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Dipartimento
di Economia e
Management

Cattedra: Research Methodology for Marketing

Sustainability in the fashion industry: WTB and sentiment of consumers

Prof.ssa Carmela Donato

RELATORE

Prof. Michele Costabile

CORRELATORE

Leonardo Merlicco

CANDIDATO

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CHAPTER 1
INTRODUCTION

1.1 Overview

This thesis focuses its study on sustainability and fashion, a highly critiqued combination of concepts and a conjunction deemed as "utopist" by most of the previous research.

The industrial nature of the production of clothing has a sustained impact on the environment. The production levels of fast fashion challenge the ethics of the process making it near impossible to know the origin of a garment. Supposing the levels of consumption staying the same, with population rising over the years, the planet cannot sustain this level for too long (World data Bank, 2015). The materials used in clothing production have a direct impact on the environment, population, and workers.

Polyester and cotton amount for more than 80% of all the fibers production, and both have shown to create sustainability issues. Cotton is a natural fiber and producing it is a major business employing over 300 million people, 90% of which work in developing countries. Cotton crops are addicted to agrichemicals, due to their production being riddled with parasites, making it increasingly reliant on pesticides (Siegle, 2011) to the point of counting for 11% of all pesticides used each year in the whole world (FOEE, 2013).

Fashion has a long history with humankind. It is offering covers people of all ages and all backgrounds. Since the last 20th century, the mainstream trend has been offshoring work from developed countries to developing countries, leaving a hole in the job-market of the western world while introducing new ways of growth for these countries.

This, however, is not the whole truth. Companies that have offshored effectively created longer supply chains, impoverishing the "story" of garment. Cutting costs in the production has reduced the general safety of the workers, the quality of the chemicals uses, and health issues from bad working condition, all for the final scope of possibly cutting the prices offered to the final consumers. The overall quality of the fibers used to produce garment has lowered with time, ultimately reducing the lifespan of the fashion items consumers wear.

There are two main markets in the fashion market. The first one is Haute Couture, consisting of exclusive custom-fitted fashion and the second one is "pret-a-porter" or "ready to wear" which produces standardized clothing sizes. Fast fashion is a typology of high street pret-a-porter, it demands low prices, while offering new weekly products, which become outdated, pushing the quality demand up and the prices down (Siegle,2011). This business model is rapidly taking over the industry, with the pace of the production being their main concept and the low price as their

value proposition. The general fashion cycle has been reduced to the bone, with suppliers requested to manufacture four styles at 500 garments for five weeks, and almost 4 times more last-minute, when the client has resolved whether the consumers has taken on with that trend.
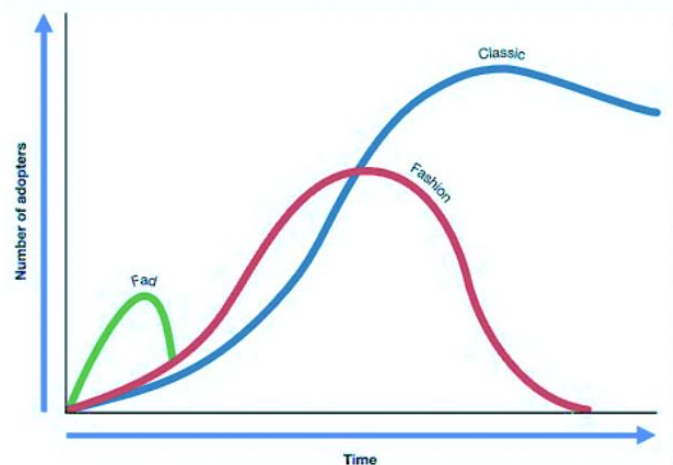

Fig.1 Fashion Product Life Cycle Model
Source: Solomon et al., 2006

Fast fashion firms must rely on efficient supply chains to keep a great level of rapidly changing merchandise, multiplying their contractors indefinitely if necessary, to the point of eventually losing the brands control over the production process (Hobbs, 2010). Tracing the origin of a garment is near impossible. This high demand of work from contractors also creates a very particular phenomenon when these organizations cannot keep up with demand. When the suppliers are at risk of not being able to fulfill their order, they do not turn it away, but they hire unapproved sub-contractors, typically at the poorest labor condition.

This exasperation of the supply chain and the use of low price and low control subcontractors has a lot of effects on the environment and is not sustainable in the long term for our planet's wellbeing.

One solution to that comes from the basic concept of sustainable development. The most common definition for sustainable development is the Brundtland commission's report: "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (Adams, 2006 cited Brundtland). This report alerted the world of working towards an economic development while keeping the natural resources and the environment intact and safe.

Adams concentrated the idea into three pillars: social, environmental, and economical.

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Social sustainability emphasizes on initiatives such as peace, social justice, reducing poverty, gender equality and corporate governance. It focuses on the idea of providing future generations with the same or even greater access to the resources than the current generation. At the individual level, one should have the access to health care nutrition, shelter, and education, in addition of cultural expression. (Adams, 2006; Basiago, 1999; MacKenzie, 2004).

Environmental stability focuses on the ability of the environment to support a defined level of quality and natural resource intact. It supports matters like renewable energy, cutting fossil fuel consumption, and better waste control. For this pillar to be sustainable, the capacity of the environment to absorb waste should not be exceeded. (Adams, 2006; Basiago, 1999; MacKenzie, 2004).

The last Adams pillar is the economical one, focusing on the financially feasible development while staying socially and environmentally sustainable. A firm must consider the financial performance, while also managing its intangible aspects and how it influences social and environmental aspects (Adams, 2006).
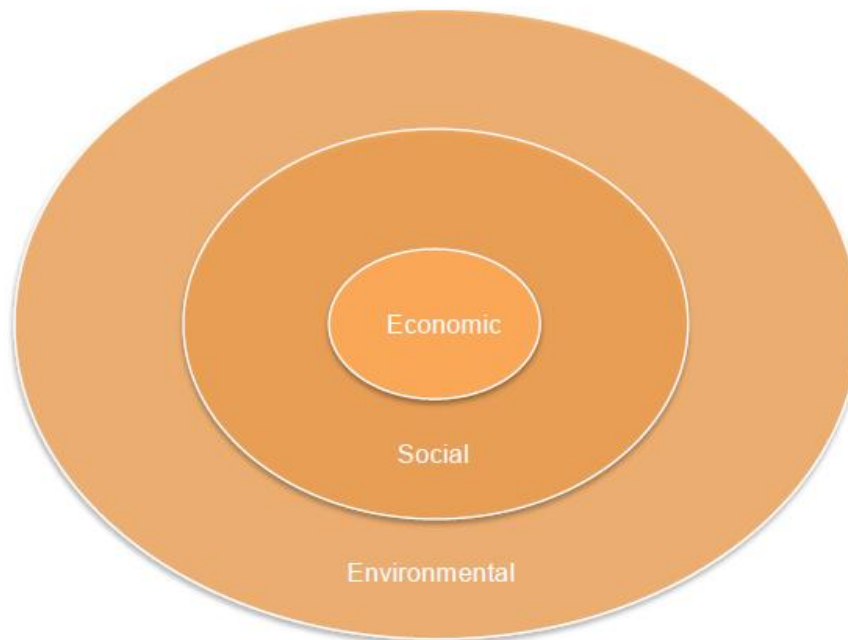
Fig.2 Sustainability Venn diagram, concentric circles

Source: Adams 2006

Environmental

A viable natural environment

Bearable

Viable

Sustainable

Social

Nurturing community

Equitable

Economical

Sufficient economy
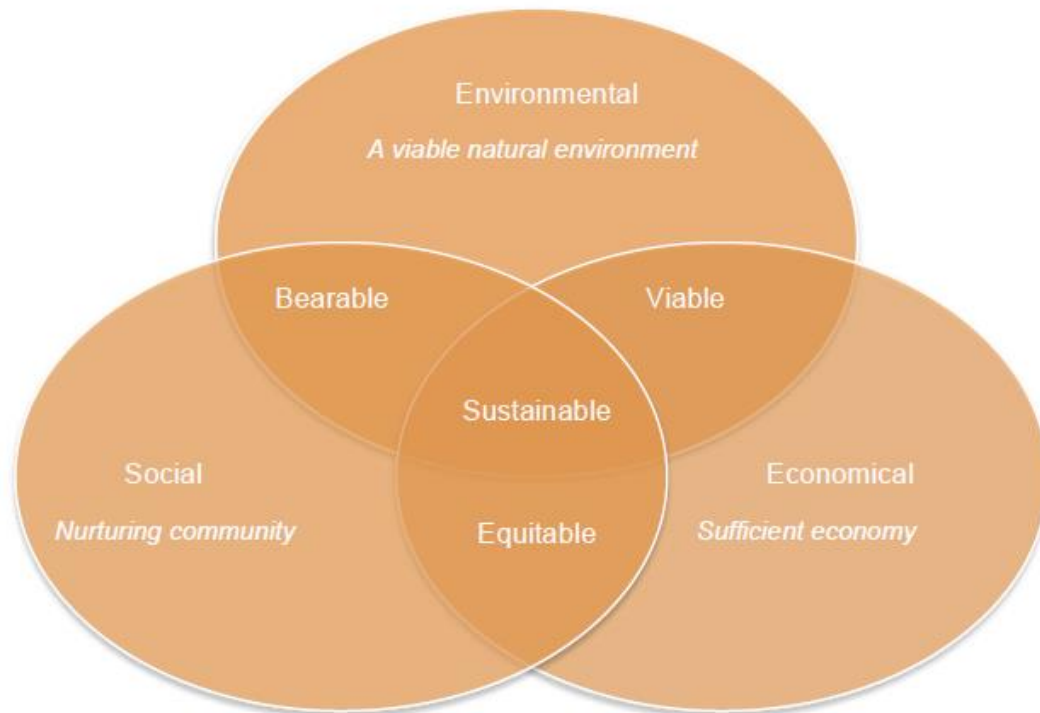
Fig.3 Sustainability Venn diagram, overlapping circles.

Source: Adams 2006

One of the main topics in terms of sustainability today is circular economy. This topic attracts young consumers the most and it is one of the most concrete sustainable way to reduce waste and take care of environmental issues. Personal and Heart's health are one of the main concerns of Millennials and Gen Z (respectively 28% and 40%), with most of them willing to pay a 5% overprice to get a sustainable product. Social networks are their first information source, and for companies this is one of the main evolutions they must undertake to correctly communicate with them. Since this consumer's value transparency and authenticity the most, they expect brands to reflect their own values before considering buying them. This new affluent generations are more socially and environmentally conscious, and so they have higher expectations of fashion brands to be ethically correct and environmentally sustainable with their production process. This information represents a gold mine for brands, giving them the chance to plan an evolutionary path in the future, towards a greener, cleaner, sustainable production. Research shows that 88% of consumers want brands to help them be more environmentally friendly[1], and since the fashion

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[1] https://www.forbes.com/sites/solitairetownsend/2018/11/21/consumers-want-you-to-help-them-make-a-difference/?sh=34da41c16954

industry is responsible for 20% of all water pollution worldwide, is clear that some companies will have to lead a new way in sustainability.

Thankfully, there are a lot of firms, working towards a green ideal. Inditex group (Zara, Pull & Bear, Stradivarius, Massimo Dutti and more) for example, has started a project called "Closing the loop", to stop garment or discarded materials from their production sites to landfills before 2020 ends. H&M, the Swedish colossus of fast fashion, is moving on from his old behaviours, reducing the emissions of CO_2 of their factories, using recycled and/or sustainable cotton for their production and giving the customers to return their items to the stores in exchange for gift cards to spend in-store.

Adidas is another brand working for a greener personality. The main objective of the sports brand is keeping the ocean clean. Many football team kits from Adidas are made from recycled plastic coming from the ocean, and the firm decided to eliminate plastic bags from more than 10.000 stores (more than 50 Million bags).[2]

Fig.4 Adidas football Kit made from a 100% recycled polyester interlock material that incorporates Ocean Plastic ® by Parley for the oceans.

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[2] https://www.gameplan-a.com/2020/06/the-adidas-sustainability-story-leading-the-change/#:~:text=For%2020%20years%20adidas%20has,single%2Duse%20plastic%2Dfree.

Even luxury brands are embracing the change in times, starting to focus on sustainability more and more. Ralph Lauren recently launched the Earth Polo, a reimagination of its iconic polo shirt, crafted from thread entirely derived from recycled plastic bottles and dyed with an innovative process that uses zero liters of water.[3]

In 2014, Stella McCartney introduced Clevercare, a simple, five-step labeling system to help consumers care for and prolong the life of their clothing through mindful garment care. "We consider our environmental footprint at every point of our design process" is what the English stylist said, setting the bar high for sustainability in the fashion industry.[4]

1.2 Upcycling

Upcycling is an innovative sustainable production process, far less known that recycling, that focuses its process on the reuse and reconversion of dismissed products or discarded materials. The main difference from recycling is the fact that upcycling does not reduce the value of the used materials, the opposite: it augments it. Giving new life to discarded materials and such, using design and new materials make the product interesting, functional, and emotionally intense, since it carries a deeper meaning.

In the recent years, the concern for the environment, got this production process trending again, moving the interest in research and literature as well. Previous research has shown how upcycling can slow down or close material cycles (EMF, 2013) and creates economic opportunities thanks to the promotion of reusing. The value of the final upcycled products tends to be perceived as higher, mainly thanks to the emotional factor carried by the item itself. In fact, when the "previous life" of the product is shown and correctly communicated, consumers are willing to invest more money to buy the product. It seems obvious that such a practice is completely divergent from the "state of the art" in the fashion business, but it looks like we might be at a new point in the evolution of the consumption of fashion.

When talking about upcycling, this particular trend in the fashion world is undertook by many firms. One example is the collaboration between the famous Italian Luxury brand Prada and the

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well renowned television network National Geographic. These two actors created a new collection of fashion items, all made by upcycling called "Prada Re-Nylon" by recovering old materials discarded throughout the world, going from American old carpet, lost fishing nets in Cameroon's rivers and lakes, plastic in the ocean of New Zealand all the way to textile cuttings from China, while reporting every movement of the materials and keeping the process as transparent as it gets.

Fig.5 Prada Upcycled "Re-Nylon" bag

Not only does upcycling create value for the consumers. It also is valuable for firms that have the ability to now "sell twice" but also for more stakeholders:

Actors of Upcycling:

- Stores that perform minor mending and washing
- Government machineries that collect and formulate law
- Charitable organizations that collect and redesign garment
- Laundry services
- Volunteers that redesign clothing.

Since guaranteeing a stable flux of materials and high-quality products is near to impossible, the quality of the materials becomes of fundamental importance for an upcycling-operating business. Having some sort of coordinating actor, to protect and organize the activities of all the stakeholders could be of great help in order to create a well-working network of firms that care about

sustainability and use production processes according to its concepts in order to produce their products.

The study I am proposing will be helpful for firms that work in the fashion business to possibly get closer to a different production process than the usual. The focus being on both Luxury and fast fashion brands, makes this thesis available as an inspiration for further research on both product types and to whomever wants to know more about the unexplored world of sustainable production processes.

CHAPTER 2
LITERATURE REVIEW

2.1 Is fashion compatible with sustainability?

Over the last years, sustainability and ethical rules of conduct have begun to matter in the fashion industry with companies realizing that affordable and trend-sensitive products, while being highly profitable, also raise issues about ethical procedures related to their manufacturing. New generations are highly conscious of green values and environmental sustainability while still in continuous need for ever-newer fashion. Sustainability has many definitions such as:

- "An activity that can be continued indefinitely without causing harm."
- "Doing unto others as you would have them do unto you."
- "Meeting a current generation's needs without compromising those of future generations."

Sustainability involves a complex, ever-changing mechanism of environmental dynamics that affect individuals' lives intersecting with economic, socio-political, and ecological dimensions locally and globally. As Beard (2008:448) states, "*The difficulty (in the fashion industry) is to see how all the suppliers of the individual components can be ethically secured and accounted for, together with the labor used to manufacture the garment, its transport from factory to retail outlet, and ultimately the garment aftercare and disposal*". The fashion industry presents itself as a highly fragmented and complex one, as a result fashion manufacturing is not appearing as transparent as individuals frame it[5].

Fast fashion is by its nature, a fast-response system that encourages disposability and ultimately contributes to a large quantity of garment being disposed of after little to no use. In the fashion industry the turnaround time from catwalk to consumer is on average six months, now compressed by fast-fashion companies such as Zara or H&M to a couple to three weeks maximum. This fast process is based on fast cycles: rapid prototyping, small batches combined with large variety, logistics on point, and merchandise presented to be "*floor ready*" on hangers with tags already attached. The side effect of such a continual and rapid turnover is a sort of "*mass exclusivity*". Fast fashion companies like Zara used to manufacture all their goods in Europe, with better quality control, while now outsourcing at least 13% of their manufacturing to China and Turkey. The impact on the environment is easy to see, with shipping from China taking up to three weeks, and fast fashion companies admittedly employing higher-cost local labor and expedited shipping methods when faced with tight delivery demands. So, coming back to the initial question, "Is fashion compatible with sustainability?" In this chapter we will explore multiple techniques, such

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[5] Even less transparent than agribusiness (Mihm 2010. Partridge 2011)

as cradle-to-cradle design, circular economy, upcycling, and recycling, all of them being focused on leaving as little impact as possible on the environment with a focus on emissions.

2.1.1 Sustainability in the fashion industry

In contrast to a growing literature trend on fashion, there is not much written about the issue of sustainability and fashion from a sociological perspective. The usual pressing issue with sustainability is characterized by the environment and the costs of production practices on natural resources. To try and explain this trend in research it could be easily imaginable that the environmental costs have been placed upon future generations in an unaware era of mass production. However, a more interesting point to study might be how people tend to connect with nature and culture, so as to map the relationship between the environment and the clothing. To understand this, we can acknowledge the work of Bruno Latour, a French theorist. Latour (1993) challenges our preconceptions about the culture/nature model, asserting that "culture" is superior and active while "nature" is inferior and passive. In reality there is not such a fierce distinction between the two, that could be seen with something like science and technology studies or even with fashion that could be referred as a hybrid of something seemingly "cultural" but also "natural" due to the natural materials composing it. Thinking of fashion as a nature-culture hybrid gives us the opportunity to see continuities between the dress practices and the environmental impact. We can use this also to expand our thinking, developing a comprehensive and global knowledge of the industry while also research on the practices needed to provide fashion to consumers such as production, distribution and finally consumption.

2.1.2 Sustainability in the Luxury industry

All industries, including luxury need to preserve materials, guarantee a safe manufacturing of their products, and avoid pollution when possible. Even if other sectors might be considered as more relevant in terms of sustainability, luxury brands that have embraced sustainability programs must take care to maintain it. Luxury companies have started to publish their activities on sustainability (DeBeers,2009) yet, few companies take proactive sustainable development stances since they perceive that sustainability suffers from a lot of "greenwashing" to the point that remaining silent helps avoiding boomerang effects. In truth luxury brands tend to produce products by hand and control the supply chain from the bottom to the top. The main concern activists have on luxury is mainly dedicated to the "hidden parts" of the supply chain such as the raw material sourcing, animal treatments, lobby, etc. The luxury sector is then slowly but surely understanding the reputational

risks, especially with the new communication techniques and user generated content permeating the web. Many consumers prefer to spend a few more dollars to create personal links with eco-friendly cotton growers who supply small fashion brands instead of big fashion retailers (Chan and Wong, 2012) instead of mass fashion companies such as Zara, Mango, H&M, and many more that have delocalized their production in low labor cost countries like China or Thailand. The luxury section in fashion was historically aligned with sustainability due to his uniqueness and incredible quality, respect for tradition and heritage but now it looks like more fashion goods are made to fill trash bins after they achieve their rapid obsolescence in a sort of mass luxury model.

Academic studies present an important debate on sustainability linked to the luxury industry, with some authors believing the two concepts share common characteristics (Cervellon 2013, Hennings et al. 2013), while others argue that luxury consumers have little interest in sustainable luxury products and even express a negative attitude towards them. The contradiction between luxury and sustainability is evidenced by the consistency theory (Festinger 1957), stating that where there is inconsistency between two pieces of information, people are motivated to change and behave accordingly with their beliefs and values. This inconsistency might then interfere with the ability to act. There is a way to reduce or resolve inconsistency as Awa and Nwuche (2010) recognized: public or private. Public actions involve the requirement of compensation from the offending organization while the private actions focus on the boycott of the offending product and/or its manufacturer.

