITP and SA-WTP. Adapted from SPSS Data
**Correlation is significant at a 0.05 level (2-tailed).*
***Correlation is significant at a 0.01 level (2-tailed).*
****Correlation is significant at a 0.001 level (2-tailed).*

The present analyses offer a differentiated perspective on the relationship between the sustainable attitude of football fans and their *ITP*. On the overall sample, both the correlation and regression analyses indicate that there is a weak but significant positive relationship. This could mean that fans who show a stronger sustainable attitude are more likely to buy merchandise. However, the model fitting information and the analyses at the level of individual clubs show an ambiguity, as no significant correlations are found separately for any of the clubs. This could indicate that the relationship between *SA* and *ITP* is not universal but can vary from club to club. Furthermore, it is important to consider that the *ITP* was investigated by using a normal, non-sustainable fan shirt, which could have also led to the inconsistent data. In addition, the inadequacy of the regression model for the overall sample makes it clear that the previous variables are not sufficient to fully explain the complexity of this relationship. This could indicate unobserved factors that were not taken into account in the analysis.

Given these results, a more in-depth investigation is recommended to understand the reasons for the discrepancies between the overall analysis and the club level. This could include the integration of additional variables, a deeper contextualisation of club dynamics and possible interaction effects.

However, the correlation analysis revealed a strong connection between *SA* and *WTP* for the whole sample with a Spearman correlation of r_s=0.462 and a statistical significance of p<0.001 (table 9). Taking a closer look at the single clubs, six of the nine Bundesliga clubs show a moderate to strong correlation with all significances below 0.01. Especially for SGE (r_s=0.598), BMG (r_s=0.594) and SCF (r_s=0.529) the values for the Spearman correlation are particularly high, which indicates a positive strong correlation between fan's *SA* and their *WTP* for the sustainable fan t-shirts. B04 shows a moderate but highly significant correlation (r_s=0.480). Only VfB, SVW, KOE, and Other Clubs show no statistically significant results. However, their p-values lie just above 0.05 and the samples for these clubs are particularly small. It is therefore possible that a larger sample would show other results that align with the results for the first three clubs.

The regression analysis for the influence of *SA* on *WTP* revealed interesting significant effects that support the results of the Spearman correlation analysis. Also, for this model the model fit was observed first. In this case the p-value is p<0.001, which indicates a very good fit of the model. Moreover, the goodness-of-fit statistic shows a chi-square value of 105.001 with a p-value of 0.227, which indicates that the difference between the observed and expected frequencies is not statistically significant. The high p-value (p=0.227) demonstrates that the model explains the data well and that there are no significant deviations from the expected distribution.

Overall, there is a highly significant positive effect ($p<0.001$) of *SA* of football fans on their *WTP* for the sustainably labelled fan t-shirt. In other words, the more positive the sustainable attitude the higher the fans' *WTP*. The ordinal regression computed an Odds ratio of 2.08, i.e., the probability for a fans' *WTP* to increase is 2.08 times higher if the fan has a more positive SA. As it can be seen in table 10, this positive relationship is not only true for the total sample but also for all clubs individually, except the VfB and the Clubs outside of the First Bundesliga. The highest Odds ratios are measured for BMG (3.50), SVW (2.79) and B04 (2.48), i.e., the probability for their fans' *WTP* to increase is the highest with an increase in *SA*. BVB (1.85) and KOE (1.85) have the lowest Odds ratios, i.e., a weaker effect. Only the VfB and "Other Clubs" deviate from these results, which could possibly be due to the small sample size.

Thereby, the results confirm the presumptions from the literature and H2 can partially be accepted. *SA* has been shown to be a powerful predictor of environmentally friendly intentions and behaviour, including the *WTP* for environmentally friendly products. The results for the relationship between *SA* and *ITP* could not clearly lead to a decision and the assumptions could neither be confirmed nor accepted with certainty. To do so, the research model must be optimised and the sample size probably increased.

7. Discussion - Influence of *SA* on (a) *ITP* and (b) *WTP*

The German Bundesliga is moving increasingly towards more sustainability, not least due to the great interest in sustainability among fans. As presented in chapter 6.2 the football fans surveyed have a very positive attitude towards sustainability, as the mean score of 4.94 shows. In fact, nearly 30 % said that it was very important to them and achieved a score of 6 or more. Right behind BMG and SCF, the fans of B04 show the third highest value regarding their sustainability attitude.

The analysis could not clearly identify an influence of fans' *SA* on their *ITP* for normal merchandise, as the research has shown. In general, the sustainability attitude could not certainly be identified to predict if a fan is more or less likely to buy a merchandising article, that is not specifically labelled as sustainable, from his or her favourite club. As the *ITP* is more driven by fans' *IL*, they will buy a merchandising article (in this case a fan t-shirt) to support their favourite club and show their belonging and sympathy. As described in Chapter 7.1, the emotional bond formed with the team through shared experiences and passion seems to be a stronger driving force for merchandise purchase intention than the sustainability aspect and acts as a more significant motivator.

However, the analyses showed that fans with a more positive *SA* are more willing to buy sustainably labelled merchandise and are also more willing to pay a higher price for it. In fact, fans among all the clubs surveyed are willing to pay €23.77 for a sustainably labelled fan shirt, which is nearly €4 more than they would pay for a not sustainable fan t-shirt (€19.90). The average *WTP* of B04 fans lies at €23.01. Especially B04, FCB, BMG, BVB, and SGE show an extremely significant correlation between these two variables. These findings offer considerable potential for the club, particularly in terms of promoting sustainable initiatives and strengthening ties with an environmentally conscious fan base. Consumers' characteristics, in

particular their environmental awareness and knowledge, play an important role in their *WTP* for environmentally friendly products. Environmental awareness or *SA* is proving to be a reliable predictor not only of the intention to invest in environmentally friendly products, but also of actual behaviour in this context. This includes a particular preference for goods labelled as sustainable. At the same time, this relationship is strengthened by environmental competence, which represents consumers' understanding of environmental issues and environmentally friendly products. Research by Schmuck et al (2018) and Diekmann & Preisendörfer (2003) highlights that these consumer characteristics act as indicators of environmental commitment and significantly influence both cognitive and behavioural responses to sustainable goods. Therefore, the results could underline the findings from previous studies.

In the context of the football fan culture, fans with a more positive attitude towards sustainability naturally match these important consumer characteristics. As a result of their increased environmental awareness and ecological competence, they are more willing to pay a premium for sustainable merchandise products. This match between football fans' positive *SA* and their actual behaviours is a powerful force influencing the growth and development of the market for sustainable products within the football fan community. The collective attitudes and characteristics of these fans could contribute significantly to the growth in demand and popularity of sustainable products regarding football merchandise. Specifically for B04 this could be true, as the measured *SA* among their fans is among the highest of all clubs surveyed.

However, there is one important aspect that must be considered when analysing and interpreting consumer behaviour, which is the “intention-behaviour gap”. The intention-behaviour gap refers to the discrepancy or gap between a person's intention to perform a certain action and the actual behaviours or actions that follow. Studies on consumer behaviour have found that many

consumers pretend a pro-environmental attitude and intention but do not follow with sustainable actions (Kollmuss and Agyeman 2002; Young, et al. 2009), especially regarding sustainable clothes. Perceived economic and aesthetic risks, as well as greenwashing concerns can influence consumers actual behaviour when it comes to a real purchasing decision. Also, sensitivity for fashion trends and high search cost (i.e., perceived time and effort) can create hurdles for consumers to actually follow their intentions and engage in sustainable consumption (Rausch and Kopplin 2021). Therefore, the football clubs must be careful with predicting their fans' actual purchasing behaviour on the basis of such surveys. To draw on more reliable conclusions, the clubs should pay close attention to their fans actual buying behaviour, e.g., by analysing their sales in (online) stores and comparing it to the proposed attitudes and intentions of the fans. Additionally, the attitude and behaviour in the context of other sustainable measures could be used as an orientation or benchmark when assessing how fans will accept and consume new sustainable merchandise. To bridge the intention-behaviour gap, football clubs must address the aforementioned issues and meet their fans with transparent communication. As pointed out in chapter 3.3, trust is one of the most important success factors for sustainable measures that involve the fans. Also fan participation and fan engagement can increase the trust and interest of fans in sustainable measures or products and could help to lower the hurdles for sustainable consumption. This can be done by educating fans about sustainability matters that affect both the club and the fans, by including them in decision-making processes or continuously obtaining feedback on the sentiment and satisfaction of the fans.

