TITLE of the Master Thesis:

# Information About Environmental Sustainability and Consumer Behavior: Evidence from Original Survey Data.

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# 1. ABSTRACT

The social and economic costs of global warming are rapidly affecting progress in the developing world. Therefore, awareness and negative tangible effects that climate change is currently generating, put consumers in front of a different purchase behavior and at the beginning of a new market trend segment.

Consumers are fully capable of understanding that sustainability can reduce, or at least partially limit, the impact of climate change, since there is sufficient evidence to support the fact that human activities are the major contributors of climate changes.( Du Plessis, P. & Rousseau, G. (1999) )

This research has the aim to cover and analyze one of the most popular market trends that is radically changing and affecting consumer choice and its behavior: sustainability.

The objective of this thesis is to understand if sustainability affects customer behavior and in what way it does. The aim of this work is to figure out how much more customers are willing to pay for sustainable clothes than for standard clothes. Results show a great increase in willingness to pay (+43%) for sustainable clothes. The willingness to pay reached its peak when survey participants viewed marketing campaigns instead of only information regarding how much more it costs to produce sustainable clothes compared to standard clothes. The answers of almost one hundred participants were analyzed to obtain these results. They viewed different videos randomly and then asked, after each video, how much they were willing to pay for the hoodie shown in the video. Each video contained different information regarding pollutions of fashion, utility, cost of manufacture sustainable fabrics and environmental advantages in purchasing sustainable clothes.

The behaviors of consumers change and mutate extremely quickly. The market, as a correlated consequence, is changing as well, following the same trajectory. Consumers are no longer prioritizing normal features such as size, color, flavor, and aroma of a product or a service (Surya Rashmi Rawat, Dr. Pawan K. Garga, 2007) but, rather, a new set of characteristics like fair wages and environmental impacts are taking a primary role in the purchase decision process. Sustainability has entered many market segments and it has attained a leading role. This is due to its potential ability to influence consumers' view and, consequently, their buying choices (Maria Vincenza Ciasullo, Gennaro Maione, Carlo Torre and Orlando Troisi, 2017).

**Key words**: *Sustainability, sustainable fashion, environment, eco-friendly products, consumer behavior, elasticity of the demand, willingness to pay.*

# 2. INTRODUCTION

In order to have a better viewpoint of all the consumer perspectives, this research begins by analyzing the concept of sustainability, circular economy, and purchasing behavior. Then the results of a survey are analyzed, based on the answers of roughly 100 interview participants, centered around the analyzing how the willingness to pay changes for sustainable fashion products.

Product innovation is the uncontested driver and main protagonist of the huge new market in question: the sustainable market. Purchase in a conscious manner will no longer be an issue if products and services strive to attain a balance between innovation, eco-friendly features, and price.

However, these three topics bring with them several problems. They need massive investments, political support, consumer acceptance and willingness to pay, among other factors. A valuable option to overcome all those issues might be to start approaching consumers directly from different perspectives including the policy maker's view, the marketing and economic view, the consumer interest focus, and the ethical focus (Mitchell, R. W., Wooliscroft, B., & Higham, J. (2010)).

# 3. CIRCULAR ECONOMY

The concept of a Circular Economy (CE) represents the basic notion behind sustainability. It is a topic widely studied, explored, and evaluated from public to private institutions and entities. It forms a viable and valuable path to take in order to increase and drive the sustainable innovation toward new milestones (Laura Frodermann, 2018).

Reuse, repair, and recycle are becoming the framework toward innovation in many sectors (Roman Maletz -Christina Dornack - Lou Ziyang, 2018). Companies, driven by needs and market requests, are showing an increasing interest for this new economic model and are going to change and edit their actual business structure to meet those needs.

The core of every firm are consumers, and therefore when consumers change their behavior, firms need to act and meet their needs. Sustainability becomes a priority for firms. Nowadays customer attitudes have changed, with more interest in developed countries, probably due to information availability and higher wages (Laura Frodermann, 2018).

Customers are more oriented to always purchase and use more products or services that meet environmental, social, and economic criteria. Firms are in business to maximize their market share along the way, and therefore they need to change their supply management by incorporating more sustainable suppliers and enforcing standards through continuous supplier evaluations. These changes pose a massive cost for firms because they need to convert an already well-established production chain with a new one.

The beginning of a new economy in which the protagonists are products and services solely composed of materials which are either biodegradable or reused requires a global reverse-logistic infrastructure (Jiansu Mao · Chunhui Li Yuansheng Pei  2018). Transforming today's linear economy ('take, make, and dispose') into a circular economy requires high efforts including conversion costs and innovation costs. To implement a correct benchmark and assess advantages and disadvantages of a circular economy in comparison to a linear economy, three dimensions are involved: economy, ecology, and society.

The concept of sustainable development (Figure 2.1.1) was introduced following the "Brundtland Report", which defined it as the, "form of development which makes it possible to fulfill the needs of current generations without compromising the ability of future generations to fulfill

their own needs”.  It falls at the intersection of three economic, environmental, and social pillars.

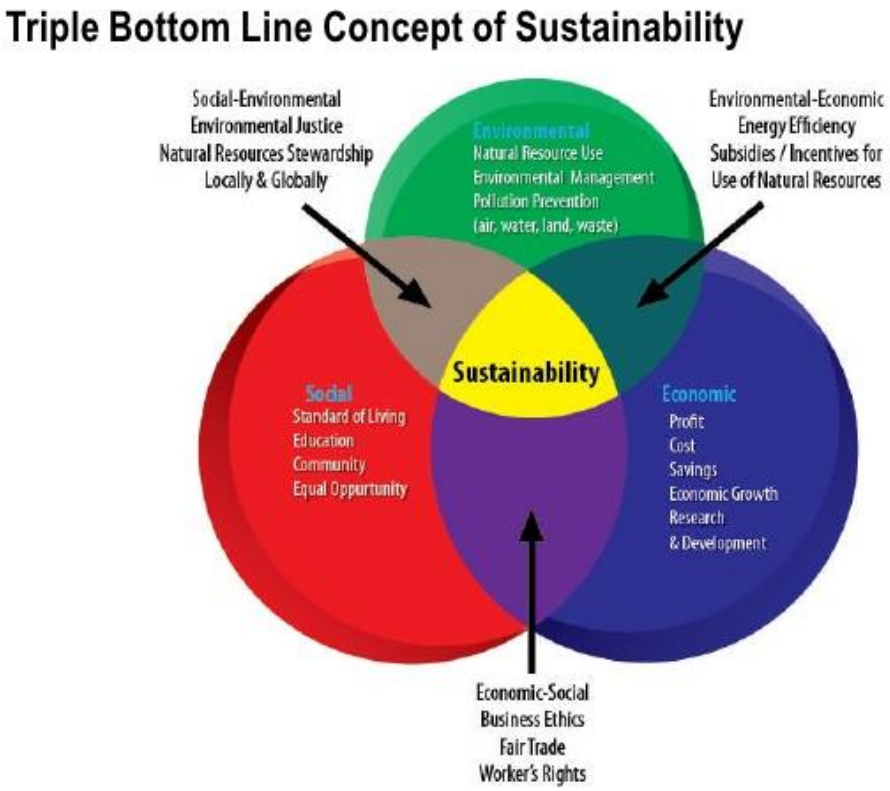



Figure 2.1.1 : Sustainable Development

Short supply chains should be considered a great start toward sustainable innovation and development and therefore as tools for the implementation of circular economy (Delphine Gallaud, B. Laperche,2016). Short supply chains can contribute to bringing back production chains which are currently placed overseas. This may bring sustainable regional development and lead to the creation of new activities, and the reduction of the environmental impacts of human activities.

In 2014, the “Commissariat Général au Développement Durable” (French General Commissariat for Sustainable Development) published a study focusing on an international comparison of public policies dedicated to the circular economy (Peter Lacy- Jakob Rutqvist, 2015). Four countries were examined in this report: Japan, Germany, the Netherlands, and China. These countries are forerunners in implementing legislation in favor of circular

economy. For instance, in Japan, the transition to a circular economy is considered a way of compensating for the country’s lack of natural resources and scarcity of space.

# 4. CONSUMER BEHAVIOR

## 4.1. Who Are Consumers?

Consumers are human beings who engage in activities related to the purchase of products or services. The psychology of the consumer deals with the same kind of issues as psychology in general, defined as memory and cognition, group dynamics, judgment, decision making, as well as many other topics covered in psychological literature.

## 4.2. Consumer Behavior & Consumer Decision Making

Every day, human beings must deal with and fulfill their needs. What should I wear today? What am I going to eat for lunch today? What service can I use to reach my town? We ask these questions, among many others. People find themselves faced with needs in every decision they do every day. Companies are in business to decode the needs expressed by people and offer them a solution to their needs (Yasmin van Kasteren, 2007). People want to maximize their productivity and, consequently, companies providing products and services, either sustainable or not, represent the process and the tools that allow them to do that.

Consumer behavior is the study of consumers and the processes they use to choose, use (consume), and dispose of products and services, including consumers' emotional, mental, and behavioral responses. Consumer behavior incorporates ideas from sciences including psychology, biology, chemistry, and economics.

Changing consumer behavior is something many businesses find extremely difficult, and it is time intensive. Current approaches do not fully capture the difficulty and complexities involved in changing consumer behavior (Jackson, 2004) and offer only a partial explanation of environmentally responsible behavior. Many well-known economists as Nicholas Bernoulli, John von Neumann and Oskar Morgenstern have started to study and examine consumer decision making (Richarme 2007). From an economic perspective, consumer decision making focused solely on the act of purchase (Loudon

and Della Bitta 1993). In this paper I focus on consumer behavior towards sustainable fashion in its broadest sense, and I analyze, with the use of a survey, how consumer behavior changes when presented with a sustainable alternative and how much willingness to pay changes accordingly.