The perceived quality of the luxury product is another factor harmed by the sustainable attributes. In fact, perceived quality is defined as "consumers' judgement about a product's overall excellence or superiority" (Zeithaml 1988) and luxury products including sustainable attributes are impacting negatively on the overall perceived quality of the product (Achabou and Dekhili 2013). That is an important key point to factor in the analysis, noted that quality is the cue consumers most use when evaluating luxury product's level of prestige (Vigneron and Johnson 1999). According to Dekhili et al. the use of sustainable substitutes even of excellence quality has been proven to undermine the perceived quality of luxury products.

Another focus point to keep in mind when analyzing sustainability in a luxury industry is Corporate Social Responsibility (Kotler 2011, Romani et al., 2016). CSR is defined as the set of discretionary activities "demonstrating the inclusion of social and environmental concerns in business operations and in interactions with stakeholders" (Van Marrewijk and Were 2003). It is notable how in the luxury market, CSR has been used as a key pillar in the overall brand strategies. For instance, in 2015, Prada's CEO Carlo Mazzi announced the launch of a website to document and track CSR

initiatives and programs of the brand. Meanwhile LMVH and Kering, two of the biggest luxury groups worldwide, published detailed reports on their CSR initiatives.

Previous research shows that efforts on disclosure of the CSR practices might harm brand images (Torelli et al 2012) and moreover some consumers see the luxury industry and CSR as conflicting concepts (Achabou and Dekhili 2013, Davies et al. 2012, Griskevicious et al. 2010). This might be due to the inability of luxury companies to develop and communicate CSR strategies in such a way to be appealing to target consumers or even because luxury in general evokes hedonism, excess, and ostentation (Cristini et al. 2017, De Barnier et al. 2012) while social responsibility evokes distant concepts such as sobriety, moderation, and ethics (Gladwin et al. 1995, Lochard and Murat 2011). In contrast to the previous research, key findings on the topic have been made by Amatulli et al. These scholars studied how the external CSR initiatives (related to legal and philanthropic dimensions) will be more effective than internal CSR initiatives (those related to legal and economic and ethical dimensions) in boosting consumers' WTB luxury products and are more effective for the consumers who buy luxury products for status and conspicuousness.

2.2 Eco-efficiency

Eco-efficiency strategy focuses on maintaining or increasing the value of the economic output while (simultaneously) decreasing the impact on the environment. The most heard extension to this model is the zero-emission strategy, aiming to provide maximal economic value with no impact at all upon ecological systems. Following this strategy, materials are extracted from the environment, transformed, and disposed of, but that leaves a fundamental issue, eco-efficiency minimizes the volume and toxicity of the material but is incapable of altering their linear progression. This is due to the nature of materials, some that can be recycled and some not designed to be recycled. What this process is doing at the end of the day is downcycling, downgrading the material quality which limits usability and maintains the material flow system. Despite the various definitions to this concept, the core of eco-efficiency is "to get more from less" and we can say that it encompasses the concepts of:

- **Dematerialization**
- **Increased resource productivity**
- **Reduced toxicity**
- **Increased recyclability (downcycling)**
- **Extended product lifespan**

The problem related to these strategies is inevitable, they presuppose a system of production designed to inevitably transform resources into waste. Eco-Efficiency can then be classified as a short-term solution, reducing the impacts of business activities and an opportunity to significantly reduce costs but, as most short-term solutions, this is a reactionary approach, not addressing innovation and the issues related to the toxicity of materials. There are two main goals achieved by this strategy:

- **Damage management**
- **Guilt reduction**

Efficiency improvements in emissions have not stopped the consistent growth of needed raw materials. This is because Recycling is hardly a magic bullet situation. When plastics are recycled into countertops, for example, valuable materials are mixed and cannot be recycled again. Looking at the future, the aim of eco-efficiency would be a state of zero: zero waste emissions, zero resources and zero toxicity emitted, but this is inevitably unreachable. Despite dematerialization being one of the major features of the digital transformation of the world, it will never be possible to provide all goods and services without material resources.
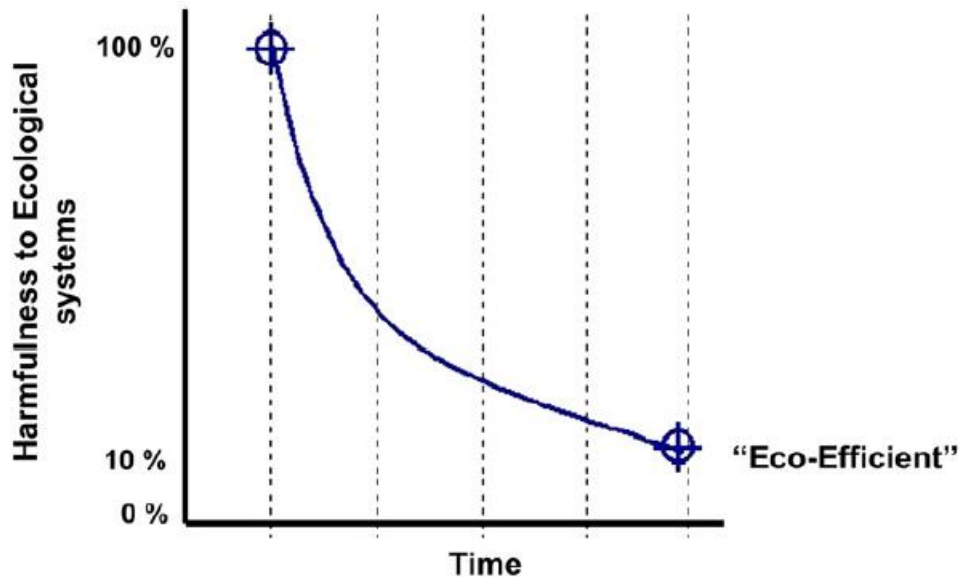
Fig.6 Eco-efficiency strives to minimize damage to ecological systems.

Source: Michael Braungart, William McDonough, Andrew Bollinger, Cradle-to-cradle design: creating healthy emissions – a strategy for eco-effective product and system design, Journal of Cleaner Production, Volume 15, Issues 13–14, 2007.

2.3 Eco-effectiveness

Cradle-to-cradle and "eco-effectiveness" designs present a fundamental difference in the production concept than "zero emission" and "eco-efficiency" designs, these last two seeking the reduction of negative consequences related to the processes of production and the final consumption of goods. Eco-effectiveness was originally defined by The World Business Council for Sustainable Development as "*being achieved by the delivery of competitively priced goods and services that satisfy human needs and bring quality of life, while progressively reducing ecological impacts and resource intensity throughout the life cycle to a level at least in line with the heart's carrying capacity*". This strategy proposes the transformation of products so that they form a supportive relationship with the ecological system and future economic growth, thus creating a synergistic relationship between ecological and economic systems while enabling materials to be "metabolized" and maintain their status as resources as they accumulate intelligence over time (upcycling). The eco-effective approach clashes with zero-emission strategies in that it deals directly with the issue of maintaining (upgrading) the resource quality to eliminate potential waste in future uses. Efficiency and effectiveness can be complementary strategies, but they differ in the major assumption, Eco-efficiency assuming "industry is 100% bad" and Eco-effectiveness assuming it's "100% good". Cradle-to-cradle design is a framework for designing products and processes that turn materials into nutrients.

Nutrients can be categorized in two branches, "biological nutrients" being biodegradable materials that pose no risk for living systems and can be used for human purposes before being returned to the environment and "technical nutrients", frequently synthetic or mineral material, that has the potential to remain safely in a loop of manufacturing processes.
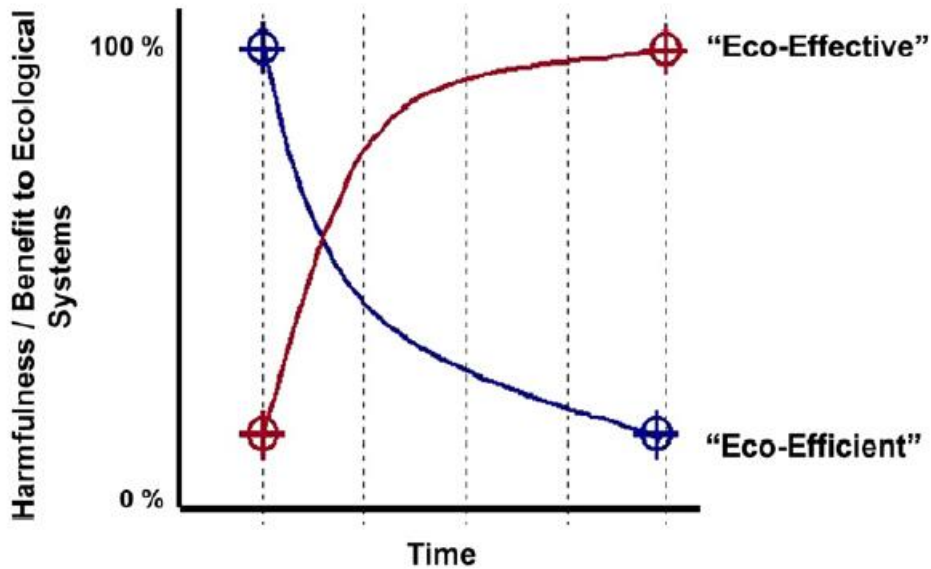
Fig.7 Eco-effectiveness strives to generate an entirely (100%) beneficial impact upon ecological systems.

Source: Michael Braungart, William McDonough, Andrew Bollinger, Cradle-to-cradle design: creating healthy emissions – a strategy for eco-effective product and system design, Journal of Cleaner Production, Volume 15, Issues 13–14, 2007.

2.4 Circular Economy

The concept of circular economy, the concept of closing material loops to preserve products and materials and extract their maximum utility, has gained significant consideration since a half century ago (Boulding 1966). There are multiple schools of thought about the topic, sharing the same core values but with different outcomes. Some focus on the extraction of resources and minimization of the waste produced in the industrial project (EC 2016a; Nansai et al. 2014), while others focus on economic growth potential (Ellen MacArthur Foundation 2015; McKinsey & Company 2014; Morgan and Mitchell 2015). There are three main activities related to circular economy:

Reuse at the product level (*repair* or *refurbishment*)

Reuse at the component level (*remanufacture*)

Reuse at the material level (*recycle*)

There is clearly a remarkable environmental appeal in using a circular economy model, due to the less environmental damage caused by the reprocessing of products, components, and materials. This secondary production prevents a primary production, so the environmental benefit is the difference between what has been reused instead of re-produced. This consequence has a secondary

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impact on the scarce resources and the time a landfill becomes full. Is widely recognized that avoiding a new production process outweighs these ancillary benefits (The Economist 2007, UNEP 2010). The creation of a circular economy environment creates directly new micro-markets, between nearly every step in the life of a product. In each of these micro-market, secondary goods compete directly with primary goods and this makes the interaction between goods of different kinds more difficult to predict. Recently the concept of circular economy has been highly criticized. Allwood (2014,2016) discussed the limits of the model and questioned the desirability of the circular economy in a society that has high demand growth. The main concern surrounding the circular economy is whether the secondary production "reduces" or simply "displaces" primary production. The most common criticism, in the most recent research, is about the idea that simply "connecting waste streams" from a process to inputs in a different process does not automatically reduce environmental damage. The effects of secondary production cannot be predicted by engineering models alone, but they are fundamentally economic. Previous research has shown that sometimes circular economy can go wrong (in the refurbished cell phones market or the glass bottles) so it is key to understand the so-called Circular Economy Rebounds.
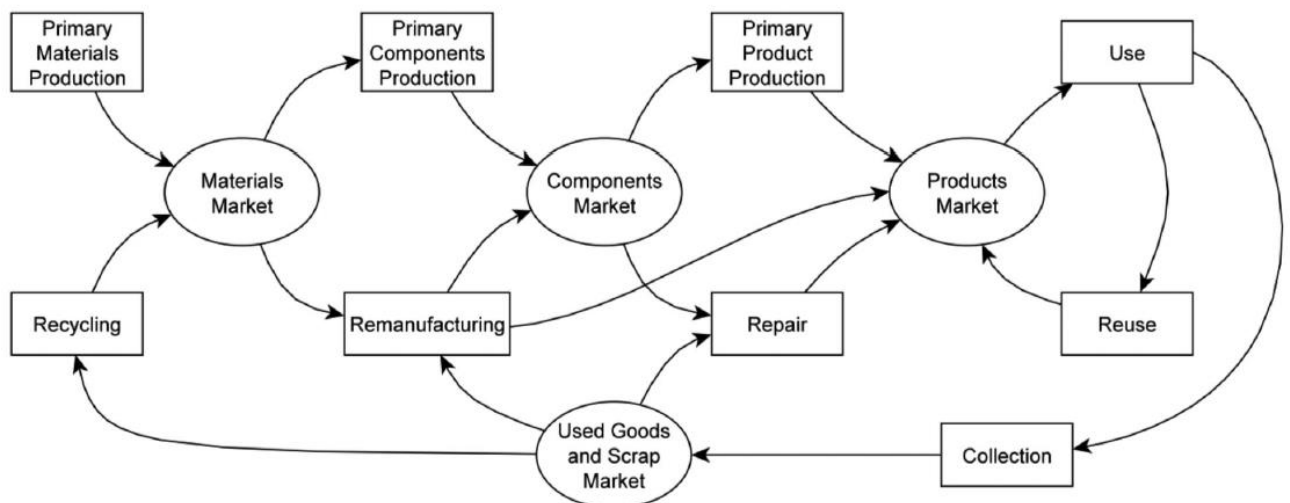
Fig.8 The circular economy as a system of interconnected markets.
Source: Zink, T. and Geyer, R. (2017), Circular Economy Rebound. Journal of Industrial Ecology, 21: 593-602. doi:10.1111/jiec.12545

2.4.1. Circular economy rebounds

There are multiple rebounds that may be caused by the circular economy due to the increase in overall production and use of products.

The first type of rebound is defined as "The energy efficiency rebound", a phenomenon where the increased efficiency makes the consumption of goods or services (i.e., energy or transportation) relatively cheaper and therefore, people tend to consume more of it. When the increased consumption of the good/service is larger than the efficiency increase, the backfire is a rebound that leads to higher net impacts on the environment. A useful model to understand this effect has been provided by Borestein (2013), who used microeconomics concepts such as price effect and substitution effect to provide a framework on the topic. Borestein argued that investing in efficiency of goods and services makes the consumer effectively "wealthier" by lowering the expense needed to pay energy.

This phenomenon may cause two different effects:

- **Direct Rebound**

  The consumer increases the use of the product in question.
- **Indirect Rebound**

  The consumer spends some of his savings on other products.

The second is a rebound caused by insufficient substitutability. Secondary goods may not be sufficient substitutes for primary goods due to their quality being poorer or the nature of being less desirable than primary goods. Let us use smartphones as an example, refurbished smartphones rarely compete with primary (Geyer and Doctori Blass 2010; Skerlos et al. 2013), instead secondhand phones are sold to consumers in developing countries and therefore, the comparison between refurbished vs. primary is not correct and could be substituted by refurbished vs. no phone at all.

The third and last rebound is attributed to the price effect. To attract customers into buying lower grade materials or refurbished goods, the seller often offers a discount relatively to the primary market. This will lead to producers to be wealthier and therefore able to augment their production, multiplying the income effect.

It is fundamental to not incur in any rebound effect that the secondary products produced in a circular economy are truly a substitute of primary goods, and substitutes produced with lower quality materials have to be marketed in a non-competing way with primary goods as that will

almost surely result in some sort of rebound. Unfortunately, due to the unpredictable nature of highly complex systems such as the micro-markets created by the circular economy, it is impossible to derive *sufficient and/or necessary* conditions to guarantee the absence of rebounds in an environment.

2.4.2 Upcycling in the Fashion Industry

Upcycling is a biographical transformation, from an old or dysfunctional product to a new product identity. This sort of transformation is becoming popular in the later period (Petro 2019; Wilson 2016) alongside with the more common practice of recycling (Winterich, Nenkov and Gonzales 2019). Some data to back up this practice is the presence on the marketplace "*Etsy*" of 300.000 different upcycled products, a growing trend increase of 1000% since 2011, or other marketplaces such as "*ASOS*" and "*Urban Outfitters*" that just jumped on the train of these products. Companies that decide to offer new products manufactured from old or waste materials have then to ask themselves how they can ensure consumers demand for these products. The past identity of a repurposed product has a storytelling potential held by their biographical story of transformation and marketers could try to highlight it and focus on it as a unique selling proposition (Kopytoff 1986) in order to create a strong demand increase. Marketers can focus on the product's benefits and elements of the present identity while also highlighting the product's dysfunctional past and make consumers aware of the old and waste materials that compose the actual product (*Past Identity Salience*). Some examples of companies doing this are the luxury bag brand Elvis & Kresse, which references the past life of their products in its communications; the Swiss brand Freitag, which leverages the fact that their bags are made from truck tarps. Several findings tend to discourage the Past identity salience strategy since many consumers are skeptical about purchasing used goods (Hood 2016) or are aware they are not the first person interacting with the product due to the traces of wear and tear from their original purpose. In contradiction to these findings, there are many more against this idea, since the repurposed products escape the stigma of the past because they have been completely transformed into a new product (see Winterich, Nenkov, Gonzales, 2019) and it has been shown that not only this transformation do not harm demand but in reality, it boosts it thanks to the salience on his past identity drawing attention to the product's special story. The question is easy to see now: "Why would people demand a product that holds a story of having been waste instead of a product that does not have it? One simple response might be the feeling of specialness evoked by the repurposed product. To understand how stories can evoke a sense of specialness in people (Bruner 1990; Escalas 1998; Lien and Chen

2013), some of the past literature tells us that stories focus people on narrative instead of rational arguments (Lien and Chen 2013) but to get this result they must experience the pathos of a dramatic story (Philips and McQuarrie 2010) and feel empathy for the story characters (Van Laer et al. 2014). It is important that people tend to use objects to transfer their meaning to the lifestyle they pursue (McCraken 1986), helping themselves in identity work, a process that often motivates the decision of whether to buy a product. In conclusion, results from the research shows that it is fundamental for a repurposed product to have a focus on its past identity salience to create a narrative on the transformational story regarding it with the final goal of inviting customers to engage in the story and finally feeling special with the product, finally triggering demand (Bernadette Kamleitner et al. 2019).
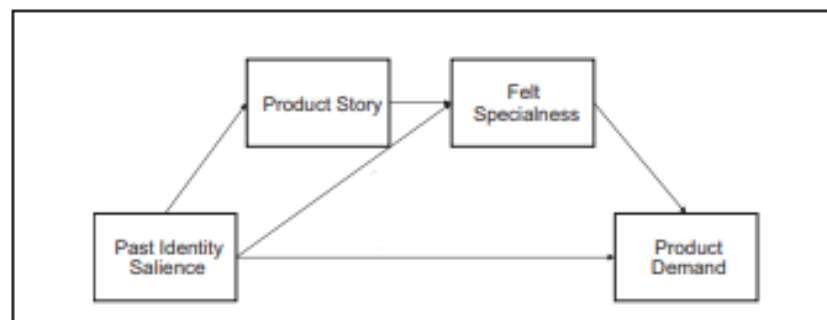
Fig.9 Conceptual model for the Kamleitner et al. research on Past Identity Salience.
Source: 1. Kamleitner B, Thürridl C, Martin BAS. A Cinderella Story: How Past Identity Salience Boosts Demand for Repurposed Products. Journal of Marketing. 2019;83(6):76-92. doi:10.1177/0022242919872156

According to the previous findings, Kamleitner et al. show in their studies how past salience and disclosure of the products biographical story impact on the consumers emotions and increase product demand. Experimentally setting up a popup store in a European university led to the conclusions after the experiment that consumers feel more special with the products and find them more appealing, making themselves more likely to purchase them when the past identity is made salient. Even a simple claim such as "made from [Past identity] has shown to increase demand.