Still, the survey shows a positive link between fans sustainability attitude and their *WTP*. It can be assumed that fans with a more positive *SA* will be more willing to pay a higher premium for sustainable merchandise. With regard to the intention-behaviour gap, football clubs should be using this information carefully and not make too optimistic predictions on their fans actual consumption behaviour. However, they should utilize this potential and expand and promote

their sustainable merchandise in a transparent way. The significance of these results lies in their direct relevance for the strategic orientation of B04. The willingness of fans to pay a premium price for sustainable products (€4 among the whole sample; €3 at B04) could not only lead to an increase in sales in merchandise, but also serve as an indicator of increased identification of fans with sustainable values and the club itself. This highlights the need to include the fans' sustainability attitude as an important factor in the club's marketing and sustainability strategies.

8. Recommendations

8.1 Use versatile pricing strategies and sustainability education to increase fans' *WTP*

To ensure that fans are willing to pay the optimum price for sustainable fan t-shirts and at the same time overcome possible barriers in the intention-behaviour gap, a balanced pricing strategy is proposed. As already described moderate price increase of around €4 for sustainable fan t-shirts is recommended, which was derived from the average WTP of the 636 fans surveyed. In addition, bundled offers could be introduced where fans can purchase sustainable fan t-shirts in combination with other merchandise items or ticket packages at a slightly discounted price. For example, a "green fan package" could be designed that includes a sustainable fan t-shirt and other sustainable items or the exclusive access to an environmentally friendly fan event. This strategy not only incentivises but also increases the perceived value of the offer for fans and thereby also increase their *WTP*. The implementation of bulk prices could also optimise the average *WTP*. The price per unit for sustainable fan t-shirts could be reduced if fans purchase several sustainable products at a time. For example, the price for a single sustainable fan t-shirt could be €23.90, while the price drops to €19.90 per fan t-shirt (which would be the approximate price for a non-sustainable shirt) when two or more fan t-shirts are purchased. Such a strategy could motivate fans to purchase larger quantities and helps to

translate their positive intent into concrete action. It could also encourage fans to buy sustainable merchandise not only for themselves but also for or with friends and family, thus spreading interest in it to other fans. Moreover, seasonal discounts or temporary promotions for sustainable fan t-shirts or other sustainable merchandise could positively influence the purchasing behaviour as well. For instance, special discounts could be offered during Earth Month (an environmental awareness event that takes place every year in April) to emphasise the environmental impact while creating a targeted purchase promotion. Transparent communication about the pricing strategy, particularly emphasising environmental and social benefits, could increase the perceived value of the items. B04 could provide regular updates on the use of the additional revenue for sustainable initiatives to involve fans in the process and increase trust. Also, the club should consider creating more transparency about the production and supply chain of such sustainable merchandise products to explain higher prices compared to non-sustainable products. A clear price information can help fans to understand the added value of sustainable products and increase their willingness to accept a higher price (Morris, Koep and Damert 2021). It is also crucial to emphasise the specific criteria of the sustainability label to promote fans' understanding and strengthen their loyalty to sustainable products (Jones and Lansdell 2001). The label and the label criteria should therefore be clearly visible alongside the price in the online shop to directly support the purchase decision. This allows customers to recognise the sustainability features of the products quickly and easily. B04 can further educate its fans by providing comprehensive information about the label and the specific criteria through informative posts on the website or online shop, or through blog posts or videos highlighting the environmental impact, social benefits and other relevant aspects of the sustainable products. To ensure greater fan acceptance and involvement, even participative pricing through surveys or direct feedback could be considered. For example, the club could conduct regular surveys to understand fans' satisfaction with and preferences for sustainable

products and their *WTP*. Furthermore, financial incentives for club members, such as exclusive discounts or special member offers also strengthen member loyalty and translate positive intent into concrete behaviour. This versatile pricing strategy should be carefully monitored and tested to ensure its effectiveness with regard to the intention-behaviour gap while taking into account the needs and preferences of fans.

In addition to the pricing strategy, the implementation of sustainable events and the integration of environmental education programmes can make a significant contribution to positively influencing the purchasing behaviour of fans and reducing the intention-behaviour gap. Sustainable events offer a unique opportunity to directly engage with fans and turn their positive intentions into concrete actions. By organising environmentally friendly events, such as sustainable fan fairs or environmentally conscious match days, the connection between the club and its fan base can be strengthened. These events provide opportunities to communicate environmental values and sustainable messages. The integration of environmental education programmes plays a crucial role in improving the eco-literacy of fans. Through targeted educational initiatives, such as workshops, training or information campaigns, fans can develop a deeper understanding of environmental issues and the ecological benefits of sustainable products. Informative posts on social media platforms such as Facebook, Instagram or X can also support these positive aspects. Nowadays, social media is one of the most important tools to communicate and engage with fans and the easiest and most effective way to reach the target audience. Regarding the increasing importance of fan engagement (Biscaia, Johan Cruyff Institute 2021), B04 must increase its presence and activities on these platforms. Fans with a better understanding of the environmental impact of their purchasing decisions are more likely to put their intention to buy sustainable products into action (Diekmann and Preisendörfer 2003) (Schmuck, Matthes and Naderer 2018). Furthermore, sustainable events and environmental education programmes create an authentic platform for B04 to showcase its own sustainability

efforts. The direct contact during these events allows the club to showcase its environmental initiatives in a lively way and allows fans to participate directly in these activities. This can strengthen the fans' positive attitude towards sustainable products and increase their willingness to pay a higher price for corresponding merchandise items. Of course, these measures can be cost and time-consuming. B04 could consider cooperating with different partners and sponsors for financial support. Considering the concept of value co-creation, the latter can benefit from such cooperations as well.

The combination of the proposed actions can not only deepen fans' environmental awareness, but also create a positive link between the intention to purchase sustainable products and actual purchasing behaviour. These actions help to bridge the intention-behaviour gap by providing a holistic and experience-oriented approach to sustainable values while increasing fans' awareness and understanding of these values. Furthermore, it can minimize hurdles, e.g., concerns about greenwashing, that hinder fans to buy sustainable merchandise. With the increased *WTP* of its fans, B04 could maximize its profits, which is not only important for the club as a business but also for financing the sporting success for the long term (Sinn, et al. 2022). Furthermore, they offer a holistic and co-creational approach that creates values on all sides; for the club, the fans, and the possible partners and sponsors that may be involved. It is a positive example on how B04 can use its reach and influence on its fans to create something valuable for the football world and the society and environment around it, beyond financial success.

9. Theoretical Contribution

The exploration of consumer behaviour within the contexts of merchandise and sustainability, specifically in the realm of football clubs, stands as a crucial area of study blending two domains: the psychology of emotional connection to a club and the accelerating trend of sustainable consumption. This study aims to shed light on the diverse effects between identification with the club as well as attitudes towards sustainability and consumer behaviour in specific relation to sustainability labels. In close cooperation with the partnering Bundesliga club B04, not only a status quo analysis in the Bundesliga environment but also an in-depth quantitative analysis of fan perspectives and consumer behaviour were conducted. The results provide the club with an extensive data foundation and practical recommendations for the further development of the planned sustainability label in the merchandise sector, for example, to what extent fans are prepared to bear the higher costs of sustainability by paying a higher price. Furthermore, this is one of the first studies to place the interplay between the three areas of fan identification in football, sustainability, and product labels in the business context of consumer behaviour. Beyond that, the results reveal insights into the perceptions of individual criteria and attributes of such sustainability labels by fans, so that this study presents a holistic analysis of sustainability labels in the context of football club identification as well as personal sustainability attitudes and purchasing behaviour among fans.