# 5. UTILITY THEORY

Utility Theory has become one of the most prevalent models in Consumer Behavior studies. Consumers, as previously stated, make choices based on the expected outcomes of their decisions. Self-interest is what most drives a consumer to choose a certain product or service to interact with. Customers are rational decision makers (Schiffman and Kanuk 2007, Zinkhan 1992). In Utility Theory, the customer is seen as a “rational economic man” (Zinkhan 1992), influenced by many factors, such as the need for recognition, sustainable approval, the act of purchasing, consumption, and finally disposal.

Thanks to product innovation and the change in the paradigm of human being approaches, consumer behavior has radically evolved during its history. This evolution has been continuous, and it is constantly changing its shape (Blackwell, Miniard et al. 2001).

In the process in which consumers are presented with a choice among competing brands or products, they identify first the features and dimensions relevant to the decision. Every decision is reached by evaluating these features. Consider, for example, consumers trying to decide whether to buy one of two incredibly similar hoodies but made by different companies. Certain attributes such as design, color, and the location of the store may be irrelevant as they are the same for the two products. The comparison may focus therefore on properties such as quality, price, brand recognition, comfort, visual appeal, and sustainable policies implemented by the brand. To make a decision, the consumer must derive an overall evaluation of each product category in terms of the combination of attributes that characterize it. In the principle of a multi-attribute model, this overall evaluation is assumed to be a weighted average of the subjective values or utilities associated with the individual attributes. Each attribute dimension is given a weight representing its subjective importance to the decision. The subjective utility of each product is obtained by summing the weighted attribute values for that product, and the final purchase decision action is taken from the highest value of the combined summary utility of attributes (W. Edwards & Fasolo, 2001).

A consumer’s expectations and beliefs form the base of the behavioral reaction. Attitude describes the relation between beliefs about an object and stance toward the object in terms of an Expectancy–Value (EV) model (Dabholkar, 1999; Feather, 1959, 1982). One of the first and most complete statements of the EV model can be found in Fishbein’s summation theory of attitude (1963; Fishbein, 1967b), although somewhat narrower versions were

proposed earlier (Carlson, 1956; Peak, 1955; Rosenberg, 1956). In Fishbein's theory, people's evaluations of an object are determined by their belief about the object, where a belief is defined as the subjective probability that the object has a certain attribute that is valuable (Fishbein & Ajzen, 1975).

The terms "object" and "attribute" are used in the generic sense, and they refer to any discriminable aspect of an individual's world. Therefore, "object" is associated with a certain attribute through belief (cek Ajzen, 2008). The attitude model makes no assumptions about rationality, it doesn't follow a logical process. Instead, it relies on the much weaker requirement of internal consistency; the beliefs (for the Expectancy-Value model).

Attitude is directly linked and derived from beliefs and therefore the stronger and more positive the beliefs are, the more favorable the attitude. The greatest and most interesting part of this theory is that belief is not derived from a logical reasoning process, but instead it is due to feelings, emotions or desires and may serve a variety of personal needs.

A brand may be directly evaluated from any standard attitude. Semantic differential (Osgood et al., 1957) is often the preferred method (e.g., Batra & Ray, 1986; Lutz, 1977; Madden & Ajzen, 1991; Mitchell & Olson, 1981). For instance, in a study on the effects of advertising on attitudes toward a clothing brand (Coulter & Punj, 2004), brand attitudes were assessed by means of four 8-point evaluative semantic differential scales: like - dislike, good - bad, positive - negative, and favorable - unfavorable. The scale formed by the unweighted sum of these four evaluative scales served as a measure of attitude toward the brand of clothing. Customers are different, they behave differently after having been subjected to advertising or retailer's campaigns because they are driven by different beliefs. To understand the basis for these attitudes, however, we need to— according to the Expectancy–Value model—examine and analyze the beliefs that every consumer holds about the product or service of interest. Many investigators rely on their own familiarity with the product, awareness of it or on prior research in order to choose the right attributes for investigation, under the assumption that these attributes are important determinants of attitudes or purchase decisions.

Customer behaviors' change toward sustainable policies due to climate change started a few decades ago. People began considering climate change to be generated by our daily routine actions and purchases. Because of this, customers started to spend their money for services and products that preserve, or at least create less harm for the environment. For some customers sustainability is a value added because it solves a problem and for them, this increases the utility of a product. Unfortunately, a segment of the market is populated by people that are not interested in this cause and

do not find it worthwhile to spend more for a sustainable solution (Göbel, Philipp/Reuter, Carsten/Pibernik, Richard/Sichtmann, Christina/Bals, Lydia (forthcoming) (2004).

# 6. ELASTICITY OF DEMAND

Price elasticity tells how much a change in price will affect the quantity that the customer demands. Rising prices will normally generate a fluctuation in quantity purchased. Therefore, elasticity of demand gives us detailed information regarding how the quantity demanded changes when price fluctuates. It measures how responsive a product is to price changes. In other words, elasticity indicates a product's responsiveness to price change. Inelasticity indicates that a product is not responsive to price changes.

This can be summarized in two main points. Elasticity of demand measures how responsive a product is to price changes:

- Elasticity indicates a product's responsiveness to price change.
- Inelasticity indicates a product is not responsive to price changes.

To connect this concept with the survey conducted, one of the first aims is to understand and figure out if the demand for a sustainable hoodie is elastic (Determinants of Store-Level Price Elasticity- Stephenj, Hoch, Byung-dok Im, Alanl, Montgomery, and Petere, Rossi). The fashion market is widely accepted as an elastic field and therefore one of the primary goals of this study is to find out is whether sustainable fashion has more or less elastic demand than standard fashion.

## 6.1. Main Factors that Drive Elasticity of Demand

When consumers are deeply responsive to a change in price, it means that demand is elastic. Usually, the more that the good is unnecessary or has numerous substitutes, the more the demand will be elastic. Hoodies are probably one of the easiest examples for pointing out an elastic demand. Many competitors are present in the market and it is not as necessary as others clothing accessories.

Inelastic products & services push customers to buy the same quantity as price changes because they are essential or have no substitutes. Think about cigarettes or fuel. The prices may rise dramatically, but the change in demand will not be as much as hoodies rise in price. Therefore, product or service are not responsive to price changes. I expect that whether a rise in price is given, quantity demanded for sustainable fashion items will be constant (of course till up a certain rise in prices). I believe that sustainability should be seen as

an intrinsic value added and therefore it increases the willingness to pay and make the product more inelastic.

## 6.2. How to Calculate and Interpret Price Elasticity

Price elasticity of a good or service is essentially the percent change in quantity demanded of a good divided by percent change in the price for that good.

Formula for elasticity of demand: $E(p)= -p/q*(dp/dq)$

Quantity q and p of price are given and dp/dq is the variation of quantity pulled by the variation in prices. A price elasticity > 1 indicates the good is elastic, that quantity demanded is highly sensitive to changes in price (more it will be expensive less quantity is demanded). For instance, 1 - percent change in the price of 1 kg of pasta might cause a 5- percent decrease in sales. A price elasticity < 1 tells that a good is inelastic. Price changes will have a small impact on quantity demanded. If a good/service has elasticity = 1, also called unitary elasticity, a 5-percent change in price (for example) will result in a 5-percent change in quantity demanded.

## 6.3. Why Elasticity Matters

An analysis of the elasticity of the demand takes an important role in the management of a company and in its forecast revenues and costs analysis. Is crucial to figure out whether a product has inelastic demand at a certain price level because revenue may be the same if prices are raised or decreased. For instance, If a product has elastic demand at a certain price level, revenues should increase by decreasing the price of that good. P will decrease, but Q will increase at a greater rate, thus increasing total revenue. If the product is inelastic, then you can actually raise prices, sell slightly less of that item but make higher revenue. As a result, it is important for management to know whether its product has inelastic or elastic demand.

# 7. WILLINGNESS TO PAY FOR SUSTAINABLE PRODUCTS

Previous work done by Tey, Yeong Sheng, Brindal, Mark, Dibba, Haddy, (2018), Factors influencing willingness to pay for sustainable apparel: A literature review generally conclude that there is a desire for sustainable apparel, even when a price premium is required. A willingness-to-pay is defined as the stated additional price that an individual would accept for payment. If customers perceive a tangible benefit, they are willing to spend more for a product. Benefits from customers are many and they group all of them in “value”.  However, that desire does not directly translate into purchasing action. They conclude that that desire is a form of theoretical rationality in the consumer’s mind. Even when value is added, the evidence indicates that the apparel will gain minimal acceptance unless the aesthetic is also appealing. Therefore, sustainable features, such as eco-friendly fabric and ethical labor conditions for workers, if well combined with style of a cloth, may rise the perceived “value” of the product and cause the customer to increase their willingness to pay and spend more for a product.

Sustainability is gaining much power and recognition in the apparel industry. In 2010, some of the world’s biggest brands (accounting for approximately 60% of global apparel sales) agreed to develop and use an environmental hangtag (Mowbray, 2010). The Better Cotton Initiative logo made its first appearance on apparel products in the second half of 2015 (Better Cotton Initiative, 2015). This labeling helps consumers to identify apparel products made using sustainable production processes. Additionally, it provides consumers with a reliable indicator of the environmental impact of their purchases. Many other sustainable certifications have been created such as GOTS, which prevents the use of pesticides in the harvesting of cotton, or PETA, a vegan certification, and OEKO-TEX, which tests for harmful substances.

