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Get Greenwashing Out of Style: The Role of Blockchain Transparency in Uplifting Consumer Green Purchase Behaviour in the Fashion Industry

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Master in Marketing

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BUSINESS
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Resumo

Com o agravamento das alterações climáticas, os consumidores têm aumentado a sua exigência relativamente às políticas ambientais das marcas de moda. Consequentemente, o *Green Marketing* tem ganho popularidade, beneficiando a reputação da marca e o comportamento do consumidor. Apesar de algumas empresas serem verdadeiras quanto aos seus esforços ambientais, muitas recorrem a g*reenwashing*. Esta tendência tem elevado os níveis de ceticismo, originando uma necessidade urgente por transparência. Na verdade, a incerteza sobre em que marcas confiar tem inibido comportamentos de compra sustentáveis. Alternativamente, a *blockchain* tem sido reconhecida pela eficiência no controlo da sustentabilidade dos processos produtivos, garantindo transparência.

Este estudo pretende testar a eficiência da *Blockchain* para comunicar os esforços ambientais das marcas, gerando confiança e intenção de compra. Para tal, foi feita uma pesquisa quantitativa, com a distribuição de um questionário.

Conclui-se que a informação fornecida por blockchain beneficia, tanto a perceção de transparência e sustentabilidade da marca, como a confiança do consumidor, principalmente para os mais céticos e conscientes. Assim, a b*lockchain* pode ajudar os consumidores a diferenciar marcas genuínas das que praticam g*reenwashing*. Contudo, a blockchain não foi diferenciadora relativamente à tradução da perceção de transparência em intenção de compra, perceção de valor, ou disposição para pagar.

Assim, este estudo contribui para o aprofundamento do conhecimento relativo às aplicações da blockchain ao *Marketing*. Adicionalmente, inova pela pesquisa quantitativa, visto que os estudos neste tópico têm recorrido a abordagens qualitativas. Finalmente, também fornece recomendações práticas sobre a correta implementação da blockchain para maximizar os seus benefícios.

Palavras-Chave: Green Marketing; Ceticismo face à Sustentabilidade; Blockchain; Moda Sustentável; Transparência do Processo Produtivo; Intenção de Compra

Classificações JEL: M310 Marketing; M140 Cultura Corporativa; Diversidade; Responsabilidade Social

Abstract

As environmental conditions have been aggravating, consumers are demanding tat fashion brands improve their environmental performance. Consequently, Green Marketing has been gaining popularity, benefitting brand reputation and purchase behaviour. Although some brands are truthful about their eco-friendly policies, many practice greenwashing. This has led to high levels of green scepticism and an urgent need for transparency, since the uncertainty on which brands to trust has been inhibiting consumers' green purchase behaviours. Alternatively, blockchain has been recognized as an effective technology to track supply chain sustainability, guaranteeing transparency and accountability.

Therefore, this study aims to test blockchain effectiveness in providing transparent evidence regarding fashion brands' eco-friendly commitments, maximizing green marketing results, through green trust, and purchase intention. For that, a quantitative research approach was implemented through the distribution of an online survey.

The results showed that blockchain information impacted transparency perceptions, green trust, and green brand image, especially for the more sceptical and conscious consumers. Hence, blockchain has the potential to help genuine brands gaining competitive advantage and stand out from greenwashing brands. However, blockchain information wasn't a differentiating factor to translate transparency perception into purchase intentions, perceived value, or willingness to pay.

Thus, this study contributes to a deeper understanding of the applications of blockchain technology to marketing. Further, it innovates with quantitative research, differing from most studies on the topic, that use qualitative methods. Finally, it also provides recommendations for managers to maximize the benefits of blockchain-enabled transparency, by using it in the right contexts.

Key Words: Green Marketing; Green Scepticism; Blockchain; Sustainable Fashion; Supply Chain Transparency; Purchase Intentions

JEL Classification: M310 Marketing; M140 Corporate Culture; Diversity; Social Responsibility

Index

List of Tables

List of Figures

List of Acronyms

CSR – Corporate Social Responsibility

BC KNL – Blockchain Knowledge

GBI – Green Brand Image

GC – Green Consciousness

GK – Green Knowledge

GS – Green Skepticism

PI – Purchase Intention

PV – Perceived Value

PV/WTP – Perceived Value and Willingness to Pay

TRSP – Transparency Perception

TRST – Green Trust

TRST/GBI – Green Trust and Green Brand Image

UN – United Nations

WTP – Willingness to Pay

1. Introduction

With society's increasingly high consciousness of the alarming state of the environment, consumers are adopting more eco-friendly habits. In fact, according to Deloitte (2022), 40% of UK adults are making efforts towards choosing companies with eco-friendly practices and values. Moreover, 35% have stopped purchasing from brands due to ethical reasons.

In particular, the fashion industry has been extremely scrutinized for its low ethics regarding environmental responsibility. According to The UN (2022), the fashion industry is responsible for up to 8% of the world's greenhouse emissions, for the waste of 215 trillion litres of water per year, and approximately 9% of total microplastic pollution in the world. The industry impacts on the environment are aggravated by the fast fashion business model, that focuses on speed to encourage impulsive buying, instead of prioritizing sustainability (Bruce and Daly, 2006).

This context has led companies to see strategic value in Corporate Social Responsibility (CSR) and Green Marketing, because when they do, they demonstrate that they care about society, which leads to a better reputation, and customer retention (Woo et al.; 2021). While some companies are genuinely committing to higher environmental standards, greenwashing complaints have also been rising. In fact, ICPEN (2021), stated that in the EU, at least 42% of environmental claims are false or vague, being identified as greenwashing. Greenwashing usually consists of lies, omission, and vagueness, aiming to mislead consumers about brands sustainability efforts (Parguel et al., 2015). As a consequence, consumers are becoming sceptics about sustainability claims in general, penalizing legitimate firms (De Jong et al., 2018). In fashion, 88% of Gen Z doesn't generally believe in brands' environmental claims (McKinsey; 2021).

This issue is particularly alarming because, consumers find themselves in a state of confusion and discomfort, that leads them to morally distance from the issue and ignore environmental problems (Reczek et al., 2018). Further, the uncertainty on which brands to trust is one of the main obstacles for green purchase among environmentally conscious individuals (McNeill, 2015), widening the gap between consumers' moral values and actual behaviour (Kshetri; 2021). Further, 35% of consumers claim that improved transparency regarding sustainability would help them increase sustainable purchase behaviour (Deloitte; 2021). Thus, there is an urge for transparency in the market and, as a response, McKinsey (2021) recommends firms to back up sustainability claims with transparent and factual data-driven evidence.

So, it is crucial to develop effective strategies to differentiate brands that are genuinely committed to sustainability from misleading ones. Transparency has been pointed out as a key driver to generate consumer trust and increase the effectiveness of green marketing efforts by encouraging green

consumption (Adamkiewicz et al., 2022). Further, transparency decreases the perceived risk when it comes to green claims, by providing evidence to support them (Hustvedt et al., 2008).

The present research proposes blockchain technology as an innovative solution for the current sceptical environment in the fashion industry. Blockchain has two key characteristics that allow for transparency (Jain et al., 2021; Tan et al., 2022). The first is immutability, meaning that once data is recorded into a block, it is not possible to change it. The second one is decentralization, meaning that anyone can have access to the data.

In literature, blockchain-enabled supply chain tracking has been recognized as a powerful tool to guarantee sustainability by ensuring high levels of accountability and regulatory control, inhibiting middlemen unethical behaviour (Treiblmaier, 2019; Kshetri, 2021). Moreover, powerful institutions such as the European Commission (2020) have also recognized the potential of this technology for sustainability tracking. Also, relevant companies such as H&M and Burberry are already developing blockchain supply chain tracking, to meet consumer transparency needs (H&M, 2022; Dawson, 2020).

Although this reality has been evolving greatly, there are still few studies on how blockchain benefits marketing activities and consumer behaviour (Jain et al., 2021). However, in the few available research, authors state that using blockchain to track manufacturing processes has positive effects on trust and satisfaction (Kshetri, 2021; Wang et al.; 2022). Note that the research approaches on this topic are mainly qualitative with in-depth interviews with managers and case studies. So, there is a lack of quantitative studies that capture consumer-led insights about the impact of blockchain tracking on green marketing efficiency. In this way, the present study contributes to closing the gap regarding the effects of blockchain in green marketing, innovating with quantitative research, by distributing a survey targeted to fashion consumers.

In sum, the main goal of this study is to test blockchain transparency as a means to communicate sustainability efforts in a way that maximizes green marketing effectiveness, in the highly controversial context of the fashion industry. For that, the following research questions are proposed:

RQ1*: "Does blockchain-enabled transparency about fashion supply chain sustainability make green marketing efforts more effective by improving consumers' brand perceptions?*

RQ2*: "Does blockchain-enabled transparency about fashion supply chain sustainability make green marketing efforts more effective by encouraging purchase behaviour?*

To answer the first research question, consumer perception components such as Transparency Perception, Perceived Value and Green Brand Image were studied. For the second research question, Purchase Intention and Willingness to pay were investigated. This was made with a combination of primary and secondary research.

Firstly, secondary research was conducted in the literature review. First, the literature on green marketing, greenwashing and green scepticism was revised, with a deep dive into the fashion industry. Then, studies on the potential of blockchain transparency to increase trust, green brand image, and perceived value were also reviewed. Also, the behaviour of green conscious and of knowledgeable consumers was studied. After all, a research model was proposed with deducted hypothesis.

After that, in the methodology section, primary and quantitative research was conducted, with the development and distribution of an online survey targeted towards Portuguese fashion consumers. The survey had three scenarios, through which the respondents were randomly distributed (each being exposed to only one scenario). All the scenarios presented the same t-shirt with the following claim: "100% Organic. This piece is made out of eco-friendly organic materials". In the first scenario and second scenario, respondents had access to blockchain-enabled information regarding the t-shirt supply chain. However, while in the first scenario, it was revealed that all the information was attained through blockchain, in the second, there wasn't any mention of blockchain technology. Finally, the third scenario had supply chain information to back up the green claim.

The analysis of the results was made in SPSS and hypotheses were tested through Linear Regressions. To test the proposed moderating effects, Hayes Process Model 1 was used.

It was found that blockchain information had the most positive impact in increasing trust and green brand image, especially for the more sceptical. Hence, blockchain is an effective tool to help consumers differentiate truthful brands from greenwashing. Trust and green brand image then led to purchase intention. In contrast, blockchain didn't lead to a more substantial impact in translating transparency perception into purchase intention, perceived value, or willingness to pay. In fact, the levels of perceived value and willingness to pay were generally low. It was deduced that consumers are used to fast fashion's low prices, failing to accept the higher prices, inherent to sustainable production. Nonetheless, consumers with higher perceived value had higher purchase intentions.

So, it is recommended that companies prioritize blockchain-enabled supply chain tracking when the aim is to strengthen their sustainability positioning, disassociating themselves from greenwashing. On the other hand, the urgency of educating consumers of educating consumers about the costs of sustainable production is reinforced.

Finally, it was found that for green-conscious individuals, transparency perception is even more important to improve brand perceptions and encourage purchase. On the other hand, positive brand perceptions were especially important in developing purchase intent among less knowledgeable consumers.

The last chapter of this dissertation entails the main conclusions and recommendations that outcome from the conducted research. The limitations of the study are recognized and a direction for future research is suggested.

2. Literature Review

2.1. Consumer Behaviour and Green Marketing

With the latest news regarding the climatic urgency, society has been increasingly concerned about the environment. This mentality has been leading to changes in consumer habits and lifestyles. In a study conducted by Deloitte (2021), it was found that 40% of consumers are choosing with higher sustainability standards and 34% are stopping to purchase from brands that don't align with their sustainability values.

As a response, firms are seeing strategic value on investing in sustainability. According to a survey conducted to managers by SAP and Oxford Economics (2021), 67% of respondents believed that a clear sustainability mission is crucial for the company to thrive in the long term, and, for 17%, the main driver for sustainability efforts is customer demand.

Green Marketing is defined by the American Marketing Association (2012), as the "promotion of goods that are environmentally safe". Moreover, Green Marketing includes the development of a marketing strategy with production, promotion and packaging tactics that are environmentally conscious. However, the conceptualization of green marketing has been highly studied and is not consensual for all authors (Dangelico et al., 2017). In the current study, the definition of Belz & Peattie (2009) will be used, considering Green Marketing a holistic approach of production, consumption, and disposal that aims to reduce negative environmental impacts. Moreover, Woo et al. (2021) advocate that green marketing strategies are crucial for reputation and consumer retention. In this sense, Green marketing is a vital peace for sustainable development, by encouraging green purchase (Garg, 2015).

2.2. Increasing Consumer Scepticism with Greenwashing

As societal pressure to become green has been increasing, more companies are communicating green efforts. However, it has also led to numerous cases of Greenwashing. In fact, ICPEN (2021), stated that in the EU, at least 42% of environmental claims made by companies were either false or vague, being classified as greenwashing.

Greenwashing is characterized by *"arguments that explicitly or implicitly refer to the ecological benefits of a product or service to create a misleading environmental claim"* (Netto et al., 2020, p.7). These arguments usually include lies, omissions, and vagueness (Parguel et al., 2015).

Greenwashing has been pointed out as one of the main causes of green scepticism, which is defined as overall low levels of green trust (Guerreiro et al., 2021). According to Deloitte (2021), despite the interest in making more sustainable choices, approximately half of consumers don´t know which brands to trust. This causes consumers to doubt CSR campaigns in general, even the ones that come from genuine firms, compromising green marketing effectiveness (De Jong et al., 2018).

Additionally, the overwhelming amount of contradictory information caused by the common use of greenwashing leads to cognitive confusion and discomfort. In turn, to avoid this unpleasant state, individuals tend to ignore environmental issues and claims as they unconsciously morally distance themselves from them, choosing to remain ignorant (Reczek et al., 2018).

Finally, according to Zhang and Li (2018), greenwashing has a direct impact on decreasing green purchase intention, and increasing negative word of mouth, leading to a poor reputation, especially for environmentally conscious individuals. So, greenwashing, and green scepticism are powerful inhibitors for green consumer behaviour (Kshetri, 2021), which actively threaten sustainable development.

2.3. The Fashion Industry Case: Sustainability Challenges

The fashion industry has been heavily scrutinized for its environmental impacts. According to the UN (2022), the fashion industry represents up to 8% of the world's greenhouse emissions, wastes about 215 trillion litres of water per year, and is responsible for approximately 9% of total microplastic pollution in the world.

According to McNeill et al. (2015), the awareness towards sustainable fashion consumption tends to be lower than in other industries. However, in recent years, the fast fashion business model has gained notability as an unsustainable model. The authors characterize fast fashion as practicing low prices, with low-profit margins, short product life cycles, and fast rotation. In fast fashion, the main focus is on speed instead of sustainability (Bruce et al., 2006), which has led to severe issues such as disposability, natural resource scarcity, and excessive consumption (Moon et al., 2015).

As an alternative, the concept of slow fashion has been gaining traction and is cantered on the awareness of the different stages of the manufacturing process (McNeill et al., 2015). Sustainable fashion is characterized by practices such as fair trade, sweat-shop free supply chain, and the usage of inoffensive raw materials (Chang et al., 2018). Nonetheless, the higher prices inherent to ethical production are still inhibitors of ethical consumption (Chekima et al., 2016).

2.3.1. Greenwashing and Green Scepticism in Fashion

In line with the macrotrend, in the fashion industry companies are also making genuine efforts to improve their environmental impact (Busalim et al., 2022). However greenwashing occurrences have been highly reported, according to Adamkiewicz and colleagues (2022). The authors state that one of the most common forms of greenwashing is over-advertising sustainability while only improving negligible parts of the production process. For instance, brands tend to encourage consumers to recycle and reuse, while not incorporating any ecological methods in the production process.

Another common greenwashing tactic in fashion is eco-labelling. As stated by the Changing Markets Foundation (n.d.), many certification companies are enablers of mass greenwashing, with a

lack of transparency and accountability in their accreditation methods. This misleads consumers and creates a gap between their expectations and reality.

Further, some of the vague and triggering claims that are typically used are “eco”; “organic”; or “sustainable” (Kaner, 2021).

As a consequence, fashion consumers experience high levels of uncertainty and low trust regarding sustainability policies in the industry (Adamkiewicz et al., 2022). This has even stronger effect among younger generations with 88% of Gen Z not believing fashion brands’ environmental sustainability claims (McKinsey, 2021).

2.4. The Urgent Need for Transparency

In the sustainability scope, transparency relates to the degree of clarity and relevance of the information provided by brands, to back up environmental claims, informing consumers about the impacts of the production process on the environment (Eggert et al., 2003).

As stated above, can’t figure out which brands are genuine about their CSR commitments. As a result of this uncertainty, despite the increased social awareness towards environmental issues, there is still a gap between consumers’ beliefs and purchase behaviour (Mandarić et al., 2021). So, consumers are undeniably calling for transparency and support during their decision-making process. According to Deloitte (2021), 35% of consumers claim that improved transparency regarding sustainability would help them increase sustainable purchase behaviour. In this sense, it is recommended by McKinsey (2021), that sustainability claims should always be backed up with transparent, data-driven evidence.

There are several studies that point out the benefits of green transparency in making green marketing efforts more effective by improving purchase intention, (Bhaduri et al., 2011), green trust (Adamkiewicz et al., 2022), perceived value (Lin et al., 2017), and green brand image (Lee et al., 2019).

2.5. Changing the Game with Blockchain-enabled Transparency

As previously discussed, it is urgent to adopt strategies that allow for clear and transparent communication, allowing for differentiation between genuine and dishonest brands, increasing, trust, and converting green marketing investments into purchase. As a response, the present study proposes blockchain as an innovative way of transparently communicating sustainability to fashion consumers.

First, it is of most importance to understand what is blockchain and how it works. Blockchain is defined by Yaga and colleagues (2018) as a shared ledger that records transactions on multiple computers simultaneously. The blocks that compose a blockchain sequentially store and time-stamp transactions’ data (Du et al., 2019). This means that precise data is recorded about each transaction, such as who executed the transaction, when, where, and even under what conditions (IMB, n.d.).

When a block of records enters the blockchain, it is mathematically connected with the other blocks of the chain, forming an immutable chain of data (Yaga et al., 2018). The **immutability** of a blockchain ensures that the data that was once stored cannot be modified, meaning that once an error is made, another block needs to be added to the chain to correct the mistake. This is one of the key characteristics that allows data to be safely verified and auditable, differentiating blockchain from other technologies in terms of trust and transparency (Kshetri, 2021).

It is also important to note that the information can be accessed from any computer. This characteristic makes blockchain to be a **decentralized** technology, meaning that any actor of the transaction can access and consult data in the different nodes (Beck et al., 2018).

Blockchain has become increasingly popular in the latest years. A survey conducted by Deloitte to senior executives (2021) showed that 80% recognize that their business partners, customers, and competitors use blockchain as a solution or as a central strategy. Moreover, 73% defended that there is a clear opportunity to create competitive advantage through blockchain. Despite being mostly known in the financial field, blockchain is a versatile technology that can be suitable to different kinds of data (Kshetri, 2021). In fact, according to McKinsey (2022), blockchain has even higher potential in creating solutions regarding data democratization and collaboration, than in financial services.

In regard to green marketing, according to the European Commission (2020), blockchain is an effective tool to track supply chain sustainability policies. Scholars also suggest that blockchain has the potential to guarantee sustainability, and to aid consumers on making well-informed purchase decisions by demonstrating brands sustainability actions (Bettín-Díaz et al., 2018; Kshetri, 2021). Overall, blockchain can help companies to communicate in a relevant and transparent manner with their stakeholders, allowing for a real-time audit of all the touchpoints of a company's supply chain (Chang et al., 2019).

Thus, blockchain allows for a detailed tracking of sustainability KPIs in supply chains, reinforcing regulatory control, accountability, product authenticity and quality (Kshetri, 2021). Therefore, communicating green efforts backed up by blockchain-enabled transparency can be a powerful way for sustainable companies to benefit the positive outcomes of their ethics (Caldarelli et al., 2021).

2.5.1. Blockchain in Fashion

As a way to respond to the current findings regarding blockchain capabilities, several pioneering projects in the Fashion industry have been emerging. The end goal is to use blockchain technology control and increase transparency on the supply chain.

For instance, Textile Genisis, which is a traceability company for the textile industry with the mission of increasing supply chain transparency (Textile Genisis; n.d.)., is partnering with H&M with

the aim of starting to track the production of items that are produced with recycled polyester and cellulosic (H&M; n.d.).

In the luxury segment, Burberry has partnered with IBM to build a prototype system for product traceability, with the objective of guaranteeing supply chain sustainability. The prototype, called Voyage, allows for customers to filter items based on certain sustainability attributes. Through blockchain tracking, it is possible to ensure that the pieces that are shown to the customer are aligned with the established criteria (IBM; n.d.).

Finally, in 2019, the Carrera group has also started implementing blockchain traceability in their jeans, offering information from the harvesting of raw materials to the retailer's point of sale (Caldarelli et al., 2021). According to Carrera's CEO, Gianluca Tacchella (as cited by Calarelli et al., 2021) having control of the production process through blockchain puts the company in a confident position to make sustainability commitments. Nonetheless, it is also recognized that consumers are still unaware of blockchain functioning, so it is important to not overwhelm consumers with too much information. In this sense, the main focus of green communication must be on sustainability and the product's core values, with blockchain being a way to guarantee that the claims are truthful (Saberi et al., 2019).

Therefore, it is possible to see that some companies are already implementing academic recommendations and increasing the level of transparency about their fashion supply chain, recognizing the benefits it brings to the business. For instance, Bhaduri et al. (2011) found that fashion consumers are more willing to purchase from brands if they are aware of their actions to ensure sustainability transparency. Further, the authors reinforce the importance of the accessibility of the information since consumers don't want to actively research to know more about companies' sustainability policies. Therefore, the following hypothesis is proposed:

H1: *Blockchain-enabled transparency about fashion supply chain sustainability increases purchase intention.*

Nonetheless, it is important to recognize that the higher prices inherent to sustainable fashion manufacturing are strong inhibitors of green purchase behaviour, especially in a context where consumers are used to fast fashion low prices (McNeill et al., 2015; Chekima et al., 2016). However, authors recommend that brands provide traceability and transparency from the raw material collection to the retailer in order to increase consumer confidence and, consequently, willingness to pay (Tey et al., 2018). Therefore, it is assumed that:

H2: *Blockchain-enabled transparency about fashion supply chain sustainability increases willingness to pay.*

2.5.2. Blockchain-enabled Transparency and Trust

As previously discussed, the current macro context is deeply impacted by concerns related to companies' environmental impact and fraudulent behaviour. This uncertainty context has led to an overall state of scepticism, which demands for trustworthy sources of information.

When consumers trust a brand, they believe that the brand is consistent, competent, honest, and responsible (Doney et al., 1997). Trust has been recognized as one of the most necessary components to improve consumer-brand relationships (Papista, 2018). Regarding green behaviour, green trust is defined by the level of confidence consumers have on a firm's positive environmental performance (Chen; 2010).

Due to blockchain's intrinsic decentralization and immutability, it has been recognized as an important method for reducing perceived risk and enhancing trust (Jain et al., 2021). Blockchain's immutability and decentralization are also powerful inhibitors middlemen's unethical behaviour, making it harder to hide immoral practices such as exploitation or economic injustices (Treiblmaier, 2019).

In this sense, Tan and Saraniemi (2022) defend that, compared to traditional exchanges, blockchain allows for more trustworthy transactions. In blockchain transactions, trust is not based on a human entity that can commit immoralities. Instead, trust relies on predictable mathematical models while also allowing for a real-time audit of transparent, tamperproof, and immutable data. In the fashion context, according to Wang et al. (2022), through blockchain tracking systems, any stakeholder can access detailed data regarding all stages of the production process such as the raw material harvest conditions, transformation, packaging, shipment, and warehousing. Thus, the authors propose that blockchain supply chain transparency can improve customer trust.