10. Limitations

Apart from the interesting results, this study also faced several challenges and included certain limitations that impacted the generalizability and robustness of the findings.

First, the study refers solely to self-produced textiles, which excludes the significantly larger proportion of sales made by the outfitter Castore and is primarily due to contractual barriers. In addition, fans' perceptions tend to depend on the weekly team performance, which is why future studies should incorporate longitudinal research. Furthermore, most VfB participants are ultra fans, which fundamentally have a high emotional connection. Additionally, the study's exclusive focus on the German Bundesliga restricts its external validity, limiting the generalization of findings to football fans inside Germany.

The study uncovered a discrepancy between stated values and actual purchasing behaviour by fans, linking to previous findings regarding discrepancies in anonymous surveys between stated intentions towards sustainable products and the actual behaviour in reality. Furthermore, the reliance on online surveys introduces potential biases related to the clarity of questions and the visual presentation of products. Moreover, the limitation of product visibility to small generic photos and the varying mobile displays may compromise the accuracy of participant responses.

In addition, there are correlations between some demographic factors that make it difficult to examine individual variables. In this survey, for example, this includes a moderate to high correlation between *age*, *income*, and *level of education*. The investigation of the relationship between *income* and *WTP* was further limited as the highest possible response was limited to the open category "Over €65,000", which also showed the largest differences. Further investigation could allow more categories for top earners to be specified, or an accurate input option (potential data privacy issues).

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Appendix 1: Fanshop VfB example for Label certification (VfB Stuttgart 2023)

Appendix 2: Online Survey Questionnaire

- **Q1 Intro text: No respondent input Introduction to the survey**

  (Required)

  Welcome to this study regarding sustainability in football.

  This study is being conducted in collaboration with **NOVA School** of Business and Economics as part of a **master's thesis**. The aim of the study is to promote **sustainable products** and related **certifications** in professional football and better adapt them to the needs of you fans.

  The survey is divided into **4 sections** and requires less than **10 minutes** of your time. Of course, your information will remain **anonymous** and cannot be traced. Please **do not use** your browser's **back button** at any time during the survey, as your previous responses will be lost.

  To show our appreciation for your efforts and time, we would like to **raffle** a current **jersey of your favorite club** among all participants. Simply enter your email address at the end of the survey to be entered into the prize draw.

  We appreciate your participation. Thank you very much!

- **Q2 Multiple choice Which football club in the First Bundesliga are you a fan of?**

  (One response required; One response allowed; Fix order of options; Place options in 3 columns)

  Which football club in the First Bundesliga are you a fan of?

- FC Bayern München
- Borussia Dortmund
- RB Leipzig
- 1. FC Union Berlin
- SC Freiburg
- Bayer 04 Leverkusen
- Eintracht Frankfurt
- VfL Wolfsburg
- FSV Mainz 05
- Borussia Mönchengladbach
- 1. FC Köln
- TSG 1899 Hoffenheim
- SV Werder Bremen
- VfL Bochum
- FC Augsburg
- VfB Stuttgart
- 1. FC Heidenheim
- SV Darmstadt 98
- ❌ None of these clubs
- ❌ I'm not a football fan

- **Q3 Simple block External legitimacy**

Show this question only if the following conditions are met:

If all of these conditions are met:
Answer to question "Q2 Which football club in the First Bundesliga are you fan of?" is not equal to "Option 20"

- **Q4 Intro text: No respondent input Introduction Emotional Connection**

  (Required)

Section 1/4: Emotional connection to the club

The following part deals with your emotional connection to the club as a fan. Please read the statements carefully and then rate whether you agree with them.

- **Q5 Randomisation block Randomisation block**

  (Randomise order of questions)

- **Q6 Likert scale _ Fan loyalty**

  (Required)

  I consider myself a real fan of my club.

  Labelled from Disagree at all (1) *to* Totally agree (7)

- **Q7 Likert scale _ Loss of fan status**
  (Required)

  I would consider it a loss if I could no longer be a fan of my club.

  Labelled from Disagree at all (1) *to* Totally agree (7)

- **Q8 Likert scale _ Importance of being a fan of my team**
  (Required)

  Being a fan of my club is very important to me.

  Labelled from Disagree at all (1) *to* Totally agree (7)

- **Q9 Likert scale _ Fan identification**
  (Required)

  I want others to know that I'm a fan of my club.

  Labelled from Disagree at all (1) *to* Totally agree (7)

  - **Q10 Simple block Sustainability**

- **Q11 Intro text: No respondent input Introduction Sustainability & Football**
  (Required)

Section 2/4: Sustainability & Football

The following part deals with the topic of sustainability and its role in football. Please read the statements carefully and then rate whether you agree with them.

- **Q12 Randomisation block Randomisation block**
  (Randomise order of questions)

- **Q13 Likert scale _ Sustainability is important to me when buying products**
  (Required)

  Sustainability is important to me when buying fan articles.

  Labelled from Disagree at all (1) *to* Totally agree (7)

- **Q14 Likert scale _ Preference for sustainable fan merchandise**
  (Required)

  I prefer sustainable fan articles over ordinary fan articles.

Labelled from Disagree at all (1) *to* Totally agree (7)

- **Q15 Likert scale _ Sustainable fan merchandise preference**
  (Required)

  I accept additional costs for sustainable fan articles compared to normal fan articles.

  Labelled from Disagree at all (1) *to* Totally agree (7)

- **Q16 Likert scale _ Responsibility for sustainability**
  (Required)

  A football club has a responsibility to act sustainably.

  Labelled from Disagree at all (1) *to* Totally agree (7)

- **Q17 Likert scale _ Sustainability commitment**
  (Required)

  My favorite club is committed enough to sustainability.

  Labelled from Disagree at all (1) *to* Totally agree (7)

    - **Q18 Simple block Label**

- **Q19 Intro text: No respondent input Introduction Label**
  (Required)

Section 3/4: Sustainable fan articles and sustainability seals

The following part deals with your requirements for sustainable fan articles and the role of sustainability seals. Please answer the questions in detail and answer them honestly and truthfully.

- **Q20 Multiple choice _ Frequency of purchasing fan merchandise**
  (One response required; One response allowed; Fix order of options; Place options in 3 columns)

  At what frequency do you buy fan articles from your club (e.g. jerseys, scarves, etc.)?

  - Every 1-3 months
  - Every six months
  - Yearly
  - Every 2 years
  - Less common
  - Never

- **Q21 Slider _ Sustainability attributes for fan merchandise**

  (Required; Accept values from 0 to 10; Values must be multiples of 1)

Please rate the following attributes of fan articles in terms of their relevance for the sustainability of the fan article (0 = Absolutely irrelevant | 10 = Absolutely relevant). To do this, use either the movable sliders or the numeric input fields on the right-hand side.

Sum total labelled as Total

- Sustainable materials (bamboo fibers, recycled PET bottles, etc.)
- Fair working conditions (compliance with labor and human rights)
- Low air pollution (CO2 emissions)
- Sustainable supply chain
- Local production
- Low water & energy consumption in production
- Sustainable packaging (recyclable raw materials)
- Environmentally friendly additives (oil, bleach, etc.)

- **Q22 Likert scale _ Importance of sustainability certification for football club fan merchandise**

  (Required)

  How important do you think sustainability seals are for certifying sustainable fan merchandise from football clubs?

  Labelled from Not important at all (1) *to* Very important (7)

- **Q23 Ranking _ Sustainability seal attributes ranking**

  (Required)

Please rate the following attributes of sustainability labels according to their relevance for a trustworthy certificate of sustainability. To do this, move the individual attributes up or down so that the most important attribute is at the top and the least important is at the bottom.