Moreover, past research shows a fundamental difference in the design of the product lifecycle in the company, with the difference shown in Figure 10 of when and how the fabrics enter the productive process. The upcycling design is made for waste minimization over and above any other objectives. Key differences are recognizable in the promotions needed for the upcycled brands that do not rely on wholesale but prefer to focus on trade shows or simply the retailing section of the

process that involves highly engaged consumer relationships, working together towards the creation of a healthier relationship between nature and companies.
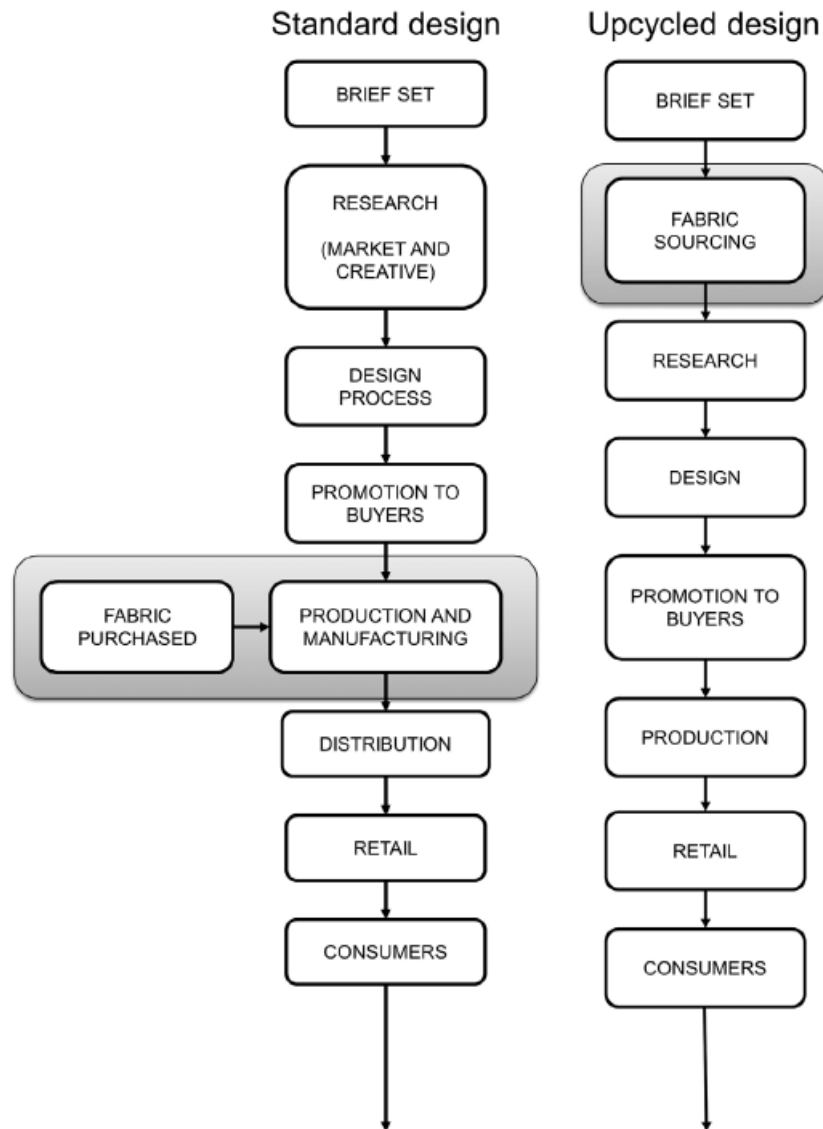
Fig.10 Standard Design vs upcycled design.
Source: Sara L. C. Han, Priscilla Y. L. Chan, Praburaj Venkatraman, Phoebe Apeagyei, Tracy Cassidy & David J. Tyler (2017) Standard vs. Upcycled Fashion Design and Production, Fashion Practice, 9:1, 69-94

2.4.3 Recycling in the Fashion Industry

Concerns about the environment have caused consumers and companies to try to minimize the damages they inflict on the natural environment by having a more ecologically conscious behavior. This boost in sensitivity to environmental issues is also changing the behavior of consumer towards green marketing or their preference shifting to greener firms, an incremental demand for greener

products and a greater acceptance of recycled products (Mobley et al. 1995; Tsen et al. 2006). Recycling is the action or process of converting waste into reusable material and the research to date, shows that:

- Recycling and consumption of recycled products are seen by consumer as a mean to "leave the environment as it is" (Guagnano 2001)
- Recycled products are positively evaluated by consumers (Mobley et al. 1995)

One key point analyzed in previous research is the Willingness to pay (WTP) of consumer for recycled products versus new/conventional products (Essoussi and Linton 2010). This research addresses the issue of a product category moderating effect on consumer WTP premium prices for the recycled products. Product category is a fundamental element on this marketing research because depending on it, the consumer perceives quality differently in a recycled vs. conventional product. The study addresses two hypotheses regarding this:

H1.   Recycled product versus new/conventional products do not have the same value

H2.   Consumers' WTP premium price for recycled products is product specific.

Other than the category of the product, it is fundamental to keep in mind the perceived risk associated with buying said product. There are different types of risk:

- **Inherent risk**

   A risk encountered by a consumer when undertaking purchase decision due to an uncertainty about the outcome and consequences of the purchase.
- **Psychological risk**

   The experience of anxiety or discomfort arising from affective reactions such as worry and regret (Perugini and Bagozzi 1999) from purchasing and using the product.

The presence of risk makes it fundamental to consider a third hypothesis:

H3.   The level of functional risk associated to the product category influences consumers' WTP a premium price between new/conventional product and product containing reused or recycled material.

Results of the previous research show that there is a variation in both relative price and switching range for different types of products. Moreover, perceived functional risk have a statistically significant impact on consumer purchase decision. Those amazing results offers a technique to determine at what price a product incorporating recycled or reused materials should be marketed to have the right positioning and help in an economic assessment of green products.

A growing trend in the recycling luxury fashion market is a focus on vintage. This pathway gives people the chance to buy and use refurbished luxury items at a lower price and giving a new life to them and results usually in a deeper meaning and a stronger bond with the item (Turunen and Leip¨amaa-Leskinen 2015). To date there is no previous research on the sustainability benefits derived from vintage luxury goods.

2.5 The role of emotion in Luxury Fashion consumption

Emotions often play an influential part of the consumers' decision-making process regarding fashion products. Research shows that, when asked, people linked three themes to luxury fashion:

- **Dreams**
- **Exclusivity**
- **Beauty/art**

Owning exclusive items from a luxury brand (especially when unique) is an aspirational dream and a desire. Having the ability to afford such items gives the ability to show, to friends and contiguous people, they can buy luxury products and that is associated also with lifestyle and social class. Heritage and quality are two main characteristics usually linked to luxury products that boost the brand's strength more than anything else. Creating exclusive and extraordinarily well-crafted items inevitably limits availability. That is why, highly trained artisans are handcrafting products with carefully chosen materials and not mass-producing them. Each luxury product (and this can be seen in any luxury POP) is framed like a piece of fine art, and the general idea is that "only people who are in the know will use such fine and exclusive products".

The three emotions we will deep dive into are pride, guilt, shame, and pleasure.

2.5.1 Pride

Psychologists have noted that pride is a multifaceted construct (Tagney, Wagner, & Gramzov 1989) and could range from positive psychological achievements such as altruism, to negative, like aggression and relationship conflict (Kernberg 1975, McGregor, Nail, Marigold, & Kang 2005). The pride emotion could be divided into two different components:

Authentic pride (feeling accomplished or confident)

Hubrisitic pride (associated with words such as "arrogant" or "conceited")

Consumption of luxury products will appeal to consumers' desire to signal their success or accomplishments and therefore inevitably build pride in the individuals. Researchers like McFerran et al. examined an important hypothesis on the topic:

H1. *Using a luxury brand will increase hubristic pride more than using a non-luxury brand; however, authentic pride will not vary depending on whether the product used is a luxury or non-luxury brand.*

The results of the study of the hypotheses (FIG 11) show that even if the two forms of pride are independent, they are in fact related but through a causal chain in which feeling authentic pride sometimes leads to people consuming products that induce hubristic pride.
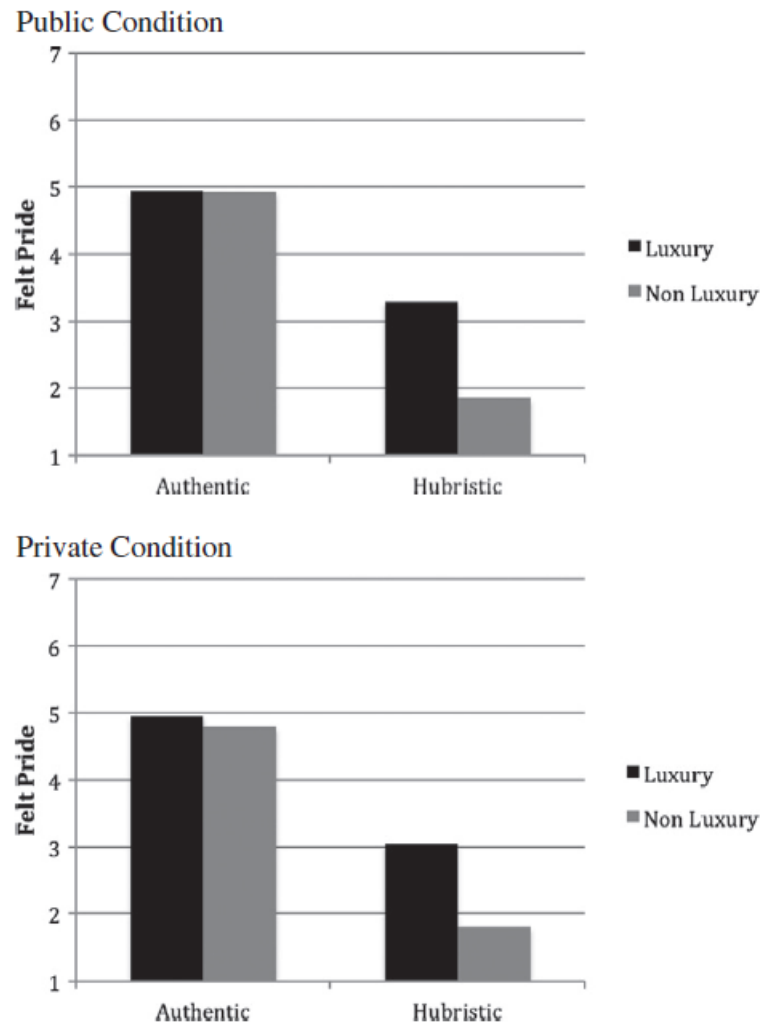
Fig.11 Felt Pride by condition

2.5.2 Guilt

Guilt is a negative emotion defined as "the state of one who has committed an offense especially consciously". Negative promotional framework in advertising of luxury products could help consumers in reducing this emotion. Previous research has demonstrated how consumer guilt is provoked mainly by impulse buying (Sengupta and Zhou 2007), overspending (Rook 1987), compulsive consumption (Hassay and Smith 1996, O'Guinn and Faber 1989) and hedonic consumption (Okada 2005). For instance, consumers might feel guilty about luxury consumption when others behave in frugal manner or when they show off their luxury in a luxury-deprived environment.

However, it is important to note that consumers' style consumption opposed to conspicuous consumption will lessen their guilty feelings. Chungwha Ki et al. examined two different hypotheses:

H1.   *Conspicuous consumption of luxury fashion products will positively lead to the sense of guilt (+)*

H2.   *Style consumption of luxury fashion products will negatively lead to the sense of guilt (-)*

Results of this study show that both these hypotheses are verified and therefore there is a possibility to luxury marketers to possibly influence consumers emotions to engage in style consumption instead of conspicuous consumption.

2.5.3 Shame

Despite society's increasing sensitivity towards greener products, many companies often struggle with finding effective communication strategies to induce consumers to buy green products. This communication strategies might include positive or negative message framing. Past research shows how, when a negative message framing containing anticipated shame is shown, consumers feel a self-threatening emotion that might induce them to cope and regain a positive view of themselves by modifying their behavior. Further investigation on this emotion shows how the effect of shame is highly moderated by the chronical or situational concern for the environment and the nature of the product itself (non-luxury vs luxury).
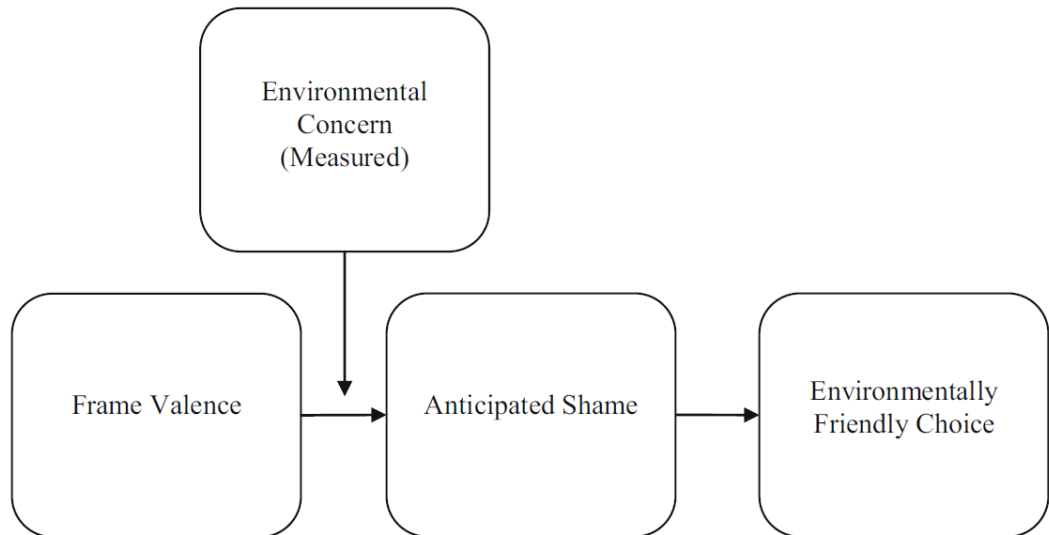
Fig.12 Conceptual moderated mediation model
Source: Amatulli, C., De Angelis, M., Peluso, A.M. *et al.* The Effect of Negative Message Framing on Green
Consumption: An Investigation of the Role of Shame. *J Bus Ethics* **157,** 1111–1132 (2019).
https://doi.org/10.1007/s10551-017-3644-x

Fig.13 Conceptual moderated mediation model
Source: Amatulli, C., De Angelis, M., Peluso, A.M. *et al.* The Effect of Negative Message Framing on Green
Consumption: An Investigation of the Role of Shame. *J Bus Ethics* **157,** 1111–1132 (2019).
https://doi.org/10.1007/s10551-017-3644-x
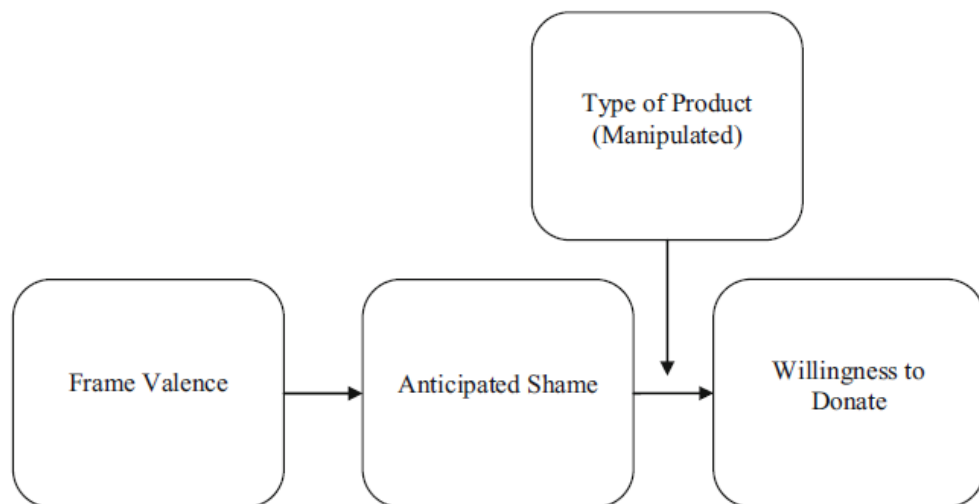
2.5.4 Consumer pleasure

Consumer pleasure is a feeling induced by the enjoyment of anticipation of what is viewed as
favorable or desirable, such as enjoyment, delight, and gratification (Green and Jordan 1999) and
this emotional response is highly associated with luxury products consumption, as these items are
premium products that connects with the consumers on an emotional level providing feelings of
achievement and success (Hagtvedt and Patrick 2009). Previous research shows that pleasure and

guilt both play a role in the repurchase of a Luxury product but the pleasure effect on that is much stronger and offsets guilt6. Moreover, pleasure has been confirmed to be a mediator in repurchase when talking about conspicuous consumption of luxury products (consuming expensive goods or making excessive spending on products where the intention lies in pursuing an individual's extrinsic values of signaling wealth, status, and social power to others)7.

2.5.5 Theoretical framework

To better understand what people's feelings, it is important to understand what the NAM and TPB are. The Norm Activation Model was originally developed by Schwartz in 1977 to use personal norms to predict individual behavior. The model states that the personal norms are determined by two factors: the awareness that performing (or not performing) the behavior has certain consequences, and the feeling of responsibility for performing the specific behavior. The model can be used as a moderator or a mediator but there is strong evidence that the NAM is better used as a mediator because an individual must be aware of the consequences before feeling responsible for it (De Groot and Steg 2009)

Fig.14 Graphical representation of the Norm Activation Model adapted from De Groot and Steg (2009).
Source: Marleen C. Onwezen, Gerrit Antonides, Jos Bartels, The Norm Activation Model: An exploration of the functions of anticipated pride and guilt in pro-environmental behaviour, Journal of Economic Psychology, Volume 39, 2013, Pages 141-153, ISSN 0167-4870, https://doi.org/10.1016/j.joep.2013.07.005.

2.5.6 Anticipated pride and guilt within the NAM

Anticipated emotions are often discussed in studies concerning the NAM, but the role of anticipated pride and guilt is not yet fully understood. There are four school of thoughts about the past studies on pride and guilt influencing the NAM:

1) Studies assuming that pride and guilt are independent of personal norms (e.g., Bambergetal 2007; Hunecke, Blöbaum, Matthies and Höger, 2001). (FIG.15, Model 1)

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6 Ki, Chung-Wha & Lee, Kangbok & Kim, Youn-Kyung. (2017). Pleasure and guilt: how do they interplay in luxury consumption? European Journal of Marketing. 51. 722-747. 10.1108/EJM-07-2015-0419.
7 Veblen, 1899

2) Studies that assume pride and guilt to have direct effects in the NAM. Guilt is defined as: "an aversive feeling that leads individuals to compensate for past behaviors that induced guilty feelings". (FIG. 15, Model 2)

3) Studies assuming a different mediation effect of the anticipated emotions within the NAM. (FIG. 15, Model 3,4,5 and 6)

4) Studies that assume anticipated pride and guilt to moderate the personal norm-behavior association. This research hypotheses considers the anticipations of negative feelings to avoid breaking personal norms and the positive feelings to stimulate compliance. (Fig 15, Model 7)

Previous research has shown several associations between personal norms and anticipated pride and guilt within the NAM. The nature of the association could be different but was rarely statistically relevant or tested at all. Additionally, many previous studies have not included anticipated pride in the models while guilt was the only variable getting attention.

The most functional model proposed is number 6, showing (after an experiment conducted by Onwezen et al.) that anticipated pride and guilt influence the NAM via mediation and partially mediate the impact of personal norms on behavior. This shows that anticipated emotions motivate individuals to behave themselves in accordance with their standards not only to escape guilt but also to get rewarded by pride.
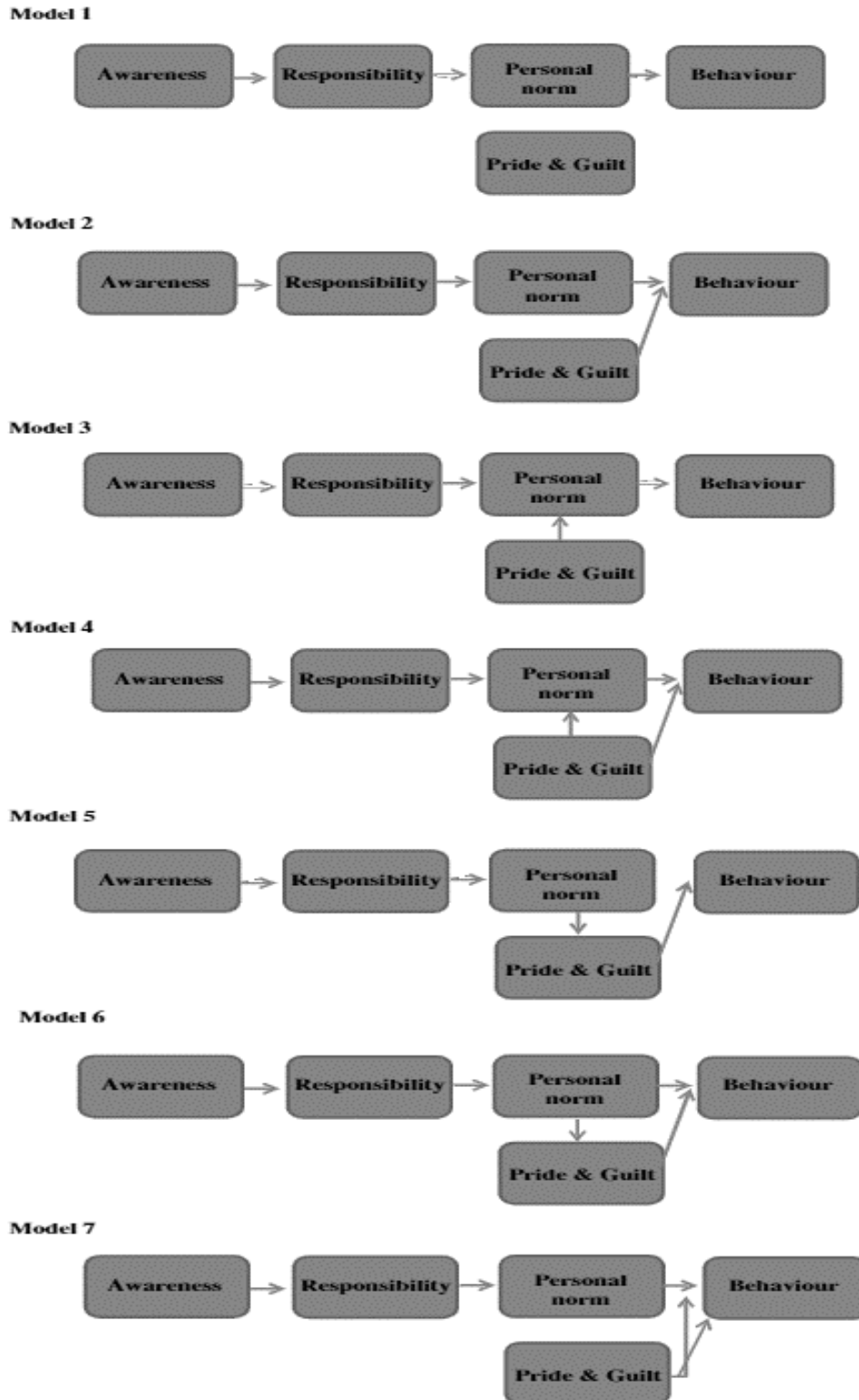
Fig.15 Graphical representation of the seven alternative models testing how the functions of anticipated pride and guilt within the NAM can be specified.