Executives are also recognizing the power of this technology. Through in-depth interviews with top managers, Kshetri (2021) found that companies believe that consumers' ability to track supply chains with blockchain improves brand image and trust in product authenticity, quality, and safety. Therefore, the following hypothesis is proposed:

H3: *Blockchain-enabled transparency about fashion supply chain sustainability increases green trust.*

The possibility of having access to blockchain-enabled detail about the production process is particularly relevant in a context of great scepticism (Tan et al., 2022). At the same time, McNeill and Moore (2015) characterized sceptical consumers as information searchers, being particularly important to provide these individuals with concrete and precise evidence of eco-friendly practices. So, it is expected that highly sceptical individuals will be more likely than non-sceptical individuals to carefully evaluate the details of the provided information. So, it is proposed that the stronger the level of scepticism, the higher the impact of transparency in increasing green trust and perceived value:

H4: *Green Scepticism moderates the relationship between transparency perception and green trust*.

Further, several studies show that green trust is a key antecedent for purchase intention (Tan et al., 2022; Merrilees et al., 2016; Guerreiro et al., 2021). However, there is a gap between consumers' beliefs and behaviours, which is largely attributed to the lack of trust in brands' sustainability claims and lack of transparency regarding how the sustainability objectives are met (Mandarić et al., 2021), especially for conscious consumers (McNeill et al., 2015). At the same time, in a study conducted by Adamkiewicz et al. (2022), it is shown that transparent green marketing strategies are crucial to generating consumers' trust and making green marketing efforts more effective in encouraging green consumption. In conformity, the present study suggests that:

H5*: Green Trust, positively influences purchase intention.*

2.5.3. Blockchain-enabled Transparency and Green Brand Image

According to Keller (1993), brand image is defined as the pieces of information consumers connect to a certain brand in their memory, including associations and beliefs about the brand. In this sense, Chen (2010), proposes that green brand image is a subgroup of brand image, made of the set of perceptions in the customer's memory, linked to a brand's environmental performance.

Green Marketing plays an important role in creating favourable green brand image for eco-friendly products (Ko et al., 2013). However, the rise of greenwashing negatively affects this tendency. According to Ha and colleagues (2022), greenwashing not only penalizes green trust, but also green brand image. Thus, the authors recommend brands to adopt radical transparency in a comprehensive manner, in order to revert scepticism negative effects and improve green brand image. Aligned with these results, Lee and Chen (2019) found that when consumers have proof regarding the green attributes of a certain product, they build a stronger green brand image. For these reasons, the following hypothesis is suggested:

H6: *Blockchain-enabled transparency about fashion supply chain sustainability increases green brand image.*

Also, according to a study conducted by Majeed and colleagues (2022), green brand image plays a significant role in translating green marketing efforts into purchase behaviour. Furthermore, Anselmsson et al. (2014), found that consumers' willingness to pay premium prices is influenced by quality and other brand image components such as CSR. Thus, it is predicted that:

H7*: Green brand image positively influences* **(a)** *purchase intention and* **(b)** *willingness to pay.*

2.5.4. Blockchain-enabled Transparency and Perceived Value

According to Gleim et al. (2013), perceived value is defined as the perceived ratio between costs and benefits and is crucial during purchase decisions. Specific to the sustainability scope, Green Perceived

Value relates to one's satisfaction with the benefits offered by a product or service, considering their sustainability desires, expectations, and needs (Chen et al., 2012). According to Hartmann and colleagues (2006), the benefits of green products that contribute to higher perceived value are the impacts on the common good, health, and energy savings.

According to McNeill and Moore (2015), when consumers are aware of the costs behind eco-friendly fashion, they understand the reasoning behind the price increase. Thus, in order for consumers to perceive that higher prices for sustainable products are reasonable and fair, firms must communicate sustainability-related information in a transparent manner (Meise et al., 2014). Therefore, the following hypothesis is deducted:

H8: *Blockchain-enabled transparency about fashion supply chain sustainability increases perceived value.*

Finally, Busalim et al. (2022) state that perceived value is an important predictor of behaviour. In what accounts for the fashion industry, Kong et al. (2017) advocate that the perceived value of fashion products positively impacts consumer satisfaction and leads to purchase. At the same time, for customers to be willing to pay higher prices for sustainable alternatives, these need to have higher perceived value than non-sustainable items (Gleim et al., 2013). In this sense, it is suggested that:

H9: *Perceived value positively influences* **(a)** *purchase intentions and* **(b)** *willingness to pay.*

2.6. The Role of Green Consciousness and Green Knowledge in Fashion Consumption

According to Zelezny et al. (2000), environmental consciousness refers to an individual's inclination to engage in pro-environmental behaviours. According to Papista et al. (2019), environmental consciousness positively influences consumer interest in maintaining relationships with green brands.

Despite the gap between consumers' beliefs and green purchase behaviour (Mandarić et al., 2021), several authors recognize the importance of green consciousness in purchase behaviour. For instance, Grimmer and colleagues (2012) state that environmentally conscious consumers pay higher attention to the consequences of their choices on the environment, increasing the likelihood of choosing eco-friendly products. In the same way, McNeill et al. (2015) state that environmentally conscious consumers tend to see fewer obstacles in purchasing green fashion items and have the worst feelings towards fast fashion unsustainable practices.

Moreover, in a survey conducted by Lee (2012), it was shown that individuals that are more concerned with the environment and that were already making lifestyle efforts to reduce their carbon footprint were more willing to pay more for sustainable fashion products.

In this way, it is expected for green consciousness to moderate the whole model:

H10.1*: Green Consciousness moderates the relationship between transparency perception and (a) purchase intention, (b) willingness to pay, (c) green trust, (d) perceived value, and (e) green brand image.*

H10.2*: Green Consciousness moderates the relationship between Perceived Value and (a) purchase intention, (b) willingness to pay.*

H10.3*: Green Consciousness moderates the relationship between Green Trust and (a) purchase intention, (b) willingness to pay.*

H10.4*: Green Consciousness moderates the relationship between Green Brand Image and (a) purchase intention, (b) willingness to pay.*

Additionally, environmental knowledge also plays a key role in the attitude towards sustainable fashion and purchase behavior. Green knowledge is defined by Suki (2016) as the level of familiarity consumers have with environmental issues. Environmental knowledge has been shown to improve attitudes toward green products and ethical consumption (Yadav et al., 2016; Blázquez et al., 2020), increase the awareness of the impact each person's contribution has on the environment (Ellen et al., 1991), and increase awareness regarding the complexity of ethical production (Bennetta et al., 2022).

However, despite increased environmental concerns, there is still a long way ahead in educating consumers regarding sustainability, as shown in a study conducted by Bennetta and Hill (2022). In fact, according to the authors, only 13% of respondents claimed to have academic education about sustainability, which is believed to be the most effective way to raise awareness of sustainability. Consequentially, consumers still tend to focus their sustainability perception mainly on recycling and neglect other variables such as the impact of resource and material usage on the environment (such as energy and water savings, for instance). This indicates that consumers have limitations in understanding the complexity of the fashion supply chain, making them more vulnerable to greenwashing and continuing to purchase from unethical brands.

In this sense, it is expected for green knowledge to act as a moderator for the whole model:

H11.1*: Green Knowledge moderates the relationship between blockchain-enabled transparency and (a) purchase intention, (b) willingness to pay, (c) green trust, (d) perceived value, and (e) green brand image.*

H11.2*: Green Knowledge moderates the relationship between Perceived Value and (a) purchase intention, (b) willingness to pay.*

H11.3*: Green Knowledge moderates the relationship between Green Trust and (a) purchase intention, (b) willingness to pay.*

H11.4*: Green Knowledge moderates the relationship between Green Brand Image and (a) purchase intention, (b) willingness to pay.*

In this way, the schema of the conceptual model can be seen in Figure 1.

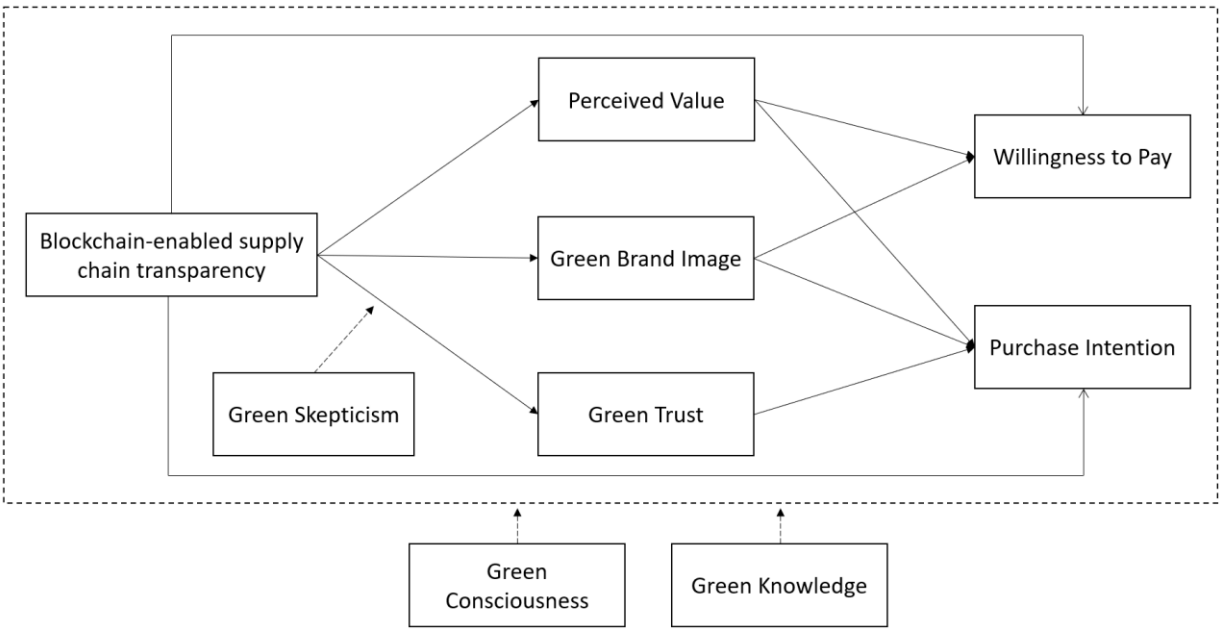

Figure 1 - Research Model

3. Methodology

3.1. Research Approach

As shown in the literature review section, one of the main challenges for sustainable companies is to effectively communicate their eco-friendly efforts in a way that distances them from greenwashing. Overcoming this challenge is crucial for green marketing to be effective, translating to a better brand image and purchase intent.

Thus, the main goal of this research is to test blockchain as a tool to communicate sustainability efforts, in a precise and transparent way, to maximize green marketing effectiveness in a highly sceptical context such as the fashion industry. This will help close the research gap regarding the applications of blockchain in marketing and its effects on consumer behaviour. For that, the following research questions are proposed:

RQ1: "*Does blockchain-enabled transparency about fashion supply chain sustainability make green marketing efforts more effective by improving consumers' brand perceptions?*

RQ2*: "Does blockchain-enabled transparency about fashion supply chain sustainability make green marketing efforts more effective by encouraging purchase behaviour?*

In order to answer the first research question, consumer perception components such as Transparency Perception, Perceived Value and Green Brand Image were studied. For the second research question, Purchase Intention and Willingness to pay were investigated. This was made with a combination of primary and secondary research.

Firstly, secondary research was conducted, with the review of books, academic journals, and firms' reports, among other trustworthy sources. The goal was to deduct hypotheses based on the existing literature about ethical consumer behaviour in fashion, and also regarding blockchain.

In what concerns primary research, a gap was also identified in the existing studies about supply chain blockchain-enabled tracking. In fact, current studies rely on qualitative research approaches with in-depth interviews with top managers and case study analysis (Kshetri, 2021; Wang et al., 2022). In this sense, there are still no studies on the topic, neither that use a quantitative approach, nor that focus on the customer's point of view. So, this research will also innovate by collecting quantitative data through a survey aimed at fashion consumers. The aim is to capture consumers' perceptions and behaviours towards fashion brands that clearly disclose their sustainability efforts with a level of detail that only blockchain allows.

3.2. Survey Construction

As can be seen in the research model, the current study aims to investigate the effects of blockchain-enabled transparency on Perceived Value (PV), Green Brand Image (GBI), Green Trust (TRST), Willingness to Pay (WTP), and Purchase Intention (PI). Further, Green Scepticism (GS), Green

Knowledge (GK), and Green Consciousness (GC) are suggested as moderators. In this way, the definitions of these constructs are summarized in Table 1.

Table 1 - Conceptual Model Definitions Summary

Construct	Definition	Author
Blockchain	Shared ledger that records transactions on multiple computers simultaneously, making information immutable and decentralized.	Yaga et al. (2018); Kshetri (2021)
Perceived Value (PV)	Perceived ratio of costs and benefits of a certain product or service.	Gleim et al. (2013)
Green Brand Image (GBI)	Subset of brand image, made of the set of perceptions in the customers' memory, linked to a brand's environmental performance and concerns.	Chen (2010)
Green Trust (TRST)	Level of confidence consumers have on a specific firm's positive environmental performance	Chen (2010)
Willingness to Pay (WTP)	The maximum price consumers are willing to pay for a certain product.	Khalish and Nelson (1991)
Purchase Intention (PI)	An individual's plan to purchase from a certain brand.	Spears and Singh (2004)
Green Scepticism (GS)	Overall low levels of green trust	Guerreiro and Pacheco (2021)
Green Consciousness (GC)	An individual's inclination to engage in pro-environmental behaviours	Zalezny et al. (2000)
Green Knowledge (GK)	The level of knowledge a consumer has raggarding environmental issues.	Mohd Suki (2016)

The items used to study each construct were formulated based on previous research as can be seen in Table 2. Respondents were asked to state their levels of agreement with each item from 1 ("Strongly Disagree") to 7 ("Strongly Agree")

Table 2 - Formulation of Survey Items

Construct	Item	Adapted Item	Author
Transparency Perception (TRSP)	"Overall, this brand provides the information needed to understand the environmental impact of its production processes."	This brand provides the information needed to understand the environmental impact of its production processes.	Lin et al. (2016), p.137
	"This brand provides relevant information regarding environmental issues associated with its production processes."	This brand provides relevant information regarding environmental issues associated with its production processes.	
	"The environmental policies and practices of this brand are provided to customers in a clear and complete way."	The brand provides information about its environmental policies and practices in a clear and complete way.	
Green Scepticism (GS)	"Most environmental claims made on package labels or in advertising are true."	Most environmental claims made by fashion brands are false.	Mohr et al. (1998), as cited by Brandão et al. (p.16)
	"Because environmental claims are exaggerated, consumers would be better off if such claims on package labels or in advertising were eliminated."	Because environmental claims on sustainable fashion are exaggerated, consumers would be better off if they were eliminated.	
	"Most environmental claims on package labels or in advertising are intended to	Most environmental claims made by fashion brands are intended to	

	mislead rather than to inform consumers."	mislead rather than to inform consumers.	
	"I do not believe most environmental claims made on package labels or in advertising."	I do not believe most environmental claims made by fashion brands.	
Green Trust (TRST)	"You feel that this brand's environmental commitments are generally reliable."	This brand's environmental commitments are reliable.	Chen (2010) p.312
	"You feel that this brand's environmental performance is generally dependable."	This brand's environmental performance is safe.	
	"You feel that this brand's environmental argument is generally trustworthy."	This brand's environmental argument is trustworthy.	
	"This brand keeps promises and commitments for environmental protection."	This brand keeps its promises and commitments for environmental protection.	
Green Brand Image (GBI)	"The brand is commonly regarded as the gold standard in terms of environmental commitments."	This brand should be regarded as a benchmark for environmental commitments.	Ha et al. (2022), p9
	"When it comes to environmental credibility, the brand is serious."	This brand is serious about its environmental commitments.	
	"In terms of environmental sustainability, the brand is a success."	This brand is successful in its terms of its environmental sustainability.	
Perceived Value (PV)	"Based on the price, sustainable clothing is very economical."	Based on the price (35€), this T-shirt is very economical.	Brandão et al. (2021), p.15
	"Sustainable clothing is good value for the money."	This T-shirt is good value for money.	
	"I do consider the price for sustainable clothing to be acceptable."	I consider the price of this shirt to be acceptable.	
	"Sustainable clothing is a bargain."	This t-shirt is a great deal.	
Willingness to Pay (WTP)	"I am willing to pay more for eco-friendly apparel products."	I am willing to pay more for this t-shirt than other market alternatives.	Lee (2011), p.165
Purchase Intention (PI)	"I will purchase lead acid batteries from this company because of its environmental concern."	I would buy this t-shirt.	Zhang et al. (2018), as cited by Guerreito et al. (p.12)
	"I am willing to buy other battery products from this company because of its environmental performance."	I would buy more items from this brand.	
	"I am happy to purchase this company's battery products because they are environmentally friendly."	I would be happy to purchase clothes from this brand.	
Green Consciousness (GC)	"It is extremely important to me that companies behave responsibly when it comes to social and environmental matters."	It is extremely important to me that companies behave responsibly when it comes to environmental matters.	Papista et al. (2019)
	"I think of myself as someone who is concerned about environmental issues."	I am concerned about environmental issues.	

	"I feel I have an ethical obligation to avoid brands and companies that pollute the environment."	I feel an ethical obligation to avoid brands that pollute the environment.	
	"I feel I have an ethical obligation to support the purchase of environmentally friendly products."	I feel an ethical obligation to purchase environmentally friendly products.	
Green Knowledge (GK)	"Air pollution can occur during some common dye process of textiles."	Common textile dyeing processes use harmful chemicals that pollute air and water.	Kim, et al. (1998), as cited by Brandão et al. (p.15)
	"Dyeing and finishing processes use a lot of water."	Extremely large amounts of water are required to produce a single fashion item.	
	"Disposable diapers have substantially contributed to the quantity of textile products discarded on land fields."	Fast fashion has substantially contributed to the quantity of textile products discarded on landfills.	
Blockchain Knowledge (BC KNL)	Knowledge	"I know what the blockchain technology is."	Elliot et al. (2021)

In order to test the hypothesis, an online survey was distributed through social media, targeted to Portuguese fashion consumers (individuals with at least 1 fashion purchase in the last 12 months), aiming to reach a group of respondents representative of the Portuguese population. The questionnaire was built on Qualtrics and can be found in its integrity in Appendix B (in Portuguese) and in Appendix C (in English). Aiming to ensure that the responses were collected from fashion consumers, right after the survey introduction, there was one question to filter out individuals that hadn't purchased any fashion items in the last twelve months.

First, all respondents were presented to a basic white t-shirt from the fictional brand "AIR". The aim was to be as neutral as possible to ensure that respondents' personal taste and brand preferences wouldn't affect the results. Further, respondents were informed about the price of 35€, which was defined based on the average prices of 10 basic organic cotton t-shirts (Appendix A), the aim was to provide respondents with a realistic price for a sustainable product. Finally, the price tag contained the following green claim ("*100% Organic. This piece is made of eco-friendly, organic materials*"). These claims were chosen as they usually associated with greenwashing (Kaner, 2021).

Based on this stimuli, three different scenarios were created, and each respondent was randomly assigned to one scenario only. Each scenario had the same stimulus basis, with the elements that were mentioned above. However, there was a differentiation in the in the levels of information detail and evidence to support the green claim.

In **Scenario 1** (Figure 2), respondents were presented with a simulation of detailed blockchain-enabled information regarding the t-shirt's supply chain. Further, in this scenario, both **the price tag and the survey prompt reinforced that all the information is obtained through blockchain.** Therefore,

respondents had access to clear information regarding the environmental efforts presented on the claim, with specific detail regarding the transactions that took in the presented t-shirt's production process.

Figure 2- Scenario 1 Survey Stimuli

It is important to point out that the blockchain elements presented on the simulation was inspired by the practical case of the Portuguese brand Sical. Sical has recently launched a limited edition of coffee that provides consumers with detailed information from harvest to sale of the coffee grains in each package (Nestlé, 2022).

In **Scenario 2** (Figure 3), respondents were presented with the blockchain simulation, as in scenario 1. However, this time, **there wasn't any mention to blockchain**. The aim is to attest if mentioning blockchain as the source of information impacts the results.

Figure 3 - Scenario 2 Survey Stimuli

Finally, in **Scenario 3** (Figure 4), the green claim wasn't backed up by any additional information about the production process, being considered the control group.

Figure 4- Scenario 3 Survey Stimuli

After the initial stimuli, there was a set of control questions in all scenarios, aiming was to ensure data quality by filtering out the respondents didn't understand or pay attention to the presented information. Then, all respondents were exposed to the same items, formulated in Table 2. In this way, it was possible to test the effect of blockchain-enabled information on each one of the constructs. Finally, there was a set of screening questions to characterise the sample.

4. Results

In the present analysis, a **confidence interval of 90%** will be assumed to test the proposed hypothesis. According to Holmes et al. (2017), this interval ensures results reliability in social sciences.

4.1. Sample and Data Collection

The survey was shared online through several outlets and gathered 514 responses. However, 176 respondents did not finish the survey, being excluded from the analysis. Furthermore, individuals that hadn't purchased any clothing items in the last 12 months (18) didn't comply with the defined target for the survey and were also eliminated. Finally, in order to ensure data quality, were also eliminated and: (I) had scores below 4 (from 1 to 7) in at least two control questions respondents and didn't ask to see the presented information twice (5 respondents), or that (II) responded "Neither Agree nor Disagree" in all control questions (3 respondents) respondents and that didn't ask to see the presented information twice. In this sense, it is considered a valid sample of 312 individuals (**N = 312).**

In Table 3, it is possible to see that the most frequent age group was composed of young adults aged 18-25 (37,8%). In terms of gender, there was a higher incidence in women (67,3%).

Table 3 - Sample Descriptives

		Count	Column %
AGE	18-25	118	37,8%
	26-35	26	8,3%
	36-45	29	9,3%
	46-55	63	20,2%
	56-65	42	13,5%
	>65	34	10,9%
GENDER	Male	99	31,7%
	Female	210	67,3%
	Other	3	1,0%

The respondents were randomly distributed between the three scenarios, leaving scenario 1 with 97 valid responses (**N_{S1}=97**), scenario 2 with 104 (**N_{S2}=104**) and scenario 3 with 111 (**N_{S3}=111**). Scenario 1 had a smaller valid sample because there was a higher incidence of error in the responses to the control questions (four out of the eight individuals that were eliminated due to the control questions).

Table 4 - Sample by scenario

Scenario

	Frequency	Percent	Valid Percent	Comultative Percent
S1	97	31,1	31,1	31,1
S2	104	33,3	33,3	64,4
S3	111	35,6	35,6	100,0
Total	312	100,0	100,0	

Nonetheless, it was ensured through Anova Tests (Table 5) that the scenarios didn't statistically differ in terms of gender (Sig = 0.32; >0.1) nor age (Sig = 0.77; >0.1).

Table 5 - Anova on Age and Gender between Scenarios

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
AGE	Between Groups	1,733	2	,867	,259	,772
	Within Groups	1032,725	309	3,342		
	Total	1034,458	311			
GENDER	Between Groups	,530	2	,265	1,139	,322
	Within Groups	71,931	309	,233		
	Total	72,462	311			

In what regards to the knowledge concerning blockchain technology, it is possible to see in Table 8, that respondents from S1 claimed to be significantly more informed than respondents from S2 and S3. As scenario one was the one with written reference to blockchain, this may have influenced these results. Also, the mean for blockchain knowledge ($\mu = 4.08$) indicates that generally, respondents were somewhat aware of what blockchain is.