- transparency
- Strict requirements for obtaining a seal
- Popularity of the seal or certifying organization
- Clear communication of measures
- Regular auditing/review of measures
- Credible partnerships / cooperation with other organizations
- Communication of long-term goals
- Information / education for consumers

- **Q24 Simple block Conjoint / GG Bayer 04 Leverkusen**

Show this question only if the following conditions are met:

If all of these conditions are met:
Answer to question "Q2 Which football club in the First Bundesliga are you fan of?" " is equal to "Option 6" *Example B04 Track*

- **Q25 Intro text: No respondent input Introduction Conjoint**

  (Required)

Section 4/4: Purchase decision

For the following questions, please assume that this sustainability seal is trustworthy and verifies all of your requirements for sustainable fan merchandise.

- **Q26 Simple block Conjoint: Bayer 04 Leverkusen**

Show this question only if the following conditions are met:

If all of these conditions are met:
Answer to question "Q2 Which football club in the First Bundesliga are you fan of?" is equal to "Option 6" *Example B04 Track*

- **Q27 Likert scale Query purchase intention**

  (Required)

How likely do you think it is that you will buy yourself a fan shirt from your favorite club at a price of **19.99€** at any time in the future?

To illustrate, here is an example photo of a simple fan shirt:

Labelled from Very unlikely (1) *to* Very likely (7)

- **Q28 Multiple choice _ Sustainable fan T-shirt choice**

  (One response required; One response allowed; Fix order of options; Place options in 2 columns)

  Assuming that the Fan T-shirt with sustainability label meets all your sustainability requirements, which option would you choose when buying a Fan T-shirt? Please click on the option you would choose.

  - Fan T-shirt without sustainability seal

19.90€

  - Fan T-shirt with sustainability seal

19.90€

Show this question only if the following conditions are met:

If any of these conditions are met:
Answer to question "Q27 Query purchase intention " is equal to "4"
Answer to question "Q27 Query purchase intention " is equal to "5"
Answer to question "Q27 Query purchase intention " is equal to "6"
Answer to question "Q27 Query purchase intention " is equal to "7"

- **Q29 Multiple choice _ Sustainable fan T-shirt choice**

  (One response required; One response allowed; Fix order of options; Place options in 2 columns)

  Assuming that the Fan T-shirt with sustainability label meets all your sustainability requirements, which option would you choose when buying a Fan T-shirt? Please click on the option you would choose.

  - Fan T-shirt without sustainability seal

19.90€

- Fan T-shirt with sustainability seal

21,90€

Show this question only if the following conditions are met:

If all of these conditions are met:
Answer to question "Q28 _ Sustainable fan T-shirt choice" is equal to "Option 2"

- **Q30 Multiple choice _ Sustainable fan T-shirt choice**

  (One response required; One response allowed; Fix order of options; Place options in 2 columns)

  Assuming that the Fan T-shirt with sustainability label meets all your sustainability requirements, which option would you choose when buying a Fan T-shirt? Please click on the option you would choose.

  - Fan T-shirt without sustainability seal

19.90€

- Fan T-shirt with sustainability seal

23.90€

Show this question only if the following conditions are met:

If all of these conditions are met:
Answer to question "Q29 _ Sustainable fan T-shirt choice" is equal to "Option 2"

- **Q31 Multiple choice _ Sustainable fan T-shirt choice**

  (One response required; One response allowed; Fix order of options; Place options in 2 columns)

  Assuming that the Fan T-shirt with sustainability label meets all your sustainability requirements, which option would you choose when buying a Fan T-shirt? Please click on the option you would choose.

- Fan T-shirt without sustainability seal

19.90€

- Fan T-shirt with sustainability seal

25.90€

Show this question only if the following conditions are met:

If all of these conditions are met:
Answer to question "Q30 _ Sustainable fan T-shirt choice" is equal to "Option 2"

- **Q32 Multiple choice _ Sustainable fan T-shirt choice**

  (One response required; One response allowed; Fix order of options; Place options in 2 columns)

Assuming that the Fan T-shirt with sustainability label meets all your sustainability requirements, which option would you choose when buying a Fan T-shirt? Please click on the option you would choose.

- Fan T-shirt without sustainability seal

19.90€

- Fan T-shirt with sustainability seal

27.90€

Show this question only if the following conditions are met:

If all of these conditions are met:
Answer to question "Q31 _ Sustainable fan T-shirt choice" is equal to "Option 2"

- **Q154 Simple block Conjoint: Keiner dieser Vereine**

Show this question only if the following conditions are met:

If all of these conditions are met:
Answer to question "Q2 Which football club in the First Bundesliga are you fan of?" is equal to "Option 19" *Example None of these clubs track*

- **Q155 Likert scale Abfrage Kaufintention**

  (Required)

  How likely do you think it is that you will buy yourself a fan shirt from your favorite club at a price of **19.99€** at any time in the future?

  To illustrate, here is an example photo of a simple fan shirt:

  Labelled from Very unlikely (1) *to* Very likely (7)

- **Q156 Multiple choice _ Sustainable fan T-shirt choice**

  (One response required; One response allowed; Fix order of options; Place options in 2 columns)

  Assuming that the Fan T-shirt with sustainability label meets all your sustainability requirements, which option would you choose when buying a Fan T-shirt? Please click on the option you would choose.

  - Fan T-shirt without sustainability seal

19.90€

- Fan T-shirt with sustainability seal

19.90€

Show this question only if the following conditions are met:

If any of these conditions are met:
Answer to question "Q27 Query purchase intention " is equal to "4"
Answer to question "Q27 Query purchase intention " is equal to "5"
Answer to question "Q27 Query purchase intention " is equal to "6"
Answer to question "Q27 Query purchase intention " is equal to "7"

- **Q157 Multiple choice _ Sustainable fan T-shirt choice**
  (One response required; One response allowed; Fix order of options; Place options in 2 columns)

Assuming that the Fan T-shirt with sustainability label meets all your sustainability requirements, which option would you choose when buying a Fan T-shirt? Please click on the option you would choose.

- Fan T-shirt without sustainability seal

19.90€

- Fan T-shirt with sustainability seal

21.90€

Show this question only if the following conditions are met:

If all of these conditions are met:
Answer to question "Q156 _ Sustainable fan T-shirt choice" is equal to "Option 2"

- **Q158 Multiple choice _ Sustainable fan T-shirt choice**

(One response required; One response allowed; Fix order of options; Place options in 2 columns)

Assuming that the Fan T-shirt with sustainability label meets all your sustainability requirements, which option would you choose when buying a Fan T-shirt? Please click on the option you would choose.

- Fan T-shirt without sustainability seal

19.90€

- Fan T-shirt with sustainability seal

23.90€

Show this question only if the following conditions are met:

If all of these conditions are met:
Answer to question "Q157 _ Sustainable fan T-shirt choice" is equal to "Option 2"

- **Q159 Multiple choice _ Sustainable fan T-shirt choice**

  (One response required; One response allowed; Fix order of options; Place options in 2 columns)

  Assuming that the Fan T-shirt with sustainability label meets all your sustainability requirements, which option would you choose when buying a Fan T-shirt? Please click on the option you would choose.

  - Fan T-shirt without sustainability seal

19.90€

  - Fan T-shirt with sustainability seal

25.90€

Show this question only if the following conditions are met:

If all of these conditions are met:

XXX

Answer to question "Q158 _ Sustainable fan T-shirt choice" is equal to "Option 2"

- **Q160 Multiple choice _ Sustainable fan T-shirt choice**

  (One response required; One response allowed; Fix order of options; Place options in 2 columns)

  Assuming that the Fan T-shirt with sustainability label meets all your sustainability requirements, which option would you choose when buying a Fan T-shirt? Please click on the option you would choose.

  - Fan T-shirt without sustainability seal

19.90€

  - Fan T-shirt with sustainability seal

27.90€

Show this question only if the following conditions are met:

If all of these conditions are met:
Answer to question "Q159 _ Sustainable fan T-shirt choice" is equal to "Option 2"

- **Q168 Simple block Demographics (basic)**

  - **Q169 Intro text: No respondent input Introduction Demographics**

    (Required)

Demography

Last but not least, please provide your demographic data. Your information will of course remain anonymous and cannot be traced.