2.5.7 Post-consumption pride and guilt

Pride and guilt are two key emotions, both presenting important implications in the decision-making process of consumers. It is important to understand how they interact with the self-regulating behavior not only when anticipated, but also in the case they come after the consumption of goods. Consumers who are not already engaged in sustainability will not have internalized norms and goals of behavior and will not, inevitably, feel these emotions before the purchase. Secondly, consumers can be exposed to information/messages after the purchase, managing to change their perception and thus create post-consumption emotions. Previous research shows that guilt and pride have indeed the ability to influence decision on buying ethical products in the future. Marketers can leverage these findings, engaging consumers with sustainability features to trigger their pride or use social media campaigns to emphasize guilt to increase people's willingness to consume responsibly in the future.

2.6 The fear of contamination

A very recent and popular trend within the fashion industry regards the transformation of recycled plastic bottles into clothing, though little research has examined the consumer feelings and acceptance of such practice.

Although there are practical issues in the separation of materials at the end of life of a product (leading to impurities and objective contamination), the current issue is that recycled goods are perceived as contaminated by consumers even though the product itself has gone through extensive state changes to reach the final state (Winterich et al. 2019) and this condition seems permanent and resistant to purification in the mind of consumer (Nemeroff & Rozin 1994,2000; Rozin & Nemeroff 2002).

Research shows that this feeling of disgust is also correlated to the closeness-to skin, in fact only products touching the skin (e.g., T-shirts) are impacted by the contamination. Focusing on recycled fashion products such as handbags could be a winning strategy, that being not close to the skin and giving companies a chance to leverage sustainability to eventually gain in brand perception other than doing a noble gesture.
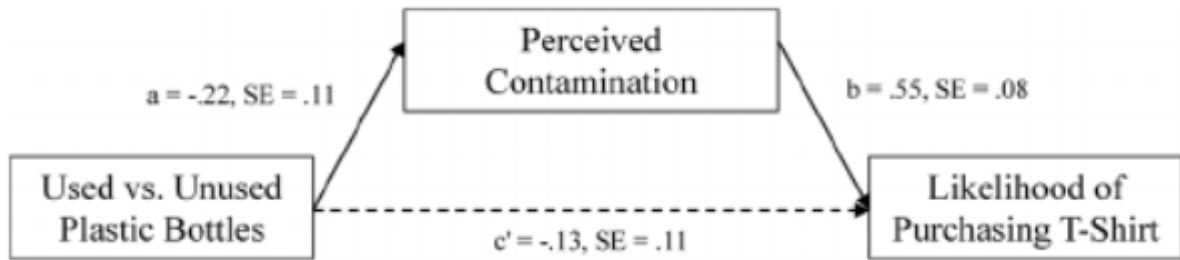
Fig.16 T shirts made from used plastic bottles are considered to be more contaminated and less likely to be purchased. Solid line indicates paths are significant (p> .05). Perceived contamination was measured as 1=Dirty, 7=Clean.
Source: Meng, Matthew & Leary, R. (2019). It might be ethical, but I won't buy it: Perceived contamination of, and disgust towards, clothing made from recycled plastic bottles. Psychology & Marketing. 10.1002/mar.21323.

Another important phenomenon research has studied is the products perception depending on the quality of the plastic bottles that make it. If the plastic bottles are used, the T-shirt resulting from the recycling of said bottles is perceived as "more contaminated" and therefore less likely to be purchased.
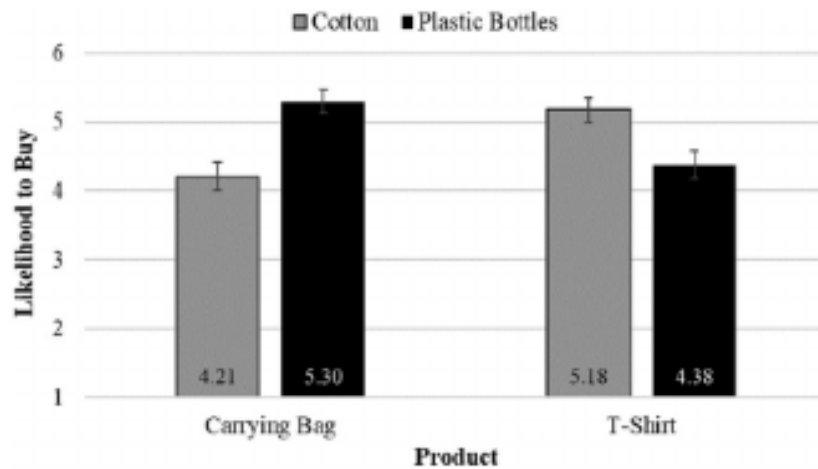
Fig.17 Consumers are more likely to buy T-shirts made from cotton but carrying bags made from plastic bottles. Error bars represent ± 1 standard error.
Source: Meng, Matthew & Leary, R. (2019). It might be ethical, but I won't buy it: Perceived contamination of, and disgust towards, clothing made from recycled plastic bottles. Psychology & Marketing. 10.1002/mar.21323.

CHAPTER 3
THE STUDY

3.1 Hypotheses

Hypothesis 1. Effect of Production Process on WTP

Taken into consideration that consumers of luxury products are increasingly becoming aware of social and environmental issues, authors such as Ageorges (2010) and Kim and Ko (2012) argue that luxury product manufacturers can no longer rely on the brand name and the intrinsic quality of their products; they must build a long-lasting relationship with their customers by internalizing environmental and humane values to extend their quality expectations (Lochard & Murat, 2011). In conjunction with the previous research cited before, the objective of my research is then to identify if the usage of sustainable production process (i.e., upcycling) by luxury brands can affect consumers' willingness to pay. As a first step we consider the direct effect the sustainable production process has on said dependent variable. According to Kim, Ko, Xu, and Han (2012), sustainable development presents an opportunity to improve brand differentiation and corporate image. I can ultimately base my research on these theories to assume that an environmentally friendly production process such as "upcycling" will lead to a higher consumers WTP.

The hypothesis is then:

H1: Compared to a non-sustainable production process, the usage of an upcycling production process will have a positive effect on consumers' WTP.

Fig.18 Hypothesis 1 model.

Hypothesis 2. Moderation effect of Brand type.

As a second hypotheses I wanted to study the moderation effect of the brand type (luxury vs. mass-market) on the relationship between production process (upcycled vs. non-sustainable) on consumers' WTP. Some researchers state that "sustainability is irrelevant for luxury products" (Davies & Streit 2013; Henninger et al. 2017; Hu et al. 2018; Joy et al. 2012; Ko e Megehee 2012). Luxury values are usually linked to personal pleasure and not to moderation and ethics, typical values of sustainability (Naderi & Strutton 2015). This link led to a commonly shared point of view for researchers so that luxury and sustainability are incompatible (Kapferer & Michaut – Denizeau 2014). Basing this second hypothesis on this previous research I can assume the WTP for upcycled products will be lower than traditionally produced ones even if talking about luxury items. Through social commitment in a sustainable production process and active customer participation, fast fashion brands can establish an intimate relationship with the consumers', contributing to a sustainable growth of the brand.

H2b: The WTP for an upcycled Mass Fashion product will be higher than a traditionally produced one.

Fig.19 Hypothesis 2 model.

I used a codification of "Mass fashion = 0" and "Luxury = 1" for the Brand IV. The method used for the DV and IV are the same as H1.

Hypothesis 3. Mediating effect of Emotions on the effect of the Production type on WTP as a function of the Brand.

The third hypotheses I make is based on the emotions that can influence the consumption of sustainable items. In the previous chapter we talked about various emotions affecting the consumption of sustainable products, but we will focus our analysis on the disgust, pride, and shame/guilt. Many consumers do not have a good perception about the recycle of materials due to the contamination said materials could have. In particular, this perception leads to a negative WTB (O'Reilly, Rucker et al., 1987; Liu, Li et al., 2009) and contributes to diminishing the perceived value of the product. Previous research has shown that disgust should lower consumers' willingness to pay and this effect is lower for luxury brands than fast fashion ones. Moreover, pride and shame play a very different role in terms of how they affect the consumer experience. Pride is more related to the consumption of sustainably produced items and, as stated before, the feeling of pride depends on whether the consumer has a conspicuous consumption, or a style buy. We can assume from previous research that luxury consumption is highly influenced by anticipated emotions such as pride and shame, leading to a lower WTP when an anticipated shame emotion due to the possibility of harming the environment is shown and a higher one when anticipated pride is shown at the moment of buying a product. Past research shows how, when a negative message framing containing anticipated shame is shown, consumers feel a self-threatening emotion that might induce them to cope and regain a positive view of themselves by modifying their behavior (Amatulli, C., De Angelis, M., Peluso, A.M. *et al.*, 2019).

The mediator emotions will be measured with pre-validated scales.

My hypotheses will then be:

H3a: The relationship between Production process and WTP is negatively mediated by Disgust, moreover the effect will be higher for upcycled Fast fashion products than Luxury products.

H3b: The relationship between Production process and WTP is positively mediated by Pride, moreover the effect will be higher for upcycled Luxury products than upcycled Fast fashion products.

H3c: The relationship between Production process and WTP is negatively mediated by shame, moreover the effect will be higher for upcycled Luxury products than upcycled Fast fashion products.

Fig.20 Hypothesis 3 model.

The sample I used for my study is a convenience, non-probability sample. The participation to the study was made possible by clicking on a link leading to a Qualtrics survey panel. This link was shared by me and after shared by participants as well.

The Qualtrics started after a brief explanation of the scope of the study with some questions about the familiarity with the upcycling production process as to measure the "perceived familiarity" of the sample.

After that, the participants were presented with one of 4 conditions with two fictious brands to not induce any confusion or preference for pre-existing brands. The questions about this brands and products will be used to measure the DV and the mediation/moderation effect of study 2,3,4.

3.2 Conditions and Survey

Cond. 1:

Prada, a well-known Italian luxury brand, recently launched a new **bag**, using **genuine leather**.

The product got an exclusive and elegant design, handcrafted following an artisanal process known worldwide that guarantees an unmistakable style.

Cond. 2:

H&M, a well-known Swedish fast fashion brand, recently launched a new **bag**, using **nylon**.

The product, made with a standard traditional process, has a practical and sporty design that guarantees a good combination of style and comfort.

Cond. 3:

Prada, a well-known Italian luxury brand, recently launched a new **bag** with an exclusive and elegant design made with an innovative sustainable production process called **upcycling**. The material of the bag is entirely composed of Nylon recovered from lost fishing nets recovered from the bottom of the sea in order to create a new material called "Econyl".

Upcycling is the process of combining (without any other process) sub products, waste materials, unused or undesired products into new materials or final products.

Cond. 4:

H&M, a well-known Swedish fast fashion, recently launched a new **bag** with an exclusive and elegant design made with an innovative sustainable production process called **upcycling**. The material of the bag is entirely composed of Nylon recovered from lost fishing nets recovered from the bottom of the sea in order to create a new material called "Econyl".

Upcycling is the process of combining (without any other process) sub products, waste materials, unused or undesired products into new materials or final products.

1. Prada	2. H&M
LUXURY – TRAD. PROCESS	**FAST FASHION – TRAD PROCESS.**
3. Prada	4. H&M
LUXURY – UPCYCLED	**FAST FASHION – UPCYCLED**

- To measure the **WTB**, I asked with a pre-validated Likert scale (Doods et al., 2012), the level of agreement from 1 = "Strongly disagree" to 7 = "Strongly agree" with the following statements:
- If I am willing to buy a bag, I will buy the product proposed before.
- If I am willing to buy a bag, I will consider buying the product proposed before.
- If I am willing to buy a bag, the chance I will consider buying the product proposed before is high.

- To measure the **WTP**, I asked with a pre-validated Likert scale (Parameswaran and Pisharodi 1994, Yaprak and Parameswaran 1986 and Parameswaran and Yaprak 1987) level of agreement from 1 = "Strongly disagree" to 7 = "Strongly agree" with the following statements:

  "When you think about the product seen before, you generally perceive their image as:"

- High quality;

- Having Global Brand Presence;

- High Workmanship;

- Reliable;

- Well Designed;

- I also decided to add a slider in order to understand how much respondants were likely to pay (in terms of dollars) for the products they have been proposed at the start of the survey.

- To assess the level of **Shame and Guilt**, I asked with a pre-validated Likert scale (adapted from Han et al. 2014) the level of agreement from 1 = "Strongly disagree" to 7 = "Strongly agree" with the following statements:

- I feel embarrassed;

- I feel ashamed;

- I feel humiliated;

- I feel guilty;

- I feel culpable;

- I feel remorsable;

- To measure the level of **perceived disgust** from the contamination I asked two questions with a 7-point Likert scale going from 1= "Strongly disagree" to 7= "Strongly agree" with the following statements:

- I believe the item will/will not be contaminated.

- I believe the item will be/will not be hygienic.

- To measure **"Pride"**, I asked with a pre-validated Likert scale (Tracy and Robins, 2007) the level of agreement from 1 = "Strongly disagree" to 7 = "Strongly agree" with the following statements:

- Buying this product would make me feel accomplished.

- Buying this product would make me feel confident.

- Buying this product would make me feel satisfied.

- Buying this product would make me feel productive.

- Buying this product would make me proud.

- Buying this product would make me feel a successful person.

- Additionally, I asked questions to do a **manipulation check** on a pre-validated Likert scale (Yu S. & Lee J. 2019) going from 1 = "Strongly disagree" to 7 = "Strongly agree" with the following statements:

- The product proposed before is ecologic.

- The product proposed before is sustainable.

- The product proposed before is made from unused materials.

- The product proposed before is upcycled.

- The product proposed before is recycled.

- To ensure that the respondents are taking the survey seriously, I decided to add **an attention check**, in the middle of the survey, in order to get rid of the responses of whom did not put any attention in the test. I asked what product was shown before, a bag, a belt, a smartphone, or none of the previous.

- I added a question about the **frequency the respondents buy luxury** items to use as a control variable in combination with other scales on the perceived quality of the shown product.

- Having decided to work with two real brands, I measured the **brand attitude, familiarity and the perception of greenwashing** using a semantic differential on seven points, regular single answer questions and Likert scales:

"Please indicate your attitude on the previously disguised brand:"

- Negative / Positive
- Unfavorable / Favorable
- Bad / Good
- I do not like it / I like it
- Not luxury / Luxury

"Do you know the previously disguised brand?"

- Yes;
- No;

"Indicate the level of agreement from 1 = "Strongly disagree" to 7 = "Strongly agree" with the following statements:"

- I believe that the commitment of the brand towards the environment is generally reliable.

- I believe that the environmental performance of the brand is generally reliable.

- I believe that the environmental motivation of the brand is generally reliable.

- The attention on the environment of the brand fulfills my expectations.

- The brand keeps its promises in favor of environmental protection.

- I also measured the **level of "green" attitude**, in order to use this as a control variable, with a seven-point Likert scale in which I asked the respondents to indicate the level of agreement from 1= "Strongly disagree" to 7= "Strongly agree" with the following statements:

- It is important to me that the products I use do not harm the environment.

- When making many of my decisions, I consider the potential impact on the environment.

- My purchase habits are influenced by my concern for the environment.

- I am concerned about wasting the resources of our planet.

- I would define myself as environmentally responsible.

- I am willing to be inconvenienced in order to take actions that are more environmentally friendly.

- Lastly, I measured the "Fit" of the brand image with the product with a semantic differential on seven points with the following statements:

- Far from the brand image / Close to the brand image

- Incoherent with the brand image / Coherent with the brand image

- Atypical with respect to the brand image / Typical with respect to the brand image

- Not representative of the brand image / Representative of the brand image

The survey closes with a small section of demographic questions such as "Age", "Sex", and "Education level".

3.3 Preliminary analysis

260 answers were collected in the survey, but only 150 were taken into consideration because the rest did not complete the study and therefore were not eligible for analysis.

About demographic information, the respondents had an average age of 30 years (Fig. 21) and the complete sample was made of 71 males (47.3%) and 79 females (52.7%) (FIG. 22). As previously stated, I investigated the level of instruction of the sample, ultimately getting results that suggest that the sample has mostly university graduates in it (86.7%).

Età

N	Minimo	Massimo	Media	Deviazione Std.
150	18	74	30,43	11,77326

Genere

	Frequenza	Percentuale	Percentuale Cumulativa
Uomo	71	47,3	47,3
Donna	79	52,7	100
Totale	150	100	

Livello di istruzione

	Frequenza	Percentuale	Percentuale Cumulativa
Secondaria secondo grado	3	2	2
Liceo	12	8	10
Istituto tecnico	5	3,3	13,3
Università	130	86,7	100
Totale	150	100	

Fig.21 Descriptive statistics of sample.

As far as the conditions go, the randomization of the experimental conditions shown to the respondents worked as intended, and the sample saw almost all the four conditions in a similar number. In particular, after recoding the 4 dichotomic variables into a single variable with 4 different values, we see that 35 respondents saw condition 1 (Fast fashion, traditional production process), 35 respondents saw condition 2 (Luxury, traditional production process), 37 respondents saw condition 3 (Fast fashion, upcycling production process) and, ultimately, the mode was on condition 4 with 43 respondents having seen it (Luxury upcycling production process) (FIG. 24)

Condizione Mostrata

	Frequenza	Percentuale	Percentuale Cumulativa
Fast Fashion - Traditional	35	23,3	23,3
Luxury - Traditional	35	23,3	46,7
Fast Fashion - Upcycled	37	24,7	71,3
Luxury - Upcycled	43	28,7	100
Totale	150	100	

Fig.22 Distributions of shown conditions to the respondents.

To verify if all the conditions were perceived in a clear way, I ran three t-test with independent samples, with my manipulation check questions presented before, depending on the condition shown.