Table 7 - Descriptives BC KNL

Descriptives - BC KNL

	N	Mean	Std. Deviation
S1	97	4,59	1,978
S2	104	3,67	2,045
S3	111	4,02	1,789
Total	312	4,08	1,965

Table 6 - ANOVA BC KNL

ANOVA - BC KNL

	Sum of Squares	df	Mean Square	F	Sig.
Entre Grupos	42,643	2	21,322	5,688	0,004
Nos grupos	1158,354	309	3,749		
Total	1200,997	311			

Table 8 - Multiple Comparisons BC KNL

Multiple Comparisons - BC KNL

Tukey HSD

(I) Scenario	(J) Scenario	Mean Difference (I-J)	Std. Error	Sig.	90% Confidence Interval Lower Bound	90% Confidence Interval Upper Bound
S1	S2	,915*	0,273	0,003	0,35	1,48
	S3	,570*	0,269	0,088	0,02	1,12
S2	S1	-,915*	0,273	0,003	-1,48	-0,35
	S3	-0,345	0,264	0,393	-0,89	0,20
S3	S1	-,570*	0,269	0,088	-1,12	-0,02
	S2	0,345	0,264	0,393	-0,20	0,89

*. A diferença média é significativa no nível 0.1.

4.2. Reliability Tests

4.2.1. Control Question Testing

To ensure that respondents correctly understood the information presented in the stimuli, the control questions presented in Table 9 were included on the survey after each scenario's stimuli. Respondents were asked to state their levels of agreement from 1 (strongly disagree) to 7 (strongly agree) with each statement, with the exception of the fourth control question that had a scale from 0 (No) to 1 (Yes).

Table 9 - Control Questions

CQ 1	"I correctly understood the information that was presented in the previous section"
CQ 2	"The previous page shows information about the t-shirt's production process"
CQ 3	"The previous page shows information about the brand's social media strategy"
CQ 4	"Do you wish to see the information again?"
CQ 5	"The presented information was obtained through blockchain technology" (Only in S1)

As seen in Table 11, control questions one and two had a high score average in all the three scenarios ($\mu > 5$), without any significant differences between the groups ($p_{C1} = 0.62$; $_{C2} = 0.21$; > 0.1).

To analyse control question 3, the scale was inverted. This item registered significant differences for S2 respondents (Table 10), that showed a lower level of understanding on the fact that the presented information didn't regard the brand's social media strategy. It is possible that respondents confused the digital elements of the stimuli, such as the QR code, with social media strategy.

Regarding control question 4 respondents were significantly more willing to see the information twice in scenario three (Table 12). This can be due to the fact that this scenario had the least amount of information, being less time consuming to revise the information.

Table 11 - CQ Descriptives

Descriptives - Control Questions

		N	Mean	Std. Deviation
Control 1	S1	97	6,14	1,000
	S2	104	6,01	1,019
	S3	111	6,06	0,937
	Total	312	6,07	0,983
Control 2	S1	97	5,70	1,378
	S2	104	5,70	1,206
	S3	111	5,41	1,516
	Total	312	5,60	1,378
Control 3	S1	97	4,38	2,089
	S2	104	3,67	1,835
	S3	111	4,41	1,894
	Total	312	4,15	1,962
Control 4	S1	97	0,56	0,499
	S2	104	0,66	0,475
	S3	111	0,75	0,436
	Total	312	0,66	0,474

Table 10 - ANOVA between scenarios

ANOVA - Control questions

		Sum of Squares	df	Mean Square	F	Sig.
Control 1	Entre Grupos	0,920	2	0,460	0,475	0,622
	Nos grupos	299,528	309	0,969		
	Total	300,449	311			
Control 2	Entre Grupos	5,893	2	2,947	1,556	0,213
	Nos grupos	585,026	309	1,893		
	Total	590,920	311			
Control 3	Entre Grupos	36,087	2	18,044	4,804	0,009
	Nos grupos	1160,528	309	3,756		
	Total	1196,615	311			
Control 4	Entre Grupos	1,891	2	0,945	4,290	0,015
	Nos grupos	68,096	309	0,220		
	Total	69,987	311			

Table 12 - CQ Multiple Comparisons

Multiple Comparissons - Control Questions

Tukey HSD

	(I) Scenario	(J) Scenario	Difference (I-J)	Std. Error	Sig.	90% Confidence Interval	
						Lower Bound	Upper Bound
Control 3	S1	S2	,708*	0,274	0,027	0,14	1,27
		S3	-0,024	0,269	0,996	-0,58	0,53
	S2	S1	-,708*	0,274	0,027	-1,27	-0,14
		S3	-,732*	0,264	0,016	-1,28	-0,19
	S3	S1	0,024	0,269	0,996	-0,53	0,58
		S2	,732*	0,264	0,016	0,19	1,28
Control 4	S1	S2	-0,107	0,066	0,242	-0,24	0,03
		S3	-,191*	0,065	0,010	-0,33	-0,06
	S2	S1	0,107	0,066	0,242	-0,03	0,24
		S3	-0,084	0,064	0,388	-0,22	0,05
	S3	S1	,191*	0,065	0,010	0,06	0,33
		S2	0,084	0,064	0,388	-0,05	0,22

*. The difference is significant at 0.1.

Finally, CQ 5 has a mean close to the maximum score of 7 ($\mu = 5.53$), confirming that, in general, S1 respondents understood that the presented information had been attained through blockchain.

Table 13 - CQ 5 Descriptives

	Mean	Stf. Deviation	Maximum	Minimum
Control 5	5,53	1,43	7,00	1,00

4.2.2. Principal Component Analysis and Scales Testing

With the aim of attesting that the constructs in the survey didn't relate with each other, a Principal Component Analysis (PCA) with Varimax Rotation was conducted, as seen in Table 14.

Table 14 - PCA SPSS Output

Rotated Component Matrix[a]

	Component							
	1	2	3	4	5	6	7	8
TRSP 1	**0,502**	0,106	-0,034	-0,013	-0,009	0,018	0,036	**0,743**
TRSP 2	**0,564**	0,134	0,030	-0,048	0,073	0,075	-0,027	**0,678**
TRSP 3	**0,725**	0,108	0,010	0,043	0,062	0,223	-0,056	0,301
TRST 1	**0,855**	0,113	-0,060	0,018	0,130	0,122	-0,089	0,176
TRST 2	**0,850**	0,115	0,011	0,005	0,186	0,056	-0,117	0,149
TRST 3	**0,817**	0,145	-0,082	0,029	0,178	0,054	-0,116	0,094
TRST 4	**0,854**	0,143	0,029	-0,007	0,004	-0,002	0,014	-0,093
GBI 1	**0,811**	0,113	-0,028	-0,076	-0,036	0,141	0,235	0,103
GBI 2	**0,851**	0,125	-0,072	-0,004	-0,053	0,099	0,181	0,047
GBI 3	**0,846**	0,122	-0,014	-0,073	-0,149	0,089	0,075	0,037
PV 1	0,196	**0,882**	0,013	0,048	0,100	0,067	-0,067	0,003
PV 2	0,131	**0,899**	0,012	0,114	0,050	0,119	-0,067	0,056
PV 3	0,259	**0,793**	0,069	-0,091	-0,007	0,101	0,109	0,043
WTP	0,125	**0,535**	0,017	0,166	0,253	0,470	0,041	0,149
PI 1	0,187	**0,704**	0,020	-0,004	0,287	0,399	0,020	0,071
PI 2	0,293	0,361	-0,006	0,066	0,114	**0,774**	0,055	0,045
PI 3	0,357	0,297	-0,038	0,083	-0,013	**0,754**	0,152	-0,014
GK 1	0,022	0,058	0,065	**0,846**	0,005	0,009	0,099	-0,028
GK 2	-0,048	0,070	0,014	**0,821**	0,089	0,096	0,034	-0,047
GK 3	-0,039	-0,026	-0,008	**0,806**	-0,038	0,030	0,050	0,046
GC 1	0,036	0,019	-0,034	0,141	0,280	0,098	**0,797**	-0,007
GC 2	0,017	-0,058	-0,076	0,103	0,321	0,068	**0,810**	0,011
GC 3	0,075	0,161	-0,017	0,024	**0,837**	0,020	0,309	0,072
GC 4	0,090	0,200	-0,008	0,024	**0,844**	0,130	0,241	-0,031
GS 1	-0,031	0,030	**0,815**	0,102	0,048	0,060	-0,061	-0,090
GS 2	0,107	0,185	**0,667**	-0,097	-0,005	-0,167	0,024	-0,028
GS 3	-0,051	-0,030	**0,906**	0,036	-0,066	0,003	0,000	0,052
GS 4	-0,155	-0,073	**0,865**	0,020	-0,005	0,060	-0,051	0,059

Extraction Method: Principal Component Analysis

a. Cotation Converged in 7 iterations.

The results show that the items referring to Green Knowledge (GK), and Green Scepticism are only related to their respective dimensions. Secondly, the results show that Trust (TRST) and Green Brand Image (GBI), fall under the same component, getting combined into TRST/GBI. Transparency Perception (TRSP) also fell under the same dimension as TRST/GBI. However, $TRSP_1$ and $TRSP_2$ show higher correlation with construct 8. Therefore, the item TRP3 was eliminated and TRP_1 and TRP_2 formed one component together. Then, Perceived Value (PV) and Willingness to Pay (WTP) were also related with each other, for this reason, the items were also combined into PV/WTP.

The items of Purchase Intention (PI) showed some divergence. PI_1 fell into a separate component from PI_2 and PI_3. In this sense, P_1 was eliminated. The same occurred with Green Consciousness (GC)

with GC_1 and GC_2 falling into a different component to GC_3 and GC_4. Since GC_1 and GC_2 had weaker leading values, these were eliminated from the GC construct.

Finally, it was ensured that the scales of the questionnaire provided internal consistency through the Cronbach's α calculation. As illustrated in Table 15 and in Appendix D, all the items indicated at least a "good" (α > 0.7), level of consistency (Hair et al., 2007).

Table 15 - Cronbach's alpha output summary

	Cronbach's Alpha	Nº of Items
TRSP	0,797	2
PI	0,871	2
TRST_GBI	0,942	7
PV_WTP	0,865	4
GK	0,798	3
GC	0,828	4
GS	0,828	4

Thus, the revised hypothesis and model can be found on Table 16 and Figure 5, respectively.

Table 16 - Revised Hypothesis

Action	Initial Hypothesis	Revised Hypothesis
Maintain	**H1:** Blockchain-enabled **TRSP** about fashion supply chain sustainability increases **PI.**	**H1:** Blockchain-enabled **TRSP** about fashion supply chain sustainability increases **PI.**
Combine	**H2:** Blockchain-enabled **TRSP** about fashion supply chain sustainability increases **WTP.** **H8**: Blockchain-enabled TRSP about fashion supply chain sustainability increases PV.	**H2:** Blockchain-enabled **TRSP** about fashion supply chain sustainability increases PV/ WTP.
Combine	**H3:** Blockchain-enabled **TRSP** about fashion supply chain sustainability increases **TRST.** **H6:** Blockchain-enabled **TRSP** about fashion supply chain sustainability increases **GBI**.	**H3:** Blockchain-enabled **TRSP** about fashion supply chain sustainability increases **TRST/GBI.**
Adapt	**H4**: GS moderates the relationship between blockchain-enabled **TRSP** and **TRST**.	**H4**: GS moderates the relationship between blockchain-enabled **TRSP** and **TRST/ GBI**.
Combine	**H5: TRST** positively influences **PI.** **H7: GBI** positively influences **(a) PI and (**b) **WTP**.	**H5: TRST/GBI** positively influences PI.
Adapt	**H9: PV** positively influences **(a) PI** and **(b) WTP**	**H6: PV/WTP** positively influences **PI**.
Adapt	**H10.1**: **GC** moderates the relationship between blockchain-enabled **TRSP** and **(a) PI**, **(b) WTP**, **(c) TRST**, **(d) PV**, and **(e) GBI**.	**H7.1**: **GC** moderates the relationship between blockchain-enabled **TRSP** and **(a) PI**, **(b) PV/WTP** and **(c) TRST/ GBI**.
Adapt	**H10.2**: GCs moderates the relationship between PV and **(a)** PI**, (b)** WTP.	**H7.2**: GCs moderates the relationship between **PV/WTP** and **PI**
Combine	**H10.3: GC** moderates the relationship between **TRST** and **(a)** PI**, (b)** WTP**.** **H10.4**: GCs moderates the relationship between Consciousness GBI and **(a)** PI, **(b)** WTP.	**H7.3**: **GC** moderates the relationship between **TRST/GBI** and **PI**
Adapt	**H11.1**: GK moderates the relationship between blockchain-enabled **TRSP** and **(a)** PI, **(b)** WTP, **(c)** TRST, **(d)** PV, and **(e)** GBI.	**H8.1:** GK moderates the relationship between blockchain-enabled **TRSP** and **(a) PI**, **(b) PV / WTP** and **(c) TRST/ GBI**.
Adapt	**H11.2**: GK moderates the relationship between PV and **(a)** PI, **(b)** WTP**.**	**H8.2**: GK moderates the relationship between **PV/WTP** and **PI**
Combine	**H10.3**: GK moderates the relationship between TRST and **(a)** PI, **(b)** WTP. **H11.4**: GK moderates the relationship between GBI and **(a)** PI**, (b**) WTP.	**H8.3**: GK moderates the relationship between **TRST/GBI** and **PI**

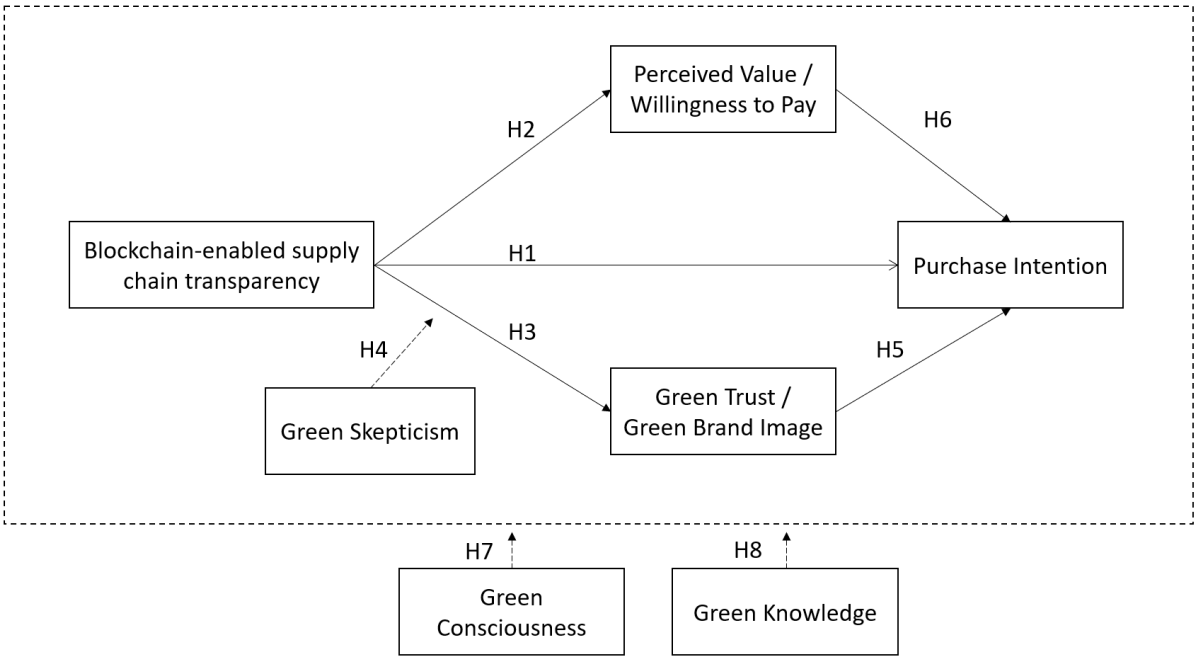

Figure 5 - Revised Concept Model

4.3. Hypothesis Testing

To test the hypotheses, the SPSS software was used. First, score averages for each variable were computed considering the output of the PCA Analysis. The impact significance for each test was evaluated through a 90% confidence interval, which is considered to be safe for social sciences (Holmes et al., 2017). Furthermore, to simplify the reading of the present study, the summarised versions of SPSS outputs will be on the main text. The full output of the Linear Regressions and of the moderation tests in Appendix E and Appendix F respectively.

In order to test direct effects, Simple Linear Regressions were computed to understand the influence of each independent on the dependent.

In the hypotheses that refer to blockchain-enabled transparency (H1; H2 and H3), the aim was to evaluate the differentiating impacts blockchain-enabled TRSP can have on PI, TRST/GBI, and PV/WTP. Hence, it is important to test if the impact is significant and stronger for the groups that were presented to blockchain information (S1 and S2). Thus, the criteria of acceptance were based on the significance of the model, and also on the magnitude of the impact for each scenario (R^2). For that, Chin's scale (1998), illustrated on Table 17, was considered. Further, to get better understanding of the results, Anova Tests were conducted to test differences of PI, TRST/GBI, and PV/WTP between scenarios.

Table 17 - Chin's Scale for Impact Magnitude

Chin criteria (1998)	
Impact Magnitude	**R^2**
Very Weak	$R^2 < 0,19$
Weak	$0,19 > R^2 > 0,33$
Moderate	$0,33 > R^2 > 0,67$
Strong	$R^2 > 0,67$

The remaining hypotheses concerning direct effects (H5 and H6) were accepted or rejected based on the significance of the model for the whole sample. The differences between scenarios were analysed for additional insight.

To test the proposed moderators (H4, H7 and H8), the score averages for the moderating variables were computed and the Hayes Process Macro for SPSS was used. Model 1 was applied since the tests concerned simple moderation models. The criterion of acceptance for the moderating effects was based on the model significance for the whole sample. The differences between scenarios were then analysed as additional insight. To get further understanding of the results, the sample was divided between "High" and "Low" levels of the moderator according to the sample mean and Anova tests were conducted for PI, TRST/GBI, and PV/WTP.

H0: Presenting consumers with blockchain-enabled information increases Transparency Perception (TRSP).

Before beginning the tests for the model hypotheses, it is important to understand if transparency perception was influenced by blockchain information. This was made through a Multiple Linear Regression of TRSP on the Scenarios. For that, categorical variables for the scenarios were computed considering S1 and S3, since these are the groups with the most different stimuli. If the effect is significant for at least one of the scenarios, an AVOVA test will be calculated to understand if the impact is enough to generate significant differences on TRSP between the groups.

As illustrated in Table 18, the scenarios explain 13,6% of TRSP variation, with the R^2 indicating a very weak impact (Table 19), according to Chin (1998). However, the model is significant ($p < 0.001$) and **the hypothesis is accepted**. Further, as seen in Table 20, the model coefficients, Scenario 3 is the one that significantly impacts TRSP, in a negative direction ($\beta = -1.16$; $p < 0.01$). Thus, not presenting blockchain-enabled information to back up sustainability claims penalizes TRSP.

Table 18 - H0 Linear Regression Model

Model Summary[b]

Model	R	R Squared	Ajusted R Square	Std. Error of the Estimate
1	,369[a]	0,136	0,131	1,424

a. Preditors: (Constant), Scenario=S3, Scenario=S1

b. Dependent Variable: TRSP

Table 19 - H0 ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	Z	Sig.
1	Regression	98,920	2	49,460	24,385	<,001[b]
	Residual	626,733	309	2,028		
	Total	725,653	311			

a. Dependent Variable: TRSP

b. Preditors: (Constant), Scenario=S3, Scenario=S1

Table 20 - H0 Model Coefficients

Coeficients[a]

Model		Unstanderdized Coefficients B	Unstanderdized Coefficients Std. Error	Standerdized Coefficients Beta	t	Sig.
1	(Constant)	5,462	0,140		39,108	0,000
	Scenario=S1	0,033	0,201	0,010	0,166	0,869
	Scenario=S3	-1,160	0,194	-0,364	-5,967	0,000

a. Dependent Variable: TRSP

Additionally, an ANOVA test was conducted, showing that S3 respondents had significantly lower TRSP than individuals that were presented with blockchain-enabled information ($p = 0.000 < 0.1$). It is also possible to attest that S1 doesn't significantly differ from S2 ($p > 0.1$), meaning that, once provided the blockchain-enabled detail, actually mentioning blockchain didn't affect transparency perception.

Table 21 - Descriptives TRSP by Scenario

Descriptives - TRSP

	N	Mean	Std. Deviation	Std. Error	90% Confidence Interval for Mean Lower Bound	90% Confidence Interval for Mean Upper Bound
S1	97	5,495	1,320	0,134	5,272	5,717
S2	104	5,462	1,242	0,122	5,259	5,664
S3	111	4,302	1,653	0,157	4,042	4,562
Total	312	5,059	1,528	0,086	4,917	5,202

Table 22 - ANOVA TRSP By Scenario

ANOVA - TRSP

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	98,920	2	49,460	24,385	0,000
Within Groups	626,733	309	2,028		
Total	725,653	311			

Table 23 - Multiple Comparisons TRSP by Scenario

Multiple Comparisons - Tukey HSD

(I) Scenario	(J) Scenario	Difference (I-J)	Std. Error	Sig.	90% Confidence Interval Lower Bound	90% Confidence Interval Upper Bound
S1	S2	0,033	0,201	0,985	-0,381	0,447
	S3	1,193*	0,198	0,000	0,785	1,601
S2	S1	-0,033	0,201	0,985	-0,447	0,381
	S3	1,159*	0,194	0,000	0,759	1,560
S3	S1	-1,193	0,198	0,000	-1,601	-0,785
	S2	-1,160	0,194	0,000	-1,560	-0,759

*. The mean difference is significant at the 0.1 level.

H1: Blockchain-enabled Transparency Perception (TRSP) about fashion supply chain sustainability increases Purchase Intention (PI).

As previously stated, to test this hypothesis, a linear regression of TRSP on PI was conducted. After that, the magnitude of the effect of TRSP on PI between scenarios was compared.

First, as disclosed in the output summary for this hypothesis (Table 24), TRSP had an overall very weak impact on PI with $R^2 = 0.106 < 0.19$ (Chin; 1998). Nonetheless, the impact was statistically significant with TRSP positively influencing PI ($\beta = 0.287$; $p < 0.001$).

When analysing the scenarios separately, it was possible to conclude that, although the model was significant in the tree scenarios, according to Chin (1998), the TRSP impact on PI remained very weak with R^2 below 0.19 for the three scenarios (S1: $R^2 = 0.12$, $p < 0.01$; S2: $R^2 = 0.04$, $p = 0.41$; S3: $R^2 = 0.142$, $p < 0.01$). Therefore, **H1 is rejected** and although TRSP has a positive influence on PI, the magnitude of impact isn't influenced by blockchain-enabled information.

Table 24 – H1 SPSS Linear Regression output summary

H1 Output Summary

Criteria for Acceptance	Universe	p	R^2	Level of Impact (Chin, 1998)	β
Linear regression of TRSP in PI is Significant for the whole sample	Whole Sample	< 0,001	0,106	Very Weak	0,287
The significance and degree of impact increases from S1 to S3	S1	< 0,001	0,121	Very Weak	0,286
	S2	0,041	0,040	Very Weak	0,245
	S3	< 0,001	0,142	Very Weak	0,310

An ANOVA test was conducted (Table 25) in order to verify if PI significantly differed according to the scenarios. In fact, S1 respondents had significantly higher levels of PI than S3. Thus, despite the magnitude of the effect of TRSP on PI not being higher for blockchain scenarios, it is interesting to see that, when individuals are presented with blockchain-enabled facts and there is a clear mention to blockchain technology, it leads to higher PI comparing to situations where no evidence is given to support green claims.