Labeling for sustainability is desired since uniqueness and personal and intangible values are the focus of consumers when making purchase decisions (Kim, Ko, Lee, Mattila, & Hoon Kim, 2014). In the highly competitive apparel market, sustainability labels may offer brand owners an opportunity to differentiate their products from those of their competitors and create real value (Koszewska, 2011). Albeit at a higher price, they assure consumers of a more genuine, unique, and high-quality product. Consequently, a key incentive for sustainability labeling lies in the price differential between a sustainable apparel product and its competitors within the same market category.

Sustainability is not only centered in how environmentally friendly a product is, but it goes deeper and addresses the labor conditions and wellbeing of workers into the textile and farming industries. For example, throughout the 1900s, workers in the United States, primarily immigrant women, were subjected to long hours of work, poor working conditions, low wages, and multiple forms of abuse. During the early 1900s numerous strikes and protests forced apparel factories to recognize the right for workers to join unions (Von Drehle, 2004). In this epoch, most fashion brands outsourced their production to manufacturers in Asia. They did this because labor is cheap, overheads can be cut and raw materials (i.e. cotton) are available locally. Consequently, sustainable apparel has recently attracted global attention. Better Cotton Initiative aims to make global cotton production better for the people who work within the industry, better for the environment in which it is grown, and better for the sector's future. This unfortunate situation became the catalyst for the expansion of the sustainability initiative.

Sustainability has been popularly embraced by the global apparel industry. This "Green Strategy" defines sustainable apparel as clothing and accessories that are manufactured, marketed, and used in the most sustainable manner possible, taking into account both environmental and socio-economic aspects (Green Strategy, 2017). The global apparel industry has committed itself to creating sustainable apparel value chains. The Ethical Fashion Initiative, a flagship program of the International Trade Centre (2017) aims to connect artisans from the developing world to the international fashion value chain by forging ethical, sustainable, and creative collaborations between artisans. The UN Global Compact & NICE Fashion Code – a joint collaboration between the United Nations (UN) and Nordic Initiative Clean and Ethical (NICE) targets raising awareness and promotes responsible and sustainable apparel business practices (The UN Global Compact, 2012).

Commitment to sustainable development from the private sector is also growing. The Sustainable Apparel Coalition (2017) is the industry's foremost alliance for the sustainable production of apparel. It focuses on the Higg Index, a standardized measurement tool for sustainability performance across all value chain players. Its members are diverse, coming from every segment of fashion (e.g. Adidas), manufacturing (e.g. Arvind Ltd), and retailing (e.g. Wal-Mart). The group is estimated to be responsible for the design, manufacture and marketing of more than one-third of the apparel and footwear produced globally (Radhakrishnan, 2015).

The various sustainability initiatives mentioned above all aim to promote sustainable consumption in sync with sustainable production processes. While boosting an awareness that the unethical conditions under which

clothing is manufactured is important, it, necessarily, has to be translated into a shift in consumer attitudes and behavior (e.g. purchase JOURNAL OF GLOBAL FASHION MARKETING 133 action). Because sustainable apparel is a relatively new segment, the research importance of past studies that explore both the premiums that consumers are willing to pay for acquiring sustainable apparel and that identify associated characteristics becomes self-evident.

# 8. EXPERIMENTAL DESIGN

## 8.1. Survey

- **Type of Research:** Analysis Research
- **Subject:** Sustainable fashion.
- **Research Area:** Italy, France, UK, USA, Brazil, Argentina, Spain.
- **Technique:** Randomized questions.
- **Sample Size:** 97
- **Data Collection:** Through Structured Survey

## 8.2. Hypothesis

The aim of this survey is to verify two Hypotheses:

H1: *People are willing to pay more for a sustainable product.*

H2: *People are willing to pay more when they receive information about the cost of producing sustainable products through marketing campaigns (marketing campaigns here includes videos, pictures and key words shown in a way to impact the user).*

These two hypotheses were chosen to test one of the biggest movements that is being observed nowadays, sustainability. Is this movement making real changes in customer behavior or is just an overestimated trend? As seen in the literature, people change their purchasing behavior due to many reasons. One of the most important is consumer beliefs and how brands are able to deliver on this belief to their customers.

After have analyzed the literature i thought that these two hypothesis were the right ones to set in order to understand if sustainability is a for real affecting the customer behavior. I want to understand if sustainability and all the information related to the cost of implementation, developing and production of a sustainable products can be more worth and valuable than simply marketing campaigns. Nowadays, due to the rise of sustainable

awareness I want to figure out if it sustainability is enough strong as a concept to let an average customer to spend more for the same standard product and understand if all the topics regarding sustainability have earned enough social power to substitute  marketing campaigns in its whole process.

## 8.3. Structure of the Survey

Participants of the survey were shown four different videos. The first two videos were watched by all the participants, the last two videos were randomized among the participants. They were then asked to answer one interview question after every video, along with some general questions (age, income, nationality, gender) in the final segment of the survey.  In order to verify the hypothesis listed before, I have gathered and analyzed 97 participant's responses.

The first video (Video 1) shows a girl wearing a simple grey hoodie. Participants were asked, without receiving any information such as price, material, or brand, how much they were willing to pay for that hoodie.  The aim of this first video was to understand what each individual was willing to pay, in order to be used as a baseline for further analysis.

A second video (Video 2), contained information about how greatly fashion pollutes, for example, increased water consumption, plastic in the oceans, and CO2 consumption.  Survey takers were then asked how much they were willing to pay for the same hoodie from the first video, after hearing this information regarding how much fashion pollutes. The aim of this second video is to make the participants aware of the environmental cost of the hoodie shown in the first video and to track their changing in behavior. We expect to see an average decrease in the willingness to pay.

Then, one of the final two videos was shown to participants randomly.  In the third video (Video 3) some detailed information regarding the cost of manufacturing a sustainable hoodie and the sustainable advantages of an eco-friendly product were presented. This third video puts an emphasis on the fact that a sustainable solution exists, but that producing a sustainable hoodie entails a substantially higher cost (i.e. ten times more than producing a standard hoodie). We expected to track an increase in willingness to pay for a sustainable solution due to the new sustainable trend that is being observed

recently. The fourth video (Video 4) is oriented to impress the viewer with marketing campaigns related to the sustainable hoodie, without putting emphasis on its price. Comparing the willingness to pay that emerges from each of the last two videos, we expect to understand whether users are more willing to pay for a sustainable product if they are more aware of its production costs.

## 8.4. General Notion About Difference in Mean Value

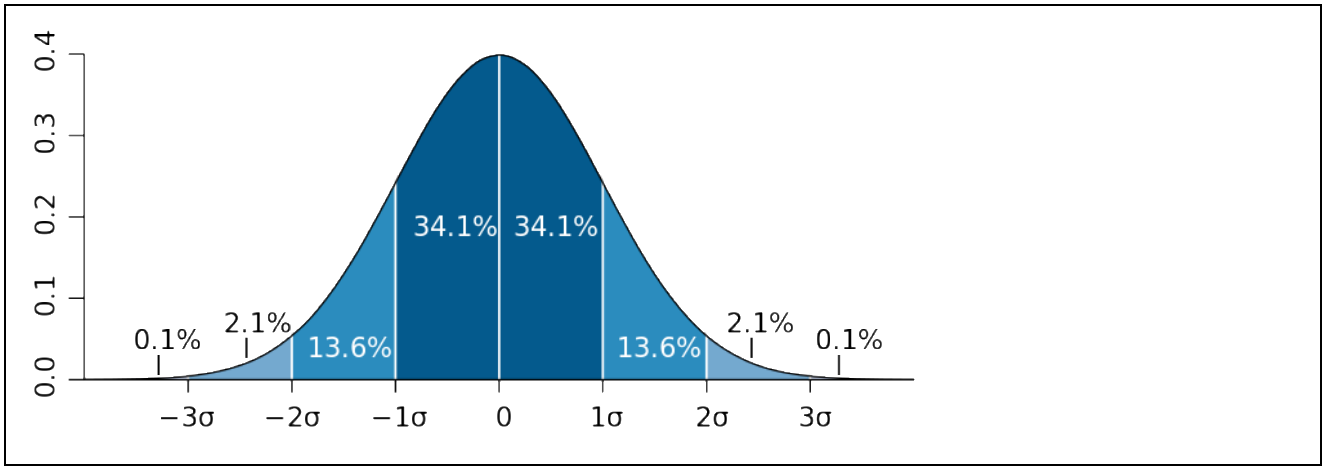
One way to test our hypotheses is to compare the willingness to pay expressed after each video. This can be done by a simple differences-in-means test, implemented assuming equal variances.

Specifically, to test H1, we will compare the willingness to pay expressed after Videos 1 and 2.

To test H2, we will compare the willingness to pay expressed by the group that was randomized to receive the Video 3 with those expressed by those randomized to receive Video 4.

*How different should the means be to support the hypotheses?*

Even if the two samples were drawn from the same distributions, their two means may be different through sampling error. Therefore, we analyzed the deviation from the mean of our results, and we compare the difference in means with a well-known probability distribution, the standard distribution: i.e., a normal distribution with mean zero and standard deviation 1. The aim of this analysis is to understand if samples are drawn from different distribution or not (i.e., the two groups are statistically different from each other).



(Table 8.1)

The observed difference in means must be “standardized” to be compared with the standard normal distribution. This means that we subtract zero from its observed mean and divide it by the square root of the sum of the standard deviations of the means in the two samples. The value of the standardized difference is called the **t-statistic**. Values of the t-statistics that are relatively close to zero will be interpreted as consistent with the hypothesis that the true difference is zero. Very large differences from zero imply that it is less likely that the two samples are drawn from the same distribution.