As far as the traditional production process goes, Levene's test for equal variances shows that the p-values for the manipulation check questions are all >.05, therefore we must use the t-test with equal variances to make conclusions. In this case, we see p-values lower than 0.05 and therefore we can say that there are differences in the perception of the sample depending on what they have seen. The population means are higher for the fast fashion product made with a traditional production process than the luxury one, in particular, the manipulation was successful in the first question (Mcheck1_FAST_TRAD=4.37, Mcheck1_LUX_TRAD=3.03,t(68)=3.793, p>.05), in the second question (Mcheck2_FAST_TRAD=4.54,Mcheck2_LUX_TRAD=2.89,t (68) = 4.603,p<.05), in the third one (Mcheck3_FAST_TRAD=3.97,Mcheck3_LUX_TRAD=3.03,t=(68) = 2.312, p<.05), and in the last question as well (Mcheck4_FAST_TRAD=4.40,Mcheck_LUX_TRAD=3.31,t(68) = 2.732 p<.05) (FIG.25)

T-Test Traditional production process

	CONDIZIONE MOSTRATA: 1 Fast Fashion - Traditional. 2 Luxury Traditional	N	Media	Deviazione Std	Media Errore Std.
In riferimento al prodotto descritto in precedenza, indichi il suo livello di accordo o disaccordo con le seguenti frasi: - Il prodotto descritto è un prodotto ecologico	1	35	**4,37**	1,497	0,253
	2	35	3,03	1,465	0,248
In riferimento al prodotto descritto in precedenza, indichi il suo livello di accordo o disaccordo con le seguenti frasi: - Il prodotto descritto è un prodotto sostenibile	1	35	**4,54**	1,482	0,251
	2	35	2,89	1,53	0,259
In riferimento al prodotto descritto in precedenza, indichi il suo livello di accordo o disaccordo con le seguenti frasi: - Il prodotto descritto è fatto di materiale inutilizzato	1	35	3,97	1,505	0,254
	2	35	3,03	1,886	0,319

	CONDIZIONE MOSTRATA: 1 Fast Fashion - Upcycling. 2 Luxury Upcycling	N	Media	Deviazione Std	Media Errore Std.
In riferimento al prodotto descritto in precedenza, indichi il suo livello di accordo o disaccordo con le seguenti frasi: - Il prodotto descritto è upcycled	1	35	4,4	1,594	0,269
	2	35	3,31	1,728	0,292

Fig.23 Perception on sustainability – Traditional production process

The test on the upcycled production process shows different results. The first question has a p-value <.05 for the Levene's variance equality test and therefore the manipulation check is failed (Mcheck1_FAST_UPC=6.65, Mcheck1_LUX_UPC=5.79, t (78) =-.535, p<.05). For the second and third question we can say that the manipulation was successful (Mcheck2_FAST_UPC=6.19,Mcheck2_LUX_UPC=5.84, t(78)=1.639 ,p>.05) (Mcheck3_FAST_UPC=4.86,Mcheck3_LUX_UPC=4.74, t(78)= .273, p>.05). The last question, like the first one, tells us that the variances are not constant and therefore, the manipulation is failed (Mcheck4_FAST_UPC=6.03, Mcheck4_LUX_UPC=6.35, t(78)=-1.289, p<.05)

T-Test Upcycling production process

	CONDIZIONE MOSTRATA: 1 Fast Fashion - Upcycling. 2 Luxury Upcycling	N	Media	Deviazione Std	Media Errore Std.
In riferimento al prodotto descritto in precedenza, indichi il suo livello di accordo o disaccordo con le seguenti frasi: - Il prodotto descritto è un prodotto ecologico	1	37	5,65	1,418	0,233
	2	43	5,79	0,94	0,143

In riferimento al prodotto descritto in precedenza, indichi il suo livello di accordo o disaccordo con le seguenti frasi: - Il prodotto descritto è un prodotto sostenibile	1	37	6,19	0,908	0,149
	2	43	5,84	0,998	0,152
In riferimento al prodotto descritto in precedenza, indichi il suo livello di accordo o disaccordo con le seguenti frasi: - Il prodotto descritto è fatto di materiale inutilizzato	1	37	4,86	1,917	0,315
	2	43	4,74	2,013	0,307
In riferimento al prodotto descritto in precedenza, indichi il suo livello di accordo o disaccordo con le seguenti frasi: - Il prodotto descritto è upcycled	1	37	6,03	1,404	0,231
	2	43	6,35	0,783	0,119

Fig.24 Perception on sustainability – Upcycling production process

A second manipulation check was successful, showing that the items are perceived as luxury items not depending on the production process (Mcheck5_LUX_TRAD=6.03, Mcheck5_LUX_UPC=5.77, t (76) = 1.157, p>.05) (FIG25).

The same result was obtained with the fast fashion condition as well (Mcheck6_FAST=4.80, Mcheck6_FAST_UPC = 4.59, t (70) =.537, p>-05) (FIG.26).

	CONDIZIONE MOSTRATA: 1 Luxury - Traditional. 2 Luxury Upcycling	N	Media	Deviazione Std	Media Errore Std.
In riferimento al prodotto descritto in precedenza, indichi il suo livello di accordo o disaccordo con le seguenti frasi: - Il prodotto descritto è un prodotto di lusso	1	35	6,03	0,923	0,156
	2	43	5,77	1,043	0,159

Fig.25 Perception on Luxury condition

	CONDIZIONE MOSTRATA: 1 Fast Fashion - Traditional. 2 Fast Fashion Upcycling	N	Media	Deviazione Std	Media Errore Std.
In riferimento al prodotto descritto in precedenza, indichi il suo livello di accordo o disaccordo con le seguenti frasi: - Il prodotto descritto è un prodotto Fast Fashion	1	35	4,8	1,641	0,277
	2	37	4,59	1,607	0,264

Fig.26 Perception on Fast fashion condition

The respondents were in general reflecting a typical belief in previous research, showing lower levels of perceived quality for the luxury upcycled goods, but higher for fast fashion goods. This might be due to the popular belief that fast fashion is easy to produce and so a more complicated production process could imply a better quality of the item. A same conception has been made by

respondents on the fit of the production process with the brand in general, showing that upcycling is more fitting within a fast fashion brand than it is for a luxury item. Also, the brand attitude for the luxury one was much smaller when the condition shown was an upcycling one.

Condizione Mostrata: 1 Fast fashion Traditional - 2 Luxury Traditional		ENVIRONMENTAL CONCERN	STATUS	BRAND ATTITUDE	FIT	GREENWASHING	PERCEIVED QUALITY
1	Media	4,6286	3,1771	3,8743	4,0286	4,0743	3,8929
	N	35	35	35	35	35	35
	Deviazione std.	1,17579	1,23457	1,17832	0,9922	1,15919	0,93598
2	Media	4,5524	4,0229	5,4686	5,2857	4,2629	5,6929
	N	35	35	35	35	35	35
	Deviazione std.	1,2017	1,5932	1,08024	1,36277	1,06359	0,74034

Fig.27 Perception of traditionally produced goods on control variables

2

Condizione Mostrata: 1 Fast fashion Upcycling - 2 Luxury Upcycling		ENVIRONMENTAL CONCERN	STATUS	BRAND ATTITUDE	FIT	GREENWASHING	PERCEIVED QUALITY
1	Media	4,6802	3,3838	4,5135	4,4054	4,9081	4,3378
	N	37	37	37	37	37	37
	Deviazione std.	1,10441	1,25289	1,12204	1,35957	1,06102	0,86846
2	Media	5,1822	3,2233	5,2791	4,1395	4,9907	**5,25**
	N	43	43	43	43	43	43
	Deviazione std.	0,87651	1,29704	1,24834	1,18811	0,83831	0,96825

Fig.28 Perception of upcycled goods on control variables

After this, I ran some tests to check the reliability of the scales used for the measurements in my survey:

- WTP (Cronbach's alpha =0.8)
- WTB (Cronbach's alpha = 0.926)
- SHAME (Cronbach's alpha = 0.894)
- GUILT (Cronbach's alpha = 0.894)
- CONTAMINATION (Cronbach's alpha =0.86)
- PRIDE (Cronbach's alpha = 0.928)
- PERCEIVED QUALITY (Cronbach's alpha = 0.814)
- GREENWASHING (Cronbach's alpha = 0.939)
- FIT (Cronbach's alpha = 0.859)
- BRAND ATTITUDE (Cronbach's alpha with the 5th element removed = 0.918 from 0.835)
- ENVIRONMENTAL CONCERN (Cronbach's alpha = 0.885)
- STATUS (Cronbach's alpha = 0.903)

We can say that all the scales used in the survey have a good to optimal level of reliability, therefore we can move onto some characteristics of the sample.

The respondents are not that familiar with the upcycling production process and are not conspicuous consumers of luxury items, as shown by the means of the two questions below.

Production process familiarity

	N	Minimo	Massimo	Media	Deviazione Std.
Quanto è familiare con i prodotti Upcycled?	150	1	7	**2,49**	1,931

Fig.29 Sample familiarity with upcycling production process

Luxury items consumption

	N	Minimo	Massimo	Media	Deviazione Std.
Con quale frequenza acquista prodotti di lusso?	150	1	7	**2,83**	1,435

Fig.30 Sample frequency of buying luxury items

In order to work on the hypotheses of my study I then proceeded to create new variables with the means of the different items composing the WTP scale, WTB scale and all the emotions' scales (SHAME, GUILT, CONTAMINATION and PRIDE).

3.4 Hypotheses testing

To test our first hypothesis, I first coded the conditions shown to the respondents into a new binary variable with values 0 if the item shown was made with a traditional production process and 1 if there was an upcycling production process. Then I ran a one-way ANOVA to see if there are any differences between the means.

The means are different, but we do not yet know if this difference is statistically significant. In order to understand this, we check the results of the Levene's test for the homogeneity of variances. Since the p-value of the test is statistically significant we can assume there is at least one variance that is not equal to the others.

Levene's test for equal variances: F (1, 148) = 5.236, p=0.024

Test di omogeneità delle varianze

		Statistica di Levene	gl1	gl2	Sign.
WTP	Basato sulla media	5,236	1	148	0,024
	Basato sulla mediana	5,317	1	148	0,023
	Basato sulla mediana e con il grado di libertà adattato	5,317	1	138,852	0,023

ANOVA

	N	Media	Deviazione std.	Errore std.	95% di intervallo di confidenza per la media		Minimo	Massimo
					Limite inferiore	Limite superiore		
TRADITIONAL	80	5,16	1,01801	0,11382	4,9335	5,3865	2,8	7
UPCYCLED	70	4,9371	1,12548	0,13452	4,6688	5,2055	3	7
Totale	150	5,056	1,07169	0,0875	4,8831	5,2289	2,8	7

Fig.31 ANOVA analysis of WTP depending on the condition shown

I considered a different dependent variable than WTP and the results were different:

When considering the WTB, the Levene's test has a non-statistically significant p-value and therefore we can continue the analysis all the way to the ANOVA, knowing that the variances are homogeneous.

Levene's test for equal variances: F (1, 148) = 2.690, p=0.103.

The non-significant level of F in the ANOVA panel (See. APPENDIX 8) tells us that the means are equal.

This result might be a cause of the poor knowledge of the newer production processes (and upcycling) of the sample.

We can therefore say that statistically, the usage of an upcycling production process will not have a positive effect on WTP and WTB, proving the first hypothesis wrong.

To test the second Hypothesis, I coded a new binary variable called "Brand", containing "0" value for the condition in which the fast fashion brand H&M was shown to respondents and "1" value for the condition in which the Luxury brand "Prada" was shown to respondents. I ran a moderation test on SPSS using the macro "Model" and collected interesting results. The model itself was statistically significant, with a p-value of .00 and, most importantly, as visible in the "TRADITIONAL*BRAND" row of the model, the interaction effect between the production process used (Var. "TRADITIONAL") and the Brand type (our moderator) has proven to be significative. This shows that there is positive moderating effect of the Brand typology on the relationship between the IV and DV.

The moderation test was the sequent: F(3, 146) = 34,633, p=.00

Test di Levene di eguaglianza delle varianze dell'errore

		Statistica di Levene	gl1	gl2	Sign.
WTP	Basato sulla media	**3,166**	3	146	0,026
	Basato sulla mediana	3,169	3	146	0,026
	Basato sulla mediana e con il grado di libertà adattato	3,169	3	138,37	0,026
	Basato sulla media ritagliata	3,338	3	146	0,021

Test di effetti tra soggetti

Origine	Somma dei quadrati di tipo III	gl	Media quadratica	F	Sign.	Eta quadrato parziale	Parametro di non centralità	Potenza osservata
Modello corretto	71,149	3	23,716	**34,633**	0	0,416	103,898	1
Intercetta	3771,115	1	3771,115	5506,906	0	0,974	5506,906	1
BRAND	64,858	1	64,858	94,711	0	0,393	94,711	1
TRADITIONAL	1,336	1	1,336	1,951	0,165	0,013	1,951	0,284
TRADITIONAL * BRAND	6,846	1	6,846	**9,997**	0,002	0,064	9,997	0,881
Errore	99,98	146	0,685					
Totale	4005,6	150						
Totale corretto	171,13	149						

Medie marginali stimate di WTP

**Production process: "0" Upcycling, "1" Traditional
Brand Type: "0" Fast Fashion, "1" Luxury**

Fig.32 Two-way Anova moderation test on WTP

The same result was not obtained with the same analysis but with a different dependent variable. I ran the test again but testing if there could possibly be a moderating effect of brand type on the relationship of the Production typology and the WTB, but the results were not encouraging. I used the same procedure, launching the test as a two-way ANOVA on SPSS.

As anticipated, the model itself is not statistically significant, moreover, the interaction between the brand and the relationship between the IV and DV has proven to not be statistically significant as well.

The result of the Process moderation test was the sequent: F (3, 146) = 1.626, p=.186

To test the third Hypothesis, the one in which we assume that the emotions will be a mediator of the relationship between our dependent variable and independent variables, considering the moderating effect of brand type as well, we proceed to create new variables, composed by the mean of the pre-validated reliable emotions scales.

After the creation of said variables, we then proceed to look at the mediation test on the process macro.

Regression analysis was used to investigate the hypothesis.

As far as the moderation goes, we see that the model is statistically significant, $F(3, 146) = 3.2218$, p=<.05, but the interaction effect between the production process and the brand type is not statistically significant (p=<.05). Results also indicate that Shame was a significant predictor on the production process, B=.6065, SE=.2003, p=<.05, and a significant predictor of WTP, B=-.2043, SE=.0701, P=<.05. These results support the complete mediational hypothesis. The production process used was no longer a significant predictor of WTP after controlling the mediator. Approximately 6% of variance was accounted for by the predictors (R^2=.0649). The indirect effect was tested using a percentile bootstrap estimation approach with 5000 samples and the results indicate that when the item is luxury, the effect is not significant, but when it is fast fashion, it is significant.

The production process is therefore associated with WTP for scores that were approximately -.123 points lower as mediated by shame but there is not a statistically significant moderation-mediation.

```
Model  : 7
    Y  : WTP
    X  : TRADITIO
    M  : SHAME
    W  : BRAND

Sample
Size:  150

**************************************************************************
OUTCOME VARIABLE:
 SHAME

Model Summary
         R        R-sq        MSE          F         df1         df2           p
     ,2492       ,0621      1,5123     3,2218      3,0000    146,0000       ,0245

Model
            coeff         se          t          p         LLCI        ULCI
constant   1,9099       ,2022     9,4471       ,0000      1,5104      2,3095
TRADITIO    ,5663       ,2900     1,9529       ,0527      -,0068      1,1394
BRAND      -,1812       ,2758     -,6572       ,5121      -,7262       ,3638
Int_1       ,0669       ,4031      ,1661       ,8683      -,7296       ,8635

Product terms key:
 Int_1   :          TRADITIO x        BRAND

Test(s) of highest order unconditional interaction(s):
      R2-chng          F         df1         df2           p
X*W      ,0002       ,0276     1,0000    146,0000       ,8683

**************************************************************************
OUTCOME VARIABLE:
 WTP

Model Summary
         R        R-sq        MSE          F         df1         df2           p
     ,2548       ,0649      1,0886     5,1016      2,0000    147,0000       ,0072
```

```
Model
              coeff        se         t         p        LLCI       ULCI
constant     5,5303     ,1725    32,0685     ,0000     5,1895     5,8711
TRADITIO     -,0989     ,1760     -,5622     ,5748     -,4467      ,2488
SHAME        -,2043     ,0701    -2,9155     ,0041     -,3428     -,0658

****************** DIRECT AND INDIRECT EFFECTS OF X ON Y ****************

Direct effect of X on Y
    Effect         se         t         p        LLCI       ULCI
    -,0989       ,1760     -,5622     ,5748     -,4467      ,2488

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 TRADITIO    ->     SHAME       ->      WTP

     BRAND     Effect     BootSE    BootLLCI    BootULCI
     ,0000     -,1157      ,0744     -,2859       ,0086
    1,0000     -,1294      ,0664     -,2706      -,0132

Index of moderated mediation (difference between conditional indirect effects):
          Index     BootSE    BootLLCI    BootULCI
BRAND     -,0137      ,0870     -,1841       ,1729
---

********************** ANALYSIS NOTES AND ERRORS ***********************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000
```
Fig.33 Process Moderation-Moderation test on SHAME with model 7 on WTP

I ran the same test, but this time I used WTB as a dependent variable.

The moderation effect is not statistically significative. Results indicate that Shame was a significant predictor on the production process, B=-.4510, SE=.0972, p=<.05. This result support the mediational hypothesis. The production process used was no longer a significant predictor of WTP after controlling the mediator. Approximately 13% of variance was accounted for by the predictors (R^2=.1311). The indirect effect was tested using a percentile bootstrap estimation approach with 5000 samples and the results indicate that the coefficient was significant for the Luxury items but not the fast fashion ones.

The production process is therefore associated with WTB for scores that were approximately -.2856 points lower as mediated by shame but there is not a statistically significant moderation-mediation.

```
Model   : 7
    Y   : WTB
    X   : TRADITIO
    M   : SHAME
    W   : BRAND
```

```
Sample
Size:  150


***************************************************************************
OUTCOME VARIABLE:
 SHAME

Model Summary
          R        R-sq        MSE          F         df1         df2          p
      ,2492       ,0621      1,5123     3,2218      3,0000    146,0000       ,0245

Model
            coeff         se          t          p        LLCI        ULCI
constant    1,9099      ,2022     9,4471      ,0000      1,5104      2,3095
TRADITIO     ,5663      ,2900     1,9529      ,0527      -,0068      1,1394
BRAND       -,1812      ,2758     -,6572      ,5121      -,7262       ,3638
Int_1        ,0669      ,4031      ,1661      ,8683      -,7296       ,8635

Product terms key:
 Int_1    :          TRADITIO x        BRAND

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W      ,0002      ,0276     1,0000    146,0000       ,8683

***************************************************************************
OUTCOME VARIABLE:
 WTB

Model Summary
          R        R-sq        MSE          F         df1         df2          p
      ,3621       ,1311      2,0956    11,0905      2,0000    147,0000       ,0000

Model
            coeff         se          t          p        LLCI        ULCI
constant    5,2966      ,2393    22,1361      ,0000      4,8237      5,7694
TRADITIO     ,0801      ,2442      ,3280      ,7433      -,4024       ,5626
SHAME       -,4510      ,0972    -4,6383      ,0000      -,6431      -,2588

****************** DIRECT AND INDIRECT EFFECTS OF X ON Y ****************

Direct effect of X on Y
     Effect         se          t          p        LLCI        ULCI
      ,0801      ,2442      ,3280      ,7433      -,4024       ,5626

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 TRADITIO    ->     SHAME        ->      WTB

      BRAND     Effect      BootSE    BootLLCI    BootULCI
      ,0000     -,2554       ,1571      -,6154        ,0111
     1,0000     -,2856       ,1645      -,6633       -,0356


Index of moderated mediation (difference between conditional indirect effects):
          Index     BootSE    BootLLCI    BootULCI
BRAND     -,0302       ,1919      -,4364        ,3343
---

********************* ANALYSIS NOTES AND ERRORS ***********************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000
```
Fig.34 Process Moderation-Moderation test on SHAME with model 7 on WTB