Table 26 - Descriptives PI by Scenario

Descriptives - PI

	N	Mean	Std. Deviation	Std. Error	90% Confidence Interval for Mean Lower Bound	90% Confidence Interval for Mean Upper Bound
S1	97	4,629	1,086	0,110	4,446	4,812
S2	104	4,399	1,516	0,149	4,152	4,646
S3	111	4,180	1,360	0,129	3,966	4,394
Total	312	4,393	1,346	0,076	4,267	4,518

Table 25 - ANOVA PI by Scenario

ANOVA - PI

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10,428	2	5,214	2,912	0,056
Within Groups	553,225	309	1,790		
Total	563,653	311			

Table 27 - Multiple Comparisons TRSP by Scenario

Multiple Comparisons - Tukey HSD

(I) Scenario	(J) Scenario	Mean Diff	Std. Error	Sig.	90% Confidence Interval Lower Bound	90% Confidence Interval Upper Bound
S1	S2	0,230	0,189	0,444	-0,159	0,619
	S3	,449*	0,186	0,043	0,066	0,832
S2	S1	-0,230	0,189	0,444	-0,619	0,159
	S3	0,219	0,183	0,455	-0,157	0,595
S3	S1	-0,449	0,186	0,043	-0,832	-0,066
	S2	-0,219	0,183	0,455	-0,595	0,157

*. The mean difference is significant at the 0.1 level.

H2: Blockchain-enabled transparency (TRSP) about fashion supply chain sustainability increases Perceived Value/ Willingness to Pay (PV/WTP).

Following the same criteria as in H1, first it is important to evaluate the impact of TRSP on PV/WTP for the whole sample. As seen in Table 28, the model is significant, with TRSP having a positive influence on PV/WTP ($\beta = 0.287$ and $p < 0.001$), despite magnitude of the impact being very weak with $R^2 = 0.09 < 0.19$. This means that overall, higher TRSP leads to higher PV/WTP.

Table 28 – H2 SPSS Output Summary

H2 Output Summary					
Criteria for Acceptance	**Universe**	**p**	**R^2**	**Level of Impact (Chin, 1998)**	**β**
Linear regression of TRSP in PV/WTP is Significant for the whole sample	Whole Sample	< 0,001	0,093	Very Weak	0,287
The significance and/or the degree of impact increases from S1 to S3	S1	< 0,001	0,146	Very Weak	0,409
	S2	0,095	0,027	Very Weak	0,199
	S3	< 0,001	0,124	Very Weak	0,298

In what regards to the different scenarios, the results show that the effect of TRSP on PI is positive and significant for all scenarios ($\beta > 0$ and $p < 0.1$) but the magnitude of the impact remains very weak in all of them (S1: $R^2 = 0.146$; S2: $R^2 = 0.027$; S3: $R^2 = 0.124 < 0.19$). This means that the positive impact

of TRSP on PV/WTP isn´t amplified with blockchain-enabled information. For this reason, **the hypothesis is rejected**.

Finally, to better understand the results an ANOVA test was computed on the PV/WTP between groups (Table 29). It is interesting to note that, considering the scale from 1 to 7, there is an overall low level of PV/WTP (μ_{Total} = 3.135). Although this value tends to improve in S1(μ_{S1} = 3.21) and S2 (μ_{S2} = 3.22) compared to S3 (μ_{S3} = 2.99), the differences are not significant (p = 0.433 > 0.1).

Table 30 - PV/WTP Descriptives By Scenario

Descriptives - PV/WTP

	N	Mean	Std. Deviation	Std. Error	90% Confidence Interval for Mean Lower Bound	90% Confidence Interval for Mean Upper Bound
S1	97	3,211	1,416	0,144	2,973	3,450
S2	104	3,216	1,502	0,147	2,972	3,461
S3	111	2,993	1,400	0,133	2,773	3,214
Total	312	3,135	1,439	0,081	3,001	3,270

Table 29 - ANOVA PV/WTP by Scenario

ANOVA - PV/WTP

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3,484	2	1,742	0,840	0,433
Within Groups	640,482	309	2,073		
Total	643,966	311			

It is also curious to see that PV/WTP doesn't even increase for consumers with higher disposable income (p = 0.207 > 0.05).

Table 31 - ANOVA PV/WTP by Scenario

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	14,884	5	2,977	1,448	0,207
Within Groups	629,082	306	2,056		
Total	643,966	311			

Table 32 - Descriptives PV/WTP by Income

Descriptives

	N	Mean	Std. Deviation	Std. Error	90% Confidence Interval for Mean Lower Bound	90% Confidence Interval for Mean Upper Bound
"Rather not respond"	69	3,471	1,529	0,184	3,164	3,778
"<11 000€"	56	3,063	1,505	0,201	2,726	3,399
"11 000€ - 20 000€"	68	2,938	1,389	0,168	2,657	3,218
"20 000€ - 30 000€"	54	2,894	1,372	0,187	2,581	3,206
"30 000€ - 40 000€"	32	3,203	1,367	0,242	2,793	3,613
"> 40 000€"	33	3,295	1,350	0,235	2,897	3,693
Total	312	3,135	1,439	0,081	3,001	3,270

H3: Blockchain-enabled Transparency Perception (TRSP) about fashion supply chain sustainability increases Green Trust/Green Brand Image (TRST/GBI).

To test this hypothesis, it was used the same method as in H1 and H2. Therefore, a Linear Regression of TRSP on TRST/GBI was computed, as described in Table 33.

Table 33 – H3 SPSS Linear Regression output summary

H3 Output Summary					
Criteria for Acceptance	**Universe**	**p**	**R^2**	**Level of Impact (Chin, 1998)**	**β**
Linear regression of TRSP in TRST/GBI is significant for the whole sample	Whole Sample	< 0,001	0,436	Moderate	0,467
The significance and degree of impact increases from S1 to S3	S1	< 0,001	0,517	Moderate	0,572
	S2	< 0,001	0,408	Moderate	0,472
	S3	< 0,001	0,306	Weak	0,376

The results for the whole sample suggest that the impact is statistically significant (β = 0.467; p < 0.001) and moderate, according to Chin (1998), with R^2 = 0.436 (> 0.33). This means that overall, higher

transparency perception leads to better levels of TRST/GBI. However, it is important to see if blockchain has a differentiating role in this impact. For that, the three scenarios were compared.

When analysing the scenarios, it is seen that the model is positive and significant for the three (S1: $\beta = 0.572$, $p < 0.001$; S2: $\beta = 0.472$, $p < 0.001$; S3: $\beta = 0.376$, $p < 0.001$). However, the magnitude of the impact differed from S1 and S2 to S3. While the impact of TRSP on TRST/GBI is weak for S3 ($R^2 = 0.306 < 0.33$), it is moderate for S1 and S2 (S1: $R^2 = 0.517$; S2: $R^2 = 0.408 > 0.33$). **Thus, H3 is accepted,** and it is possible to conclude that presenting consumers with blockchain-enabled information transparency generates a stronger impact the impact of TRSP on TRST/GBI.

Finally, an ANOVA test was computed (Table 34) where it is seen that S1 and S2 respondents have significantly higher levels of TRST/GBI than S3 respondents. This reinforces that providing blockchain-enabled information as evidence for sustainability claims significantly benefits TRST/GBI. The fact that TRST/GBI don't significantly differ between S1 and S2 indicates that, when presented with blockchain-enabled detail, mentioning blockchain as the information source doesn't change consumer TRST/GBI.

Table 35 – Descriptives TRST/GBI by Scenario

Descriptives - TRST/GBI

	N	Mean	Std. Deviation	Std. Error	90% Confidence Interval for Mean	
					Lower Bound	Upper Bound
S1	97	5,243	1,051	0,107	5,066	5,420
S2	104	5,196	0,917	0,090	5,047	5,346
S3	111	4,566	1,125	0,107	4,389	4,743
Total	312	4,987	1,079	0,061	4,886	5,088

Table 34 – ANOVA TRS//GBI by Scenario

ANOVA - TRST/GBI

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	30,566	2	15,283	14,233	0,000
Within Groups	331,807	309	1,074		
Total	362,374	311			

Table 36 - Multiple Comparisons TRST/GBI

Multiple Comparisons - Tukey HSD

(I) Scenario	(J) Scenario	Difference (I-J)	Std. Error	Sig.	90% Confidence Interval	
					Lower Bound	Upper Bound
S1	S2	0,047	0,146	0,946	-0,255	0,348
	S3	,67672*	0,144	0,000	0,380	0,973
S2	S1	-0,047	0,146	0,946	-0,348	0,255
	S3	,63015*	0,141	0,000	0,339	0,921
S3	S1	-,67672*	0,144	0,000	-0,973	-0,380
	S2	-,63015*	0,141	0,000	-0,921	-0,339

*. The mean difference is significant at the 0.1 level.

H4: Green Scepticism (GS) moderates the relationship between Transparency Perception (TRSP) and Green Trust / Green Brand Image (TRST/GBI).

To test this hypothesis, the score average of GS, was computed and Hayes Process model 1 was used. The hypothesis is accepted if the effect for the whole sample is significant. Note that the SPSS output is summarised on Table 37 and full output can be found in Appendix F.

As disclosed in Table 37, GS plays a significant and positive role in strengthening the relationship between TRSP and TRST/GBI ($p = 0.03$; $\beta = 0.150$). Looking at the $R^2 = 0.456$ (> 0.33), it is possible to

state that the impact is moderate (Chin, 1998). So, **the hypothesis is accepted** and, highly sceptical individuals will be more prone to increase their TRST/GBI if they perceive the brand to be transparent.

Table 37 - H4 SPSS Hayes Output Summary

H4 Output Summary							
Criteria for Acceptance	**Universe**	**p**	**LLCI**	**ULCI**	**R^2**	**Level of Impact (Chin, 1998)**	**β**
Moderation of GS on TRSP and TRST/GBI is significant for the whole sample	Whole Sample	0,003	0,032	0,108	0,456	Moderate	0,070
	S1	0,047	0,018	0,191	0,538	Moderate	0,105
	S2	0,612	-0,055	0,103	0,415	Moderate	0,024
	S3	0,039	0,019	0,161	0,344	Moderate	0,090

As illustrated in Table 37, the interaction is significant for scenarios 1 and 3 ($p < 0.1$), but not for S2 ($p = 0.612 > 0.1$). Regarding S1 and S3, according to Chin (1998), the model has a moderate impact in both (S1: $R^2 = 0.538$; S3: $R^2 = 0.344$). Nonetheless, the impact strength increases from S3 to S1, as the impact in S3 is nearly considered weak, being closer to the 0.33 threshold defined by Chin (1998).

To better understand the behaviour of sceptical individuals, the sample was divided according to the level of scepticism. Respondents with GS scores above the sample mean ($\mu = 4.1050$) were classified as "High GS" and the remaining as "Low GS".

Table 38 - GS descriptives

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
GS	312	1,00	7,00	4,1050	1,16917
Valid N (listwise)	312				

Then, Anova tests were conducted for TRSP and TRST/GBI (Table 40 and Table 42). The results show that there isn't a significand difference of TRSP and TRST/GBI for sceptical individuals.

Even though, it is interesting to point out scenario 1 was the only one where individuals with higher levels of scepticism tended to show higher Transparency Perceptions. Furthermore, in blockchain scenarios (S1 and S2), highly sceptical individuals tended to show higher levels of TRSP and TRST/GBI than when compared to S3.

Table 39 - Descriptives TRSP for High and Low Scepticism

Descriptives

		N	Mean	Std. Deviation	Std. Error	Interval for Mean Lower Bound	Interval for Mean Upper Bound
TRSP	"LOW GS"	159	5,082	1,492	0,118	4,886	5,278
	"HIGH GS"	153	5,036	1,568	0,127	4,826	5,246
	Total	312	5,059	1,528	0,086	4,917	5,202
TRSP_S1	"LOW GS"	41	5,427	1,321	0,206	5,079	5,774
	"HIGH GS"	56	5,545	1,329	0,178	5,248	5,842
	Total	97	5,495	1,320	0,134	5,272	5,717
TRSP_S2	"LOW GS"	56	5,634	1,134	0,152	5,380	5,887
	"HIGH GS"	48	5,260	1,341	0,194	4,936	5,585
	Total	104	5,462	1,242	0,122	5,259	5,664
TRSP_S3	"LOW GS"	62	4,355	1,603	0,204	4,015	4,695
	"HIGH GS"	49	4,235	1,729	0,247	3,820	4,649
	Total	111	4,302	1,653	0,157	4,042	4,562

Table 40- ANOVA TRSP for High and Low Scepticism

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
TRSP	Between Groups	0	1,000	0,164	0,070	0,792
	Within Groups	725	310,000	2,340		
	Total	726	311,000			
TRSP_S1	Between Groups	0	1,000	0,329	0,187	0,666
	Within Groups	167	95,000	1,757		
	Total	167	96,000			
TRSP_S2	Between Groups	4	1,000	3,606	2,369	0,127
	Within Groups	155	102,000	1,522		
	Total	159	103,000			
TRSP_S3	Between Groups	0	1,000	0,395	0,143	0,706
	Within Groups	300	109,000	2,755		
	Total	301	110,000			

Table 41 - Descriptives TRST/GBI for High and Low Scepticism

Descriptives

		N	Mean	Std. Deviation	Std. Error	90% Confidence Lower Bound	90% Confidence Upper Bound
TRST_GBI	"LOW GS"	159	5,059	1,017	0,081	4,926	5,193
	"HIGH GS"	153	4,911	1,139	0,092	4,759	5,064
	Total	312	4,987	1,079	0,061	4,886	5,088
TSTGI_S1	"LOW GS"	41	5,359	0,928	0,145	5,115	5,603
	"HIGH GS"	56	5,158	1,133	0,151	4,905	5,411
	Total	97	5,243	1,051	0,107	5,066	5,420
TSTGI_S2	"LOW GS"	56	5,316	0,867	0,116	5,123	5,510
	"HIGH GS"	48	5,057	0,963	0,139	4,823	5,290
	Total	104	5,196	0,917	0,090	5,047	5,346
TSTGI_S3	"LOW GS"	62	4,629	1,063	0,135	4,404	4,854
	"HIGH GS"	49	4,487	1,205	0,172	4,198	4,776
	Total	111	4,566	1,125	0,107	4,389	4,743

Table 42 - ANOVA TRST/GBI for High and Low Scepticism

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
TRST_GBI	Between Groups	1,708	1	1,708	1,468	0,227
	Within Groups	360,666	310	1,163		
	Total	362,374	311			
TSTGI_S1	Between Groups	0,954	1	0,954	0,863	0,355
	Within Groups	105,012	95	1,105		
	Total	105,966	96			
TSTGI_S2	Between Groups	1,744	1	1,744	2,094	0,151
	Within Groups	84,957	102	0,833		
	Total	86,702	103			
TSTGI_S3	Between Groups	0,553	1	0,553	0,435	0,511
	Within Groups	138,587	109	1,271		
	Total	139,140	110			

In sum, for sceptical individuals, mentioning blockchain as in S1 is highly valued and is a strong trigger for them to translate TRSP into TRST/GBI. In this sense, presenting blockchain-enabled detailed without making mention to blockchain ad in S2, is equally valued both by individuals with and low levels of scepticism. Finally, not backing up green claims with any sort of evidence (S3) leads to the lowest scores of TRSP and TRST/GBI, nonetheless, highly sceptical individuals will still be more prone to translate that transparency perception into stronger TRST/GBI.

H5: Green Trust / Green Brand Image (TRST/GBI), positively influences Purchase Intentions (PI).

The criteria for accepting this hypothesis will be based on the influence of TRST/GBI on PI for the whole sample, since the hypothesis doesn't allude blockchain-enabled effects.

By analysing Table 43, it is possible to conclude that, despite the impact of TRST/GBI on PI being weak ($R^2 = 0.219 < 0.33$), the effect is positive and statistically significant ($\beta = 0.583$, $p < 0.001$). In this sense**, the hypothesis is accepted**, and it is assumed that TRST/GBI positively influences PI.

Table 43- H5 SPSS output summary

H5 Output Summary					
Criteria for Acceptance	**Universe**	**p**	**R^2**	**Level of Impact (Chin, 1998)**	**β**
Linear regression of TRST/GBI in PI is Significant for the whole sample	Whole Sample	< 0,001	0,219	Weak	0,583
	S1	< 0,001	0,208	Weak	0,471
	S2	< 0,001	0,212	Weak	0,760
	S3	< 0,001	0,223	Weak	0,571

To get further insight on this hypothesis, the three scenarios were analysed separately. Hence, it is seen that the impact is significant for all scenarios ($p < 0.01$) but remains weak in all of them (S1: $R^2 = 0.208$; S2: $R^2 = 0.212$; S3: $R^2 = 0.223$). In other words, the impact of TRST/GBI on PI doesn't vary with the providence of blockchain-enabled information.

H6: Perceived Value/Willingness to Pay (PV/WTP) positively influences Purchase Intentions (PI).

As in H5, the criteria for acceptance of this hypothesis relies on significance of the relationship between PV/WTP and PI. When looking at the output summary (Table 44), it is seen that the model is positive and statistically significant with $\beta = 0.546$ and $p < 0.001$. Further, the magnitude of the impact

of PV/WTP on PI is moderate with R^2 = 0.34 > 0.33 (Chin, 1998). In this sense, **the hypothesis is accepted** and the higher the PV/WTP, the higher are the PI.

Table 44 – H6 SPSS Output Summary

H6 Output Summary					
Criteria for Acceptance	**Universe**	**p**	**R^2**	**Level of Impact (Chin, 1998)**	**β**
Linear regression of PV/WTP in PI is Significant for the whole sample	Whole Sample	< 0,001	0,340	Moderate	0,546
	S1	< 0,001	0,349	Moderate	0,453
	S2	<0,001	0,327	Moderate	0,577
	S3	<0,001	0,356	Moderate	0,580

It is important to note that the model is significant and positive (S1: p < 0.001 β =0.453; S2: p < 0.001 β =0.577; S3: p <0.001 β =0.580), with a moderate magnitude (Chin, 1998) in all scenarios (S1: R^2 = 0.349, S2: R^2 = 0.327, S3: R^2 = 0.356).

H7.1 a): **Green Consciousness (GC) moderates the relationship between Transparency Perception (TRSP) and Purchase Intention (PI).**

To test H7, analyses were conducted using Hayes Process Model 1 for simple moderation. The hypothesis will be accepted if the impact is significant for the whole sample, being that scenario comparisons will be analysed as further insight. The full SPSS output can be seen in Appendix F.

As seen in Table 45, for highly conscious individuals, TRSP is significantly more important in increasing PI than for the least conscious (p = 0.006, β = 0.126). Therefore, **the hypothesis is accepted.**

Table 45 - H7.1a) Hayes SPSS output summary

H7.1 a) Output Summary							
Criteria for Acceptance	**Universe**	**p**	**LLCI**	**ULCI**	**R^2**	**Level of Impact (Chin, 1998)**	**β**
Moderation of GC on TRSP and PI is significant for the whole sample	Whole Sample	0,006	0,052	0,201	0,195	Weak	0,126
	S1	0,139	-0,015	0,285	0,149	Very Weak	0,135
	S2	0,755	-0,128	0,187	0,281	Weak	0,030
	S3	0,006	0,106	0,407	0,225	Moderate	0,257

When looking at the results by scenario, it is suggested that the interaction of GC with the relationship between TRSP and PI is only significant in S3 in which it has a moderate impact (p = 0.006 < 0.05; R^2 =0.225 < 0.33). On the other hand, in the scenarios where respondents had access to blockchain-enabled information, the interaction is not significant (S1: p = 0.149, S2: p = 0.755 > 0.05).

As seen in Hypothesis 1 (Table 24), TRSP generally leads to higher PI, however, GC was only relevant in increasing the impact of TRSP on PI in the scenario where the respondents didn't have access to supply chain information (S3). In this sense, blockchain-enabled information (S1 ad S2) can positively impact green purchase behaviour both for individuals with high and low GC. Instead, when consumers are presented with vague green claims without any factual evidence (S3), highly conscious individuals are more prone to increase their PI. This may indicate that highly conscious individuals can be more easily drawn into purchase intention by vague green claims and fall into greenwashing traps.

To further explore these results, the sample was divided according to the level of GC. Individuals with higher GC than the sample mean (μ = 5.856) were classified as "High GC" and the remaining ones as "Low GC". Then, ANOVA Tests were conducted in to understand GC effects on the study variables.

Table 46 - GC Descriptives

	N	Min	Max	Mean	Std. Deviation
GC	312	1,75	7,00	5,856	0,942
Valid N	312				

First, in Table 48 it is possible to see that individuals with high GC have overall significantly higher levels of TRSP (p = 0.069 < 0.1).

Table 47 – Descriptives TRSP for High and Low GC

Descriptives - TRSP

		N	Mean	Std. Deviation	90% Confidence Interval for Mean Lower Bound	Upper Bound
TRSP	"LOW GC"	130	4,873	1,496	4,656	5,090
	"HIGH GC"	182	5,192	1,540	5,004	5,381
	Total	312	5,059	1,528	4,917	5,202
TRSP_S1	"LOW GC"	35	5,257	1,379	4,863	5,651
	"HIGH GC"	62	5,629	1,277	5,358	5,900
	Total	97	5,495	1,320	5,272	5,717
TRSP_S2	"LOW GC"	44	5,295	1,386	4,944	5,647
	"HIGH GC"	60	5,583	1,121	5,342	5,825
	Total	104	5,462	1,242	5,259	5,664
TRSP_S3	"LOW GC"	51	4,245	1,471	3,900	4,590
	"HIGH GC"	60	4,350	1,805	3,961	4,739
	Total	111	4,302	1,653	4,042	4,562

Table 48 - ANOVA TRSP for High and Low GC

ANOVA - TRSP

		Sum of Squares	df	Mean Square	F	Sig.
TRSP	Between Groups	7,728	1	7,728	3,337	0,069
	Within Groups	717,925	310	2,316		
	Total	725,653	311			
TRSP_S1	Between Groups	3,094	1	3,094	1,791	0,184
	Within Groups	164,153	95	1,728		
	Total	167,247	96			
TRSP_S2	Between Groups	2,104	1	2,104	1,369	0,245
	Within Groups	156,742	102	1,537		
	Total	158,846	103			
TRSP_S3	Between Groups	0,303	1	0,303	0,110	0,741
	Within Groups	300,336	109	2,755		
	Total	300,640	110			

In what regards to PI, the tests in Table 50 reveal that individuals with high GC have significantly higher PI in all scenarios except for S1, that has overall high levels of PI, regardless of the level of GC. Therefore, blockchain-enabled transparency backed up by its source leads to high scores of PI for individuals with high and low GC.

Table 49 - Descriptives PI for High and Low GC

Descriptives

		N	Mean	Std. Deviation	Interval for Mean Lower Bound	Upper Bound
PI	"LOW GC"	130	3,900	1,352	3,704	4,096
	"HIGH GC"	182	4,745	1,230	4,594	4,895
	Total	312	4,393	1,346	4,267	4,518
PI_S1	"LOW GC"	35	4,500	0,697	4,301	4,699
	"HIGH GC"	62	4,702	1,253	4,436	4,967
	Total	97	4,629	1,086	4,446	4,812
PI_S2	"LOW GC"	44	3,568	1,569	3,171	3,966
	"HIGH GC"	60	5,008	1,152	4,760	5,257
	Total	104	4,399	1,516	4,152	4,646
PI_S3	"LOW GC"	51	3,775	1,380	3,451	4,098
	"HIGH GC"	60	4,525	1,254	4,255	4,795
	Total	111	4,180	1,360	3,966	4,394

Table 50 - ANOVA PI for High and Low GC

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
PI	Between Groups	54,084	1	54,084	32,902	0,000
	Within Groups	509,570	310	1,644		
	Total	563,653	311			
PI_S1	Between Groups	0,909	1	0,909	0,770	0,383
	Within Groups	112,230	95	1,181		
	Total	113,139	96			
PI_S2	Between Groups	52,649	1	52,649	29,179	0,000
	Within Groups	184,041	102	1,804		
	Total	236,690	103			
PI_S3	Between Groups	15,527	1	15,527	9,009	0,003
	Within Groups	187,869	109	1,724		
	Total	203,396	110			

H7.1 b) Green Consciousness (GC) moderates the relationship between Transparency Perception and Perceived Value / Willingness to pay (PV/WTP).