  - **Q170 Multiple choice Gender**

    (One response required; One response allowed; Fix order of options; Place options in 4 columns)

    Which gender do you feel you belong to?

    - man
    - woman
    - divers/others
    - prefer not to say

  - **Q171 Short answer Age**

    (Required)

    What age group are you in? Please enter your age in the box or leave it blank if you prefer not to say.

  - **Q172 Multiple choice Level of education**

    (One response required; One response allowed; Fix order of options; Place options in 5 columns)

    What is your highest educational qualification right now?

    - Lower school leaving certificate
    - Abitur or equivalent degree
    - Apprenticeship
    - Bachelor's degree
    - Master's degree
    - Doctorate / PhD
    - *None of above:* ✗ Not specified

  - **Q173 Multiple choice Income**

    (One response required; One response allowed; Fix order of options; Place options in 3 columns)

    What is your approximate annual household income (before tax)?

    - 0 - €13,000

- €13,000 - €19,999
- €20,000 - €39,999
- €40,000 - €64,999
- Over €65,000
- No information

- **Q174 Multiple choice Region (DE)**

  (One response required; One response allowed; Fix order of options; Place options in 4 columns)

  Which federal state do you live in?

  - Baden-Württemberg
  - Bavaria
  - Berlin
  - Brandenburg
  - Bremen
  - Hamburg
  - Hessen
  - Mecklenburg-Western Pomerania
  - Lower Saxony
  - North Rhine-Westphalia
  - Rhineland-Palatinate
  - Saarland
  - Saxony
  - Saxony-Anhalt
  - Schleswig-Holstein
  - Thuringia
  - ❌ I don't live in Germany
  - *None of above:* ❌ Not specified

- **Q175 Short answer _ Email for prize entry**

  (Required)

  If you would like to enter the jersey lottery, please enter your email address in the box below. This way we can contact you if you win.

- **Q176 Complete survey Complete survey**

  Complete survey for participants and not redirect them.

- **Q177 Open-ended response _ Additional comments**

  (Required)

If you have any questions or feedback about our survey or research, you can provide additional comments in the box below.

Appendix 3: Mean values *SA* Overview

Mean values SA

SA	t	df	Two-sided significance	Sample mean	95% Lower Confidence Interval	95% Upper Confidence Interval
Total sample	87.788	635	<.001	4.94	4.8263	5.0471
B04	47.907	160	<.001	5.05	4.8445	5.2611
FCB	26.342	61	<.001	5.04	4.6614	5.4273
BVB	26.578	57	<.001	5.00	4.6233	5.3767
SGE	21.394	57	<.001	4.59	4.1608	5.0202
VfB	29.202	41	<.001	4.99	4.6431	5.3331
SCF	20.112	29	<.001	5.17	4.6413	5.6921
BMG	20.579	33	<.001	5.20	4.6846	5.7125
SVW	22.728	32	<.001	4.95	4.5105	5.3986
KOE	20.952	32	<.001	4.77	4.3087	5.2367
Other Clubs	22.491	56	<.001	4.45	4.0552	4.8483
Male	73.631	491	<.001	4.82	4.6960	4.9534
Female	52.292	138	<.001	5.35	5.1501	5.5549
Income 1	39.650	103	<.001	5.05	4.7979	5.3031
Income 2	26.478	53	<.001	5.11	4.7197	5.4933
Income 3	39.199	107	<.001	4.96	4.7054	5.2067
Income 4	41.341	144	<.001	4.79	4.5639	4.0223
Income 5	35.126	141	<.001	4.85	4.5757	5.1215
Lower school	25.880	16	<.001	5.38	4.9415	5.8232
Apprenticeship	34.544	120	<.001	4.76	4.4894	5.0354
Abitur	43.794	129	<.001	4.92	4.6988	5.1435
Bachelor	49.701	186	<.001	4.94	4.7425	5.1345
Master	39.932	133	<.001	5.15	4.8907	5.4004
Doctorate/PhD	8.253	13	<.001	4.61	3.4012	5.8131

Appendix 4: Mean values *ITP* Overview

Mean values ITP

ITP	t	df	Two-sided significance	Sample mean	95% Lower Confidence Interval	95% Upper Confidence Interval
Total sample	70.021	635	<.001	4.91	4.93	5.22
B04	38.445	153	<.001	5.07	4.82	5.34
FCB	19.909	61	<.001	4.40	3.84	4.97
BVB	16.743	57	<.001	4.55	4.01	5.10
SGE	31.563	57	<.001	5.67	5.31	6.03
VfB	16.466	41	<.001	4.60	4.03	5.16
SCF	17.989	29	<.001	4.40	4.82	6.05
BMG	17.928	33	<.001	5.47	4.85	6.09
SVW	15.454	32	<.001	4.94	4.29	5.59
KOE	19.559	32	<.001	5.73	5.13	6.32
Other Clubs	19.781	56	<.001	5.21	4.68	5.74
Male	60.515	491	<.001	4.98	4.82	5.14
Female	36.032	138	<.001	5.46	5.16	5.76
Income 1	26.035	103	<.001	4.87	4.49	5.24
Income 2	21.784	53	<.001	5.19	4.71	5.66
Income 3	36.007	107	<.001	5.43	5.13	5.72
Income 4	32.618	144	<.001	5.08	4.77	5.39
Income 5	30.183	141	<.001	4.95	4.63	5.27
Lower school	10.615	16	<.001	4.94	3.95	5.93
Apprenticeship	30.459	120	<.001	5.22	4.88	5.56
Abitur	38.383	129	<.001	5.22	4.95	5.49
Bachelor	35.097	186	<.001	4.93	4.65	5.20
Master	32.092	133	<.001	5.13	4.81	5.44
Doctorate/PhD	8.382	13	<.001	4.93	3.66	6.20

Appendix 5: Mean values *WTP* Overview

Mean values WTP

WTP	t	df	Two-sided significance	Sample mean	95% Lower Confidence Interval	95% Upper Confidence Interval
Total sample	187.916	534	<.001	23.77	23.52	24.02
B04	98.786	153	<.001	23.01	22.51	23.42
FCB	47.272	36	<.001	24.01	22.98	25.04
BVB	53.671	38	<.001	25.13	24.18	26.08
SGE	60.242	53	<.001	25.02	22.78	24.35
VfB	45.782	29	<.001	24.63	23.53	25.73
SCF	62.343	24	<.001	25.02	24.19	25.85
BMG	48.121	29	<.001	23.57	22.57	24.57
SVW	46.912	25	<.001	22.82	21.82	23.83
KOE	50.589	29	<.001	23.63	22.68	24.59
Other Clubs	53.953	46	<.001	24.33	23.42	25.23
Male	161.640	411	<.001	23.66	23.37	23.95
Female	95.004	119	<.001	24.13	23.63	24.64
Income 1	76.077	83	<.001	23.31	22.70	23.91
Income 2	56.322	45	<.001	23.47	22.63	24.30
Income 3	85.222	96	<.001	23.81	23.26	24.37
Income 4	90.966	120	<.001	23.55	23.04	24.07
Income 5	84.206	115	<.001	24.54	23.96	25.12
Lower school	28.328	13	<.001	23.33	21.55	25.11
Apprenticeship	78.411	101	<.001	23.67	23.07	24.26
Abitur	90.014	119	<.001	23.30	22.79	23.81
Bachelor	104.014	150	<.001	23.52	23.07	23.96
Master	94.920	111	<.001	24.76	24.24	25.27
Doctorate/PhD	21.985	9	<.001	24.70	22.16	27.24

Appendix 6: Spearman correlations *SA-ITP/WTP* Overview

Club	*SA-ITP* *Spearman's rho*	p-value	*SA-WTP* *Spearman's rho*	p-value
Total sample	0.102*	0.01	0.461***	<0.001
B04	0.148	0.061	0.480***	<0.001
FCB	0.090	0.485	0.485**	0.002
BVB	0.143	0.284	0.435**	0.006
SGE	0.143	0.283	0.598***	<0.001
VfB	-0.015	0.927	0.324	0.081
SCF	-0.137	0.470	0.529**	0.007
BMG	0.194	0.273	0.594***	<0.001
SVW	0.191	0.286	0.372	0.061
KOE	-0.112	0.535	0.355	0.054
Other Clubs	0.274*	0.039	0.225	0.128