As far as the moderation goes, we see that the model is statistically significant, $F_{(3, 146)} = 6.2134$, p=<.05, and the interaction effect between the production process and the brand type is statistically significant (p=<.05). The mediation model was not significant and therefore no further analysis on it will be needed. Moreover, the moderation-mediation effect is not statistically significant as well.

```
Model  : 7
    Y  : WTP
    X  : TRADITIO
    M  : GUILT
    W  : BRAND

Sample
Size: 150

*************************************************************************
OUTCOME VARIABLE:
 GUILT

Model Summary
         R        R-sq        MSE          F        df1        df2          p
     ,3365       ,1132     1,8632     6,2134     3,0000   146,0000      ,0005

Model
             coeff         se          t          p       LLCI       ULCI
constant    2,0901       ,2244     9,3140      ,0000     1,6466     2,5336
TRADITIO     ,2909       ,3219      ,9037      ,3676     -,3452      ,9270
BRAND       -,1133       ,3061     -,3703      ,7117     -,7183      ,4916
Int_1        ,9514       ,4474     2,1267      ,0351      ,0672     1,8356

Product terms key:
 Int_1    :        TRADITIO x        BRAND

Test(s) of highest order unconditional interaction(s):
      R2-chng          F        df1        df2          p
X*W      ,0275     4,5227     1,0000   146,0000      ,0351
----------
    Focal predict: TRADITIO (X)
          Mod var: BRAND    (W)

Conditional effects of the focal predictor at values of the moderator(s):

     BRAND    Effect         se          t          p       LLCI       ULCI
     ,0000     ,2909       ,3219      ,9037      ,3676     -,3452      ,9270
    1,0000    1,2423       ,3107     3,9978      ,0001      ,6282     1,8565

*************************************************************************
OUTCOME VARIABLE:
 WTP

Model Summary
         R        R-sq        MSE          F        df1        df2          p
     ,1140       ,0130     1,1490      ,9685     2,0000   147,0000      ,3821

Model
             coeff         se          t          p       LLCI       ULCI
constant    5,0867       ,1760    28,8963      ,0000     4,7388     5,4346
TRADITIO    -,2507       ,1821    -1,3764      ,1708     -,6107      ,1093
GUILT        ,0361       ,0635      ,5685      ,5706     -,0895      ,1617

****************** DIRECT AND INDIRECT EFFECTS OF X ON Y ******************
```

```
Direct effect of X on Y
     Effect           se           t           p        LLCI        ULCI
     -,2507        ,1821     -1,3764        ,1708     -,6107        ,1093

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 TRADITIO    ->    GUILT       ->     WTP

      BRAND      Effect      BootSE    BootLLCI    BootULCI
      ,0000       ,0105       ,0284      -,0459       ,0740
     1,0000       ,0449       ,0838      -,1037       ,2314

Index of moderated mediation (difference between conditional indirect effects):
          Index      BootSE    BootLLCI    BootULCI
BRAND      ,0344       ,0698      -,0734       ,2035
---

********************** ANALYSIS NOTES AND ERRORS ***********************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000
```
Fig.35 Process Moderation-Moderation test on GUILT with model 7 on WTP

Then I moved on WTB as a dependent variable. As we can see from the data below, the model is significant, F (3, 146) = 6.2134, p=<.05 and the moderation effect is statistically significant as well with the production process having a positive effect on the brand when the brand is luxury of .9514. Moreover, guilt is a statistically significant predictor of WTB, but the mediation model was not significant and so no further analysis is needed. Lastly, the moderation-mediation effect is also non statistically significant.

```
Model  : 7
    Y  : WTB
    X  : TRADITIO
    M  : GUILT
    W  : BRAND

Sample
Size:  150

*************************************************************************
OUTCOME VARIABLE:
 GUILT

Model Summary
         R        R-sq         MSE           F         df1         df2           p
     ,3365       ,1132      1,8632      6,2134      3,0000    146,0000        ,0005

Model
            coeff          se           t           p        LLCI        ULCI
constant    2,0901        ,2244      9,3140        ,0000      1,6466      2,5336
TRADITIO     ,2909        ,3219       ,9037        ,3676      -,3452       ,9270
BRAND       -,1133        ,3061      -,3703        ,7117      -,7183       ,4916
Int_1        ,9514        ,4474      2,1267        ,0351       ,0672      1,8356

Product terms key:
```

```
 Int_1    :        TRADITIO x        BRAND

Test(s) of highest order unconditional interaction(s):
      R2-chng         F         df1        df2         p
X*W      ,0275      4,5227    1,0000   146,0000      ,0351
----------
    Focal predict: TRADITIO (X)
          Mod var: BRAND    (W)

Conditional effects of the focal predictor at values of the moderator(s):

     BRAND    Effect        se         t         p       LLCI      ULCI
     ,0000     ,2909     ,3219     ,9037     ,3676    -,3452     ,9270
    1,0000    1,2423     ,3107    3,9978     ,0001     ,6282    1,8565

**************************************************************************
OUTCOME VARIABLE:
 WTB

Model Summary
        R        R-sq       MSE         F        df1        df2         p
     ,1737     ,0302    2,3390    2,2872    2,0000   147,0000      ,1052

Model
            coeff        se         t         p       LLCI      ULCI
constant    4,8460     ,2512   19,2947     ,0000    4,3497    5,3424
TRADITIO   -,0541     ,2599    -,2081     ,8354    -,5677     ,4595
GUILT      -,1808     ,0907   -1,9943     ,0480    -,3600    -,0016

***************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
    Effect        se         t         p       LLCI      ULCI
    -,0541     ,2599    -,2081     ,8354    -,5677     ,4595

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 TRADITIO   ->   GUILT      ->    WTB

     BRAND    Effect    BootSE   BootLLCI   BootULCI
     ,0000    -,0526     ,0736    -,2435     ,0447
    1,0000    -,2246     ,1554    -,5768     ,0307

Index of moderated mediation (difference between conditional indirect effects):
          Index     BootSE   BootLLCI   BootULCI
BRAND    -,1720     ,1347    -,4842     ,0344
---

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000
```

Fig.36 Process Moderation-Moderation test on GUILT with model 7 on WTB

I then moved onto the third emotion I considered in my study, the perception of contamination. Both the regression analysis ran with process macro model 7 tested a statistically significant model, but the results from the moderation model, mediation model and moderation-mediation model were all not statistically significant.

```
Model  : 7
    Y  : WTP
    X  : TRADITIO
    M  : CONTAMIN
    W  : BRAND

Sample
Size:  150

*************************************************************************
OUTCOME VARIABLE:
 CONTAMIN

Model Summary
         R        R-sq        MSE          F        df1         df2          p
     ,2459       ,0605       ,9547     3,1330     3,0000    146,0000       ,0275

Model
             coeff         se          t          p        LLCI        ULCI
constant    1,6351       ,1606    10,1794       ,0000     1,3177      1,9526
TRADITIO     ,2506       ,2304     1,0876       ,2786     -,2048       ,7059
BRAND       -,1584       ,2191     -,7229       ,4709     -,5914       ,2746
Int_1        ,3870       ,3202     1,2083       ,2289     -,2460      1,0199

Product terms key:
 Int_1     :          TRADITIO x          BRAND

Test(s) of highest order unconditional interaction(s):
      R2-chng          F        df1        df2          p
X*W       ,0094     1,4600     1,0000    146,0000       ,2289

*************************************************************************
OUTCOME VARIABLE:
 WTP

Model Summary
         R        R-sq        MSE          F        df1         df2          p
     ,1041       ,0108     1,1515       ,8060     2,0000    147,0000       ,4486

Model
             coeff         se          t          p        LLCI        ULCI
constant    5,1659       ,1845    27,9987       ,0000     4,8013      5,5306
TRADITIO    -,2211       ,1803    -1,2266       ,2219     -,5774       ,1351
CONTAMIN    -,0038       ,0904     -,0424       ,9662     -,1826       ,1749

****************** DIRECT AND INDIRECT EFFECTS OF X ON Y ******************

Direct effect of X on Y
    Effect         se          t          p        LLCI        ULCI
    -,2211       ,1803    -1,2266       ,2219     -,5774       ,1351

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 TRADITIO    ->    CONTAMIN    ->    WTP

     BRAND      Effect      BootSE    BootLLCI    BootULCI
     ,0000      -,0010       ,0352     -,0883       ,0663
    1,0000      -,0024       ,0672     -,1190       ,1483
```

```
Index of moderated mediation (difference between conditional indirect effects):
          Index    BootSE   BootLLCI  BootULCI
BRAND    -,0015    ,0525    -,0986     ,1274
---


*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000
```

Fig.37 Process Moderation-Moderation test on CONTAMINATION with model 7 on WTP

```
Model  : 7
    Y  : WTB
    X  : TRADITIO
    M  : CONTAMIN
    W  : BRAND

Sample
Size: 150

*************************************************************************
OUTCOME VARIABLE:
 CONTAMIN

Model Summary
          R        R-sq       MSE         F        df1        df2         p
      ,2459      ,0605     ,9547     3,1330    3,0000   146,0000      ,0275

Model
              coeff        se         t         p       LLCI       ULCI
constant    1,6351      ,1606   10,1794     ,0000     1,3177     1,9526
TRADITIO     ,2506      ,2304    1,0876     ,2786    -,2048      ,7059
BRAND       -,1584      ,2191    -,7229     ,4709    -,5914      ,2746
Int_1        ,3870      ,3202    1,2083     ,2289    -,2460     1,0199

Product terms key:
 Int_1    :         TRADITIO x        BRAND

Test(s) of highest order unconditional interaction(s):
      R2-chng         F        df1        df2          p
X*W     ,0094     1,4600    1,0000   146,0000      ,2289

*************************************************************************
OUTCOME VARIABLE:
 WTB

Model Summary
          R        R-sq       MSE         F        df1        df2         p
      ,0995      ,0099     2,3879     ,7351    2,0000   147,0000      ,4812

Model
              coeff        se         t         p       LLCI       ULCI
constant    4,2893      ,2657   16,1434     ,0000     3,7642     4,8143
TRADITIO    -,2486      ,2596    -,9575     ,3399    -,7616      ,2645
CONTAMIN     ,1225      ,1302     ,9408     ,3484    -,1349      ,3799

***************** DIRECT AND INDIRECT EFFECTS OF X ON Y ****************

Direct effect of X on Y
    Effect        se         t         p       LLCI       ULCI
    -,2486      ,2596    -,9575     ,3399    -,7616      ,2645

Conditional indirect effects of X on Y:
```

```
INDIRECT EFFECT:
 TRADITIO    ->    CONTAMIN    ->    WTB

      BRAND    Effect     BootSE    BootLLCI   BootULCI
      ,0000     ,0307      ,0604     -,0503      ,1951
     1,0000     ,0781      ,1038     -,0914      ,3164

Index of moderated mediation (difference between conditional indirect effects):
          Index    BootSE   BootLLCI   BootULCI
BRAND     ,0474     ,0850    -,0898      ,2554
---

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000
```
Fig.38 Process Moderation-Moderation test on CONTAMINATION with model 7 on WTB

As far as Pride goes, results indicate that the model is statistically significant for the moderation, F (3, 146) = 3.1774, p=<.05, and that the production process is a statistically significant predictor of pride, B=-.7992, SE = .3070, P=<.05. The interaction effect is not statistically significant, but we also see from the mediation model that pride is a statistically significant predictor of WTP, B=.4134, SE=.0578, P=<.05. There is complete mediation, since the direct effect is not statistically significant and when the brand value is 0 (fast fashion), WTP is negatively mediated by pride with an effect of -.3304. No moderation-mediation effect is statistically significant.

```
Model  : 7
    Y  : WTP
    X  : TRADITIO
    M  : PRIDE
    W  : BRAND

Sample
Size:  150

**************************************************************************
OUTCOME VARIABLE:
 PRIDE

Model Summary
         R       R-sq       MSE          F        df1        df2          p
     ,2476     ,0613     1,6947     3,1774     3,0000   146,0000      ,0260

Model
           coeff        se          t          p       LLCI       ULCI
constant   4,3468     ,2140    20,3110      ,0000     3,9239     4,7698
TRADITIO   -,7992     ,3070    -2,6037      ,0102    -1,4059     -,1926
BRAND       ,0097     ,2919      ,0334      ,9734     -,5672      ,5867
Int_1       ,6712     ,4267     1,5731      ,1179     -,1720     1,5145

Product terms key:
 Int_1   :        TRADITIO x        BRAND
```

```
Test(s) of highest order unconditional interaction(s):
       R2-chng          F         df1        df2          p
X*W       ,0159      2,4747      1,0000   146,0000       ,1179

**************************************************************************
OUTCOME VARIABLE:
 WTP

Model Summary
         R          R-sq         MSE          F         df1         df2          p
      ,5158        ,2660       ,8545     26,6366      2,0000   147,0000       ,0000

Model
             coeff         se          t          p        LLCI        ULCI
constant     3,3609       ,2721    12,3538       ,0000      2,8233      3,8986
TRADITIO     -,0311       ,1536     -,2021       ,8401      -,3347       ,2726
PRIDE         ,4134       ,0578     7,1487       ,0000       ,2991       ,5277

***************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
    Effect          se          t          p        LLCI        ULCI
    -,0311        ,1536     -,2021       ,8401      -,3347       ,2726

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 TRADITIO    ->     PRIDE      ->     WTP

      BRAND      Effect      BootSE    BootLLCI    BootULCI
      ,0000      -,3304       ,1360      -,6234      -,0841
     1,0000      -,0529       ,1263      -,3015       ,1933

Index of moderated mediation (difference between conditional indirect effects):
          Index     BootSE    BootLLCI    BootULCI
BRAND      ,2775      ,1878      -,0641       ,6686
---

********************** ANALYSIS NOTES AND ERRORS **********************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000
```
Fig.39 Process Moderation-Moderation test on PRIDE with model 7 on WTP

Lastly, I tested the same model with WTB as a dependent variable.

We see similar results as the analysis with WTP as a dependent variable. The moderation model is statistically significant, $F_{(3,146)} = 3.1774$, p=<.05. The production process is a statistically significant predictor of pride, B = -.7992, SE = .3070, p = <.05. The interaction effect is not statistically significant; therefore, no moderation is further investigated. From the mediation model we see that pride is a statistically significant predictor of WTB, B= .7419, SE = .0752, p = <.05 and a complete mediation is present, since the direct effect is not statistically significant, and with the indirect effect we notice how when the brand value is 0 (Fast fashion), the WTB is negatively mediated by pride with an effect of -.5929. No moderation-mediation effect is statistically significant.

```
Model : 7
    Y : WTB
    X : TRADITIO
    M : PRIDE
    W : BRAND

Sample
Size: 150

**************************************************************************
OUTCOME VARIABLE:
 PRIDE

Model Summary
          R        R-sq        MSE          F        df1        df2          p
      ,2476       ,0613      1,6947     3,1774     3,0000   146,0000       ,0260

Model
              coeff         se          t          p       LLCI       ULCI
constant     4,3468       ,2140    20,3110       ,0000     3,9239     4,7698
TRADITIO     -,7992       ,3070    -2,6037       ,0102    -1,4059     -,1926
BRAND         ,0097       ,2919      ,0334       ,9734     -,5672      ,5867
Int_1         ,6712       ,4267     1,5731       ,1179     -,1720     1,5145

Product terms key:
 Int_1   :        TRADITIO x        BRAND

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W       ,0159     2,4747     1,0000   146,0000       ,1179

**************************************************************************
OUTCOME VARIABLE:
 WTB

Model Summary
          R        R-sq        MSE          F        df1        df2          p
      ,6329       ,4006      1,4456    49,1271     2,0000   147,0000       ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     1,2505       ,3539     3,5340       ,0005      ,5512     1,9498
TRADITIO      ,1508       ,1998      ,7544       ,4518     -,2442      ,5457
PRIDE         ,7419       ,0752     9,8635       ,0000      ,5932      ,8905

***************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
    Effect         se          t          p       LLCI       ULCI
     ,1508       ,1998      ,7544       ,4518     -,2442      ,5457

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 TRADITIO    ->    PRIDE      ->    WTB

      BRAND     Effect     BootSE   BootLLCI   BootULCI
      ,0000     -,5929      ,2294    -1,0577     -,1640
     1,0000     -,0950      ,2304     -,5666      ,3344


Index of moderated mediation (difference between conditional indirect effects):
           Index     BootSE   BootLLCI   BootULCI
BRAND      ,4979      ,3163     -,1221     1,1118
---

********************** ANALYSIS NOTES AND ERRORS ***********************

Level of confidence for all confidence intervals in output:
  95,0000
```

```
Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000
```

Fig.40 Process Moderation-Moderation test on PRIDE with model 7 on WTB

3.5 Discussion

In Chapter 2 we have noticed how most of the literature is sceptical in associating sustainability practices with luxury, so the objective of my study was verifying and possibly proving if the usage of said practices could have an impact on the WTP and WTB of consumers for luxury items. In particular, the analysis was focused on two production processes, a traditional one and an upcycling one, with the objective of analysing which one of the two could affect fashion goods the most.

In the first hypotheses I tested the direct effect of the production process on the willingness to pay and willingness to buy of consumers.

The results show how the production process do not have an influence on the dependent variables taken into consideration, as a matter of fact, the means of both groups (the ones who saw a traditionally produced product and the ones who saw an upcycled one) were very similar and the results were not statistically significant. A quick explanation of this phenomenon could be that sustainable production processes are not still clear in the mind of consumers, in particular newer ones like upcycling and that has also been proved by the familiarity check conducted at the start of the survey, telling us that the knowledge of upcycling is very low in the sample analysed.

The second hypothesis considered a moderating variable being the brand typology of the product, luxury, or fast fashion (Prada and H&M), to verify if this could influence the relationship between the production process and the willingness to pay or buy. The analysis on WTP has shown that there is a negative moderating effect on WTP is present when the brand typology is Fast fashion and the WTP fast fashion upcycled items is lower than traditionally produced. The same result was obtained for luxury items. This result is in in line with current literature, which is mostly inclined to confirm that the willingness to pay is higher for a traditionally produced item than an upcycled one for luxury, confirming the general belief in research that the WTP luxury items is not affected by the production process. But is not in line with fast fashion items, that are valued and perceived better when they are upcycled than when they are traditionally produced.

The same analysis on WTB did not produce any significant results.

The third and last hypothesis tested a moderation-mediation effect on WTP and WTB. When emotions are considered, there is a negative mediation on willingness to pay and willingness to buy of shame for luxury products, and that is in line with previous research, showing that anticipated shame could reduce the consumption of luxury items, when there's not conspicuous consumption, and that is exactly the case of our sample that has proven to not consume much luxury items in general (as asked in the survey). Pride has shown to be a negative mediator of willingness to pay and willingness to buy for fast fashion items and that confirms previous common belief that fast fashion is not influenced by anticipated pride. No moderation-mediation effect was statistically

significant. A point to consider is that, contrarily to previous research, both guilt and the perception of contamination had no mediation effect on our dependent variables. This phenomenon could exist because the sample was too small or simply because the respondents were not fully aware of the production processes.

CHAPTER 4
CONCLUSIONS AND
RECOMMENDATIONS

4.1 Summary analysis

The study of past research has shown a very contradictory environment, many researchers believe that sustainability and fashion could not coexist, some more believe that upcycling processes are augmenting the perceived value of the final product if communicated in the right way, many more believe that emotions play a key role in the decision-making funnel of consumers, leading them towards or away from a certain product whether its luxury, or fast fashion.

The objective of my study was to possibly understand the relationship between the production process and the willingness to pay and buy of consumers, considering the influence of the brand perception and ultimately the role of emotions.

To test these interactions, I explored and studied the past literature, starting from general sustainability in the fashion industry, then moving onwards to the production processes research, the emotions and various theoretical frameworks used to measure how those impact on the perception of consumers when buying garment.

My study started with a questionnaire distributed to a convenience sample, that could be presented with one of four conditions:

Luxury, traditional production process

Fast Fashion, traditional production process

Luxury, upcycling production process

Fast Fashion, upcycling production process

I asked them questions to assess their level of familiarity with the upcycling production process, since this is a newer sustainable technique to produce garment, and then measured their perception of greenwashing, the brand attitude, the level of emotions linked to the conditions they were proposed and most importantly I measured my dependent variables, the WTP and WTB.

The results show that the sample was not familiar at all with the upcycling production process, and some manipulation checks have not proven to be significant since the respondents did not have a good familiarity level with the sustainable process. The differences between the perceptions of the emotions are incredibly high, the respondents will feel more pride when buying a traditionally produced luxury item than an upcycled one.

When testing the perception of contamination, the results have proven to be lower than expected and were not significant in many of my further analysis, effectively demonstrating a divergent

tendency from past literature, that assumes that the disgust and contamination will affect the WTP and WTB of consumers.

I discovered a moderation effect of the brand typology on the effect of the production process on WTP; the analysis shows how the WTP is higher for traditionally produced luxury items vs upcycled luxury items, but the phenomenon is inverted for the fast fashion ones, with a higher WTP upcycled fast fashion items vs traditionally produced ones. This confirmed my initial hypothesis.

Unfortunately, no moderation mediation effect was proven to be significant. The most relevant emotions as a mediator have proven to be "Pride", with an almost significant level of the p-value.

In general, we can confirm that emotions like pride and shame, have an impact on the perceptions of the consumers, and their WTP, especially when considering luxury items, they seem to be affected more by these two emotions. This follows the previous research findings, believing that an anticipated shame or pride could impact on the consumption of fashion items; in particular, with an anticipated shame, the future consumption is reduced and with an anticipated pride, the consumption is boosted.

4.2 Theorical Implications

My study provides important information for fashion firms, both luxury and fast fashion.

The current trend in fashion is slowly moving away from fast fashion to a more sustainable production process and therefore, this topic is more relevant than ever.