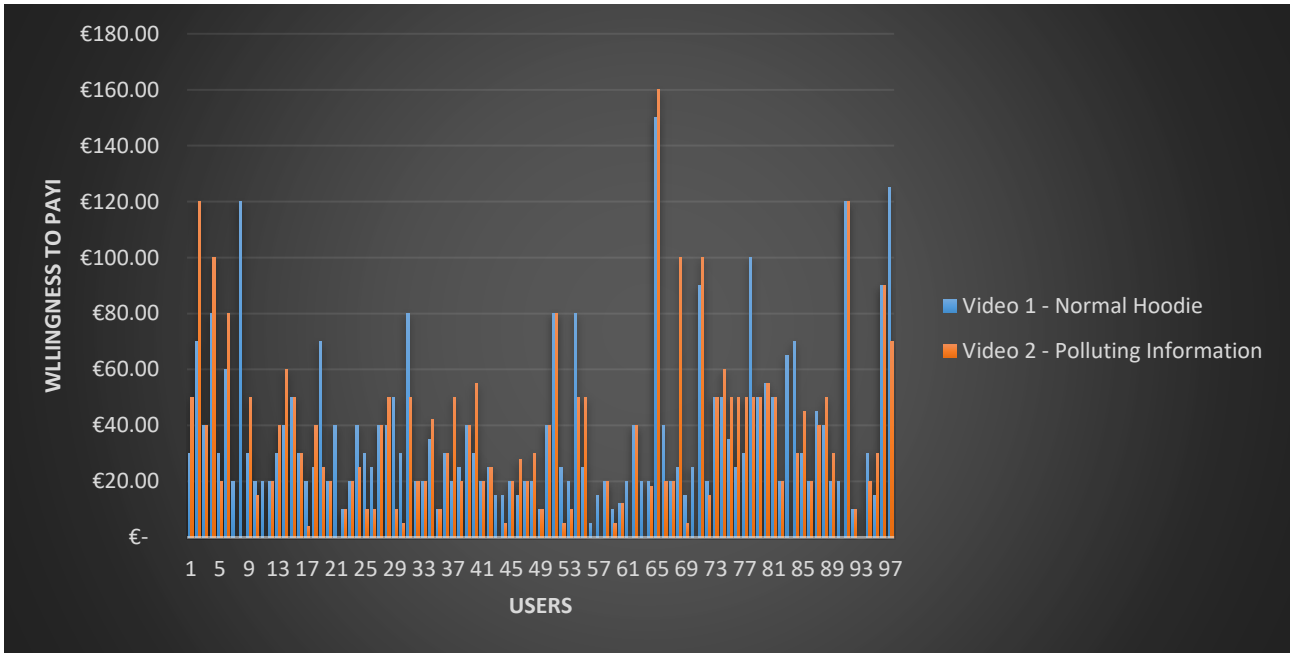
Conventionally, “very large” is >1.96 in absolute value. In a standard normal distribution with mean zero, the probability to draw a value greater than 1.96 in absolute value is 5% or less. Hence, if the t-statistic exceeds 1.96, we will reject the null hypothesis that the difference in means is zero and interpret the result as evidence that the two samples are drawn from two different distributions, accepting a 5% probability of wrongly rejecting the null hypothesis (“significance”).

# 9. ANALYSIS OF THE ANSWERS

## 9.1. Analysis of Videos 1 & 2

Histogram 9.1.1. shows all the answers given by the interviews after watching the first two videos.

The question posed was: How much would you pay for an hoodie after have watched Video 1 and Video 2?




(Histogram 9.1.1)

The output (Table 9.1.2) from the t-tests on (Histogram 9.1.1) is reported below. The t-statistic for the difference in the means of the two groups (Video 1 & Video 2) is positive, indicating that users who saw Video 1 decreased

their willingness to pay after seeing Video 2. This observation is in line with H1 and the expectation of a diminishing interest emerging from the awareness of the polluting effects of clothing production. The magnitude of the t-statistic is however not large (0,913) and comfortably below the critical values for both the one-tail and two-tail tests (1.6528 and 1.9723, respectively). This is consistent with the assumption that the two groups, both treated and control, are drawn from the same underlying distribution, i.e., are not statistically different. Hence, although the difference in means has the expected direction, it is not sufficient to confirm H1.

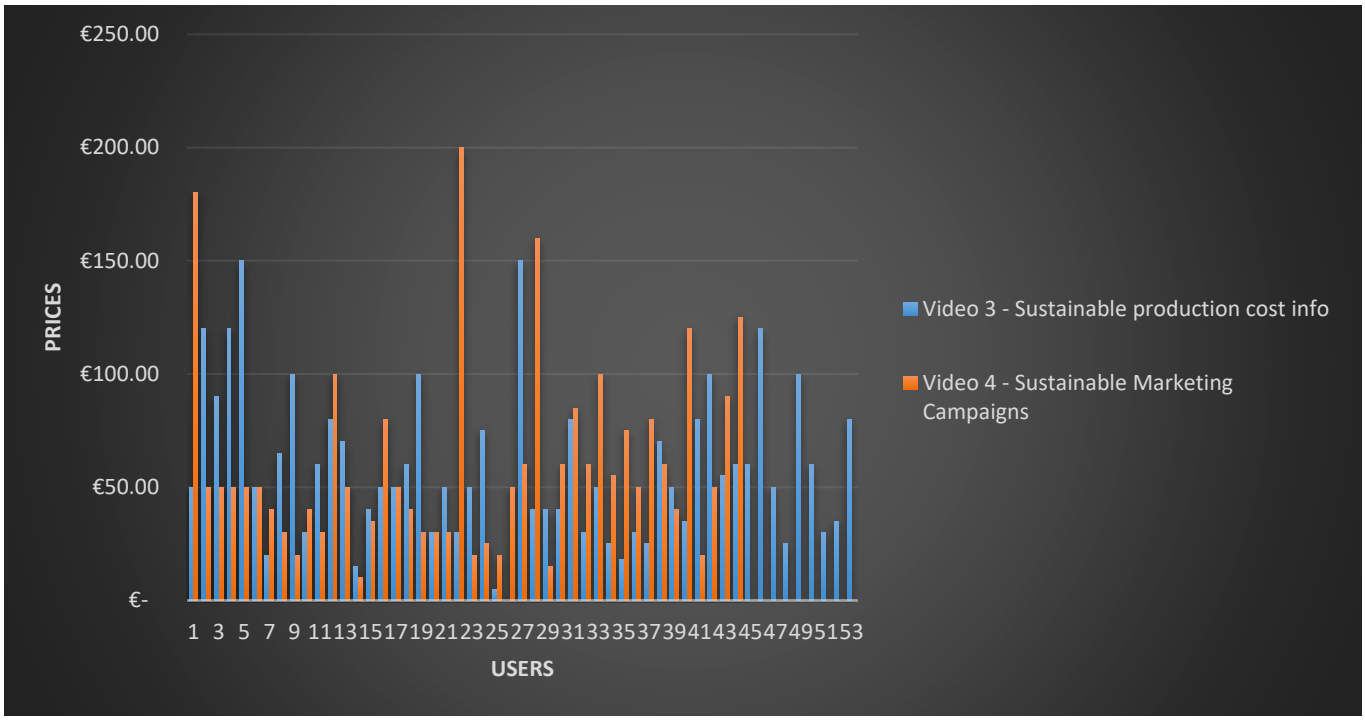
| Test t: Two samples assuming same variance | | |
|---|---|---|
| | | |
| | *Normal Hoodie* | *After info pollutin* |
| Media | 37,13402062 | 33,28865979 |
| Varianza | 792,054768 | 925,7074742 |
| Osservazioni | 97 | 97 |
| Varianza complessiva | 858,8811211 | |
| Differenza ipotizzata per le medie | 0 | |
| gdl | 192 | |
| Stat t | 0,913779558 | |
| P(T<=t) una coda | 0,180989375 | |
| t critico una coda | 1,652828589 | |
| P(T<=t) due code | 0,361978751 | |
| t critico due code | 1,972396491 | |

(Table 9.1.2)

## 9.2. Analysis of Videos 3 & 4

Histogram (9.2.1) shows all the answers given by the interviewees after watching the third and fourth video.

These two videos were shown randomly to the users and 53 answers for Video 3 were gathered, along with 44 answers for Video 4.