Looking at Table 51, it is possible to see that the effect of GC on the relationship between TRSP and PV/WTP is positive and significant for the whole sample (p = 0.062 < 0.1; β = 0.093), despite having

a very weak magnitude (R^2 = 0.161 < 0.19). **Thus, this hypothesis is accepted,** and the higher the GC, the more important will TRSP be in driving PV/WTP.

Table 51 - H7.1b) Hayes SPSS output summary

H7.1 b) Output Summary							
Criteria for Acceptance	**Universe**	**p**	**LLCI**	**ULCI**	**R^2**	**Level of Impact (Chin, 1998)**	**β**
Moderation of GC on TRSP and PV/WTP is significant for the whole sample	Whole Sample	0,062	0,011	0,174	0,161	Very Weak	0,093
	S1	0,142	-0,020	0,354	0,222	Weak	0,167
	S2	0,231	-0,291	0,046	0,164	Very Weak	-0,122
	S3	0,063	0,021	0,342	0,169	Very Weak	0,182

Looking at the results per scenario, it is possible to see that the effect is again only significant in S3 (p = 0.063 < 0.1; β = 0.182), in which respondents weren't presented with any supply chain information. As seen in hypothesis 2 (Table 28), TRSP has a general positive impact on PV/WTP. Similar to what was found in the previous hypothesis, when presented with blockchain-enabled detail (S1 and S2) TRSP had an equally positive impact on PV/WTP, for High GC, and Low GC individuals. However, when being exposed to vague green claims without any supply chain sustainability information as evidence (S3), individuals with high GC are more likely than individuals with low GC to increase PV/WTP based on TRSP.

Once again, an Anova Test was conducted to compare PV/WTP for individuals with high/low levels of GC. As illustrated on Table 53, individuals with high GC have significantly higher levels of PV/WTP (p < 0.001). Further, the differences were significant for all scenarios, meaning that highly conscious individuals have higher PV/WTP for brands that claim to be sustainable, regardless of the kind of information provided as evidence.

Table 52 - Descriptives PV/WTP For High and Low GC

Descriptives - PV/WTP

		N	Mean	Std. Deviation	90% Confidence Interval for Mean Lower Bound	Upper Bound
PV_WTP	"LOW GC"	130	2,583	1,260	2,400	2,766
	"HIGH GC"	182	3,530	1,432	3,355	3,706
	Total	312	3,135	1,439	3,001	3,270
PV_WP_S1	"LOW GC"	35	2,793	1,350	2,407	3,179
	"HIGH GC"	62	3,448	1,408	3,149	3,746
	Total	97	3,211	1,416	2,973	3,450
PV_WP_S2	"LOW GC"	44	2,432	1,084	2,157	2,707
	"HIGH GC"	60	3,792	1,512	3,465	4,118
	Total	104	3,216	1,502	2,972	3,461
PV_WP_S3	"LOW GC"	51	2,569	1,339	2,254	2,883
	"HIGH GC"	60	3,354	1,359	3,061	3,647
	Total	111	2,993	1,400	2,773	3,214

Table 53 - ANOVA PV/WTP For High and Low GC

ANOVA - PV/WTP

		Sum of Squares	df	Mean Square	F	Sig.
PV_WTP	Between Groups	68,084	1	68,084	36,650	0,000
	Within Groups	575,882	310	1,858		
	Total	643,966	311			
PV_WP_S1	Between Groups	9,590	1	9,590	4,983	0,028
	Within Groups	182,828	95	1,925		
	Total	192,418	96			
PV_WP_S2	Between Groups	46,941	1	46,941	25,819	0,000
	Within Groups	185,441	102	1,818		
	Total	232,382	103			
PV_WP_S3	Between Groups	17,011	1	17,011	9,333	0,003
	Within Groups	198,671	109	1,823		
	Total	215,682	110			

H7.1 c): Green Consciousness (GC) moderates the relationship between Transparency Perception (TRSP) and Green Trust/ Green Brand Image (TRST/GBI).

As illustrated in Table 54, GC positively moderates the relationship between TRSP and TRST/GBI (p = 0.029 < 0.1; β = 0.066 > 0). Furthermore, the impact is moderate, with an R^2 of 0,453 (> 0,33). So,

the **hypothesis is accepted** and, the higher the level of GC, the more crucial will TRSP be in order to develop TRST/GBI.

Table 54 - H7.1c) Hayes SPSS output summary

H7.1 c) Output Summary							
Criteria for Acceptance	**Universe**	**p**	**LLCI**	**ULCI**	**R^2**	**Level of Impact (Chin, 1998)**	**β**
Moderation of GC on TRSP and TRST/GBI is significant for the whole sample	Whole Sample	0,029	0,029	0,016	0,453	Moderate	0,066
	S1	0,007	0,070	0,280	0,559	Moderate	0,175
	S2	0,998	-0,084	0,085	0,437	Moderate	0,000
	S3	0,127	-0,008	0,224	0,324	Moderate	0,108

Further, the results by scenario show that the moderation of GC on the relationship between TRSP and TRST/GBI is only significant in S1 with p = 0.007 (< 0.1). This means that, for highly conscious consumers to develop TRST/GBI, it is even more crucial to ensure TRSP with the highest possible level of information detail, not only by providing blockchain-enabled information to back up green claims, but also by disclosing the information source.

Finally, an Anova Test was conducted comparing TRST/GBI for respondents with high/low GC. As Table 56 shows, individuals with high GC have significantly higher levels of TRST/GBI (p = 0.001 < 0.1). Moreover, the difference is only significant for the scenarios in which blockchain-enabled information was presented (S1: p = 0.093 < 0.1; S2: p = 0.005 < 0.1; S3: p = 0.310 > 0.1). This reinforces that blockchain-enabled detail is especially important for highly GC consumers to develop TRST/GBI.

Table 55 - Descriptives TRST/GBI For High and Low GC

Descriptives

		N	Mean	Std. Deviation	90% Confidence Interval for Mean Lower Bound	Upper Bound
TRST_GBI	"LOW GC"	130	4,752	0,931	4,616	4,887
	"HIGH GC"	182	5,155	1,148	5,014	5,295
	Total	312	4,987	1,079	4,886	5,088
TSTGBI_S1	"LOW GC"	35	5,004	0,947	4,734	5,275
	"HIGH GC"	62	5,378	1,089	5,147	5,609
	Total	97	5,243	1,051	5,066	5,420
TSTGBI_S2	"LOW GC"	44	4,903	0,870	4,682	5,123
	"HIGH GC"	60	5,412	0,898	5,218	5,606
	Total	104	5,196	0,917	5,047	5,346
TSTGBI_S3	"LOW GC"	51	4,448	0,903	4,236	4,660
	"HIGH GC"	60	4,667	1,283	4,390	4,943
	Total	111	4,566	1,125	4,389	4,743

Table 56 - ANOVA TRST/GBI For High and Low GC

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
TRST_GBI	Between Groups	12,315	1	12,315	10,906	0,001
	Within Groups	350,059	310	1,129		
	Total	362,374	311			
TSTGBI_S1	Between Groups	3,126	1	3,126	2,888	0,093
	Within Groups	102,840	95	1,083		
	Total	105,966	96			
TSTGBI_S2	Between Groups	6,585	1	6,585	8,383	0,005
	Within Groups	80,117	102	0,785		
	Total	86,702	103			
TSTGBI_S3	Between Groups	1,316	1	1,316	1,041	0,310
	Within Groups	137,824	109	1,264		
	Total	139,140	110			

H7.2: Green Consciousness (GC) moderates the relationship between Green Trust/ Green Brand Image (TRST/GBI) and Purchase Intention (PI)

The results presented on Table 57 suggest that the higher the levels of GC, the stronger the effect of TRST/GBI on PI (p = 0.040 < 0.1) and **the hypothesis is accepted**.

Furthermore, the results for the different scenarios were analysed. It is possible to see that S2 is the only one that doesn't have a significant effect for the moderation of GC (p = 0.710 >0.1). As seen in Hypothesis 5, TRST/GBI positively impacts PI (see Table 43). However, when presenting consumers

with blockchain information without mentioning blockchain (S2), this impact is equally strong for highly conscious and less conscious individuals.

Table 57 - H7.2 Hayes SPSS output summary

H7.2 Output Summary							
Criteria for Acceptance	**Universe**	**p**	**LLCI**	**ULCI**	**R^2**	**Level of Impact (Chin, 1998)**	**β**
Moderation of GC on TRST/GBI and PI is significant for the whole sample	Whole Sample	0,040	0,026	0,234	0,279	Weak	0,130
	S1	0,017	0,093	0,488	0,259	Weak	0,290
	S2	0,710	-0,250	0,158	0,380	Moderate	-0,046
	S3	0,021	0,073	0,425	0,281	Weak	0,249

H7.3: Green Consciousness moderates the relationship between Perceived Value / Willingness to Pay (PV/WTP) and Purchase Intention (PI)

As seen on Table 58, the interaction of GC with the relationship between PV/WTP and PI isn't significant. **Therefore, the hypothesis is rejected,** and it is assumed that GC doesn't neither strengthen nor weaken the impact of PV/WTP on PI**.**

Table 58 - 7.3 Hayes SPSS output summary

H7.3 Output Summary							
Criteria for Acceptance	**Universe**	**p**	**LLCI**	**ULCI**	**R^2**	**Level of Impact (Chin, 1998)**	**β**
Moderation of GC on PV/WTP and PI is significant for the whole sample	Whole Sample	0,746	-0,084	0,057	0,360	Moderate	-0,014
	S1	0,009	0,062	0,271	0,396	Moderate	0,167
	S2	0,179	-0,291	0,030	0,441	Moderate	-0,131
	S3	0,397	-0,164	0,053	0,370	Moderate	-0,056

To further investigate this result, it is interesting to see that S1 contradicts the trend of the sample. When presented with highly detailed information that mentions blockchain, highly conscious consumers are more prone to translate their PV/WTP into PI.

H8.1a): Green Knowledge (GK) moderates the relationship between Transparency Perception (TRSP) and Purchase Intention (PI).

To test H8, a score average of GK items was calculated and the Hayes Process Model 1 was used to evaluate the moderation effect. Note that the full output is available in Appendix F. The results on Table 59 show that GK doesn't have a significant impact on the relationship between TRSP and PI ($p = 0.237 > 0.1$), in neither of the scenarios. Therefore, the hypothesis is rejected.

Table 59 - H8.1 a) Hayes SPSS output summary

H8.1 a) Output Summary							
Criteria for Acceptance	**Universe**	**p**	**LLCI**	**ULCI**	**R2**	**Level of Impact (Chin, 1998)**	**β**
Moderation of GK on TRSP and PI is significant for the whole sample	Whole Sample	0,237	-0,124	0,020	0,140	Very Weak	-0,052
	S1	0,727	-0,196	0,128	0,122	Very Weak	-0,034
	S2	0,120	-0,301	0,009	0,137	Very Weak	-0,146
	S3	0,725	-0,125	0,081	0,169	Very Weak	-0,022

Aiming to better understand these results, it is interesting to see how GK influences TRSP and PI. So, the sample was divided into "High GK" (GK values above μ = 5.609) and "Low GK" (GK values bellow μ = 5.609). Then, Anova Tests were conducted to understand possible differences between the groups.

Table 60 - GK Descriptives

Population Descriptive Statistics

	N	Mean	Std. Deviation	Variance
GK	312	5,609	1,180	1,392
Valid N (listwise)	312			

As described in Table 61, individuals with High GK tended to have higher levels of TRSP than the ones with Low GK, only in blockchain scenarios (S1 and S2). However, the differences aren't significant (p > 0.1).

Table 62 - Descriptives TRSP for High and Low GK

Descriptives - TRSP

		N	Mean	Std. Deviation	90% Confidence Interval for Mean Lower Bound	Upper Bound
TRSP	"LOW GK"	118	5,064	1,421	4,847	5,280
	"HIGH GK"	194	5,057	1,592	4,868	5,246
	Total	312	5,059	1,528	4,917	5,202
TRSP_S1	"LOW GK"	34	5,485	1,234	5,127	5,843
	"HIGH GK"	63	5,500	1,374	5,211	5,789
	Total	97	5,495	1,320	5,272	5,717
TRSP_S2	"LOW GK"	35	5,343	1,371	4,951	5,735
	"HIGH GK"	69	5,522	1,177	5,285	5,758
	Total	104	5,462	1,242	5,259	5,664
TRSP_S3	"LOW GK"	49	4,571	1,454	4,223	4,920
	"HIGH GK"	62	4,089	1,778	3,712	4,466
	Total	111	4,302	1,653	4,042	4,562

Table 61 - ANOVA TRSP for High and Low GK

ANOVA - TRSP

		Sum of Squares	df	Mean Square	F	Sig.
TRSP	Between Groups	0,003	1	0,003	0,001	0,969
	Within Groups	725,650	310	2,341		
	Total	725,653	311			
TRSP_S1	Between Groups	0,005	1	0,005	0,003	0,959
	Within Groups	167,243	95	1,760		
	Total	167,247	96			
TRSP_S2	Between Groups	0,743	1	0,743	0,479	0,490
	Within Groups	158,103	102	1,550		
	Total	158,846	103			
TRSP_S3	Between Groups	6,378	1	6,378	2,362	0,127
	Within Groups	294,262	109	2,700		
	Total	300,640	110			

Regarding PI, the results on Table 64 show that individuals with high GK have significantly higher PI that least informed (p < 0.001). When looking at the scenarios, the difference is only significant in S2 (p = 0.005 < 0.1). In S1, respondents tend show higher levels of PI regardless of the level of GK, when compared to the remaining scenarios. In contrast, in the scenario where respondents didn't have any access to supply chain information (S3), PI is generally lower, despite the level of GK.

Table 63 - Descriptives PI for High and Low GK

Descriptives - PI

		N	Mean	Std. Deviation	90% Confidence Interval for Mean Lower Bound	Upper Bound
PI	"LOW GK"	118	4,068	1,444	3,847	4,288
	"HIGH GK"	194	4,590	1,246	4,442	4,738
	Total	312	4,393	1,346	4,267	4,518
PI_S1	"LOW GK"	34	4,500	1,044	4,197	4,803
	"HIGH GK"	63	4,698	1,109	4,465	4,932
	Total	97	4,629	1,086	4,446	4,812
PI_S2	"LOW GK"	35	3,814	1,762	3,311	4,318
	"HIGH GK"	69	4,696	1,290	4,437	4,955
	Total	104	4,399	1,516	4,152	4,646
PI_S3	"LOW GK"	49	3,949	1,393	3,615	4,283
	"HIGH GK"	62	4,363	1,316	4,084	4,642
	Total	111	4,180	1,360	3,966	4,394

Table 64 - Anova PI for High and Low GK

ANOVA - PI

		Sum of Squares	df	Mean Square	F	Sig.
PI	Between Groups	20,024	1	20,024	11,419	0,001
	Within Groups	543,629	310	1,754		
	Total	563,653	311			
PI_S1	Between Groups	0,869	1	0,869	0,736	0,393
	Within Groups	112,270	95	1,182		
	Total	113,139	96			
PI_S2	Between Groups	18,038	1	18,038	8,415	0,005
	Within Groups	218,652	102	2,144		
	Total	236,690	103			
PI_S3	Between Groups	4,689	1	4,689	2,572	0,112
	Within Groups	198,707	109	1,823		
	Total	203,396	110			

H8.1 b): Green Knowledge (GK) moderates the relationship between Transparency Perception (TRSP) and Perceived Value / Willingness to Pay (PV/WTP).

The results on Table 65 suggest that the effect isn't significant for any scenario ($p > 0.1$). Therefore, the **hypothesis is rejected,** and GK doesn't affect the relationship between TRSP and PV/WTP.

Table 65 - H8.1 b) Hayes SPSS output summary

H8.1 b) Output Summary							
Criteria for Acceptance	**Universe**	**p**	**LLCI**	**ULCI**	**R^2**	**Level of Impact (Chin, 1998)**	**β**
Moderation of GK on TRSP and PV/WTP is significant for the whole sample	Whole Sample	0,102	-0,155	0,001	0,120	Very Weak	-0,077
	S1	0,746	-0,248	0,167	0,151	Very Weak	-0,041
	S2	0,243	-0,270	0,046	0,087	Very Weak	-0,112
	S3	0,153	-0,199	0,014	0,154	Very Weak	-0,093

Once again, an Anova test was conducted to identify differences in PV/WTP for individuals with high/low GK. Table 67 shows that, overall, knowledgeable consumers have higher levels of PV/WTP. When looking at the different scenarios, the effect was only significant in S2, where consumers were presented to transparent blockchain-enabled information but without mentioning blockchain. On the one hand, when compared to the remaining scenarios, in S1, respondents tend show higher levels of PV/WTP regardless of the level of GK. In contrast, in S3, where respondents didn't have any supply chain information, PI was generally lower, despite the level of GK.

Table 67 - Descriptives PV/WTP for High and Low GK

Descriptives - PV/WTP

		N	Mean	Std. Deviation	90% Confidence Interval for Mean Bound	Bound
PV_WTP	"LOW GK"	118	2,847	1,475	2,622	3,073
	"HIGH GK"	194	3,311	1,392	3,145	3,476
	Total	312	3,135	1,439	3,001	3,270
PV_WP_S1	"LOW GK"	34	3,154	1,597	2,691	3,618
	"HIGH GK"	63	3,242	1,321	2,964	3,520
	Total	97	3,211	1,416	2,973	3,450
PV_WP_S2	"LOW GK"	35	2,679	1,394	2,280	3,077
	"HIGH GK"	69	3,489	1,490	3,190	3,788
	Total	104	3,216	1,502	2,972	3,461
PV_WP_S3	"LOW GK"	49	2,755	1,440	2,410	3,100
	"HIGH GK"	62	3,181	1,350	2,895	3,468
	Total	111	2,993	1,400	2,773	3,214

Table 66 - ANOVA PV/WTP for High and Low GK

ANOVA - PV/WTP

		Squares	df	Square	F	Sig.
PV_WTP	Between Groups	15,736	1	15,736	7,765	0,006
	Within Groups	628,230	310	2,027		
	Total	643,966	311			
PV_WP_S1	Between Groups	0,170	1	0,170	0,084	0,773
	Within Groups	192,248	95	2,024		
	Total	192,418	96			
PV_WP_S2	Between Groups	15,256	1	15,256	7,167	0,009
	Within Groups	217,126	102	2,129		
	Total	232,382	103			
PV_WP_S3	Between Groups	4,975	1	4,975	2,574	0,112
	Within Groups	210,707	109	1,933		
	Total	215,682	110			

H8.1 c): Green Knowledge (GK) moderates the relationship between Transparency Perception (TRSP) and Green Trust/ Green Brand Image (TRST/GBI).

When looking at the results displayed in Table 68, it is seen that, when considering the whole sample, GK doesn't affect the relationship between TRSP and TRST/GBI ($p = 0.825 > 0.1$). Therefore, **the hypothesis is rejected**. And, as seen in hypothesis 3 (see Table 33), it is assumed that TRSP benefits TRST/GBI, independently of the levels of Green Knowledge.

However, it is curious to see that S2 contradicts the sample trend. In fact, in S2, GK seems to have a significant negative effect on the relationship (p = 0.089; β = -0.079), indicating that presenting highly detailed information without referencing blockchain, increases the impact of TRSP on TRST/GBI for less informed individuals.

Table 68 - H8.1 c) Hayes SPSS output summary

H8.1 c) Output Summary							
Criteria for Acceptance	**Universe**	**p**	**LLCI**	**ULCI**	**R^2**	**Level of Impact (Chin, 1998)**	**β**
Moderation of GK on TRSP and TRST/GBI is significant for the whole sample	Whole Sample	0,825	-0,053	0,041	0,437	Moderate	-0,006
	S1	0,575	-0,076	0,155	0,522	Moderate	0,039
	S2	0,089	-0,156	-0,003	0,426	Moderate	-0,079
	S3	0,967	-0,079	0,075	0,314	Moderate	-0,002

Thus, it may be the case that, not backing up sustainability claims with blockchain-enabled data (S3) generally penalizes impact of TRSP on TRST/GBI both for High and Low GK individuals. In contrast, when claims are backed up with evidence and blockchain is mentioned (S1), both individuals with high and low GK show equally high impacts of TRSP on TRST/GBI. On the other hand, in S2 where the information source is not disclosed, the impact of higher TRSP may actually be more crucial in increasing TRST/GBI of the less informed individuals.

To better understand the results, an Anova Test was conducted (Table 69), showing that there isn't a significant difference of TRST/GBI according to the level of GK. Nonetheless, once again it is curious to see that in S3, individuals with higher GK tended to have lower TRST/GBI, contrasting to the trend verified in scenarios with blockchain information (S1 and S2). This indicates that individuals with High GK tend to be less likely to develop TRST/GBI when faced with green claims that are not backed up with any evidence However, since the differences aren't significant, it isn't possible to "build theory" based on this assumption.

Table 70 - Descriptives Test for TRST/GBI for High and Low GK

Descriptives - TRST/GBI

		N	Mean	Std. Deviation	90% Confidence Interval for Mean Lower Bound	90% Confidence Interval for Mean Upper Bound
TRST_GBI	"LOW GK"	118	4,981	1,015	4,826	5,136
	"HIGH GK"	194	4,990	1,119	4,858	5,123
	Total	312	4,987	1,079	4,886	5,088
TSTGI_S1	"LOW GK"	34	5,193	1,075	4,881	5,505
	"HIGH GK"	63	5,270	1,045	5,050	5,490
	Total	97	5,243	1,051	5,066	5,420
TSTGI_S2	"LOW GK"	35	5,118	1,048	4,819	5,418
	"HIGH GK"	69	5,236	0,849	5,066	5,407
	Total	104	5,196	0,917	5,047	5,346
TSTGI_S3	"LOW GK"	49	4,735	0,911	4,516	4,953
	"HIGH GK"	62	4,433	1,260	4,166	4,700
	Total	111	4,566	1,125	4,389	4,743

Table 69 - ANOVA TRST/GBI for High and Low GK

ANOVA - TRST - GBI

		Sum of Squares	df	Mean Square	F	Sig.
TRST_GBI	Between Groups	0,007	1	0,007	0,006	0,938
	Within Groups	362,367	310	1,169		
	Total	362,374	311			
TSTGI_S1	Between Groups	0,129	1	0,129	0,116	0,734
	Within Groups	105,836	95	1,114		
	Total	105,966	96			
TSTGI_S2	Between Groups	0,321	1	0,321	0,380	0,539
	Within Groups	86,380	102	0,847		
	Total	86,702	103			
TSTGI_S3	Between Groups	2,488	1	2,488	1,985	0,162
	Within Groups	136,652	109	1,254		
	Total	139,140	110			

H8.2: Green Knowledge (GK) moderates the relationship between Green Trust/Green Brand Image (TRST/GBI) and Purchase Intention (PI).

The Hayes SPSS output, summarised in Table 71, suggests that GK has a significant negative impact on the relationship between TRST/GBI and PI ($p = 0.033 < 0.05$; $\beta = -0.110 < 0$), with a weak impact magnitude impact, ($R^2 = 0.26 < 0.33$). Thus, the **hypothesis is accepted** and the lower the level of GK, the higher the impact of TRST/GBI on PI.