First, I have demonstrated how the production process is a fundamental factor to keep track on when communicating with consumers since it influences their willingness to buy and willingness to pay depending on the type of brand. Fast fashion brands should invest in a more sustainable production process since the research shows how for this firms, consumers are more inclined to pay an overprice to get an upcycled product than they are for a traditionally made one.

For luxury items the opposite relationship was discovered, traditionally made items are perceived of more durable and functional (following the previous research findings) and the willingness to pay is higher for the traditionally produced ones than the upcycled ones.

My study contributes on the literature regarding the role emotions play in the consumption of goods, in particular fashion items. I have proven that most of the emotions tested in my research do not have a mediation effect on the willingness to buy or willingness to pay of consumers.

No previous research has studied the mediation of emotions when also considering a relationship with the production process and the brand typology. My study has proven that the mediation of emotions has no statistical significance on this relationship, therefore proving how when a new sustainable production process is considered, the emotions do not influence it. The result was slightly not significant, so further analysis is necessary to confirm this hypothesis.

The respondents did not feel a perception of contamination with the sustainable upcycled variety of the brand proposed in the survey, this is a point of difference from the well-known sustainable production process of recycling that, as proven by Meng et al. (2019), is perceived as contaminated and has a negative moderating effect on the WTB fashion items. Upcycling do not suffer from this issue; therefore, this effect might be leveraged to engage in sustainable activities while also not impacting sales for fashion firms.

Moreover, the sample has perceived both the upcycled variants of product shown as luxurious. This result shows how not only sustainability and fashion could go together, but even luxury and sustainability are not as utopic as a couple as previous research has shown.

4.3 Managerial Implications

My study helps fashion firms move away from traditional production processes, to accomplish a more sustainable supply chain, and show a "greener" attitude. It has been proven that modern consumers, especially Millennials and Gen Z are more aware of sustainability and desire to express their beliefs with the products they buy, garment being one of them. Considering the lower buying purchasing power of this new generations, fast fashion firms must consider a transition to an upcycling production process, to leverage their partnerships with stylists to rely on their power of designing new clothing lines to improve the loyalty of consumers and eventually get a great ROI.

As far as luxury fashion goes, it looks like the customers idealize the concept of luxury fashion with a traditionally handmade garment, and tend to prefer that to an upcycling one, even when the description of the product shows as this piece of garment is in line with the tradition of the brand. Communication becomes the key for this issue, perceived quality in the upcycled items is slightly lower; a good communication strategy might solve the issue, moving the consumers perceptions

up, while giving the chance to a luxury traditional firm to gain popularity in the news and positive WOM from sustainably inclined customers.

The marketing sector of fashion firms gains even more power than it has ever had, showing the quality of the upcycled product could invert the trend talked about before, and lead the new "green" customers to pay an overprice to help the environment. Upcycling as a sustainable production process is still very "new" and consumers are not completely aware on how this production process really works so a good communication strategy and an early investment to move in this direction might represent the chance to build a POD (point of difference) and strengthen the power of the firm against the competitors.

4.4 Limitations and future research scopes

Some limitations are present in my research and leave space to further improvement.

The first limitation is that most of my sample was not a conspicuous consumer of luxury items. For future research it might be useful to administer separates questionnaires to luxury consumers and fast fashion consumers. A further limitation is that almost all the participants to the study were not familiar with the upcycling production process, a better explanation of the process might be helpful in future research to manipulate the sample better.

When considering the mediation effect of emotions, more emotions could be considered, and this might help in discovering newer effects on the willingness to pay and willingness to buy of consumers. "Happiness" is a much-studied emotion when it comes to consumer satisfaction. It would be interesting to understand if buying a sustainable item could lead to a happiness state for the buyer, thus influencing the consumption experience, even for fashion items. A second emotion that could add something to the table is "Regret". By studying the perceived regret after a purchase, we could factor that to understand whether this emotion has a mediating effect on WTP or WTB.

Future studies could help with creating a more based comparison wit different sustainable production methods such as recycling. Both the processes have their points of strength and weaknesses, but it might be interesting to study a possible combination of the two, ultimately leveraging the advantages of both, while minimizing the possible weaknesses deriving from the methods.

A larger sample might help obtaining better results, or in general statistically significant results.

Ultimately, considering more dependent variables, such as the intention to pay a price premium, would be interesting to further investigate the perceptions of consumers on sustainable fashion production processes.

Nevertheless, the present study has contributed to the fashion production process analysis by discovering a moderation concept that could help the transition to a more sustainable future and has provided the academics and practitioners with some new thoughts to work upon.

APPENDICES

APPENDIX 1

Età

N	Minimo	Massimo	Media	Deviazione Std.
150	18	74	30,43	11,77326

Genere

	Frequenza	Percentuale	Percentuale Cumulativa
Uomo	71	47,3	47,3
Donna	79	52,7	100
Totale	150	100	

Livello di istruzione

	Frequenza	Percentuale	Percentuale Cumulativa
Secondaria secondo grado	3	2	2
Liceo	12	8	10
Istituto tecnico	5	3,3	13,3
Università	130	86,7	100
Totale	150	100	

APPENDIX 2

Condizione Mostrata

	Frequenza	Percentuale	Percentuale Cumulativa
Fast Fashion - Traditional	35	23,3	23,3
Luxury - Traditional	35	23,3	46,7
Fast Fashion - Upcycled	37	24,7	71,3
Luxury - Upcycled	43	28,7	100
Totale	150	100	

APPENDIX 3

T-Test Traditional production process

	CONDIZIONE MOSTRATA: 1 Fast Fashion - Traditional. 2 Luxury Traditional	N	Media	Deviazione Std	Media Errore Std.
In riferimento al prodotto descritto in precedenza, indichi il suo livello di accordo o disaccordo con le seguenti frasi: - Il prodotto descritto è un prodotto ecologico	1	35	**4,37**	1,497	0,253
	2	35	3,03	1,465	0,248
In riferimento al prodotto descritto in precedenza, indichi il suo livello di accordo o disaccordo con le seguenti frasi: - Il prodotto descritto è un prodotto sostenibile	1	35	**4,54**	1,482	0,251
	2	35	2,89	1,53	0,259
In riferimento al prodotto descritto in precedenza, indichi il suo livello di accordo o disaccordo con le seguenti frasi: - Il prodotto descritto è fatto di materiale inutilizzato	1	35	3,97	1,505	0,254
	2	35	3,03	1,886	0,319

In riferimento al prodotto descritto in precedenza, indichi il suo livello di accordo o disaccordo con le seguenti frasi: - Il prodotto descritto è upcycled	1	35	4,4	1,594	0,269
	2	35	3,31	1,728	0,292

T-Test Upcycling production process

	CONDIZIONE MOSTRATA: 1 Fast Fashion - Upcycling. 2 Luxury Upcycling	N	Media	Deviazione Std	Media Errore Std.
In riferimento al prodotto descritto in precedenza, indichi il suo livello di accordo o disaccordo con le seguenti frasi: - Il prodotto descritto è un prodotto ecologico	1	37	5,65	1,418	0,233
	2	43	5,79	0,94	0,143
In riferimento al prodotto descritto in precedenza, indichi il suo livello di accordo o disaccordo con le seguenti frasi: - Il prodotto descritto è un prodotto sostenibile	1	37	6,19	0,908	0,149
	2	43	5,84	0,998	0,152
In riferimento al prodotto descritto in precedenza, indichi il suo livello di accordo o disaccordo con le seguenti frasi: - Il prodotto descritto è fatto di materiale inutilizzato	1	37	4,86	1,917	0,315
	2	43	4,74	2,013	0,307
In riferimento al prodotto descritto in precedenza, indichi il suo livello di accordo o disaccordo con le seguenti frasi: - Il prodotto descritto è upcycled	1	37	6,03	1,404	0,231

		2	43	6,35		0,783	0,119

APPENDIX 4

	CONDIZIONE MOSTRATA: 1 Luxury - Traditional. 2 Luxury Upcycling	N	Media	Deviazione Std	Media Errore Std.
In riferimento al prodotto descritto in precedenza, indichi il suo livello di accordo o disaccordo con le seguenti frasi: - Il prodotto descritto è un prodotto di lusso	1	35	6,03	0,923	0,156
	2	43	5,77	1,043	0,159

	CONDIZIONE MOSTRATA: 1 Fast Fashion - Traditional. 2 Fast Fashion Upcycling	N	Media	Deviazione Std	Media Errore Std.
In riferimento al prodotto descritto in precedenza, indichi il suo livello di accordo o disaccordo con le seguenti frasi: - Il prodotto descritto è un prodotto Fast Fashion	1	35	4,8	1,641	0,277
	2	37	4,59	1,607	0,264

APPENDIX 5

Condizione Mostrata: 1 Fast fashion Traditional - 2 Luxury Traditional		ENVIRONMENTAL CONCERN	STATUS	BRAND ATTITUDE	FIT	GREENWASHING	PERCEIVED QUALITY
1	Media	4,6286	3,1771	3,8743	4,0286	4,0743	3,8929
	N	35	35	35	35	35	35
	Deviazione std.	1,17579	1,23457	1,17832	0,9922	1,15919	0,93598
2	Media	4,5524	4,0229	5,4686	5,2857	4,2629	5,6929
	N	35	35	35	35	35	35
	Deviazione std.	1,2017	1,5932	1,08024	1,36277	1,06359	0,74034

Condizione Mostrata: 1 Fast fashion Upcycling - 2 Luxury Upcycling		ENVIRONMENTAL CONCERN	STATUS	BRAND ATTITUDE	FIT	GREENWASHING	PERCEIVED QUALITY
1	Media	4,6802	3,3838	4,5135	4,4054	4,9081	4,3378
	N	37	37	37	37	37	37
	Deviazione std.	1,10441	1,25289	1,12204	1,35957	1,06102	0,86846
2	Media	5,1822	3,2233	5,2791	4,1395	4,9907	**5,25**
	N	43	43	43	43	43	43
	Deviazione std.	0,87651	1,29704	1,24834	1,18811	0,83831	0,96825

APPENDIX 6

Production process familiarity

	N	Minimo	Massimo	Media	Deviazione Std.
Quanto è familiare con i prodotti Upcycled?	150	1	7	**2,49**	1,931

Luxury items consumption

	N	Minimo	Massimo	Media	Deviazione Std.
Con quale frequenza acquista prodotti di lusso?	150	1	7	**2,83**	1,435

APPENDIX 7

Test di omogeneità delle varianze

		Statistica di Levene	gl1	gl2	Sign.
WTP	Basato sulla media	5,236	1	148	0,024
	Basato sulla mediana	5,317	1	148	0,023
	Basato sulla mediana e con il grado di libertà adattato	5,317	1	138,852	0,023

ANOVA

	N	Media	Deviazione std.	Errore std.	95% di intervallo di confidenza per la media		Minimo	Massimo
					Limite inferiore	Limite superiore		
TRADITIONAL	80	5,16	1,01801	0,11382	4,9335	5,3865	2,8	7
UPCYCLED	70	4,9371	1,12548	0,13452	4,6688	5,2055	3	7
Totale	150	5,056	1,07169	0,0875	4,8831	5,2289	2,8	7

APPENDIX 8

	N	Media	Deviazione std.	Errore std.	95% di intervallo di confidenza per la media		Minimo	Massimo
					Limite inferiore	Limite superiore		
0	80	4,4792	1,44066	0,16107	4,1586	4,7998	1	7
1	70	4,2857	1,6558	0,19791	3,8909	4,6805	1	7
Totale	150	4,3889	1,54254	0,12595	4,14	4,6378	1	7

Test di omogeneità delle varianze

		Statistica di Levene	gl1	gl2	Sign.
WTB	Basato sulla media	2,69	1	148	0,103
	Basato sulla mediana	2,932	1	148	0,089
	Basato sulla mediana e con il grado di libertà adattato	2,932	1	147,998	0,089
	Basato sulla media ritagliata	2,742	1	148	0,1

ANOVA

	Somma dei quadrati	gl	Media quadratica	F	Sign.
Tra gruppi	1,397	1	1,397	0,586	0,445
Entro i gruppi	353,14	148	2,386		
Totale	354,537	149			

APPENDIX 9

Test di Levene di eguaglianza delle varianze dell'errore

		Statistica di Levene	gl1	gl2	Sign.
WTP	Basato sulla media	**3,166**	3	146	0,026
	Basato sulla mediana	3,169	3	146	0,026
	Basato sulla mediana e con il grado di libertà adattato	3,169	3	138,37	0,026
	Basato sulla media ritagliata	3,338	3	146	0,021

Test di effetti tra soggetti

Origine	Somma dei quadrati di tipo III	gl	Media quadratica	F	Sign.	Eta quadrato parziale	Parametro di non centralità	Potenza osservata
Modello corretto	71,149	3	23,716	**34,633**	0	0,416	103,898	1
Intercetta	3771,115	1	3771,115	5506,906	0	0,974	5506,906	1
BRAND	64,858	1	64,858	94,711	0	0,393	94,711	1
TRADITIONAL	1,336	1	1,336	1,951	0,165	0,013	1,951	0,284
TRADITIONAL * BRAND	6,846	1	6,846	**9,997**	0,002	0,064	9,997	0,881
Errore	99,98	146	0,685					
Totale	4005,6	150						
Totale corretto	171,13	149						

Medie marginali stimate di WTP

Production process: "0" Upcycling, "1" Traditional
Brand Type: "0" Fast Fashion, "1" Luxury

APPENDIX 10

Test di Levene di eguaglianza delle varianze dell'errore

		Statistica di Levene	gl1	gl2	Sign.
WTB	Basato sulla media	1,254	3	146	0,293
	Basato sulla mediana	1,001	3	146	0,395
	Basato sulla mediana e con il grado di libertà adattato	1,001	3	142,265	0,395
	Basato sulla media ritagliata	1,258	3	146	0,291

Test di effetti tra soggetti

Origine	Somma dei quadrati di tipo III	gl	Media quadratica	F	Sign.	Eta quadrato parziale	Parametro di non centralità	Potenza osservata
Modello corretto	11,46	3	3,82	1,626	0,186	0,032	4,877	0,42
Intercetta	2847,732	1	2847,732	1211,882	0	0,892	1211,882	1
BRAND	10,011	1	10,011	4,26	0,041	0,028	4,26	0,536
TRADITIONAL	1,125	1	1,125	0,479	0,49	0,003	0,479	0,106
TRADITIONAL * BRAND	0,001	1	0,001	0	0,987	0	0	0,05
Errore	343,077	146	2,35					
Totale	3243,889	150						
Totale corretto	354,537	149						
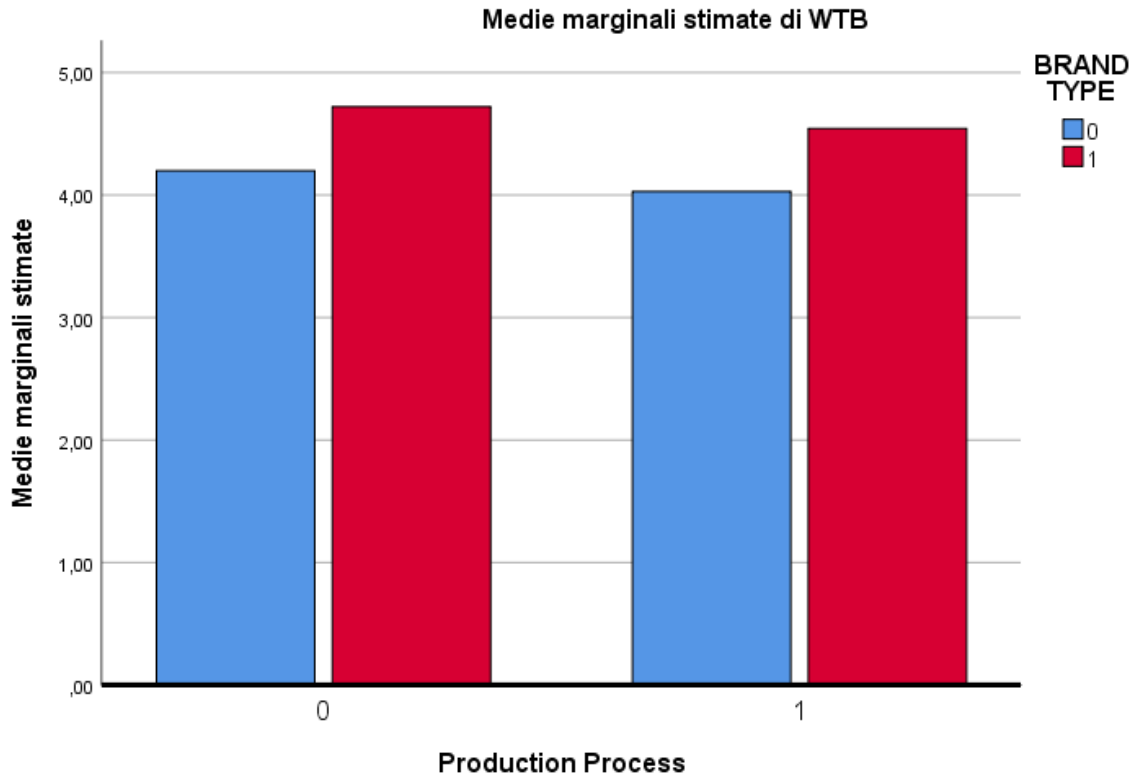
Medie marginali stimate di WTB

Production process: "0" Upcycling, "1" Traditional
Brand Type: "0" Fast Fashion, "1" Luxury

APPENDIX 11

```
Model  : 7
    Y  : WTP
    X  : TRADITIO
    M  : SHAME
    W  : BRAND

Sample
Size: 150

**************************************************************************
OUTCOME VARIABLE:
 SHAME

Model Summary
         R       R-sq       MSE          F       df1       df2         p
     ,2492      ,0621    1,5123    **3,2218**    3,0000  146,0000      ,0245

Model
            coeff        se         t         p       LLCI       ULCI
constant    **1,9099**    ,2022    9,4471     ,0000    1,5104    2,3095
TRADITIO     ,5663      ,2900    1,9529     ,0527    -,0068    1,1394
BRAND       -,1812      ,2758    -,6572     ,5121    -,7262     ,3638
Int_1        ,0669      ,4031     ,1661     ,8683    -,7296     ,8635

Product terms key:
 Int_1   :          TRADITIO x       BRAND

Test(s) of highest order unconditional interaction(s):
      R2-chng          F        df1        df2         p
X*W      ,0002      ,0276    1,0000  146,0000      ,8683

**************************************************************************
OUTCOME VARIABLE:
 WTP

Model Summary
         R       R-sq       MSE          F       df1       df2         p
     ,2548      ,0649    1,0886    **5,1016**    2,0000  147,0000      ,0072

Model
            coeff        se         t         p       LLCI       ULCI
constant    **5,5303**    ,1725   32,0685     ,0000    5,1895    5,8711
TRADITIO    -,0989      ,1760    -,5622     ,5748    -,4467     ,2488
SHAME       **-,2043**    ,0701   -2,9155     ,0041    -,3428    -,0658

***************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
    Effect        se         t         p       LLCI       ULCI
    -,0989      ,1760    -,5622     ,5748    -,4467     ,2488

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 TRADITIO   ->     SHAME       ->     WTP

     BRAND     Effect     BootSE    BootLLCI   BootULCI
     ,0000     -,1157      ,0744     -,2859      ,0086
    1,0000     -,1294      ,0664     -,2706     -,0132

Index of moderated mediation (difference between conditional indirect effects):
         Index     BootSE    BootLLCI   BootULCI
BRAND    -,0137      ,0870     -,1841      ,1729
---

********************** ANALYSIS NOTES AND ERRORS ***********************
```

```
Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000
```

APPENDIX 12

```
Model  : 7
    Y  : WTB
    X  : TRADITIO
    M  : SHAME
    W  : BRAND

Sample
Size:  150

*************************************************************************
OUTCOME VARIABLE:
 SHAME

Model Summary
          R        R-sq        MSE          F        df1        df2          p
      ,2492       ,0621     1,5123     3,2218     3,0000   146,0000      ,0245

Model
              coeff         se          t          p       LLCI       ULCI
constant     1,9099      ,2022     9,4471      ,0000     1,5104     2,3095
TRADITIO      ,5663      ,2900     1,9529      ,0527     -,0068     1,1394
BRAND        -,1812      ,2758     -,6572      ,5121     -,7262      ,3638
Int_1         ,0669      ,4031      ,1661      ,8683     -,7296      ,8635

Product terms key:
 Int_1     :          TRADITIO x        BRAND

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W      ,0002       ,0276     1,0000   146,0000      ,8683

*************************************************************************
OUTCOME VARIABLE:
 WTB

Model Summary
          R        R-sq        MSE          F        df1        df2          p
      ,3621       ,1311     2,0956    11,0905     2,0000   147,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     5,2966      ,2393    22,1361      ,0000     4,8237     5,7694
TRADITIO      ,0801      ,2442      ,3280      ,7433     -,4024      ,5626
SHAME        -,4510      ,0972    -4,6383      ,0000     -,6431     -,2588

***************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************


Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      ,0801      ,2442      ,3280      ,7433     -,4024      ,5626


Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 TRADITIO    ->     SHAME        ->     WTB

      BRAND      Effect     BootSE   BootLLCI   BootULCI
      ,0000      -,2554      ,1571     -,6154      ,0111
     1,0000      -,2856      ,1645     -,6633     -,0356


Index of moderated mediation (difference between conditional indirect effects):
            Index     BootSE   BootLLCI   BootULCI
BRAND      -,0302      ,1919     -,4364      ,3343
---


********************** ANALYSIS NOTES AND ERRORS ***********************
```