**Correlation is significant at a 0.05 level (2-tailed).*
***Correlation is significant at a 0.01 level (2-tailed).*
****Correlation is significant at a 0.001 level (2-tailed).*

Appendix 7: Ordinal regression *SA-ITP* Overview

Team	Estimate	p-value	Odds Ratio
Total sample	0.138**	0.006	1.15
B04	0.214*	0.043	1.24
FCB	0.104	0.488	1.11
BVB	0.257	0.120	1.29
SGE	0.089	0.543	1.09
VfB	-0.126	0.613	0.88
SCF	-0.250	0.306	0.78
BMG	-0.058	0.788	0.94
SVW	0.348	0.137	1.42
KOE	-0.164	0.512	0.85
Other Clubs	0.369*	0.026	1.45

**Correlation is significant at a 0.05 level (2-tailed).*
***Correlation is significant at a 0.01 level (2-tailed).*

Appendix 8: Ordinal regression *SA-WTP* Overview

Team	Estimate	p-value	Odds Ratio
Total sample	*0.731***	<0.001	2.08
B04	*0.907***	<0.001	2.48
FCB	*0.739***	0.002	2.09
BVB	*0.614**	0.016	1.85
SGE	*0.820***	<0.001	2.27
VfB	*0.624*	<0.055	1.87
SCF	*0.948***	0.007	2.58
BMG	*1.254***	<0.001	3.50
SVW	*1.027**	0.011	2.79
KOE	*0.613**	0.027	1.85
Other Clubs	*0.346*	0.068	1.41

**Correlation is significant at a 0.05 level (2-tailed).*
***Correlation is significant at a 0.01 level (2-tailed).*
****Correlation is significant at a 0.001 level (2-tailed).*

Appendix 9: Spearman correlations *SA-ITP/WTP* of total Sample

Spearman correlations

		SA	ITP	WTP
SA	Correlation Coefficient	1.000	.114**	.456**
	Sig. (2-tailed)	.	.004	<.001
	N	636	636	535
ITP	Correlation Coefficient	.114**	1.000	.166**
	Sig. (2-tailed)	.004	.	<.001
	N	636	636	535
WTP	Correlation Coefficient	.456**	.166**	1.000
	Sig. (2-tailed)	<.001	<.001	.
	N	535	535	535

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

Appendix 10: Ordinal regression *SA-ITP* of total Sample

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	527.193			
Final	520.432	6.762	1	.009

Link function: Logit.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	197.539	143	.002
Deviance	204.614	143	<.001

Link function: Logit.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Threshold	[ITP = 1]	-1.888	.282	44.758	1	<.001	-2.441	-1.335
	[ITP = 2]	-1.215	.265	20.932	1	<.001	-1.735	-.694
	[ITP = 3]	-.716	.259	7.625	1	.006	-1.225	-.208
	[ITP = 4]	-.193	.257	.563	1	.453	-.696	.311
	[ITP = 5]	.588	.258	5.206	1	.023	.083	1.093
	[ITP = 6]	1.773	.266	44.405	1	<.001	1.251	2.294
Location	SA	.138	.050	7.663	1	.006	.040	.235

Appendix 11: Ordinal regression *SA-WTP* of total Sample

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	451.307			
Final	315.486	135.822	1	<.001

Link function: Logit.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	105.001	95	.227
Deviance	107.982	95	.171

Link function: Logit.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Threshold	[WTP = 20]	2.301	.330	48.674	1	<.001	1.655	2.947
	[WTP = 22]	3.180	.342	86.235	1	<.001	2.509	3.851
	[WTP = 24]	4.322	.364	141.275	1	<.001	3.609	5.034
	[WTP = 26]	5.186	.379	186.837	1	<.001	4.442	5.929
Location	SA	.731	.067	120.260	1	<.001	.600	.862

Appendix 12: Relationship *SA-ITP/WTP* of B04

Spearman correlations *SA-ITP/WTP* of B04

Spearman correlations

		SA	ITP	WTP
SA	Correlation Coefficient	1.000	.148	.480**
	Sig. (2-tailed)	.	.061	<.001
	N	161	161	159
ITP	Correlation Coefficient	.148	1.000	.481**
	Sig. (2-tailed)	.061	.	<.001
	N	161	161	159
WTP	Correlation Coefficient	.480**	.481**	1.000
	Sig. (2-tailed)	<.001	<.001	.
	N	159	159	159

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

Ordinal regression *SA-ITP* of B04

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	260.924			
Final	256.956	3.968	1	.046

Link function: Logit.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	151.976	137	.180
Deviance	138.032	137	.459

Link function: Logit.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Threshold	[ITP = 1]	-2.048	.638	10.323	1	.001	-3.298	-.799
	[ITP = 2]	-1.386	.586	5.592	1	.018	-2.534	-.237
	[ITP = 3]	-.423	.555	.581	1	.446	-1.510	.664
	[ITP = 4]	.376	.551	.467	1	.495	-.704	1.457
	[ITP = 5]	1.037	.556	3.471	1	.062	-.054	2.127
	[ITP = 6]	2.418	.582	17.265	1	<.001	1.277	3.558
Location	SA	.214	.106	4.115	1	.043	.007	.421

Ordinal regression *SA-WTP* of B04

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	224.983			
Final	174.985	49.998	1	<.001

Link function: Logit.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	79.606	91	.797
Deviance	77.774	91	.837

Link function: Logit.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Threshold	[WTP = 19,9]	3.760	.715	27.625	1	<.001	2.358	5.162
	[WTP = 21,9]	4.730	.750	39.736	1	<.001	3.260	6.201
	[WTP = 23,9]	5.710	.789	52.383	1	<.001	4.164	7.257
	[WTP = 25,9]	6.768	.830	66.552	1	<.001	5.142	8.394
Location	SA	.907	.140	41.938	1	<.001	.632	1.181

Appendix 13: Relationship *SA-ITP/WTP* of FCB

Spearman correlations *SA-ITP/WTP* of FCB

Spearman correlations

		WTP	ITP	SA
WTP	Correlation Coefficient	1.000	.024	.485**
	Sig. (2-tailed)	.	.888	.002
	N	37	37	37
ITP	Correlation Coefficient	.024	1.000	.090
	Sig. (2-tailed)	.888	.	.485
	N	37	62	62
SA	Correlation Coefficient	.485**	.090	1.000
	Sig. (2-tailed)	.002	.485	.
	N	37	62	62

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

Ordinal regression *SA-ITP* of FCB

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	156.097			
Final	155.639	.458	1	.498

Link function: Logit.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	128.433	131	.547
Deviance	112.059	131	.883

Link function: Logit.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Threshold	[ITP = 1]	-1.258	.823	2.340	1	.126	-2.871	.354
	[ITP = 2]	-.379	.798	.225	1	.635	-1.942	1.185
	[ITP = 3]	.124	.795	.024	1	.876	-1.435	1.683
	[ITP = 4]	.191	.796	.058	1	.810	-1.368	1.751
	[ITP = 5]	.911	.804	1.284	1	.257	-.665	2.486
	[ITP = 6]	1.580	.820	3.710	1	.054	-.028	3.187
Location	SA	.104	.150	.481	1	.488	-.190	.398

Ordinal regression *SA-WTP* of FCB

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	87.826			
Final	76.415	11.411	1	<.001

Link function: Logit.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	64.975	71	.679
Deviance	60.943	71	.797

Link function: Logit.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Threshold	[WTP = 20]	2.661	1.250	4.532	1	.033	.211	5.111
	[WTP = 22]	2.825	1.260	5.027	1	.025	.356	5.295
	[WTP = 24]	4.046	1.353	8.941	1	.003	1.394	6.699
	[WTP = 26]	5.381	1.446	13.859	1	<.001	2.548	8.214
Location	SA	.739	.244	9.182	1	.002	.261	1.217