(Histogram 9.2.1)

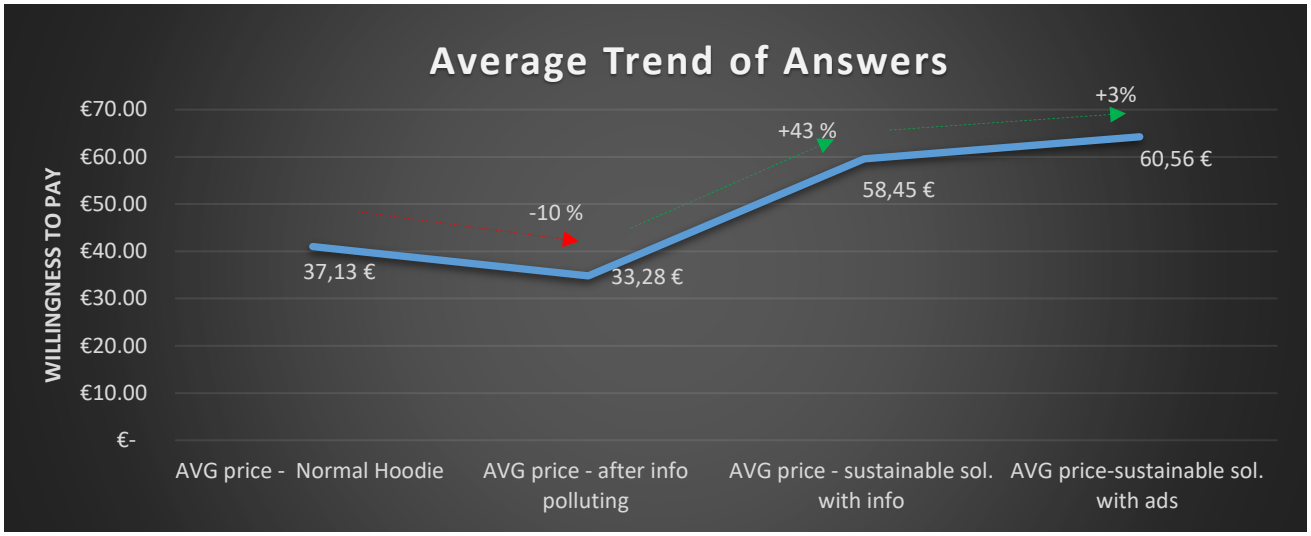
The output 9.2.2 from the t-tests on (histogram 9.2.1) is reported below. Contrary to expectations, the t-statistic for the difference in the means of the two groups is negative, indicating that on average the users who saw Video 3 (the one emphasizing costs) expressed a lower willingness to pay than those who saw Video 4. However, the difference (-0.27, 0,27 in absolute value) is quite small and comfortably below the critical values for both the one-tail and two-tail tests (1.66 and 1.98, respectively). In other words, the difference between the means for the viewers of Videos 3 and 4 in the treatment group and the means for the control group was not significantly different from zero. This is consistent with the assumption that the two groups (treated and control) are drawn from the same underlying distribution, i.e., are not statistically different. This does not support H2.

| Test t: Two Samples assuimg Same Variance | | |
|---|---|---|
| | | |
| | *Video 3* | *Video 4* |
| Media | 58,45283019 | 60,56818182 |
| Varianza | 1174,75254 | 1801,413848 |
| Osservazioni | 53 | 44 |
| Varianza complessiva | 1458,399237 | |
| Differenza ipotizzata per le medie | 0 | |
| gdl | 95 | |
| Stat t | -0,27159562 | |
| P(T<=t) una coda | 0,393261149 | |
| t critico una coda | 1,661051817 | |
| P(T<=t) due code | 0,786522298 | |
| t critico due code | 1,985251004 | |

(Table 9.2.2)

# 10. STUDY OF THE PATTERNS

## 10.1. General Study of the Pattern




(Graph 10.1.1)

The line graph (10.1.1) compares the average value of the willingness to pay (expressed in €) of the interviewees after watching four different videos and participating in the survey. Overall, the willingness to pay declined after people became aware of how much fashion pollutes and increased when sustainable solutions were given.

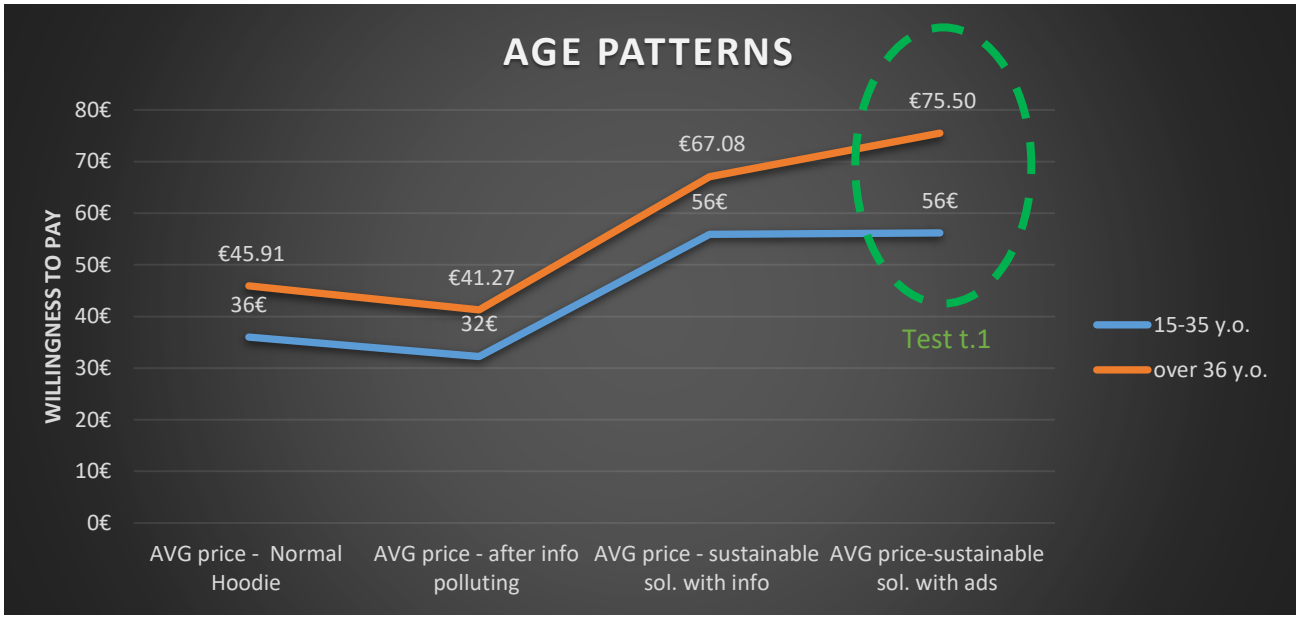
This pattern is qualitatively in line with, the first hypothesis (H1), although the difference is not statistically significant. The line pattern presents a solid increase in prices when sustainable alternatives are given. Unfortunately, Hypothesis 2 (H2) is not verified. On average, people are willing to pay more when marketing campaigns are present.

- From the above statistics it is observed that there is a gap between willingness to pay for a standard hoodie and willingness to pay for a standard hoodie when information on pollution is given. The downtrend is worth 3,85 € (from 37,13€ to 33,28€ per hoodie) - on average users are willing to pay 10% less after have known how much the hoodie pollutes.
- From that point on, a solid up-trend can be observed (from 33,28€ to 58,45€). People are willing to pay more for a sustainable hoodie

(+25,17€ per unit). They are willing to pay almost 43% more for a sustainable hoodie after having become aware of the cost of sustainable production.

- What is remarkable is that, as the graph shows, people (on average) are more affected by marketing campaigns than by the cost of sustainable production info. More advanced marketing campaigns increase willingness to pay at an average value of 2,11 € ( +3% in respect to sustainable info); therefore reaching a total of 27,28€ in plus (+45%) to a normal hoodies with info polluting.

## 10.2. Analysis of the Patterns by Age




(Graph 10.2.1)

The line graph (10.2.1) compares the average value of the willingness to pay of the interviewees after watching four different videos. The survey answers have been grouped into two different age segments. Overall, the willingness to pay behavior lines present quite similar trends.

The pattern expected in Hypothesis 1 (H1) is verified for both age segments.

The pattern expected in H2 is not supported in both age segments. Over 35 year-olds increase their willingness to pay after have received marketing campaigns and 15-35 year-olds don't show a change in behavior and keep their average bid constant in Video 3 and 4.

The 15-35 year-olds decreased their willingness to pay by 4 € (-10%) after hearing how much fashion pollutes. After receiving a sustainable solution, their willingness to pay increased, reaching 56 €, with their willingness to pay increasing by 24€ (+42%).

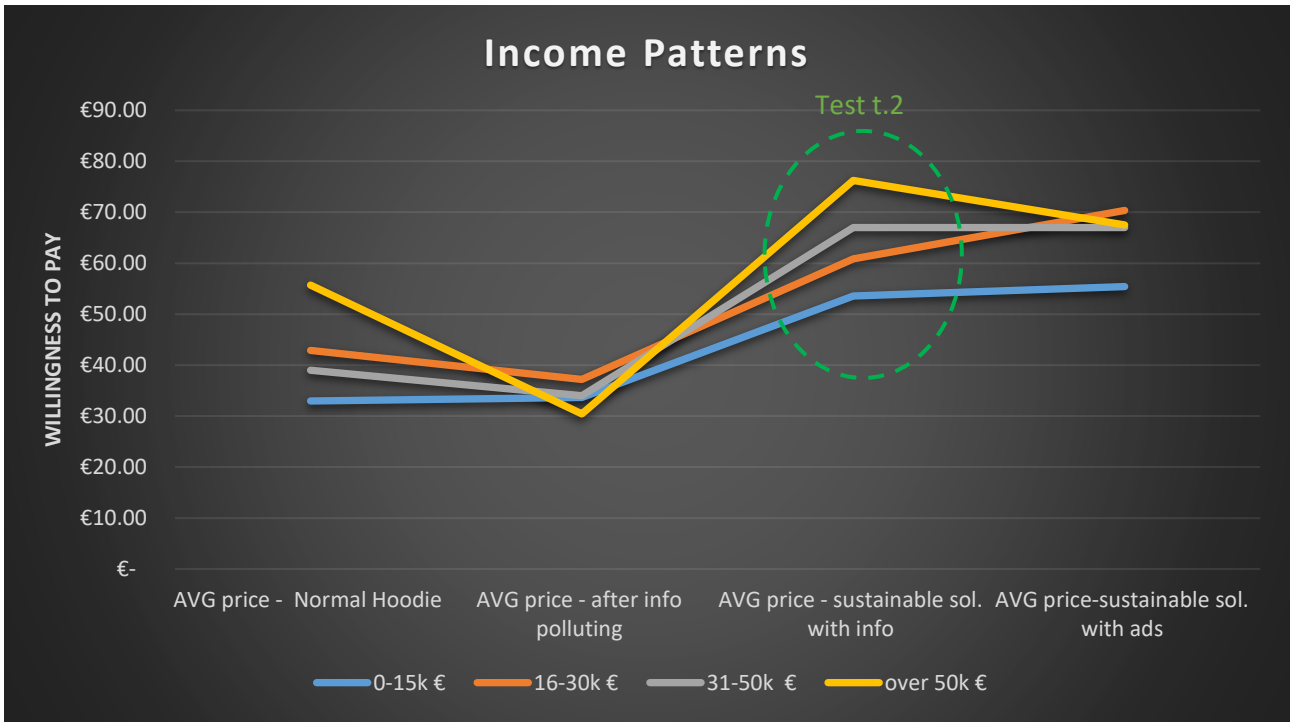
For the over 35 year-olds, we see a decrease in willingness to pay after becoming aware of how much fashion pollutes (-4,64€. -10%). From that point on, sustainable solutions were given and based on this, the willingness to pay rapidly increased and reached 67€ (+38%) when the info on the cost of sustainable production was presented. With marketing campaigns, the willingness to pay reach its peak of 75,5 € recording a +11% in respect to the previous step.