Table 71 - H8.2 Hayes SPSS output summary

H8.2 Output Summary							
Criteria for Acceptance	**Universe**	**p**	**LLCI**	**ULCI**	**R^2**	**Level of Impact (Chin, 1998)**	**β**
Moderation of GK on TRST/GBI and PI is significant for the whole sample	Whole Sample	0,033	-0,195	-0,025	0,260	Weak	-0,110
	S1	0,432	-0,263	0,094	0,214	Weak	-0,085
	S2	0,065	-0,372	-0,022	0,311	Weak	-0,197
	S3	0,344	-0,196	0,053	0,262	Weak	-0,071

As seen in hypothesis 5 (Table 43), higher levels of TRST/GBI drive PI. At the same time, the results illustrated in Table 71 indicate that TRST/GBI will be even more crucial in driving PI among less knowledgeable individuals. This may be related to the fact that highly knowledgeable individuals are significantly more prone to having higher PI than less knowledgeable from the start, according to Yadav (2016), leading to a stronger importance of TRST/GBI to increase PI for less informed consumers.

Once again, looking at the results by scenario, S2 is the only one where the impact is significant ($p = 0.065 < 0.1$). This is due to the fact that when blockchain is mentioned (S1), there is an equally high and impact of TRST/GBI on PI, regardless the level of GK. On the other hand, not backing up green claims with any facts (S3) also generates similar behaviours between more and less informed individuals, with a positive impact of TRST/GBI on PI, but with overall lower levels of TRST/GBI and PI compared to the remaining scenarios (see Table 64 and Table 69). In sum, the biggest differences of behaviour between more and less knowledgeable consumers are found in intermediate scenario (S2), that had blockchain-enabled detail regarding the supply chain but didn't make any reference to the technology.

H8.3: Green Knowledge (GK) moderates the relationship between Perceived Value/Willingness to Pay (PV/WTP) and Purchase Intention (PI).

The results shown in Table 72 suggest that GK significantly impacts the relationship between PV/WTP and PI in a negative direction, with a moderate impact ($p = 0.030 < 0.1$; $\beta = -0.073 < 0$; $R^2 = 0.358$). So, the **hypothesis is accepted.**

Table 72 - H8.3 Hayes SPSS output summary

H8.3 Output Summary							
Criteria for Acceptance	**Universe**	**p**	**LLCI**	**ULCI**	**R^2**	**Level of Impact (Chin, 1998)**	**β**
Moderation of GK on PV/WTP and PI is significant for the whole sample	Whole Sample	0,030	-0,128	-0,018	0,358	Moderate	-0,073
	S1	0.526	-0,066	0,147	0,352	Moderate	0,041
	S2	0,006	-0,254	-0,065	0,396	Moderate	-0,159
	S3	0,668	-0,115	0,068	0,360	Moderate	-0,024

As seen in hypothesis 6 (Table 44), higher PV/WTP positively impacts PI. Simultaneously, the results illustrated on Table 72 indicate that PV/WTP will be even more crucial in driving PI among less knowledgeable individuals. This may be related to the fact that highly knowledgeable individuals are significantly more prone to having higher PI than the less knowledgeable from the start (Yadav, 2016), making the importance of PV/WTP to drive PI, even stronger for the less informed.

Looking at the results per scenario, it is visible that S2 was the only one with a significant interaction ($p = 0.006$; $\beta = -0.159$). This means that, when blockchain is mentioned (S1), there is an equally high impact of PV/WTP on PI, regardless the level of GK. On the other hand, not backing up green claims with any information about the supply chain (S3) also generates similar behaviours between more and less informed individuals, with a positive impact of PV/WTP on PI, but with overall lower levels of PV/WTP and PI compared to the remaining scenarios (see Table 64 and Table 67). Thus, the biggest differences of behaviour between "High" and "Low" GK consumers are found in intermediate scenario (S2), that had blockchain-enabled detail regarding the supply chain but didn't make any reference to the technology.

4.4. Discussion of the Results

The aim of this research was to test blockchain-enabled technology as a tool to improve consumers green perception and motivate environmentally friendly purchase behaviour in the fashion industry.

The main findings, summarized in Table 73, show that providing consumers with blockchain detail about the fashion supply chain is a powerful way to impact transparency perceptions, green trust, and green brand image. However, blockchain in itself didn't present as the most effective tool in strengthening the impact of transparency perception on purchase intention.

Table 73- Hypothesis Testing Summary

Revised Hypothesis	Outcome
H0: Presenting consumers with blockchain-enabled information increases TRSP	Accepted
H1: Blockchain-enabled TRSP about fashion supply chain sustainability increases PI.	Rejected
H2: Blockchain-enabled TRSP about fashion supply chain sustainability increases PV/ WTP.	Rejected
H3: Blockchain-enabled TRSP about fashion supply chain sustainability increases TRST/GBI.	Accepted
H4: GS moderates the relationship between blockchain-enabled TRSP and TRST/ GBI.	Accepted
H5: TRST/GBI positively influences PI.	Accepted
H6: PV/WTP positively influences PI.	Accepted
H7.1: GC moderates the relationship between blockchain-enabled TRSP and	
(a) PI	Accepted
(b) PV/WTP	Accepted
(c) TRST/ GBI	Accepted
H7.2: GC moderates the relationship between TRST/GBI and PI	Accepted
H7.3: GCs moderates the relationship between PV/WTP and PI	Rejected
H8.1: GK moderates the relationship between blockchain-enabled TRSP and	
(a) PI	Rejected
(b) PV / WTP	Rejected
(c) TRST/ GBI	Rejected
H8.2: GK moderates the relationship between TRST/GBI and PI	Accepted
H8.3: GK moderates the relationship between PV/WTP and PI	Accepted

First, presenting consumers with blockchain-enabled detail regarding the fashion supply chain to back up green claims (as what was done in scenarios 1 and 2), significantly benefited Transparency Perceptions. These findings aligned with the research of several authors such as Bettín-Díaz (2018), Kshetri (2021), and Chang (2019), who have referred to blockchain as an effective technology to communicate with consumers transparently regarding sustainability. Thus, the current study reinforces the beneficial impact of blockchain-enabled information in driving transparency perception.

Then, in hypothesis 1, it was found that blockchain didn't bring strong advantages in this interaction between Transparency Perception and Purchase Intention. In fact, when compared to S3 (where there wasn't any supply chain information to back up the presented green claim), blockchain-enabled information presented in S1 and S2 didn't strengthen the impact of transparency perception on purchase intention. In other words, individuals with high transparency perception will have higher purchase intention, regardless of the kind of information that is presented to them. In this sense, transparency perception benefits purchase intent, as found by Bhaduri and colleagues (2011), but blockchain doesn't bring strong advantages for the effect. Nonetheless, it is important to note that, when blockchain technology was mentioned (in S1), respondents showed significantly higher levels of purchase intention than respondents from scenario 3, who didn't have any data to back up the green claim. Thus, mentioning blockchain technology directly increases PI compared to situations where no evidence is given to support green claims.

In what accounts for Perceived Value / Willingness to Pay, the results in hypothesis 2 indicate, that transparency perception generally increased PV/WTP. However, blockchain scenarios (S1 and S2) didn't show any evident differences when compared to the control group (S3), which didn't disclose any supply chain information. Furthermore, PV/WTP was generally low and didn't differ with the information detail presented in the different scenarios, even for respondents with higher income. Thus, blockchain didn't present as a differentiating tool to boost Transparency Perception impact on Perceived Value / Willingness to Pay.

In fact, it was expected that detailed information about eco-friendly production processes (such as what was presented in scenarios 1 and 2) would aid consumers in understanding the reason behind the higher prices of sustainable products (McNeill et al., 2015). However, it is also relevant to consider the fast fashion business model has normalized low selling prices and a short product life cycle which has led to excessive consumption (McNeill et al., 2015). At the same time, ethical production requires higher manufacturing costs, leading to higher prices, which inhibits sustainable fashion consumption (Chekima et al., 2016). Also, according to Bennetta and Hill (2022), there is still a lack of consumer knowledge regarding the complexity of sustainable supply chains, with consumers primarily focusing on the more simplistic aspects such as reusing and recycling.

Nonetheless, regarding Perceived Value and willingness to Pay, the results of hypothesis 6 show that, higher PV/WTP positively influence PI, which supports the insights given by previous authors (Busalim et al., 2022, Kong et al., 2017). In this sense, communicating with consumers in ways that increase the perceived value of sustainable fashion should be a priority for eco-friendly brands as it will most likely convert into purchase intention. For that, a crucial step would be to educate consumers about the cost of sustainable fashion (Bennetta et al., 2022). Higher education on sustainability would also help shift consumers' decision-making process to extensive problem-solving, which would be beneficial for sustainable purchase behaviour (Adamkiewicz et al., 2022), since consumers would seek more information in order to make a decision that complies with sustainability criteria.

In hypothesis 3, it was possible to conclude that blockchain-enabled transparency can be a source of competitive advantage for green firms with regard to Green Trust / Green Brand Image. In fact, overall, transparency perception has a positive impact on Trust and Green Brand Image. And, when consumers are presented with blockchain-enabled detail (as in scenarios 1 and 2), the impact was stronger than in scenario 3, in which there wasn't any evidence to back up the green claim. This also translated to significantly higher Green Trust / Green Brand Image in the scenarios where the green claim was supported by blockchain evidence regarding the supply chain. These findings support the current literature, that suggests that blockchain is a powerful way to reduce perceived risk (Jain et al., 2021; Beck et al., 2018), being more trustworthy than traditional exchanges (Tan et al., 2022), thus leading to higher consumer trust (Wang et al., 2022).

Furthermore, it was found in hypothesis 4 that, the impact of Transparency Perception on increasing Green Trust / Green Brand Image was even stronger for sceptical individuals. This impact was the strongest in scenario 1, which mentioned blockchain while also presenting respondents with blockchain-enabled details about supply chain sustainability. In fact, sceptical individuals are information seekers (McNeill et al., 2015), which leads them to especially value when details, such as the information source, are disclosed. These conclusions are supported by Tan et al. (2022) who defend that blockchain is especially useful in uncertainty contexts. However, when consumers are presented with highly detailed information, but the source isn't disclosed (as in S2), Green Scepticism doesn't moderate Transparency Perception and Trust/Green Brand Image. So, presenting blockchain-enabled details without making mention of blockchain ad in S2, is equally valued both by individuals with and low levels of scepticism.

Finally, in hypothesis 5, it was possible to conclude that, when consumers had higher Trust and Green Brand Image, they developed stronger Purchase Intention. This reinforces the positive effects of Green Trust and Brand Image on purchase behaviour (Merrilees et al., 2016; Guerreiro et al., 2021; Majeed et al., 2022).

As a result, blockchain is an effective tool to help consumers differentiate genuinely green brands, build green trust and a more favourable green brand image, especially for highly sceptical individuals. Further, a green brand image leads to higher purchase intention, which reinforces the potential for blockchain-enabled transparency to build competitive advantage.

When studying the effects of Green Consciousness on the study variables, hypothesis 7, shows that for highly conscious individuals, Transparency Perception was even more important to increase Green Trust/Green Brand Image, Perceived Value/Willingness to Pay, and Purchase Intention. At the same time, highly conscious consumers were more likely to translate Green Trust/Green Brand Image into Purchase Intention. In contrast, Green Consciousness didn't moderate the relationship between PV/WTP and PI, which indicates that when consumers are able to develop Perceived Value / Willingness to pay, it benefits their Purchase Intentions, regardless of the levels of Green Consciousness.

Previous research shows that green-conscious consumers are more likely to pay premium and choose brands that they believe to be sustainable (Grimmer et al., 2012; Anselmsson et al., 2007). In this case, it is interesting to see that, Green Consciousness only moderated the relationship between Transparency Perception and: (I) PI and (II) PV/WTP in scenario 3, in which it wasn't presented any information on the supply chain. This indicates that blockchain-enabled information (as simulated in S1 and S2) has the power to translate Transparency Perception into PI and PV/WTP, both for highly conscious and least conscious individuals. On the other hand, when presented with vague claims (as in S3) conscious consumers can be more easily persuaded into purchasing items of misleading brands if they generate a false perception of transparency.

In contrast, when it comes to developing a trust bond with the brand, Green Consciousness only moderated Transparency Perception and TRST/GBI, in scenario 1, in which consumers were presented with highly detailed information about the supply chain, while also mentioning blockchain as the information source. According to McNeill and Moore (2015) conscious individuals have higher uncertainty about which brands to trust. Therefore, highly for Conscious Individuals to develop higher TRST/GBI, it is crucial to ensure Transparency perception, not only by backing up sustainability claims with blockchain-enabled detail but also by mentioning the information source, providing the highest possible level of transparency (as in the scenario 1).

In sum, it is curious to see that, conscious individuals require higher information detail than less conscious in order to translate transparency perception into Green Trust and Green Brand Image. However, at the same time, they are also more predisposed to give the benefit of the doubt to brands that don't provide any evidence for their green claims in order to translate Transparency Perception into Purchase Intention and also Perceived Value / Willingness to Pay.

Finally in hypothesis 8.1, Green Knowledge didn't moderate the relationships between Transparency Perception and PI; PV/WTP; nor TRST/GBI. Thus, Transparency Perception generates equally positive outcomes both for knowledgeable and less informed individuals.

Yet, in hypotheses 8.2 and 8.3, Green Knowledge negatively moderated the impacts of Perceived Value / Willingness to Pay, and Trust/Green Brand Image, on Purchase Intention. In fact, highly knowledgeable consumers are more aware of their impact on the planet, showing a higher predisposition for ethical consumption (Yadav et al., 2016; Blazquez et al., 2020). As a result, increased Trust / Green Brand Image, and Perceived Value / Willingness to pay will actually be more impactful in increasing the Purchase Intention of less informed consumers.

Further, note that these Green Knowledge moderations were only significant in scenario 2, where respondents were presented with detailed information without mentioning blockchain. In scenario 1 (with blockchain-enabled information and source disclosure), blockchain-enabled information had the power, to encourage sustainable purchase intention both for highly conscious individuals and for less informed. Otherwise, in scenario 3 (without any supply chain information) highly and less informed individuals had overall lower levels of PV/WTP and PI.

5. Conclusions

The climate emergency is leading to higher consumer demand for conscious products. However, due to the increasingly common greenwashing cases, consumers are confused and sceptical. This issue penalizes consumers' overall levels of trust (Adamkiewicz et al., 2022), which is an obstacle to sustainable consumption (Mandaric et al., 2021). Hence, one of the main challenges for sustainable companies in the current context is to communicate their green practices in a way that allows them to maximize green marketing effectiveness through brand reputation and purchase intention.

Several authors (Treiblmaier, 2019; Kshetri, 2021) and institutions (European Commission; 2020) have recognized blockchain as an effective tool to track sustainability policies by guaranteeing accountability, regulatory control, and inhibiting unethical behaviour, especially in highly sceptical contexts, such as the fashion industry (Tan et al. 2022). This topic is gaining even more relevance with corporations such as H&M starting to implement blockchain models to increase trust and satisfaction.

Therefore, it is crucial to accelerate the investigation of the impacts that backing up green claims with transparent evidence attained through blockchain can have on consumer perceptions and purchase intentions. Thus, the following research questions were proposed:

RQ1: *"Does blockchain-enabled transparency about fashion supply chain sustainability make green marketing efforts more effective by improving consumers' brand perceptions*?

RQ2: *"Does blockchain-enabled transparency about fashion supply chain sustainability make green marketing efforts more effective by encouraging purchase behaviour?*

In order to respond to the research questions, an online survey was distributed in which respondents were exposed to the stimuli of a basic t-shirt selling at 35€, with an eco-friendly claim. Further, three scenarios were elaborated, through which the respondents were randomly distributed. S1 had highly detailed information to back up the green claim and blockchain was referenced as the information source. S2 had the same level information of S1 but blockchain wasn't mentioned. Finally, S3 didn't offer any evidence to back up the green claim.

After, Linear Regressions were computed, and the scenarios were compared in order to see the effects of blockchain-enabled Transparency Perception on Green Trust / Green Brand Image, Perceived Value / Willingness to Pay, and Purchase Intention. Further, Green Scepticism, Green Knowledge and Green Consciousness were studied as moderators for the model.

5.1. Contributions to Theory

Despite the increasingly high relevance of the topic, blockchain is still mainly investigated for its applications to finances (Kshetri, 2021). Thus, there is still a gap in the literature on how blockchain can be applied to marketing (Jain et al., 2021), especially in the specific case of the fashion industry. Therefore, the current study contributes to a deeper knowledge of the application of blockchain

technology to marketing, more specifically, on the effects that communicating with blockchain can have on green consumer behaviour.

Furthermore, there is still a lack of quantitative research as well as no collection of consumer insights on the topic. In fact, the most common methods used are case study analysis and in-depth interviews with executive managers (Kshetri, 2021; Wang et al., 2022). Therefore, the study also innovates by conducting quantitative research, by distributing an online survey targeted to fashion consumers.

It was found that, on the one hand, blockchain-enabled transparency perception positively impacted, green trust, and green brand image, especially for the more sceptical consumers. Therefore, providing blockchain-enabled details regarding fashion supply chains is beneficial in generating competitive advantage by helping genuine firms to distance themselves from greenwashing, especially for highly sceptical individuals. Further, Green Trust / Green Brand Image was proven to be an important driver of Purchase Intention.

At the same time, consumers weren't more prone to translate transparency perception into PV/WTP when presented with blockchain-enabled details. Nonetheless, referencing blockchain (S1) directly impacted Purchase Intention in a positive direction.

Moreover, the levels of PV/WTP remained generally low regardless of the level of information detail presented to respondents. Nonetheless, it was found that the higher the perceived value, the higher the purchase intentions. Thus, increasing PV/WTP should be a priority for truthful and transparent brands in order to drive purchases.

Furthermore, the higher the consumer's green consciousness, the stronger the importance of transparency perception on increasing green trust/green brand image, perceived value/willingness to pay, and purchase intention. At the same time, highly conscious consumers were more likely to translate green trust/green brand image into purchase intention. In contrast, green knowledge negatively impacted the effects of PV/WTP and of TRST/GBI on PI. It was shown that highly knowledgeable individuals had higher PV/WTP and TRST/GBI than the less informed. In this sense, perceived value/willingness to pay, and higher green trust/green brand image will be more important in increasing the purchase intention of individuals with less knowledge.

5.2. Managerial Implications

With these findings in mind, it is possible to recommend that blockchain is especially effective for brands that want to mark a strong sustainability positioning. In the current sceptical context, consumers tend to doubt sustainability claims, even when the is no evidence of misconduct (De Jong et al., 2018), which makes it challenging for genuine brands to effectively communicate and get the earned reputational benefits for their ethical practices. In other cases, there are brands that get

scrutinized for past misbehaviour, finding it difficult to regain consumer trust. Backing up green claims with blockchain-enabled information is an effective way to overcome these kinds of difficulties, improving green trust and green brand image, especially for the more sceptical and highly conscious consumers. This differentiation through green trust / green brand image will likely be reflected in sales as TRST/GBI was found to increase purchase intention.

Moreover, the fact that consumers are used to the low prices practiced by fast fashion firms leads them to be less willing to pay for higher prices inherent to sustainable clothing, penalizing purchase intention (Chekima et al., 2016). According to Bennetta and Hill (2022), consumers still lack education regarding the complexity of a sustainable supply chain. Therefore, even if presented with details about the fashion supply chain, consumers still may have difficulties in understanding how those policies implicate higher production costs, leading to higher prices. In this sense, it is crucial to educate consumers on the complexity of the supply chain, not limiting sustainability knowledge to the basics of recycling and reusing (Bennetta et al., 2022). Further, increased education on sustainability would also help shift the consumer decision-making process to extensive problem-solving, which would be beneficial for sustainable purchase behaviour (Adamkiewicz et al., 2022), since consumers would seek more information in order to make a decision that complies with sustainability criteria.

Finally, mentioning blockchain when talking about supply chain sustainability can actually directly increase consumer purchase intention, which is a great indicator of competitive advantage.

In sum, blockchain is particularly effective in making genuine brands stand out from greenwashing and it is recommended for brands to invest in this technology when they want to consolidate their positioning as environmentally conscious. At the same time, companies can also mention blockchain when the main objective is to directly increase purchase intention. On the other hand, if the goal is to increase consumers' perceived value or willingness to pay, an important first step would be to educate consumers on the complexity of fashion supply chains.

5.3. Limitations and Future Research

Although the present work constitutes relevant contributions to scholars and managers, it is still subject to some limitations.

First, despite the efforts to distribute the survey in several online outlets to collect the most diverse sample possible, due to resource constraints it wasn’t possible to collect a sample truly diverse. In this case, there was a higher incidence in women (67%) and young adults (38%). Additionally, respondents were automatically randomly directed to one of the three scenarios, and control questions were made to test respondents' attention to the survey, guaranteeing data quality. However, it was identified that scenario 2 had significantly lower scores than the remaining scenarios in one of the control questions. In this way, for future research, data collection can be more extensive, capturing a more diverse

sample. Further, as the survey was long, it would be beneficial to have a reward for respondents completing the survey, encouraging them to pay more attention to the information that is provided.

Secondly, the stimuli presented in the survey were based on a fictional brand. The aim was to avoid the risk of respondents' personal tastes and previous brand conceptions compromising the results. However, brand awareness is a crucial factor in consumer behaviour. Therefore, it would be interesting to investigate how blockchain transparency can influence previous brand conceptions of familiar brands. Moreover, it would be important to investigate how the consumer would react to blockchain information in a store environment. It would be important to see, for example, if in a real-case scenario, consumers would take the time needed to evaluate the information.

Finally, it would be interesting to study how complementing blockchain-enabled detail regarding the sustainability of the supply chain with a breakdown of the inherent costs would affect factors such as perceived value, willingness to pay, and purchase intention.

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Appendixes

Appendix A - Average Proce of Organic Cotton T-Shirts

Brand (link)	Material	Price
Ten Tree	"45% Recycled Polyester, 30% TENCEL™ Lyocell, 25% Organic Cotton"	$40,00
Patagonia	"55% hemp/45% organic cotton jersey"	$30,99
Kotn	"100% long-staple Egyptian cotton in a mid-weight jersey"	$28,00
Calvin Klein	"51% organic cotton 49% cotton"	€ 34,90
Benetton	"Elastic Organic Cotton"	€ 39,95
Harvest & Mill	"100% organic cotton USA grown"	$48,00
Pact	"100% organic cotton"	€ 48,00
Organic Basics EU	"100% organic cotton"	€ 28,00
For Days	"100% GOTs Certified Organic Cotton Slub"	$34,00
Fair Indigo	"100% Organic Cotton"	$36,90
Average in €		€ 34,91

Appendix B - Survey (Portuguese)

Introdução

Olá!

O meu nome é Beatriz Miguel e sou aluna do 2º ano do Mestrado em Marketing no ISCTE-IUL. No âmbito da minha Dissertação de Mestrado, estou a realizar um questionário direcionado a consumidores da indústria têxtil.

Peço que responda a este inquérito de forma sincera, sendo que as respostas são anónimas e serão analisadas exclusivamente para fins académicos. Ao longo do inquérito, responda às questões selecionando a opção com que mais se identifica, sendo que não existem respostas certas ou erradas.

Agradeço muito a sua colaboração, que é essencial para este trabalho!

Qualquer questão disponha!
Beatriz Miguel
bsrml@iscte-iul.pt

Aceito participar neste estudo.

- ○ Sim
- ○ Não

Comprou alguma peça de roupa nos últimos 12 meses?

- ○ Sim
- ○ Não

Estímulo – Cenário 1:

Por favor, imagine um cenário no qual encontra a t-shirt abaixo, numa loja de roupa.

Imagine que a t-shirt apresentada tem uma etiqueta que, para além de ter informação de preço (35€), também comunica uma mensagem de sustentabilidade.

Imagine que esta marca utiliza a tecnologia e blockchain de forma a controlar o seu processo produtivo. Para que possa saber mais sobre a produção da t-shirt, a etiqueta tem um código QR que pode ler através do seu smartphone. Ao fazer o scan do código QR, é direcionado para uma página web com informação detalhada, obtida através da tecnologia blockchain, sobre o processo de fabrico da t-shirt, tal como se segue abaixo.