Appendix 14: Relationship *SA-ITP/WTP* of BVB

Spearman correlations *SA-ITP/WTP* of BVB

Spearman correlations

		WTP	ITP	SA
WTP	Correlation Coefficient	1.000	.113	.435**
	Sig. (2-tailed)	.	.493	.006
	N	39	39	39
ITP	Correlation Coefficient	.113	1.000	.143
	Sig. (2-tailed)	.493	.	.284
	N	39	58	58
SA	Correlation Coefficient	.435**	.143	1.000
	Sig. (2-tailed)	.006	.284	.
	N	39	58	58

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

Ordinal regression *SA-ITP* of BVB

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	158.575			
Final	156.527	2.048	1	.152

Link function: Logit.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	141.909	113	.034
Deviance	120.454	113	.298

Link function: Logit.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Threshold	[ITP = 1]	-.785	.883	.790	1	.374	-2.515	.946
	[ITP = 2]	-.030	.857	.001	1	.972	-1.709	1.650
	[ITP = 3]	.512	.856	.358	1	.550	-1.165	2.189
	[ITP = 4]	.814	.859	.896	1	.344	-.871	2.498
	[ITP = 5]	1.666	.881	3.578	1	.059	-.060	3.392
	[ITP = 6]	2.528	.913	7.668	1	.006	.739	4.317
Location	SA	.257	.166	2.417	1	.120	-.067	.582

Ordinal regression *SA-WTP* of BVB

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	78.462			
Final	71.979	6.482	1	.011

Link function: Logit.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	54.148	59	.655
Deviance	48.224	59	.841

Link function: Logit.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Threshold	[WTP = 20]	1.276	1.276	.999	1	.318	-1.226	3.777
	[WTP = 22]	1.653	1.279	1.671	1	.196	-.853	4.159
	[WTP = 24]	2.884	1.333	4.681	1	.030	.271	5.497
	[WTP = 26]	3.598	1.375	6.849	1	.009	.903	6.292
Location	SA	.614	.255	5.812	1	.016	.115	1.113

Appendix 15: Relationship *SA-ITP/WTP* of SGE

Spearman correlations *SA-ITP/WTP* of SGE

Spearman correlations

		WTP	ITP	SA
WTP	Correlation Coefficient	1.000	.110	.598**
	Sig. (2-tailed)	.	.428	<.001
	N	54	54	54
ITP	Correlation Coefficient	.110	1.000	.143
	Sig. (2-tailed)	.428	.	.283
	N	54	58	58
SA	Correlation Coefficient	.598**	.143	1.000
	Sig. (2-tailed)	<.001	.283	.
	N	54	58	58

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

Ordinal regression *SA-ITP* of SGE

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	116.019			
Final	115.626	.393	1	.531

Link function: Logit.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	90.736	94	.576
Deviance	76.590	94	.905

Link function: Logit.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Threshold	[ITP = 2]	-2.504	.878	8.128	1	.004	-4.225	-.782
	[ITP = 3]	-2.197	.830	6.996	1	.008	-3.824	-.569
	[ITP = 4]	-1.043	.736	2.007	1	.157	-2.486	.400
	[ITP = 5]	-.234	.719	.106	1	.745	-1.642	1.174
	[ITP = 6]	1.129	.734	2.368	1	.124	-.309	2.568
Location	SA	.089	.146	.371	1	.543	-.197	.375

Ordinal regression *SA-WTP* of SGE

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	129.206			
Final	107.824	21.382	1	<.001

Link function: Logit.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	98.762	71	.016
Deviance	79.879	71	.220

Link function: Logit.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Threshold	[WTP = 20]	2.453	.889	7.616	1	.006	.711	4.195
	[WTP = 22]	3.407	.942	13.070	1	<.001	1.560	5.254
	[WTP = 24]	4.622	1.025	20.327	1	<.001	2.613	6.631
	[WTP = 26]	5.922	1.119	28.005	1	<.001	3.728	8.115
Location	SA	.820	.192	18.156	1	<.001	.443	1.197

Appendix 16: Relationship *SA-ITP/WTP* of VfB

Spearman correlations *SA-ITP/WTP* of VfB

Spearman correlations

		WTP	ITP	SA
WTP	Correlation Coefficient	1.000	-.147	.231
	Sig. (2-tailed)	.	.437	.220
	N	30	30	30
ITP	Correlation Coefficient	-.147	1.000	-.029
	Sig. (2-tailed)	.437	.	.855
	N	30	42	42
SA	Correlation Coefficient	.231	-.029	1.000
	Sig. (2-tailed)	.220	.855	.
	N	30	42	42

Ordinal regression *SA-ITP* of VfB

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	111.723			
Final	111.535	.188	1	.665

Link function: Logit.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	110.192	89	.063
Deviance	81.595	89	.699

Link function: Logit.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Threshold	[ITP = 1]	-3.641	1.463	6.196	1	.013	-6.507	-.774
	[ITP = 2]	-2.097	1.323	2.512	1	.113	-4.689	.496
	[ITP = 3]	-1.568	1.304	1.446	1	.229	-4.124	.988
	[ITP = 4]	-1.139	1.294	.775	1	.379	-3.674	1.397
	[ITP = 5]	.044	1.281	.001	1	.972	-2.467	2.555
	[ITP = 6]	.972	1.297	.561	1	.454	-1.571	3.514
Location	SA	-.126	.250	.256	1	.613	-.616	.363

Ordinal regression *SA-WTP* of VfB

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	72.339			
Final	68.613	3.726	1	.054

Link function: Logit.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	62.767	55	.220
Deviance	54.150	55	.507

Link function: Logit.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Threshold	[WTP = 20]	1.078	1.626	.439	1	.508	-2.110	4.265
	[WTP = 22]	2.360	1.655	2.034	1	.154	-.884	5.604
	[WTP = 24]	3.142	1.694	3.442	1	.064	-.178	6.461
	[WTP = 26]	3.915	1.737	5.076	1	.024	.509	7.320
Location	SA	.624	.325	3.672	1	.055	-.014	1.262

Appendix 17: Relationship *SA-ITP/WTP* of SCF

Spearman correlations *SA-ITP/WTP* of SCF

Spearman correlations

		ITP	WTP	SA
ITP	Correlation Coefficient	1.000	-.392	-.137
	Sig. (2-tailed)	.	.052	.470
	N	30	25	30
WTP	Correlation Coefficient	-.392	1.000	.529**
	Sig. (2-tailed)	.052	.	.007
	N	25	25	25
SA	Correlation Coefficient	-.137	.529**	1.000
	Sig. (2-tailed)	.470	.007	.
	N	30	25	30

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

Ordinal regression *SA-ITP* of SCF

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	77.579			
Final	76.595	.983	1	.321

Link function: Logit.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	77.545	74	.366
Deviance	62.438	74	.829

Link function: Logit.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Threshold	[ITP = 2]	-3.546	1.455	5.939	1	.015	-6.398	-.694
	[ITP = 3]	-2.954	1.402	4.440	1	.035	-5.701	-.206
	[ITP = 4]	-2.526	1.374	3.377	1	.066	-5.219	.168
	[ITP = 5]	-1.724	1.336	1.666	1	.197	-4.342	.894
	[ITP = 6]	-.585	1.301	.203	1	.653	-3.135	1.964
Location	SA	-.250	.244	1.049	1	.306	-.728	.228

Ordinal regression *SA-WTP* of SCF

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	51.694			
Final	42.770	8.924	1	.003

Link function: Logit.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	65.874	51	.079
Deviance	33.243	51	.974

Link function: Logit.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Threshold	[WTP = 20]	.853	1.643	.269	1	.604	-2.368	4.074
	[WTP = 22]	1.642	1.551	1.120	1	.290	-1.399	4.683
	[WTP = 24]	5.000	1.942	6.628	1	.010	1.194	8.806
	[WTP = 26]	6.614	2.090	10.014	1	.002	2.517	10.710
Location	SA	.948	.354	7.162	1	.007	.254	1.642