The output from the t-tests.1 on (Table 10.2.2) is reported below. The t-statistic for the difference in the means of the two groups (-1,27) is not tiny, but it is less than 1,96 and therefore it is comfortably below the critical values for both the one-tail and two-tail tests (1,72 and 2,08, respectively). In other words, the difference in the means for participants segmented by age in the treatment and control group is not significantly different from zero.

| Test t: Assuming Same Variance | | |
|---|---|---|
| | | |
| | *15-35 y.o.* | *Over 35 y.o.* |
| Media | 56,17647059 | 75,5 |
| Varianza | 1448,573975 | 2974,722 |
| Osservazioni | 34 | 10 |
| Varianza complessiva | 1775,605742 | |
| Differenza ipotizzata per le medie | 0 | |
| gdl | 42 | |
| Stat t | -1,274753762 | |
| P(T<=t) una coda | 0,104701911 | |
| t critico una coda | 1,681952357 | |
| P(T<=t) due code | 0,209403822 | |
| t critico due code | 2,018081703 | |

(Table 10.2.2)

## 10.3. Analysis of the Pattern by Income




(Graph 10.3.1)

The line graph (10.3.1) compares the average value of the willingness to pay for the interviewees after watching four different videos. The answers to the survey have been grouped by income per year into four segments. Overall, the willingness to pay behavior lines present quite similar trends for most of the segments, whereas in AVG price sustainable solution with ads presents conflicts among the segments.

- The segment of over 50k € income follows H1 because they show a counter-trend behavior towards the last question about sustainable solution with marketing. This segment also present the highest willingness to pay for a sustainable hoodie among all the segments (76,25€). It seems most likely that people with a higher income are more aware about sustainability and, first of all, care more about the quality of a product and second, they care more about the environment (Video 2). They have changed their behavior from 30,34 €, for an hoodie after becoming aware of how much it pollutes, to 76,25€ for a sustainable solution with production information. This gap is worth +45,85€ (+60%). It is the highest value seen so far among all the segments. We can clearly say that the wealthy segment is the most affected by sustainable production information

and the most reactive to a new product with a low social and environmental impact.
What also lends this a lot of relevance is that the wealthy class is genuinely affected by the information on pollution and therefore their willingness to pay is the lowest recorded value among all the segments. The over 50k € income segment is the only category to follow the H2.

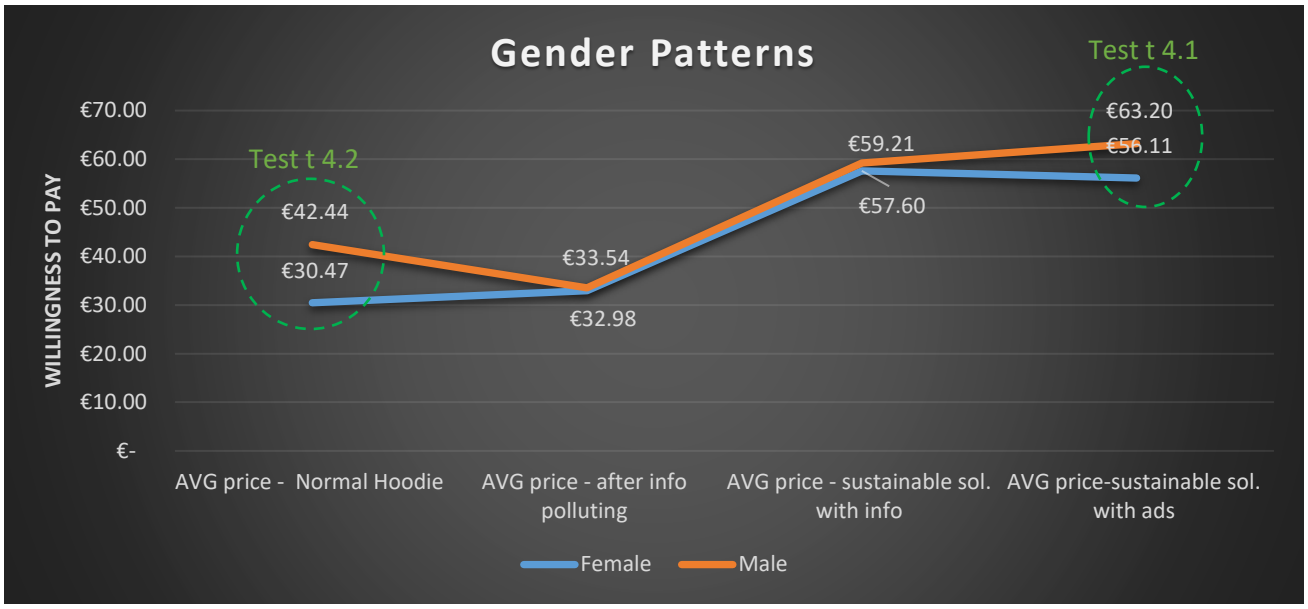
- All the other three segments present a similar pattern and all of them follow the H1 and they do not confirm the H2.

The output from the t-tests.2 on (10.3.2) is reported below. The t-statistic for the difference in the means of the two groups is -0,57, in absolute term 0,57. It is not small, but it is less than -1,96 and therefore it is comfortably below the critical values for both the one-tail and two-tail tests (1,69 and 2,03, respectively). In other words, the difference in the means for user segmented by income in the treatment and control group is not significantly different from zero. This is consistent with the assumption that the two groups of treated and controls are drawn from the same underlying distribution, i.e. are not statistically different. This was expected, given that the users were randomly assigned to the treatment.

| Test t: Assuming Same Variance | | |
|---|---|---|
| | | |
| | *0-15k €* | *16-30 k €* |
| Media | 54,24137931 | 60,83333333 |
| Varianza | 1150,975369 | 1076,515152 |
| Osservazioni | 29 | 12 |
| Varianza complessiva | 1129,97377 | |
| Differenza ipotizzata per le medie | 0 | |
| gdl | 39 | |
| Stat t | -0,571317704 | |
| P(T<=t) una coda | 0,285531152 | |
| t critico una coda | 1,684875122 | |
| P(T<=t) due code | 0,571062305 | |
| t critico due code | 2,02269092 | |

(Table 10.3.2)

## 10.4. Analysis of the Pattern by Gender




(Graph 10.4.1)

The line graph (10.4.1) compares the average value of the interviewee's willingness to pay after watching different videos. The answers to the survey have been grouped by gender into two segments.

Both gender segments follow the pattern predicted in H1, they are both willing to pay more for a sustainable alternative.

The female segment followed the H2. The female gender segment, on average, are more affected by sustainable production information. This may indicate that females tend to pay more attention to how things are made rather than how things are shown.

- Males, on average, are more sensitive to marketing campaigns and they are willing to spend more than female for a sustainable hoodie. On average they are willing to spend 63,2 € for a sustainable hoodie with marketing campaign and 33,54€ for a hoodie after becoming aware of how much it pollutes. The difference is +30€ (+46%).
- The female trend doesn't follow the H1. They are willing to pay more if information about how a sustainable production is made and cost are given. Overall, female willingness to pay is lower than male. The females, on average, are willing to spend 57€ for a sustainable hoodie and 33€ for a normal hoodie after being presented with how much it pollutes. The difference is +25€ (+43%).

- From the above statistic it is observed that the uptrends for male (+46%) and female (+43%) are quite similar. What make the difference a bit more predominant is expressed in terms of Euro. Males with + 33,54€ and females with +25€. It is also observed that before knowing how much fashion pollutes, males were willing to spend 12€ more than female for a normal hoodie (43€ with 31€ - 27,9% of difference).

The output from the t-tests 4.2 on Table 10.4.2 is reported below. The t-statistics is -2.12, in absolute term 2.12, above the critical value of 1.96 (in absolute value), which leads us to strongly reject the null hypothesis of no difference between the means. This implies that we reject the null hypothesis that the two means are equal at the 5% significance level; in other words, there is a relatively small, i.e., less than a 5% probability, that we wrongly reject the null hypothesis that the two means are equal. This is relatively strong evidence against the null hypothesis.

| Test t: Assumed Same Variance | | |
|---|---|---|
| | | |
| | *Female* | *Male* |
| Media | 30,46511628 | 42,44444444 |
| Varianza | 309,3023256 | 1124,742138 |
| Osservazioni | 43 | 54 |
| Varianza complessiva | 764,2319053 | |
| Differenza ipotizzata per le medie | 0 | |
| gdl | 95 | |
| Stat t | -2,120142835 | |
| P(T<=t) una coda | 0,0182999 | |
| t critico una coda | 1,661051817 | |
| P(T<=t) due code | 0,0365998 | |
| t critico due code | 1,985251004 | |

(Table 10.4.2)

The output from the t-tests 4.1 on Table 10.4.3 is reported below. The t-statistic for the difference in the means of the two groups (-0,44, 0,44 in absolute value) is small and lower than 1,96 in absolute value and therefore it is comfortably below the critical values for both the one-tail and two-tail tests (1,68 and 2,01, respectively). In other words, the difference in the means for participants segmented by gender in the treatment and control group is not significantly different from zero. This is consistent with the assumption that the two groups, treated and control, are drawn from the same underlying distribution, i.e., are not statistically different.