Estímulo – Cenário 2:

Por favor, imagine um cenário no qual encontra a t-shirt abaixo, numa loja de roupa.

Imagine que a t-shirt apresentada tem uma etiqueta que, para além de ter informação de preço (35€), também comunica uma mensagem de sustentabilidade.

Para que possa saber mais sobre a sustentabilidade do processo produtivo, a etiqueta tem um código QR que pode ler através do seu smartphone. Ao fazer o scan do código QR, é direcionado para uma página web com informação detalhada sobre o processo produtivo da t-shirt, como segue abaixo.

Perguntas de Controlo

Percebi bem a informação descrita na página anterior.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

A página anterior mostra informação relativa ao processo de fabrico da t-shirt apresentada.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

A página anterior mostra informação relativa à estratégia de redes sociais da marca apresentada.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

A infomação apresentada anteriormente é obtida através da tecnologia de blockchain.*

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

* Exclusivamente no S1

Deseja voltar a ver a informação descrita anteriormente?

- ○ Sim
- ○ Não

Página 1: Perguntas TRSP

Tendo em conta a informação que viu anteriormente, por favor diga o seu grau de concordância com as afirmações que se seguem.

Esta marca dá-me a informação necessária para perceber o impacto ambiental do seu processo produtivo.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Esta marca dá-me informação relevante sobre os problemas ambientais relacionados com o seu processo produtivo.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Esta marca dá-me informação sobre as suas políticas e comportamentos ambientais de forma clara e completa.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Página 2: Perguntas TRST

Os compromissos ambientais desta marca são fiáveis.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

O desempenho ambiental desta marca é seguro.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Os argumentos ambientais desta marca são confiáveis.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Esta marca cumpre com as suas promessas e compromissos de proteção do ambiente.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Página 3: Perguntas GBI

Esta marca deveria ser vista como um exemplo no que respeita a compromissos ambientais.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Esta marca é séria quanto aos seus compromissos ambientais.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Esta marca é bem sucedida no que respeita a sustentabilidade ambiental.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Página 4: Perguntas PV + WTP

Tendo em conta o preço (35€), esta T-shirt é económica.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Considero que o preço desta T-shirt (35€) é aceitável.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Esta T-shirt é um excelente negócio.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Estou disposto a pagar mais por esta t-shirt face a outras alternativas do mercado.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Página 5: Perguntas PI

Compraria esta t-shirt.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Estaria disposto a comprar mais produtos desta marca.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Ficaria satisfeito por comprar peças de roupa desta marca.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Página 6: Perguntas GK

Nas questões que se seguem, escolha por favor, a opção que considera mais correta.

Os processos comuns de coloração de têxteis utilizam químicos nocivos que poluem a água e o ar.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

É necessário um consumo de água extremamente elevado para produzir cada peça de roupa.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

O modelo de "fast fashion" contribui substancialmente para a quantidade de produtos têxteis que são descartados em lixeiras.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Página 7: Perguntas GC

Nas questões que se seguem, escolha por favor, a opção com que mais se identifica.

Para mim é extremamente importante que as empresas tenham comportamentos responsáveis no que respeita a assuntos ambientais.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Estou preocupado com os problemas ambientais.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Sinto uma obrigação ética em evitar marcas que poluem o ambiente.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Sinto uma obrigação ética em comprar produtos de marcas que vendem produtos sustentáveis.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Página 8: Perguntas GS

A maioria das alegações ambientais feitas pelas marcas de moda são falsas.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Como as alegações de sustentabilidade feitas na indústria da moda são exageradas, os consumidores ficariam melhor se as mesmas fossem eliminadas.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

A maioria das alegações de sustentabilidade feitas pelas marcas de moda servem para enganar os consumidores e não para os informar.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Não acredito na maioria das alegações de sustentabilidade feitas por marcas de moda.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Página 9: Perguntas de Caracterização da Amostra

Qual a sua faixa etária?

- ○ 18-25
- ○ 26-35
- ○ 36-45
- ○ 46-55
- ○ 56-65
- ○ >66

Com que género se identifica?

- ○ Feminino
- ○ Masculino
- ○ Outro

Qual a sua ocupação?

- ○ Desempregado
- ○ Estudante
- ○ Trabalhador - Edudante
- ○ Empregado
- ○ Reformado

Qual o último grau de educação que completou?

- ○ Ensino primário
- ○ Ensino básico
- ○ Ensino secundário
- ○ Licenciatura
- ○ Mestrado
- ○ Doutoramento

Qual é o seu rendimento médio anual bruto?

- ○ < 11 000€
- ○ 11 000€ - 20 000€
- ○ 20 000€ - 30 000€
- ○ 30 000€ - 40 000€
- ○ > 40 000€
- ○ Prefiro não responder

Sei o que é a tecnologia de blockchain.

- ○ Discordo Totalmente
- ○ Discordo
- ○ Discordo Ligeiramente
- ○ Não Concordo Nem Discordo
- ○ Concordo Ligeiramente
- ○ Concordo
- ○ Concordo Totalmente

Appendix C - Survey (English)

Introduction

Hello!

My name is Beatriz Miguel and I'm currently enroled on year 2 of my MSC Programme in Marketing at ISCTE-IUL. In the scope of my master's dissertation, I am conducting a survey targeted towards fashion consumers.

I ask that you respond to this survey sincerely knowing that the responses are anonymous and used exclusively for academic purposes. Throughout the survey, respond to the questions by selecting the option to which you agree the most, being that there are no wrong or right answers.
I am deeply thankful for your collaboration, that is crucial for this project.

If you have any queries, feel free to reach out!
Beatriz Miguel bsrml@iscte-iul.pt

I accept to participate in this study

- ○ Yes
- ○ No

Have you purchased any item of clothing in the last 12 months?

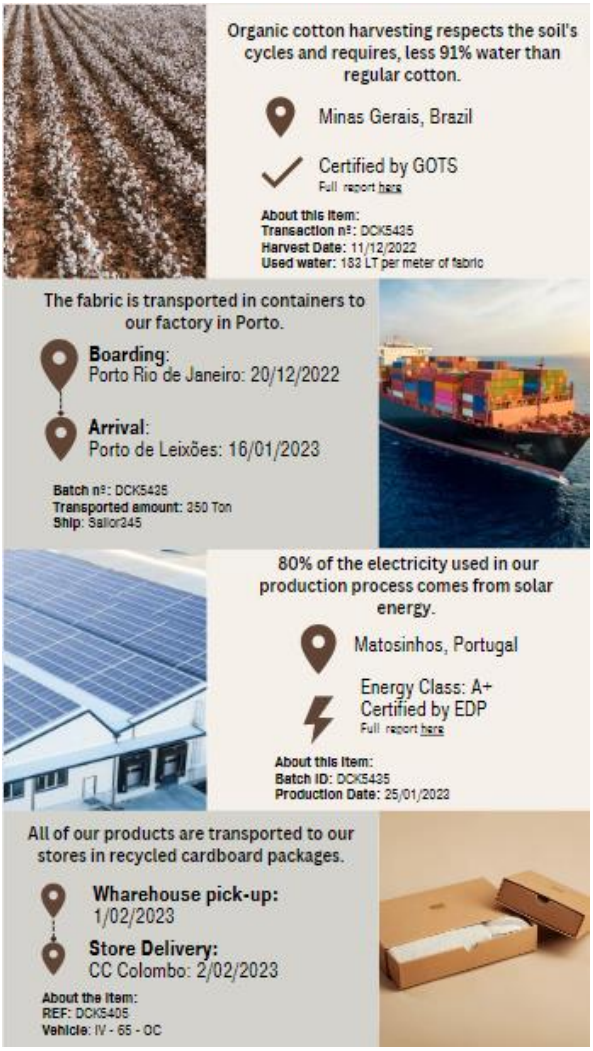
- ○ Yes
- ○ No

Stimuli – Scenario 1:

Please imagine a scenario in which you find the t-shirt bellow at a clothing store.

Envision that the presented t-shirt has a tag that, besides the price (35€), includes a communication message regarding sustainability:

Consider that this brand uses blockchain technology to control its production process. For you to know more about the production process of this t-shirt, the price tag has a QR Code that you can read with your smartphone. After scanning the QR code, you are directed to a web page with detailed information, obtained through blockchain, about the t-shirt's supply chain, as presented below.

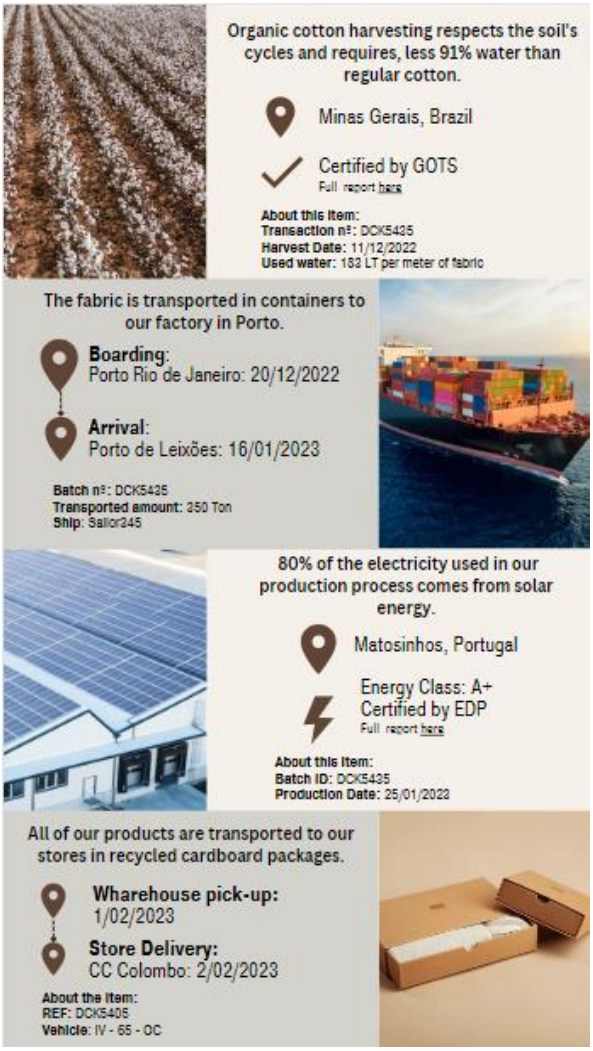


Stimuli – Scenario 2:

Please imagine a scenario in which you find the t-shirt bellow at a clothing store.

Envision that the presented t-shirt has a tag that, besides the price (35€), includes a communication message regarding sustainability:

For you to know more about the production process of this t-shirt, the price tag has a QR Code that you can read with your smartphone. After scanning the QR code, you are directed to a web page with detailed information, about the t-shirt's supply chain, as presented below.



Stimuli – Scenario 3:

Please imagine a scenario in which you find the t-shirt bellow at a clothing store.

Envision that the presented t-shirt has a tag that, besides the price (35€), includes a communication message regarding sustainability:

Control questions:

I correctly understood the information that was presented in the previous section

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither Agree nor Disagree
- Somewhat Agree
- Agree
- Strongly Agree

The previous page shows information about the t-shirt's production process

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither Agree nor Disagree
- Somewhat Agree
- Agree
- Strongly Agree

The previous page shows information about the brand's social media strategy

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither Agree nor Disagree
- Somewhat Agree
- Agree
- Strongly Agree

The presented information was obtained through blockchain technology*

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

*Exclusive to Scenario 1

Do you wish to see the information again?

- ○ Yes
- ○ No

Page 1: Transparency Perception:

Considering the information you've seen previously, please state your level of agreement with the following statements.

This brand provides the information needed to understand the environmental impact of its production processes.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

This brand provides relevant information regarding environmental issues associated with its production processes

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

The brand provides information about its environmental policies and practices in a clear and complete way

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Page 2: Green Trust

This brand's environmental commitments are reliable.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

This brand's environmental performance is safe.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

This brand keeps its promises and commitments for environmental protection.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

This brand's environmental argument is trustworthy.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Page 3: Green Brand Image

This brand should be regarded as a benchmark for environmental commitments.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

This brand is serious about its environmental commitments.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

This brand is successful in its terms of its environmental sustainability.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Page 4: Perceived Value and Willingness to Pay

Based on the price (35€), this T-shirt is very economical.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

This T-shirt is good value for money.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

I consider the price of this shirt to be acceptable.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

This t-shirt is a great deal.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

I am willing to pay more for this t-shirt than other market alternatives.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Page 5: Purchase Intention

I would buy this t-shirt

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

I would buy more items from this brand

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

I would be happy to purchase clothes from this brand.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Page 5: Green Knowledge

In the following items, please choose the option you find the most accurate.

Common textile dyeing processes use harmful chemicals that pollute air and water.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Extremely large amounts of water are required to produce a single fashion item.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Fast fashion has substantially contributed to the quantity of textile products discarded on landfills.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Page 6: Green Consciousness

In the following questions. please select the option you agree the most with.

It is extremely important to me that companies behave responsibly when it comes to environmental matters.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

I am concerned about environmental issues.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

I feel an ethical obligation to avoid brands that pollute the environment.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

I feel an ethical obligation to purchase environmentally friendly products.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Page 7: Green Scepticism

Most environmental claims made by fashion brands are false.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Because environmental claims on sustainable fashion are exaggerated, consumers would be better off if they were eliminated.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Most environmental claims made by fashion brands are intended to mislead rather than to inform consumers.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

I do not believe most environmental claims made by fashion brands.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Page 8: Screening Questions

What is your age?

- ○ 18-25
- ○ 26-35
- ○ 36-45
- ○ 46-55
- ○ 56-65
- ○ >66

What is your occupation?

- ○ Unemployed
- ○ Student
- ○ Working - Student
- ○ Emplyed
- ○ Retired

Which gender do you identify with?

- ○ Female
- ○ Male
- ○ Other

What is your completed level of education?

- ○ Ensino primário
- ○ Ensino básico
- ○ Ensino secundário
- ○ Licenciatura
- ○ Mestrado
- ○ Doutoramento

What is your annual income before taxes?

- ○ < 11 000€
- ○ 11 000€ - 20 000€
- ○ 20 000€ - 30 000€
- ○ 30 000€ - 40 000€
- ○ > 40 000€
- ○ Rather not respond

I know what blockchain technology is.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Appendix D - Cronbach's Alpha Complete Output

Scale: TRP

		N	%	Cronbach's Alpha	Nº of Items
Cases	Valid	312	100,0	0,797	2
	Excluded[a]	0	0,0		
	Total	312	100,0		

a. Exclusion based on all the variables of the process

Scale: PI

		N	%	Cronbach's Alpha	Nº of Items
Cases	Valid	312	100,0	0,871	2
	Excluded[a]	0	0,0		
	Total	312	100,0		

a. Exclusion based on all the variables of the process

Scale: TST_GBI

		N	%	Cronbach's Alpha	Nº of Items
Cases	Valid	312	100,0	0,942	7
	Excluded[a]	0	0,0		
	Total	312	100,0		

a. Exclusion based on all the variables of the process

Scale: PV_WTP

		N	%	Cronbach's Alpha	Nº of Items
Cases	Valid	312	100,0	0,865	4
	Excluded[a]	0	0,0		
	Total	312	100,0		

a. Exclusion based on all the variables of the process

Scale: GK

		N	%	Cronbach's Alpha	Nº of Items
Cases	Valid	312	100,0	0,798	3
	Excluded[a]	0	0,0		
	Total	312	100,0		

a. Exclusion based on all the variables of the process

Scale: GC

		N	%	Cronbach's Alpha	Nº of Items
Cases	Valid	312	100,0	0,828	4
	Excluded[a]	0	0,0		
	Total	312	100,0		

a. Exclusion based on all the variables of the process

Scale: GS

		N	%	Cronbach's Alpha	Nº of Items
Cases	Valid	312	100,0	0,828	4
	Excluded[a]	0	0,0		
	Total	312	100,0		

a. Exclusion based on all the variables of the process

Appendix E - Linear Regression SPSS Output

Hypothesis 1: Regression of TRSP on PI

Regression: TRSP on PI

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,325[a]	,106	,103	1,27512

a. Predictors: (Constant), TRSP

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	59,613	1	59,613	36,664	<,001[b]
	Residual	504,040	310	1,626		
	Total	563,653	311			

a. Dependent Variable: PI

b. Predictors: (Constant), TRSP

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2,943	,250		11,764	<,001	2,530	3,355
	TRSP	,287	,047	,325	6,055	<,001	,209	,365

a. Dependent Variable: PI

Regresstion TRSP on PI (S1)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,348[a]	,121	,112	1,02325

a. Predictors: (Constant), TRSP_S1

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13,670	1	13,670	13,055	<,001[b]
	Residual	99,469	95	1,047		
	Total	113,139	96			

a. Dependent Variable: PI_S1

b. Predictors: (Constant), TRSP_S1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3,058	,447		6,841	<,001	2,315	3,800
	TRSP_S1	,286	,079	,348	3,613	<,001	,154	,417

a. Dependent Variable: PI_S1

Regression TRSP on PI (S2)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,200[a]	,040	,031	1,49243

a. Predictors: (Constant), TRSP_S2

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9,500	1	9,500	4,265	,041[b]
	Residual	227,190	102	2,227		
	Total	236,690	103			

a. Dependent Variable: PI_S2

b. Predictors: (Constant), TRSP_S2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3,063	,663		4,620	<,001	1,963	4,164
	TRSP_S2	,245	,118	,200	2,065	,041	,048	,441

a. Dependent Variable: PI_S2

Regression TRSP on PI (S3)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,377[a]	,142	,134	1,26526

a. Predictors: (Constant), TRSP_S3

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28,901	1	28,901	18,053	<,001[b]
	Residual	174,495	109	1,601		
	Total	203,396	110			

a. Dependent Variable: PI_S3

b. Predictors: (Constant), TRSP_S3

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2,846	,336		8,469	<,001	2,289	3,404
	TRSP_S3	,310	,073	,377	4,249	<,001	,189	,431

a. Dependent Variable: PI_S3

Hypothesis 2: Regression of TRSP on PV/WTP

Regression: TRSP on PV/WTP

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,305[a]	,093	,090	1,37278

a. Predictors: (Constant), TRSP

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	59,761	1	59,761	31,711	<,001[b]
	Residual	584,205	310	1,885		
	Total	643,966	311			

a. Dependent Variable: PV_WTP

b. Predictors: (Constant), TRSP

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1,684	,269		6,252	<,001	1,239	2,128
	TRSP	,287	,051	,305	5,631	<,001	,203	,371

a. Dependent Variable: PV_WTP

Regression: TRSP on PV/WTP (S1)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,382[a]	,146	,137	1,31541

a. Predictors: (Constant), TRSP_S1

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28,040	1	28,040	16,205	<,001[b]
	Residual	164,378	95	1,730		
	Total	192,418	96			

a. Dependent Variable: PV_WTP_S1

b. Predictors: (Constant), TRSP_S1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	,961	,575		1,673	,098	,007	1,916
	TRSP_S1	,409	,102	,382	4,026	<,001	,241	,578

a. Dependent Variable: PV_WTP_S1

Regression: TRSP on PV/WTP (S2)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,165[a]	,027	,018	1,48881

a. Predictors: (Constant), TRSP_S2

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6,292	1	6,292	2,839	,095[b]
	Residual	226,090	102	2,217		
	Total	232,382	103			

a. Dependent Variable: PV_WTP_S2

b. Predictors: (Constant), TRSP_S2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2,129	,661		3,219	,002	1,031	3,227
	TRSP_S2	,199	,118	,165	1,685	,095	,003	,395

a. Dependent Variable: PV_WTP_S2

Regression: TRSP on PV/WTP (S3)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,352[a]	,124	,116	1,31672

a. Predictors: (Constant), TRSP_S3

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26,704	1	26,704	15,403	<,001[b]
	Residual	188,978	109	1,734		
	Total	215,682	110			

a. Dependent Variable: PV_WTP_S3

b. Predictors: (Constant), TRSP_S3

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1,711	,350		4,892	<,001	1,131	2,291
	TRSP_S3	,298	,076	,352	3,925	<,001	,172	,424

a. Dependent Variable: PV_WTP_S3

Hypothesis 3: Regression of TRSP on TRST/GBI

Regression: TRSP on TRST/GBI

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,661[a]	,436	,435	,81169

a. Predictors: (Constant), TRSP

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	158,132	1	158,132	240,013	<,001[b]
	Residual	204,242	310	,659		
	Total	362,374	311			

a. Dependent Variable: TRST_GBI

b. Predictors: (Constant), TRSP

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2,625	,159		16,486	<,001	2,362	2,888
	TRSP	,467	,030	,661	15,492	<,001	,417	,517

a. Dependent Variable: TRST_GBI

Regression: TRSP on TRST/GBI (S1)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,719[a]	,517	,512	,73423

a. Predictors: (Constant), TRSP_S1

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	54,752	1	54,752	101,563	<,001[b]
	Residual	51,214	95	,539		
	Total	105,966	96			

a. Dependent Variable: TST/GBI_S1

b. Predictors: (Constant), TRSP_S1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2,099	,321		6,544	<,001	1,566	2,632
	TRSP_S1	,572	,057	,719	10,078	<,001	,478	,666

a. Dependent Variable: TSTGI_S1

Regression: TRSP on TRST/GBI (S2)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,639[a]	,408	,403	,70911

a. Predictors: (Constant), TRSP_S2

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	35,412	1	35,412	70,423	<,001[b]
	Residual	51,290	102	,503		
	Total	86,702	103			

a. Dependent Variable: TSTGI_S2

b. Predictors: (Constant), TRSP_S2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2,618	,315		8,309	<,001	2,095	3,141
	TRSP_S2	,472	,056	,639	8,392	<,001	,379	,566

a. Dependent Variable: TSTGI_S2

Regression: TRSP on TRST/GBI (S3)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,553[a]	,306	,299	,94136

a. Predictors: (Constant), TRSP_S3

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42,549	1	42,549	48,015	<,001[b]
	Residual	96,591	109	,886		
	Total	139,140	110			

a. Dependent Variable: TSTGI_S3

b. Predictors: (Constant), TRSP_S3

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2,948	,250		11,789	<,001	2,533	3,363
	TRSP_S3	,376	,054	,553	6,929	<,001	,286	,466

a. Dependent Variable: TSTGI_S3

Hypothesis 5: Regression of TRST/GBI on PI

Regression: TRST/GBI on PI

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,467[a]	,219	,216	1,19202

a. Predictors: (Constant), TRST_GBI

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	123,173	1	123,173	86,687	<,001[b]
	Residual	440,480	310	1,421		
	Total	563,653	311			

a. Dependent Variable: PI

b. Predictors: (Constant), TRST_GBI

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1,485	,319		4,649	<,001	,958	2,012
	TRST_GBI	,583	,063	,467	9,311	<,001	,480	,686

a. Dependent Variable: PI

TRegression: TRST/GBI on PI (S1)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,456[a]	,208	,200	,93978

a. Predictors: (Constant), PI_S1

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22,063	1	22,063	24,982	<,001[b]
	Residual	83,902	95	,883		
	Total	105,966	96			

a. Dependent Variable: TSTGI_S1

b. Predictors: (Constant), PI_S1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3,199	,420		7,617	<,001	2,501	3,896
	PI_S1	,442	,088	,456	4,998	<,001	,295	,588

a. Dependent Variable: TSTGI_S1

Regression: TRST/GBI on PI (S2)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,460[a]	,212	,204	1,35245

a. Predictors: (Constant), TSTGI_S2

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	50,119	1	50,119	27,401	<,001[b]
	Residual	186,571	102	1,829		
	Total	236,690	103			

a. Dependent Variable: PI_S2

b. Predictors: (Constant), TSTGI_S2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	,448	,766		,585	,560	-,824	1,720
	TSTGI_S2	,760	,145	,460	5,235	<,001	,519	1,001

a. Dependent Variable: PI_S2

Regression: TRST/GBI on PI (S3)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,472[a]	,223	,216	,99585

a. Predictors: (Constant), PI_S3

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31,042	1	31,042	31,302	<,001[b]
	Residual	108,098	109	,992		
	Total	139,140	110			

a. Dependent Variable: TSTGI_S3

b. Predictors: (Constant), PI_S3

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2,933	,307		9,560	<,001	2,424	3,442
	PI_S3	,391	,070	,472	5,595	<,001	,275	,507

a. Dependent Variable: TSTGI_S3

Hypothesis 6: Regression of PV/WTP on PI

Regression PV/WTP on PI

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,583[a]	,340	,338	1,09548

a. Predictors: (Constant), PV_WTP

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	191,628	1	191,628	159,680	<,001[b]
	Residual	372,025	310	1,200		
	Total	563,653	311			

a. Dependent Variable: PI

b. Predictors: (Constant), PV_WTP

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2,682	,149		18,015	<,001	2,437	2,928
	PV_WTP	,546	,043	,583	12,636	<,001	,474	,617

a. Dependent Variable: PI

Regression PV/WTP on PI (S1)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,590[a]	,349	,342	1,14869

a. Predictors: (Constant), PI_S1

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	67,066	1	67,066	50,828	<,001[b]
	Residual	125,351	95	1,319		
	Total	192,418	96			

a. Dependent Variable: PV_WTP_S1

b. Predictors: (Constant), PI_S1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-,353	,513		-,687	,494	-1,205	,500
	PI_S1	,770	,108	,590	7,129	<,001	,591	,949

a. Dependent Variable: PV_WTP_S1

Regression PV/WTP on PI (S2)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,571[a]	,327	,320	1,25008

a. Predictors: (Constant), PV_WTP_S2

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	77,294	1	77,294	49,462	<,001[b]
	Residual	159,396	102	1,563		
	Total	236,690	103			

a. Dependent Variable: PI_S2

b. Predictors: (Constant), PV_WTP_S2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2,544	,291		8,747	<,001	2,061	3,027
	PV_WTP_S2	,577	,082	,571	7,033	<,001	,441	,713

a. Dependent Variable: PI_S2

Regression PV/WTP on PI (S3)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,597[a]	,356	,350	1,12865

a. Predictors: (Constant), PI_S3

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	76,833	1	76,833	60,316	<,001[b]
	Residual	138,850	109	1,274		
	Total	215,682	110			

a. Dependent Variable: PV_WTP_S3

b. Predictors: (Constant), PI_S3

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	,424	,348		1,219	,225	-,153	1,001
	PI_S3	,615	,079	,597	7,766	<,001	,483	,746

a. Dependent Variable: PV_WTP_S3

Appendix F - SPSS Hayes Moderation Output

Hypothesis 4: Moderation of GS on TRST and PI

Model : 1
Y : TRST_GBI
X : TRSP
W : GS

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,6753	0,456	0,64	86,0652	3	308	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	4,383	0,555	7,904	0,000	3,468	5,297
TRSP	0,175	0,101	1,727	0,085	0,008	0,342
GS	-0,422	0,128	-3,305	0,001	-0,632	-0,211
Int_1	0,070	0,023	3,012	0,003	0,032	0,108