Appendix 18: Relationship *SA-ITP/WTP* of BMG

Spearman correlations *SA-ITP/WTP* of BMG

Spearman correlations

		WTP	ITP	SA
WTP	Correlation Coefficient	1.000	-.006	.594**
	Sig. (2-tailed)	.	.976	<.001
	N	30	30	30
ITP	Correlation Coefficient	-.006	1.000	.194
	Sig. (2-tailed)	.976	.	.273
	N	30	34	34
SA	Correlation Coefficient	.594**	.194	1.000
	Sig. (2-tailed)	<.001	.273	.
	N	30	34	34

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

Ordinal regression *SA-ITP* of BMG

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	84.938			
Final	84.876	.062	1	.804

Link function: Logit.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	79.949	69	.173
Deviance	71.438	69	.397

Link function: Logit.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Threshold	[ITP = 1]	-2.633	1.276	4.257	1	.039	-5.135	-.132
	[ITP = 3]	-2.312	1.243	3.460	1	.063	-4.748	.124
	[ITP = 4]	-1.646	1.198	1.887	1	.170	-3.995	.702
	[ITP = 5]	-.778	1.170	.442	1	.506	-3.070	1.515
	[ITP = 6]	.307	1.163	.070	1	.792	-1.972	2.586
Location	SA	-.058	.214	.073	1	.788	-.476	.361

Ordinal regression *SA-ITP* of BMG

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	71.431			
Final	53.436	17.995	1	<.001

Link function: Logit.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	56.272	51	.284
Deviance	38.835	51	.894

Link function: Logit.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Threshold	[WTP = 20]	4.373	1.847	5.608	1	.018	.754	7.993
	[WTP = 22]	5.872	1.950	9.065	1	.003	2.049	9.694
	[WTP = 24]	8.026	2.195	13.372	1	<.001	3.724	12.328
	[WTP = 26]	8.810	2.264	15.139	1	<.001	4.372	13.247
Location	SA	1.254	.368	11.600	1	<.001	.532	1.975

Appendix 19: Relationship *SA-ITP/WTP* of SVW

Spearman correlations *SA-ITP/WTP* of SVW

Spearman correlations

		ITP	WTP	SA
ITP	Correlation Coefficient	1.000	.183	.191
	Sig. (2-tailed)	.	.372	.286
	N	33	26	33
WTP	Correlation Coefficient	.183	1.000	.372
	Sig. (2-tailed)	.372	.	.061
	N	26	26	26
SA	Correlation Coefficient	.191	.372	1.000
	Sig. (2-tailed)	.286	.061	.
	N	33	26	33

Ordinal regression *SA-ITP* of SVW

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	85.881			
Final	83.926	1.956	1	.162

Link function: Logit.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	90.188	83	.276
Deviance	60.778	83	.968

Link function: Logit.

Parameter Estimates

							95% Confidence Interval	
		Estimate	Std. Error	Wald	df	Sig.	Lower Bound	Upper Bound
Threshold	[ITP = 1]	-.505	1.337	.143	1	.706	-3.125	2.115
	[ITP = 2]	-.170	1.313	.017	1	.897	-2.743	2.404
	[ITP = 3]	.526	1.295	.165	1	.685	-2.012	3.064
	[ITP = 4]	1.173	1.303	.810	1	.368	-1.382	3.727
	[ITP = 5]	1.841	1.326	1.929	1	.165	-.757	4.439
	[ITP = 6]	3.466	1.414	6.006	1	.014	.694	6.237
Location	SA	.384	.258	2.209	1	.137	-.122	.890

Ordinal regression *SA-WTP* of SVW

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	54.875			
Final	48.050	6.825	1	.009

Link function: Logit.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	57.488	35	.010
Deviance	38.523	35	.313

Link function: Logit.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Threshold	[WTP = 20]	3.992	1.990	4.026	1	.045	.092	7.892
	[WTP = 22]	5.204	2.094	6.175	1	.013	1.099	9.309
	[WTP = 24]	7.632	2.358	10.476	1	.001	3.010	12.254
Location	SA	1.027	.402	6.505	1	.011	.238	1.815

Appendix 20: Relationship *SA-ITP/WTP* of KOE

Spearman correlations *SA-ITP/WTP* of KOE

Spearman correlations

		ITP	WTP	SA
ITP	Correlation Coefficient	1.000	.152	-.112
	Sig. (2-tailed)	.	.424	.535
	N	33	30	33
WTP	Correlation Coefficient	.152	1.000	.355
	Sig. (2-tailed)	.424	.	.054
	N	30	30	30
SA	Correlation Coefficient	-.112	.355	1.000
	Sig. (2-tailed)	.535	.054	.
	N	33	30	33

Ordinal regression *SA-ITP* of KOE

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	57.166			
Final	56.698	.468	1	.494

Link function: Logit.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	37.551	41	.625
Deviance	36.479	41	.672

Link function: Logit.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Threshold	[ITP = 1]	-3.101	1.375	5.084	1	.024	-5.797	-.405
	[ITP = 5]	-1.769	1.281	1.907	1	.167	-4.281	.742
	[ITP = 6]	-.215	1.241	.030	1	.862	-2.648	2.218
Location	SA	-.164	.251	.429	1	.512	-.656	.327

Ordinal regression *SA-WTP* of KOE

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	69.151			
Final	64.138	5.013	1	.025

Link function: Logit.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	42.778	51	.787
Deviance	45.305	51	.698

Link function: Logit.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Threshold	[WTP = 20]	1.051	1.292	.662	1	.416	-1.480	3.582
	[WTP = 22]	2.399	1.338	3.215	1	.073	-.223	5.022
	[WTP = 24]	3.819	1.440	7.037	1	.008	.997	6.641
	[WTP = 26]	4.955	1.530	10.487	1	.001	1.956	7.954
Location	SA	.613	.277	4.907	1	.027	.071	1.155

Appendix 21: Relationship *SA-ITP/WTP* of other Clubs

Spearman correlations *SA-ITP/WTP* of other Clubs

Spearman correlations

		ITP	WTP	SA
ITP	Correlation Coefficient	1.000	-.099	.274*
	Sig. (2-tailed)	.	.508	.039
	N	57	47	57
WTP	Correlation Coefficient	-.099	1.000	.225
	Sig. (2-tailed)	.508	.	.128
	N	47	47	47
SA	Correlation Coefficient	.274*	.225	1.000
	Sig. (2-tailed)	.039	.128	.
	N	57	47	57

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

Ordinal regression *SA-ITP* of other Clubs

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	142.330			
Final	137.913	4.417	1	.036

Link function: Logit.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	128.988	125	.385
Deviance	102.046	125	.934

Link function: Logit.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Threshold	[ITP = 1]	-.392	.780	.253	1	.615	-1.920	1.136
	[ITP = 2]	-.227	.772	.086	1	.769	-1.739	1.286
	[ITP = 3]	.058	.763	.006	1	.940	-1.438	1.553
	[ITP = 4]	.622	.760	.670	1	.413	-.868	2.112
	[ITP = 5]	1.405	.778	3.262	1	.071	-.120	2.929
	[ITP = 6]	2.456	.821	8.949	1	.003	.847	4.066
Location	SA	.369	.166	4.948	1	.026	.044	.694

Ordinal regression *SA-WTP* of other Clubs

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	107.559			
Final	104.095	3.464	1	.063

Link function: Logit.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	80.870	71	.198
Deviance	74.688	71	.359

Link function: Logit.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Threshold	[WTP = 20]	.216	.910	.056	1	.813	-1.568	1.999
	[WTP = 22]	.887	.914	.942	1	.332	-.904	2.678
	[WTP = 24]	1.812	.943	3.690	1	.055	-.037	3.661
	[WTP = 26]	2.395	.968	6.121	1	.013	.498	4.292
Location	SA	.346	.189	3.335	1	.068	-.025	.716