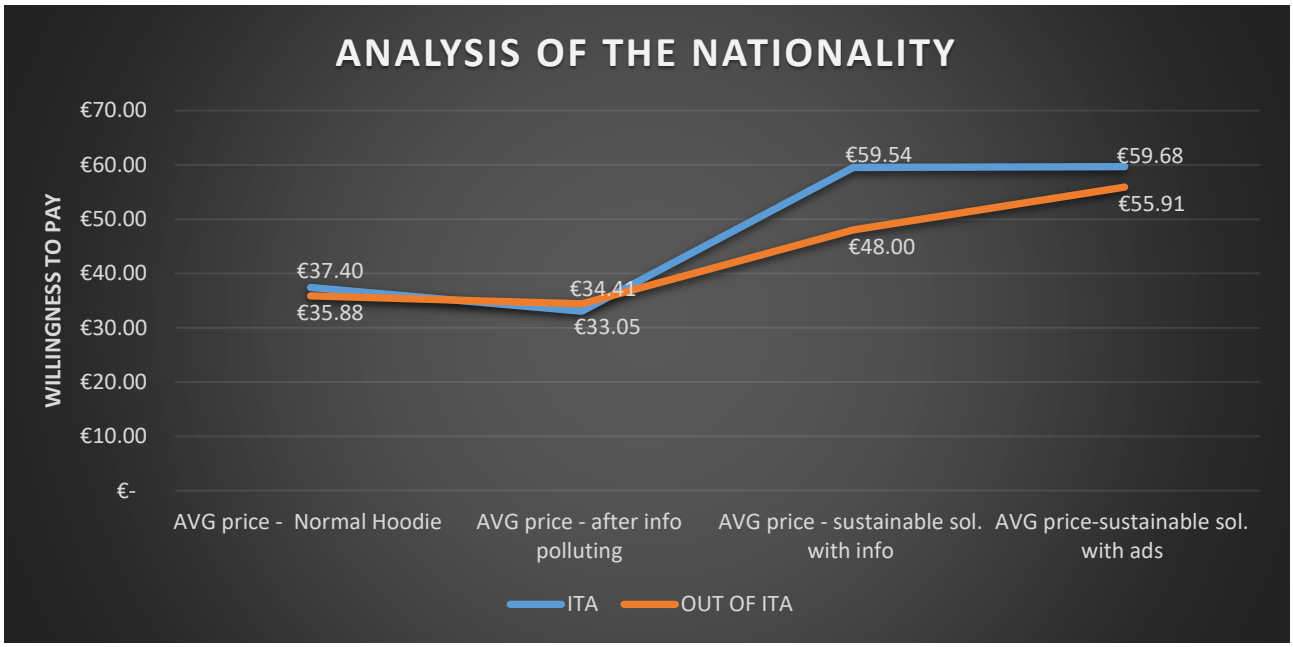
| Test T: Assuming Same Variance | | |
|---|---|---|
| | | |
| | *FEMALE* | *MALE* |
| Media | 56,11111111 | 61,92307692 |
| Varianza | 1633,986928 | 2000,153846 |
| Osservazioni | 18 | 26 |
| Varianza complessiva | 1851,943427 | |
| Differenza ipotizzata per le medie | 0 | |
| gdl | 42 | |
| Stat t | -0,440459297 | |
| P(T<=t) una coda | 0,330931597 | |
| t critico una coda | 1,681952357 | |
| P(T<=t) due code | 0,661863193 | |
| t critico due code | 2,018081703 | |

(Table 10.4.3)

As a general viewpoint, based on this study, women have significantly lower willingness to pay and don't change it much after watching the second video. After watching Video 4 they express willingness to pay similar to those of men.

Men have higher baseline willingness to pay but this shrinks to be statistically indistinguishable from that of women after watching Video 2. It similarly rises after Video 4.

## 10.5. Analysis of the Pattern by Nationality




(Graph 10.5.1)

The line graph (10.5.1) compares the average value of the willingness to pay of the interviewees after watching four different videos. The answers of the survey have been grouped by the nationality of the interviews into two segments (Italy and out of Italy).

Generally, the two segments show an increase in willingness to pay for a sustainable hoodie and verify the H1. In both the in Italy and out of Italy nationalities, people believe that sustainability is worth the increase in price. None of the two segments follow the H2 and therefore it is not verified. Both in Italy and out of Itay, based on the direction trends, show that people are more oriented to spend more when marketing campaigns are shown.

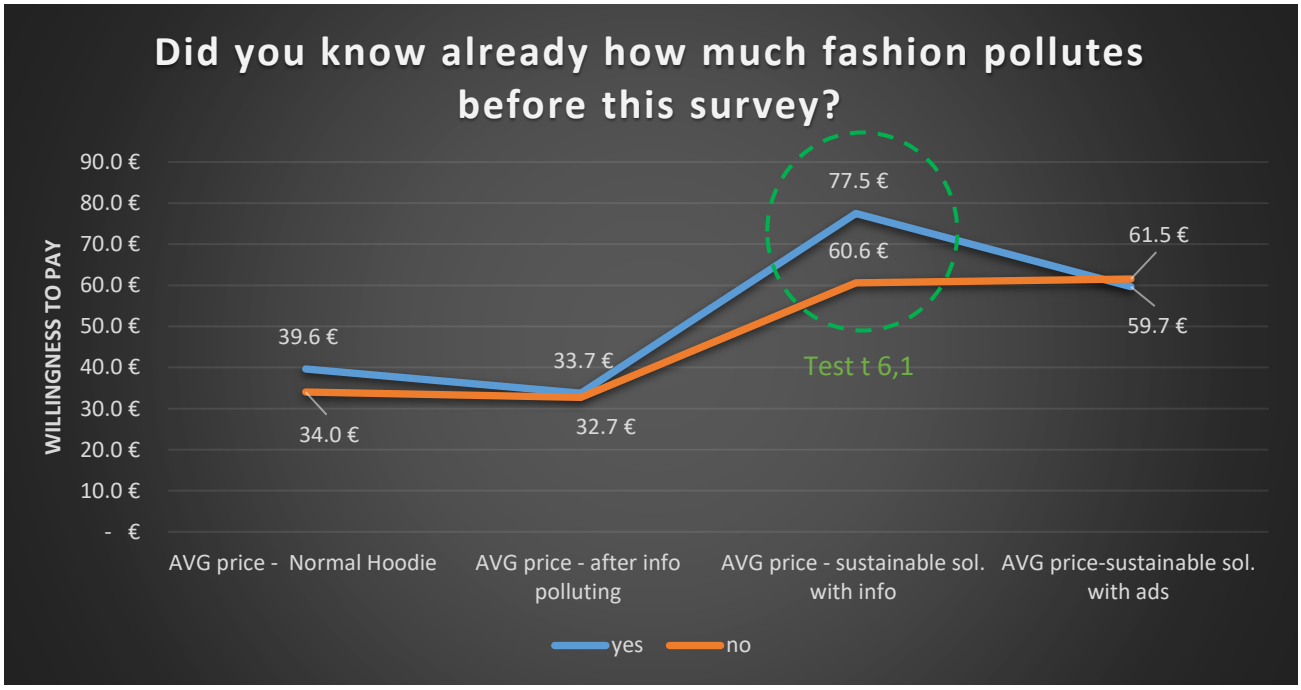
- From the above statistics it can be observed that Italian interviewees are willing to pay 26,49€ more (+44%) for a sustainable hoodie than a normal hoodie (with info on pollution given). It is evident, from the graph, that there is not a net variation in willingness to pay between a sustainable hoodie with sustainable production information and sustainable hoodie with marketing campaigns. The variation in price, on average, of the two is + 0,14€ (for sustainable hoodie with marketing campaigns). Italian interviewees analysis results are consistent with H1.
- Interviewees located out of Italy follow the H1 as well. They reach their peak of willingness to pay when they have seen the marketing campaigns. Their average willingness to pay increased between the

hoodie with info given regarding pollution and the sustainable hoodie with marketing campaigns with an average value of 21,49€ (+ 38%).

- On average, both the Italian and the out of Italy interviewees show a similar pattern in what affects their willingness to pay for a normal hoodie and their willingness to pay for a normal hoodie with info on pollution given. Both nationality segments present a down trend. It can be inferred that both of the segments are willing to pay less for the same product after having been exposed to information on pollution.

Due to the lack of data regarding the out of Italy participants, it was decided not to conduct a study in the difference of the mean.

## 10.6. Analysis of People Already Aware of How Much Fashion Pollutes Compared with Those Not Aware




(Graph 10.6.1)

The line graph (10.6.1) compares the average value of the willingness to pay of the interviewees after watching different videos. The answers to the survey have been grouped into two segments; the blue line is plotted with the data gathered from the answers of people who were already aware about how much fashion pollutes. The orange line is plotted with the data gathered from the answers of people that were not aware about how much the fashion industry pollutes.