Model : 1
Y : TSTGI_S1
X : TRSP_S1
W : GS_S1

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,7334	0,5379	0,5265	36,0864	3	93	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	4,872	1,379	3,533	0,001	2,581	7,162
TRSP_S1	0,124	0,230	0,538	0,592	-0,259	0,506
GS_S1	-0,649	0,314	-2,066	0,042	-1,171	-0,127
Int_1	0,105	0,052	2,016	0,047	0,018	0,191

Model : 1
Y : TSTGI_S2
X : TRSP_S2
W : GS_S2

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,6445	0,4153	0,5069	23,6782	3	100	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,516	1,303	2,698	0,008	1,352	5,679
TRSP_S2	0,355	0,219	1,622	0,108	-0,008	0,719
GS_S2	-0,193	0,281	-0,688	0,493	-0,659	0,273
Int_1	0,0242	0,0475	0,5086	0,6122	-0,0547	0,103

Model : 1
Y : TSTGI_S3
X : TRSP_S3
W : GS_S3

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,5866	0,3441	0,853	18,709	3	107	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	4,863	0,814	5,975	0,000	3,512	6,213
TRSP_S3	0,015	0,179	0,083	0,934	-0,282	0,312
GS_S3	-0,475	0,193	-2,465	0,015	-0,794	-0,155
Int_1	0,0896	0,0428	2,0952	0,0385	0,0187	0,1606

Hypothesis 7.1 a): Moderation of GC on TRSP and PI

Model : 1
Y : PI
X : TRSP
W : GC

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,4413	0,1947	1,4737	24,8265	3	308	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	4,534	1,397	3,247	0,001	2,230	6,839
TRSP	-0,480	0,270	-1,781	0,076	-0,925	-0,036
GC	-0,251	0,237	-1,060	0,290	-0,641	0,140
Int_1	0,126	0,045	2,789	0,006	0,052	0,201

Model : 1
Y : PI_S1
X : TRSP_S1
W : GC_S1

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,3865	0,1494	1,0348	5,4437	3	93	0,0017

Model

	coeff	se	t	p	LLCI	ULCI
constant	7,081	3,162	2,239	0,028	1,827	12,334
TRSP_S1	-0,531	0,549	-0,968	0,336	-1,442	0,381
GC_S1	-0,666	0,524	-1,270	0,207	-1,536	0,205
Int_1	0,135	0,090	1,494	0,139	-0,015	0,285

Model : 1
Y : PI_S2
X : TRSP_S2
W : GC_S2

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,53	0,2809	1,7021	13,0199	3	100	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	-0,247	3,016	-0,082	0,935	-5,254	4,761
TRSP_S2	-0,001	0,533	-0,001	0,999	-0,886	0,885
GC_S2	0,639	0,542	1,179	0,241	-0,261	1,538
Int_1	0,030	0,095	0,313	0,755	-0,128	0,187

Model : 1
Y : PI_S3
X : TRSP_S3
W : GC_S3

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,4739	0,2246	1,4741	10,3282	3	107	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	7,417	2,209	3,358	0,001	3,752	11,082
TRSP_S3	-1,257	0,553	-2,274	0,025	-2,174	-0,340
GC_S3	-0,739	0,366	-2,022	0,046	-1,346	-0,133
Int_1	0,257	0,091	2,830	0,006	0,106	0,407

Hypothesis 7.1 b): Moderation of GC on TRSP and PV/WTP

Model : 1
Y : PV_WTP
X : TRSP
W : GC

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,4007	0,1605	1,7551	19,6354	3	308	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	2,334	1,524	1,531	0,127	-0,180	4,849
TRSP	-0,283	0,294	-0,960	0,338	-0,768	0,203
GC	-0,090	0,258	-0,349	0,727	-0,516	0,336
Int_1	0,093	0,049	1,877	0,062	0,011	0,174

Model : 1
Y : PV_WP_S1
X : TRSP_S1
W : GC_S1

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,4713	0,2221	1,6094	8,8516	3	93	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	4,663	3,943	1,182	0,240	-1,889	11,214
TRSP_S1	-0,614	0,684	-0,897	0,372	-1,750	0,523
GC_S1	-0,596	0,654	-0,912	0,364	-1,682	0,490
Int_1	0,167	0,113	1,480	0,142	-0,020	0,354

Model : 1
Y : PV_WP_S2
X : TRSP_S2
W : GC_S2

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,4049	0,1639	1,9429	6,5348	3	100	0,0004

Model

	coeff	se	t	p	LLCI	ULCI
constant	-4,567	3,223	-1,417	0,160	-9,917	0,784
TRSP_S2	0,813	0,570	1,428	0,157	-0,133	1,759
GC_S2	1,247	0,579	2,154	0,034	0,286	2,208
Int_1	-0,1222	0,1015	-1,2043	0,2313	-0,2907	0,0463

Model : 1
Y : PV_WP_S3
X : TRSP_S3
W : GC_S3

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,4116	0,1694	1,6743	7,2736	3	107	0,0002

Model

	coeff	se	t	p	LLCI	ULCI
constant	4,716	2,354	2,003	0,048	0,810	8,621
TRSP_S3	-0,814	0,589	-1,382	0,170	-1,792	0,164
GC_S3	-0,482	0,390	-1,236	0,219	-1,128	0,165
Int_1	0,1816	0,0966	1,8797	0,0629	0,0213	0,3418

Hypothesis 7.1 b): Moderation of GC on TRSP and TRST/GBI

Model : 1
Y : TRST_GBI
X : TRSP
W : GC

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,6729	0,4527	0,6439	84,9375	3	308	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,966	0,923	4,296	0,000	2,443	5,489
TRSP	0,075	0,178	0,421	0,674	-0,219	0,369
GC	-0,224	0,156	-1,430	0,154	-0,482	0,035
Int_1	0,066	0,030	2,191	0,029	0,016	0,115

Model : 1
Y : TSTGI_S1
X : TRSP_S1
W : GC_S1

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,7475	0,5588	0,5027	39,2678	3	93	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	7,601	2,204	3,449	0,001	3,939	11,262
TRSP_S1	-0,484	0,382	-1,266	0,209	-1,119	0,151
GC_S1	-0,914	0,365	-2,501	0,014	-1,521	-0,307
Int_1	0,175	0,063	2,779	0,007	0,070	0,280

Model : 1
Y : TSTGI_S2
X : TRSP_S2
W : GC_S2

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,6611	0,437	0,4881	25,872	3	100	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	1,744	1,615	1,080	0,283	-0,937	4,426
TRSP_S2	0,454	0,286	1,591	0,115	-0,020	0,928
GC_S2	0,167	0,290	0,574	0,567	-0,315	0,648
Int_1	0,000	0,051	0,003	0,998	-0,084	0,085

Model : 1
Y : TSTGI_S3
X : TRSP_S3
W : GC_S3

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,5688	0,3235	0,8796	17,059	3	107	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	5,049	1,706	2,959	0,004	2,218	7,880
TRSP_S3	-0,280	0,427	-0,655	0,514	-0,988	0,429
GC_S3	-0,343	0,282	-1,215	0,227	-0,812	0,126
Int_1	0,108	0,070	1,539	0,127	-0,008	0,224

Hypothesis 7.2) - Moderation of GC on TRST/GBI and PI

Model : 1
Y : PI
X : TRST_GBI
W : GC

Sample Size: 312

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,5278	0,2786	1,3202	39,6524	3	308	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,635	1,914	1,899	0,059	0,476	6,793
TRST_GBI	-0,250	0,387	-0,645	0,520	-0,888	0,389
GC	-0,309	0,315	-0,981	0,327	-0,830	0,211
Int_1	0,130	0,063	2,060	0,040	0,026	0,234

Model : 1
Y : PI_S1
X : TSTGI_S1
W : GC_S1

Sample Size: 97

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,5089	0,259	0,9014	10,8365	3	93	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	11,168	3,905	2,860	0,005	4,681	17,655
TSTGI_S1	-1,324	0,739	-1,792	0,076	-2,551	-0,097
GC_S1	-1,461	0,634	-2,305	0,023	-2,514	-0,408
Int_1	0,290	0,119	2,439	0,017	0,093	0,488

Model : 1
Y : PI_S2
X : TSTGI_S2
W : GC_S2

Sample Size: 104

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,6164	0,38	1,4676	20,4273	3	100	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	-3,951	3,711	-1,065	0,290	-10,111	2,210
TSTGI_S2	0,848	0,725	1,170	0,245	-0,355	2,051
GC_S2	0,919	0,639	1,438	0,154	-0,142	1,980
Int_1	-0,046	0,123	-0,373	0,710	-0,250	0,158

Model : 1
Y : PI_S3
X : TSTGI_S3
W : GC_S3

Sample Size: 111

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,5304	0,2813	1,3661	13,9618	3	107	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	7,072	2,944	2,403	0,018	2,188	11,956
TSTGI_S3	-0,985	0,660	-1,492	0,139	-2,081	0,111
GC_S3	-0,868	0,476	-1,822	0,071	-1,658	-0,078
Int_1	0,249	0,106	2,352	0,021	0,073	0,425

Hypothesis 7.3) - Moderation of GC on PV/WTP and PI

Model : 1
Y : PI
X : PV_WTP
W : GC

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,6004	0,3604	1,1704	57,8578	3	308	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	1,322	0,840	1,575	0,116	-0,063	2,707
PV_WTP	0,589	0,255	2,309	0,022	0,168	1,010
GC	0,253	0,146	1,738	0,083	0,013	0,493
Int_1	-0,014	0,043	-0,324	0,746	-0,084	0,057

Model : 1
Y : PI_S1
X : PV_WP_S1
W : GC_S1

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,6294	0,3962	0,7346	20,3401	3	93	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	6,286	1,201	5,236	0,000	4,292	8,281
PV_WP_S1	-0,552	0,387	-1,424	0,158	-1,195	0,092
GC_S1	-0,527	0,202	-2,605	0,011	-0,863	-0,191
Int_1	0,167	0,063	2,654	0,009	0,062	0,271

Model : 1
Y : PI_S2
X : PV_WP_S2
W : GC_S2

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,6642	0,4412	1,3227	26,3165	3	100	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	-2,489	1,761	-1,414	0,161	-5,413	0,434
PV_WP_S2	1,232	0,587	2,100	0,038	0,258	2,207
GC_S2	0,936	0,304	3,081	0,003	0,431	1,440
Int_1	-0,131	0,097	-1,353	0,179	-0,291	0,030

Model : 1
Y : PI_S3
X : PV_WP_S3
W : GC_S3

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,6081	0,3698	1,1979	20,9304	3	107	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	0,633	1,376	0,460	0,646	-1,650	2,917
PV_WP_S3	0,875	0,375	2,336	0,021	0,254	1,496
GC_S3	0,327	0,244	1,343	0,182	-0,077	0,732
Int_1	-0,056	0,065	-0,850	0,397	-0,164	0,053

Hypothesis 8.1 a) - Moderation of GK on TRSP and PI

Model : 1
Y : PI
X : TRSP
W : GK

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,3747	0,1404	1,5731	16,7693	3	308	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	0,180	1,425	0,127	0,899	-2,171	2,531
TRSP	0,591	0,256	2,306	0,022	0,168	1,014
GK	0,479	0,243	1,969	0,050	0,078	0,880
Int_1	-0,052	0,044	-1,184	0,237	-0,124	0,020

Model : 1
Y : PI_S1
X : TRSP_S1
W : GK_S1

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,3495	0,1221	1,068	4,313	3	93	0,0068

Model

	coeff	se	t	p	LLCI	ULCI
constant	1,864	3,282	0,568	0,571	-3,588	7,316
TRSP_S1	0,482	0,569	0,847	0,399	-0,464	1,428
GK_S1	0,209	0,566	0,368	0,713	-0,732	1,150
Int_1	-0,034	0,097	-0,351	0,727	-0,196	0,128

Model : 1
Y : PI_S2
X : TRSP_S2
W : GK_S2

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,3705	0,1373	2,0419	5,3048	3	100	0,002

Model

	coeff	se	t	p	LLCI	ULCI
constant	-3,480	3,085	-1,128	0,262	-8,601	1,642
TRSP_S2	1,081	0,534	2,023	0,046	0,194	1,969
GK_S2	1,150	0,537	2,142	0,035	0,259	2,041
Int_1	-0,146	0,093	-1,568	0,120	-0,301	0,009

Model : 1
Y : PI_S3
X : TRSP_S3
W : GK_S3

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,4108	0,1688	1,5801	7,2425	3	107	0,0002

Model

	coeff	se	t	p	LLCI	ULCI
constant	1,119	1,896	0,590	0,556	-2,026	4,264
TRSP_S3	0,462	0,362	1,275	0,205	-0,139	1,063
GK_S3	0,288	0,321	0,897	0,372	-0,244	0,820
Int_1	-0,022	0,062	-0,353	0,725	-0,125	0,081

Hypothesis 8.1 b) - Moderation of GK on TRSP and PV/WTP

Model : 1
Y : PV_WTP
X : TRSP
W : GK

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,3469	0,1204	1,8391	14,0488	3	308	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	-1,717	1,541	-1,114	0,266	-4,259	0,825
TRSP	0,739	0,277	2,666	0,008	0,282	1,196
GK	0,589	0,263	2,241	0,026	0,156	1,023
Int_1	-0,077	0,047	-1,638	0,102	-0,155	0,001

Model : 1
Y : PV_WP_S1
X : TRSP_S1
W : GK_S1

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,3885	0,1509	1,7568	5,5094	3	93	0,0016

Model

	coeff	se	t	p	LLCI	ULCI
constant	-0,866	4,209	-0,206	0,838	-7,858	6,127
TRSP_S1	0,635	0,730	0,870	0,387	-0,578	1,849
GK_S1	0,326	0,726	0,448	0,655	-0,881	1,533
Int_1	-0,041	0,125	-0,325	0,746	-0,248	0,167

Model : 1
Y : PV_WP_S2
X : TRSP_S2
W : GK_S2

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,295	0,087	2,1216	3,1767	3	100	0,0274

Model

	coeff	se	t	p	LLCI	ULCI
constant	-2,902	3,145	-0,923	0,358	-8,123	2,319
TRSP_S2	0,838	0,545	1,539	0,127	-0,066	1,743
GK_S2	0,884	0,547	1,616	0,109	-0,024	1,792
Int_1	-0,112	0,095	-1,174	0,243	-0,270	0,046

Model : 1
Y : PV_WP_S3
X : TRSP_S3
W : GK_S3

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,393	0,1544	1,7044	6,5141	3	107	0,0004

Model

	coeff	se	t	p	LLCI	ULCI
constant	-1,775	1,969	-0,902	0,369	-5,042	1,491
TRSP_S3	0,850	0,376	2,257	0,026	0,225	1,474
GK_S3	0,594	0,333	1,785	0,077	0,042	1,147
Int_1	-0,093	0,064	-1,441	0,153	-0,199	0,014

Hypothesis 8.1 c) - Moderation of GK on TRSP and TRST/GBI

Model : 1
Y : TRST_GBI
X : TRSP
W : GK

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,6607	0,4365	0,663	79,5191	3	308	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	2,417	0,925	2,613	0,009	0,891	3,943
TRSP	0,503	0,166	3,022	0,003	0,228	0,778
GK	0,036	0,158	0,228	0,820	-0,224	0,297
Int_1	-0,006	0,028	-0,221	0,825	-0,053	0,041

Model : 1
Y : TSTGI_S1
X : TRSP_S1
W : GK_S1

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,7226	0,5221	0,5445	33,867	3	93	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,038	2,343	1,297	0,198	-0,855	6,932
TRSP_S1	0,339	0,407	0,834	0,406	-0,336	1,015
GK_S1	-0,157	0,404	-0,389	0,698	-0,829	0,515
Int_1	0,039	0,070	0,563	0,575	-0,076	0,155

Model : 1
Y : TSTGI_S2
X : TRSP_S2
W : GK_S2

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,6523	0,4255	0,4981	24,6876	3	100	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	0,067	1,524	0,044	0,965	-2,463	2,596
TRSP_S2	0,915	0,264	3,467	0,001	0,477	1,353
GK_S2	0,454	0,265	1,713	0,090	0,014	0,894
Int_1	-0,079	0,046	-1,716	0,089	-0,156	-0,003

Model : 1
Y : TSTGI_S3
X : TRSP_S3
W : GK_S3

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,5607	0,3144	0,8916	16,353	3	107	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,420	1,424	2,402	0,018	1,058	5,783
TRSP_S3	0,374	0,272	1,375	0,172	-0,077	0,826
GK_S3	-0,077	0,241	-0,318	0,752	-0,476	0,323
Int_1	-0,002	0,047	-0,041	0,967	-0,079	0,075

Hypothesis 8.2 - Moderation of GK on TRST/GBI and PI

Model : 1
Y : PI
X : TRST_GBI
W : GK

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,5095	0,2596	1,3549	35,9996	3	308	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	-2,995	1,626	-1,843	0,066	-5,677	-0,314
TRST_GBI	1,217	0,300	4,058	0,000	0,722	1,712
GK	0,784	0,280	2,805	0,005	0,323	1,245
Int_1	-0,110	0,052	-2,142	0,033	-0,195	-0,025

Model : 1
Y : PI_S1
X : TSTGI_S1
W : GK_S1

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,4622	0,2136	0,9566	8,4225	3	93	0,0001

Model

	coeff	se	t	p	LLCI	ULCI
constant	-0,370	3,375	-0,110	0,913	-5,977	5,238
TSTGI_S1	0,958	0,621	1,542	0,127	-0,074	1,990
GK_S1	0,442	0,588	0,752	0,454	-0,535	1,418
Int_1	-0,085	0,107	-0,789	0,432	-0,263	0,094

Model : 1
Y : PI_S2
X : TSTGI_S2
W : GK_S2

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,5578	0,3112	1,6303	15,0592	3	100	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	-7,266	3,262	-2,227	0,028	-12,682	-1,850
TSTGI_S2	1,828	0,583	3,139	0,002	0,861	2,795
GK_S2	1,411	0,589	2,393	0,019	0,432	2,389
Int_1	-0,197	0,1054	-1,8689	0,0646	-0,3721	-0,022

Model : 1
Y : PI_S3
X : TSTGI_S3
W : GK_S3

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,5118	0,2619	1,403	12,658	3	107	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	-1,846	2,339	-0,789	0,432	-5,727	2,036
TSTGI_S3	1,028	0,446	2,307	0,023	0,289	1,767
GK_S3	0,565	0,392	1,441	0,153	-0,086	1,215
Int_1	-0,0713	0,0751	-0,9504	0,344	-0,1959	0,0532

Hypothesis 8.3 - Moderation of GK on PV/WTP and PI

Model : 1
Y : PI
X : PV_WTP
W : GK

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,598	0,3576	1,1757	57,1464	3	308	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	0,836	0,680	1,229	0,220	-0,286	1,958
PV_WTP	0,934	0,188	4,964	0,000	0,623	1,244
GK	0,343	0,123	2,791	0,006	0,140	0,546
Int_1	-0,073	0,033	-2,178	0,030	-0,128	-0,018

Model : 1
Y : PI_S1
X : PV_WP_S1
W : GK_S1

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,5929	0,3515	0,789	16,801	3	93	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	4,013	1,339	2,996	0,004	1,788	6,238
PV_WP_S1	0,224	0,366	0,613	0,542	-0,384	0,833
GK_S1	-0,150	0,237	-0,634	0,528	-0,544	0,243
Int_1	0,041	0,064	0,636	0,526	-0,066	0,147

Model : 1
Y : PI_S2
X : PV_WP_S2
W : GK_S2

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,6291	0,3958	1,43	21,838	3	100	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	-1,220	1,162	-1,050	0,296	-3,148	0,709
PV_WP_S2	1,428	0,326	4,379	0,000	0,887	1,970
GK_S2	0,707	0,211	3,354	0,001	0,357	1,056
Int_1	-0,1591	0,0569	-2,7944	0,0062	-0,2536	-0,065

Model : 1
Y : PI_S3
X : PV_WP_S3
W : GK_S3

Model Summary

R	R-sq	MSE	F	df1	df2	p
0,6002	0,3603	1,2161	20,087	3	107	0

Model

	coeff	se	t	p	LLCI	ULCI
constant	1,714	1,088	1,575	0,118	-0,091	3,519
PV_WP_S3	0,702	0,300	2,341	0,021	0,204	1,200
GK_S3	0,138	0,200	0,688	0,493	-0,194	0,469
Int_1	-0,0236	0,0549	-0,4301	0,668	-0,1147	0,0675