Overall, the two segments show an increase in willingness to pay for sustainable solutions, verifying H1. Only users who were already aware about how much fashion pollutes verified H2. This may signify that those users recognize their impact as consumers and recognize the problem of pollution. They want to take action and they pay more attention to how things are made, especially sustainable products. People who were not already aware about how much fashion pollutes probably do not have a great interest in sustainable production information. They may not pay much attention to sustainability and climate change. They are not interested about these topics. What may play a role in changing their mind to increase their willingness to pay, would be seeing the same product but presented in a more persuading manner, called marketing.

- From the above statistics it is observed that people who were already aware about how much fashion pollutes are willing to pay more for a sustainable hoodie when they are shown sustainable production information (peak value), rather than marketing campaigns. The interviewees increase their willingness to pay from 43,75 € to 77,5€ for a sustainable hoodie with sustainable information, +56% more than a normal hoodie with information on pollution. What is evident from the line graph is that people who were already aware about how much fashion pollutes do follow H2. They show less interest for marketing campaigns and more interest in sustainable production information.
- From the data gathered from people who were not already aware about how much fashion pollutes, we can clearly see that they are willing to spend more for a sustainable hoodie when marketing campaigns are shown. They reach their average price peak exactly when marketing campaigns are shown (61,5€). We could not give a net preference of this over the price of sustainable hoodie when sustainable production info is given because the two values differ by only 0,92€. This pattern follows the H2.
- In this line graph, on average, both the participant categories show a similar pattern concerning the willingness to pay for a normal hoodie and the willingness to pay for a normal hoodie with info given on pollution. In both segments, a down trend is present that can be interpreted as both of the segments are willing to pay less for the same product after presented with information on pollution (-10%).

The output from the t-tests 6.1 on Table 10.6.1 is reported below. The t-statistic for the difference in the means of the two groups is 1.75. This is

higher than (t-critic one-tail) 1.67 and therefore we can reject the null hypothesis for the one-tailed test: willingness to pay for those already aware is significantly larger than willingness to pay for those unaware after seeing Video 3.

| Test t: Assuming same variance | | |
|---|---|---|
| | | |
| | *YES* | *NO* |
| Media | 66,2 | 49,75 |
| Varianza | 1446,416667 | 911,0092593 |
| Osservazioni | 25 | 28 |
| Varianza complessiva | 1162,965686 | |
| Differenza ipotizzata per le medie | 0 | |
| gdl | 51 | |
| Stat t | 1,753046908 | |
| P(T<=t) una coda | 0,042801606 | |
| t critico una coda | 1,67528495 | |
| P(T<=t) due code | 0,085603212 | |
| t critico due code | 2,00758377 | |

(Table 10.6.1)

# 11. CONCLUSIONS

Sustainability has officially entered in our daily routines, and it is increasing in force day by day. It has already become a must to incorporate more sustainable practices in every product and service delivered by companies. Climate change is something tangible and people have grasped this. Most people, and therefore customers, want to act against climate change and the key weapon against it is to behave responsibly and purchase sustainable solutions. As the literature shows, the primary objective of companies is to meet their customers' needs in order to survive and scale their business.

The conditions of competition are changing rapidly and companies that strategize and react to these changes promptly are the most successful. Differentiation should be made on the meaning that products bear instead of on their physical features.

Price is the most important factor for any company, whether green or conventional. After price, the most influential factor on consumer behavior is social responsibility of the company. Consumers can become educated about green products through communication, and they can be persuaded of the benefits, which significantly influences consumers in their decision making process. Companies can minimize price as a factor by promoting green products through involving and solving social problems. Green or non-green companies can improve company image and its reputation through attracting environmental conscious consumers and promote their green efforts through the effective use of media.

The research reveals the factors which impacts on customers buying decision while he purchase or buys a Hoodie. Fashion is the second largest polluter industry in the world and therefore there is a big opportunities for brand to conquer positions in the customer mind brand list by pointing out alternatives and new clothes with real and tangible sustainable advantages.

The analysis of my survey bring in light great insights. First Hypothesis (H1) has been verified in most of the cases analyzed and it can be confirmed that people are willing to spend more for sustainable alternatives. With precisions they are willing to spend 42% more than a commercial hoodie after becoming aware of how much a commercial hoodie contributes to pollution.

Second hypothesis (H2) were not confirmed in all the cases and therefore we can conclude that consumer behavior is more affected and therefore is willing to pay more when receive well-made marketing campaigns than sustainable production pros and cost.

# 12. REFERENCES


1. Yasmin van Kasteren ,2007/01/01,Jour,*The Determinants of Sustainable Consumer Behaviour*, Flinders University

2. Maria Vincenza Ciasullo, Gennaro Maione, Carlo Torre and Orlando Troisi ,2017, What about Sustainability? An Empirical Analysis of Consumers' Purchasing Behavior in Fashion Context, Department of Business Sciences, Management & Innovation Systems, University of Salerno.

3. Du Plessis, P. & Rousseau, G. (1999), as quoted by Alet C Erasmus, Elizabeth Bosh off and GG Rousseau. Consumer decision-making models within the discipline of consumer science: a critical approach. ISSN 0378-5254 Journal of Family Ecology and Consumer Sciences, Vol 29, 2001 p 82

4. Surya Rashmi Rawat, Dr. Pawan K. Garga, 2007, Understanding Consumer Behaviour towards Green Cosmetics Constituent of Symbiosis International University, Shimla-5 Pune – 411004 Maharashtra

5. Mitchell, R. W., Wooliscroft, B., & Higham, J. (2010). Sustainable market orientation: A new approach to managing marketing strategy. Journal of Macromarketing, 20(2), 160–170.

6. Dyllick, T., & Hockerts, K. (2002). Beyond the business case for corporate sustainability. Business Strategy and the Environment, 11, 130–141.
7. Laura frodermann, Exploratory study on Circular Economy approaches, Springer, Munich (G), 2018

8. Delphine Gallaud, B. Laperche, Circular Economy, Industrial Ecology and Short Supply Chain, Wiley, London (UK) , 2016

9. Jiansu Mao · Chunhui Li Yuansheng Pei · Linyu Xu, Circular Economy and Sustainable Development Enterprises, Springer , Beijing China, 2018

10. Roman Maletz -Christina Dornack - Lou Ziyang , Source Separation and Recycling, Springer , Cham, Switzerland, 2018

11. Peter Lacy- Jakob Rutqvist, Waste to Wealth, Palgrave Macmillan, 2015 , England

12. ackson, T. (2004). Motivating sustainable consumption (Draft 1 August 2004): Centre for Environmental Strategy, University of Surrey.
13. Richarme - Jeff Bray - Consumer Behaviour Theory: Approaches and Models (2007)

14. SCHIFFMAN, L. G., et al., 2007. Consumer Behavior. 9th ed. New Jersey: Prentice Hall.

15. Ana BUHALJOTI - January 2013- MANAGEMENT DYNAMICS IN THE KNOWLEDGE ECONOMY 7(3):407-422

16. Edwards, W., & Fasolo, B. (2001). Decision technology. Annual Review of Psychology, 52, 581–606.

17. Adeela Gulzari, Yuchen Wang, Victor Prybutok, A green experience with eco-friendly cars: A young consumer electric vehicle rental behavioral model, Journal of Retailing and Consumer Services, 10.1016/j.jretconser.2021.102877, **65**, (102877), (2022).

18. Michael J. Ryan and E. H. Bonfield - Journal of Consumer Research
19. Vol. 2, No. 2 (Sep., 1975), pp. 118-136 (19 pages)
20. Published By: Oxford University Press

21. cek Ajzen,Martin Fishbein - Scaling and Testing Multiplicative Combinations in the Expectancy–Value Model of Attitudes, 05 September 2008,

22. Fishbein, M. (1967b). A consideration of beliefs and their role in attitude measurement. In M. Fishbein (Ed.), Readings in attitude theory and measurement (pp. 257–266). New York: Wiley.

23. Carlson, E. R. (1956). Attitude change through modification of attitude structure. Journal of Abnormal & Social Psychology, 52, 256–261.

24. cek Ajzen, 2008, Consumer attitudes and behavior University of Massachusetts Amherst , New York: Lawrence Erlbaum Associates,2008

25. Osgood, C. E., Suci, G. J., & Tannenbaum, P. H. (1957). The measurement of meaning. Urbana: University of Illinois Pres

26. Batra, R., & Ray, M. L. (1986). Situational effects of advertising repetition: The moderating influence of motivation, ability, and opportunity to respond. Journal of Consumer Research, 12, 432–445.

27. Coulter, K. S., & Punj, G. N. (2004). The effects of cognitive resource requirements, availability, and argument quality on brand attitudes: A melding of elaboration likelihood and cognitive resource matching theories. Journal of Advertising, 33, 53–64.

28. Göbel, Philipp/Reuter, Carsten/Pibernik, Richard/Sichtmann, Christina/Bals, Lydia (forthcoming) (2004) : Purchasing Managers' Willingness to Pay (WTP) for Attributes that Constitute Sustainability, accepted at Journal of Operations Management.
29. (Determinants of Store-Level Price Elasticity- stephenj . hoch, byung-dok im, alanl . montgomery,and petere . rossi.)
30. (Tey, Yeong Sheng, Brindal, Mark, Dibba, Haddy, 2018, Factors influencing willingness to pay for sustainable apparel: A literature review)
31. (Mowbray, 2010).
32. (Better Cotton Initiative, 2015)
33. (Kim, Ko, Lee, Mattila, & Hoon Kim, 2014).
34. (Koszewska, 2011).
35. (Von Drehle, 2004).
36. (Green Strategy, 2017).
37. (The UN Global Compact, 2012).
38. (Radhakrishnan, 2015).