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

APPENDIX 13

```
Model : 7
    Y : WTP
    X : TRADITIO
    M : GUILT
    W : BRAND

Sample
Size: 150

**************************************************************************
OUTCOME VARIABLE:
 GUILT

Model Summary
          R        R-sq        MSE          F        df1        df2          p
      ,3365       ,1132      1,8632     6,2134     3,0000   146,0000      ,0005

Model
             coeff         se          t          p       LLCI       ULCI
constant    2,0901      ,2244     9,3140      ,0000     1,6466     2,5336
TRADITIO     ,2909      ,3219      ,9037      ,3676     -,3452      ,9270
BRAND       -,1133      ,3061     -,3703      ,7117     -,7183      ,4916
Int_1        ,9514      ,4474     2,1267      ,0351      ,0672     1,8356

Product terms key:
 Int_1    :         TRADITIO x        BRAND

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W      ,0275     4,5227     1,0000   146,0000      ,0351
----------
    Focal predict: TRADITIO (X)
          Mod var: BRAND    (W)

Conditional effects of the focal predictor at values of the moderator(s):

       BRAND     Effect         se          t          p       LLCI       ULCI
       ,0000      ,2909      ,3219      ,9037      ,3676     -,3452      ,9270
      1,0000     1,2423      ,3107     3,9978      ,0001      ,6282     1,8565

**************************************************************************
OUTCOME VARIABLE:
 WTP

Model Summary
          R        R-sq        MSE          F        df1        df2          p
      ,1140       ,0130      1,1490      ,9685     2,0000   147,0000      ,3821

Model
             coeff         se          t          p       LLCI       ULCI
constant    5,0867      ,1760    28,8963      ,0000     4,7388     5,4346
TRADITIO    -,2507      ,1821    -1,3764      ,1708     -,6107      ,1093
GUILT        ,0361      ,0635      ,5685      ,5706     -,0895      ,1617

***************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,2507      ,1821    -1,3764      ,1708     -,6107      ,1093

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 TRADITIO    ->     GUILT        ->     WTP

      BRAND     Effect     BootSE   BootLLCI   BootULCI
```

98

```
       ,0000        ,0105       ,0284      -,0459       ,0740
      1,0000        ,0449       ,0838      -,1037       ,2314

Index of moderated mediation (difference between conditional indirect effects):
            Index     BootSE   BootLLCI   BootULCI
BRAND       ,0344      ,0698     -,0734      ,2035
---

*********************** ANALYSIS NOTES AND ERRORS ***********************

Level of confidence for all confidence intervals in output:
   95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
   5000
```

APPENDIX 14

```
Model  : 7
    Y  : WTB
    X  : TRADITIO
    M  : GUILT
    W  : BRAND

Sample
Size: 150

*************************************************************************
OUTCOME VARIABLE:
 GUILT

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3365      ,1132     1,8632     6,2134     3,0000   146,0000      ,0005

Model
              coeff         se          t          p       LLCI       ULCI
constant     2,0901      ,2244     9,3140      ,0000     1,6466     2,5336
TRADITIO      ,2909      ,3219      ,9037      ,3676     -,3452      ,9270
BRAND        -,1133      ,3061     -,3703      ,7117     -,7183      ,4916
Int_1         ,9514      ,4474     2,1267      ,0351      ,0672     1,8356

Product terms key:
 Int_1   :        TRADITIO x       BRAND

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W       ,0275     4,5227     1,0000   146,0000      ,0351
----------
    Focal predict: TRADITIO (X)
          Mod var: BRAND    (W)

Conditional effects of the focal predictor at values of the moderator(s):

      BRAND     Effect         se          t          p       LLCI       ULCI
      ,0000      ,2909      ,3219      ,9037      ,3676     -,3452      ,9270
     1,0000     1,2423      ,3107     3,9978      ,0001      ,6282     1,8565

*************************************************************************
OUTCOME VARIABLE:
 WTB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,1737      ,0302     2,3390     2,2872     2,0000   147,0000      ,1052

Model
              coeff         se          t          p       LLCI       ULCI
constant     4,8460      ,2512    19,2947      ,0000     4,3497     5,3424
TRADITIO     -,0541      ,2599     -,2081      ,8354     -,5677      ,4595
GUILT        -,1808      ,0907    -1,9943      ,0480     -,3600     -,0016

***************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,0541      ,2599     -,2081      ,8354     -,5677      ,4595

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 TRADITIO   ->    GUILT      ->     WTB

      BRAND     Effect     BootSE   BootLLCI   BootULCI
      ,0000     -,0526      ,0736     -,2435      ,0447
     1,0000     -,2246      ,1554     -,5768      ,0307
```

100

```
Index of moderated mediation (difference between conditional indirect effects):
          Index     BootSE    BootLLCI   BootULCI
BRAND     -,1720    ,1347     -,4842     ,0344
---

*********************** ANALYSIS NOTES AND ERRORS ***********************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000
```

APPENDIX 15

```
Model  : 7
    Y  : WTP
    X  : TRADITIO
    M  : CONTAMIN
    W  : BRAND

Sample
Size: 150

**************************************************************************
OUTCOME VARIABLE:
 CONTAMIN

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,2459      ,0605      ,9547     3,1330     3,0000   146,0000      ,0275

Model
              coeff         se          t          p       LLCI       ULCI
constant     1,6351      ,1606    10,1794      ,0000     1,3177     1,9526
TRADITIO      ,2506      ,2304     1,0876      ,2786     -,2048      ,7059
BRAND        -,1584      ,2191     -,7229      ,4709     -,5914      ,2746
Int_1         ,3870      ,3202     1,2083      ,2289     -,2460     1,0199

Product terms key:
 Int_1    :         TRADITIO x        BRAND

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W       ,0094     1,4600     1,0000   146,0000      ,2289

**************************************************************************
OUTCOME VARIABLE:
 WTP

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,1041      ,0108     1,1515      ,8060     2,0000   147,0000      ,4486

Model
              coeff         se          t          p       LLCI       ULCI
constant     5,1659      ,1845    27,9987      ,0000     4,8013     5,5306
TRADITIO     -,2211      ,1803    -1,2266      ,2219     -,5774      ,1351
CONTAMIN     -,0038      ,0904     -,0424      ,9662     -,1826      ,1749

***************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,2211      ,1803    -1,2266      ,2219     -,5774      ,1351

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 TRADITIO    ->    CONTAMIN    ->    WTP

      BRAND     Effect     BootSE   BootLLCI   BootULCI
      ,0000     -,0010      ,0352     -,0883      ,0663
     1,0000     -,0024      ,0672     -,1190      ,1483

Index of moderated mediation (difference between conditional indirect effects):
           Index     BootSE   BootLLCI   BootULCI
BRAND     -,0015      ,0525     -,0986      ,1274
---

********************** ANALYSIS NOTES AND ERRORS ***********************
```

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

APPENDIX 16

```
Model  : 7
    Y  : WTB
    X  : TRADITIO
    M  : CONTAMIN
    W  : BRAND

Sample
Size: 150

**************************************************************************
OUTCOME VARIABLE:
 CONTAMIN

Model Summary
         R        R-sq        MSE          F        df1        df2          p
     ,2459       ,0605       ,9547     3,1330     3,0000   146,0000       ,0275

Model
             coeff         se          t          p       LLCI       ULCI
constant    1,6351      ,1606    10,1794      ,0000     1,3177     1,9526
TRADITIO     ,2506      ,2304     1,0876      ,2786     -,2048      ,7059
BRAND       -,1584      ,2191     -,7229      ,4709     -,5914      ,2746
Int_1        ,3870      ,3202     1,2083      ,2289     -,2460     1,0199

Product terms key:
 Int_1    :        TRADITIO x       BRAND

Test(s) of highest order unconditional interaction(s):
      R2-chng          F        df1        df2          p
X*W      ,0094     1,4600     1,0000   146,0000       ,2289

**************************************************************************
OUTCOME VARIABLE:
 WTB

Model Summary
         R        R-sq        MSE          F        df1        df2          p
     ,0995       ,0099     2,3879       ,7351     2,0000   147,0000       ,4812

Model
             coeff         se          t          p       LLCI       ULCI
constant    4,2893      ,2657    16,1434      ,0000     3,7642     4,8143
TRADITIO    -,2486      ,2596     -,9575      ,3399     -,7616      ,2645
CONTAMIN     ,1225      ,1302      ,9408      ,3484     -,1349      ,3799

***************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
    Effect         se          t          p       LLCI       ULCI
    -,2486      ,2596     -,9575      ,3399     -,7616      ,2645

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 TRADITIO    ->     CONTAMIN    ->     WTB

     BRAND     Effect     BootSE    BootLLCI   BootULCI
     ,0000      ,0307      ,0604     -,0503      ,1951
    1,0000      ,0781      ,1038     -,0914      ,3164

Index of moderated mediation (difference between conditional indirect effects):
          Index     BootSE    BootLLCI   BootULCI
BRAND     ,0474      ,0850     -,0898      ,2554
---

********************** ANALYSIS NOTES AND ERRORS **********************

Level of confidence for all confidence intervals in output:
```

95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
    5000

APPENDIX 17

```
Model : 7
    Y : WTP
    X : TRADITIO
    M : PRIDE
    W : BRAND

Sample
Size: 150

**************************************************************************
OUTCOME VARIABLE:
 PRIDE

Model Summary
         R       R-sq       MSE         F       df1       df2         p
     ,2476     ,0613    1,6947    3,1774    3,0000  146,0000     ,0260

Model
            coeff        se         t         p      LLCI      ULCI
constant   4,3468     ,2140   20,3110     ,0000    3,9239    4,7698
TRADITIO   -,7992     ,3070   -2,6037     ,0102   -1,4059    -,1926
BRAND       ,0097     ,2919     ,0334     ,9734    -,5672     ,5867
Int_1       ,6712     ,4267    1,5731     ,1179    -,1720    1,5145

Product terms key:
 Int_1    :        TRADITIO x      BRAND

Test(s) of highest order unconditional interaction(s):
      R2-chng         F       df1       df2         p
X*W     ,0159    2,4747    1,0000  146,0000     ,1179

**************************************************************************
OUTCOME VARIABLE:
 WTP

Model Summary
         R       R-sq       MSE         F       df1       df2         p
     ,5158     ,2660     ,8545   26,6366    2,0000  147,0000     ,0000

Model
            coeff        se         t         p      LLCI      ULCI
constant   3,3609     ,2721   12,3538     ,0000    2,8233    3,8986
TRADITIO   -,0311     ,1536    -,2021     ,8401    -,3347     ,2726
PRIDE       ,4134     ,0578    7,1487     ,0000     ,2991     ,5277

***************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
    Effect        se         t         p      LLCI      ULCI
    -,0311     ,1536    -,2021     ,8401    -,3347     ,2726

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 TRADITIO   ->     PRIDE       ->     WTP

     BRAND    Effect    BootSE   BootLLCI   BootULCI
     ,0000    -,3304     ,1360     -,6234     -,0841
    1,0000    -,0529     ,1263     -,3015      ,1933

Index of moderated mediation (difference between conditional indirect effects):
          Index    BootSE   BootLLCI   BootULCI
BRAND     ,2775     ,1878     -,0641      ,6686
---

********************** ANALYSIS NOTES AND ERRORS **********************
```

Level of confidence for all confidence intervals in output:
   95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
   5000

APPENDIX 18

```
Model  : 7
    Y  : WTB
    X  : TRADITIO
    M  : PRIDE
    W  : BRAND

Sample
Size:  150

**************************************************************************
OUTCOME VARIABLE:
 PRIDE

Model Summary
          R        R-sq        MSE          F        df1        df2          p
      ,2476      ,0613     1,6947     3,1774     3,0000   146,0000      ,0260

Model
             coeff         se          t          p       LLCI       ULCI
constant    4,3468      ,2140    20,3110      ,0000     3,9239     4,7698
TRADITIO   -,7992      ,3070    -2,6037      ,0102    -1,4059     -,1926
BRAND       ,0097      ,2919      ,0334      ,9734     -,5672      ,5867
Int_1       ,6712      ,4267     1,5731      ,1179     -,1720     1,5145

Product terms key:
 Int_1    :         TRADITIO  x        BRAND

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W      ,0159     2,4747     1,0000   146,0000      ,1179

**************************************************************************
OUTCOME VARIABLE:
 WTB

Model Summary
          R        R-sq        MSE          F        df1        df2          p
      ,6329      ,4006     1,4456    49,1271     2,0000   147,0000      ,0000

Model
             coeff         se          t          p       LLCI       ULCI
constant    1,2505      ,3539     3,5340      ,0005      ,5512     1,9498
TRADITIO     ,1508      ,1998      ,7544      ,4518     -,2442      ,5457
PRIDE        ,7419      ,0752     9,8635      ,0000      ,5932      ,8905

***************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
    Effect         se          t          p       LLCI       ULCI
     ,1508      ,1998      ,7544      ,4518     -,2442      ,5457

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 TRADITIO    ->     PRIDE       ->     WTB

      BRAND      Effect     BootSE    BootLLCI   BootULCI
      ,0000     -,5929      ,2294    -1,0577     -,1640
     1,0000     -,0950      ,2304     -,5666      ,3344

Index of moderated mediation (difference between conditional indirect effects):
           Index     BootSE    BootLLCI   BootULCI
BRAND      ,4979      ,3163     -,1221     1,1118
---

********************* ANALYSIS NOTES AND ERRORS ***********************
```

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

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SUMMARY

This thesis focuses its study on sustainability and fashion, a highly critiqued combination of concepts and a conjunction deemed as "utopist" by most of the previous research.

The industrial nature of the production of clothing has a sustained impact on the environment. The production levels of fast fashion challenge the ethics of the process making it near impossible to know the origin of a garment. Supposing the levels of consumption staying the same, with population rising over the years, the planet cannot sustain this level for too long (World data Bank, 2015). The materials used in clothing production have a direct impact on the environment, population, and workers.

Polyester and cotton amount for more than 80% of all the fibers production, and both have shown to create sustainability issues. Cotton is a natural fiber and producing it is a major business employing over 300 million people, 90% of which work in developing countries. Cotton crops are addicted to agrichemicals, due to their production being riddled with parasites, making it increasingly reliant on pesticides (Siegle, 2011) to the point of counting for 11% of all pesticides used each year in the whole world (FOEE, 2013).

Fashion has a long history with humankind. It is offering covers people of all ages and all backgrounds. Since the last 20th century, the mainstream trend has been offshoring work from developed countries to developing countries, leaving a hole in the job-market of the western world while introducing new ways of growth for these countries.

This, however, is not the whole truth. Companies that have offshored effectively created longer supply chains, impoverishing the "story" of garment. Cutting costs in the production has reduced the general safety of the workers, the quality of the chemicals uses, and health issues from bad working condition, all for the final scope of possibly cutting the prices offered to the final consumers. The overall quality of the fibers used to produce garment has lowered with time, ultimately reducing the lifespan of the fashion items consumers wear.

There are two main markets in the fashion market. The first one is Haute Couture, consisting of exclusive custom-fitted fashion and the second one is "pret-a-porter" or "ready to wear" which produces standardized clothing sizes. Fast fashion is a typology of high street pret-a-porter, it demands low prices, while offering new weekly products, which become outdated, pushing the quality demand up and the prices down (Siegle,2011). This business model is rapidly taking over

the industry, with the pace of the production being their main concept and the low price as their value proposition. The general fashion cycle has been reduced to the bone, with suppliers requested to manufacture four styles at 500 garments for five weeks, and almost 4 times more last-minute, when the client has resolved whether the consumers has taken on with that trend.
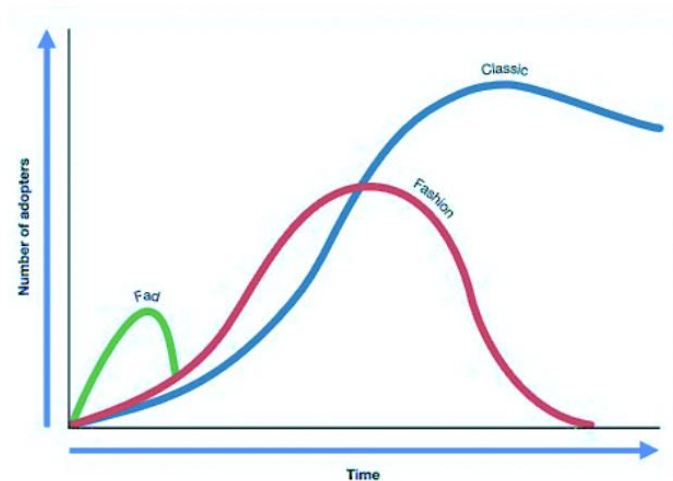

Fig.1 Fashion Product Life Cycle Model
Source: Solomon et al., 2006

Fast fashion firms must rely on efficient supply chains to keep a great level of rapidly changing merchandise, multiplying their contractors indefinitely if necessary, to the point of eventually losing the brands control over the production process (Hobbs, 2010). Tracing the origin of a garment is near impossible. This high demand of work from contractors also creates a very particular phenomenon when these organizations cannot keep up with demand. When the suppliers are at risk of not being able to fulfill their order, they do not turn it away, but they hire unapproved sub-contractors, typically at the poorest labor condition.

In the recent years, the concern for the environment, got this production process trending again, moving the interest in research and literature as well. Previous research has shown how upcycling can slow down or close material cycles (EMF, 2013) and creates economic opportunities thanks to the promotion of reusing. The value of the final upcycled products tends to be perceived as higher, mainly thanks to the emotional factor carried by the item itself. In fact, when the "previous life" of the product is shown and correctly communicated, consumers are willing to invest more money to buy the product. It seems obvious that such a practice is completely divergent from the "state of

the art" in the fashion business, but it looks like we might be at a new point in the evolution of the consumption of fashion.

When talking about upcycling, this particular trend in the fashion world is undertook by many firms. Even luxury brands are embracing the change in times, starting to focus on sustainability more and more. Ralph Lauren recently launched the Earth Polo, a reimagination of its iconic polo shirt, crafted from thread entirely derived from recycled plastic bottles and dyed with an innovative process that uses zero liters of water.[8]

In 2014, Stella McCartney introduced Clevercare, a simple, five-step labeling system to help consumers care for and prolong the life of their clothing through mindful garment care. "We consider our environmental footprint at every point of our design process" is what the English stylist said, setting the bar high for sustainability in the fashion industry.[9] Upcycling is an innovative sustainable production process, far less known that recycling, that focuses its process on the reuse and reconversion of dismissed products or discarded materials. The main difference from recycling is the fact that upcycling does not reduce the value of the used materials, the opposite: it augments it. Giving new life to discarded materials and such, using design and new materials make the product interesting, functional, and emotionally intense, since it carries a deeper meaning.

One of the better examples is the collaboration between the famous Italian Luxury brand Prada and the well renowned television network National Geographic. These two actors created a new collection of fashion items, all made by upcycling called "Prada Re-Nylon" by recovering old materials discarded throughout the world, going from American old carpet, lost fishing nets in Cameroon's rivers and lakes, plastic in the ocean of New Zealand all the way to textile cuttings from China, while reporting every movement of the materials and keeping the process as transparent as it gets.

[8] https://www.businesswire.com/news/home/20190418005107/en/Ralph-Lauren-Unveils-the-Earth-Polo-Made-Completely-from-Recycled-Materials
[9] https://www.thegoodtrade.com/features/luxury-eco-friendly-designers

Fig.2 Prada Upcycled "Re-Nylon" bag

Not only does upcycling create value for the consumers. It also is valuable for firms that have the ability to now "sell twice" but also for more stakeholders:

Actors of Upcycling:

- Stores that perform minor mending and washing
- Government machineries that collect and formulate law
- Charitable organizations that collect and redesign garment
- Laundry services
- Volunteers that redesign clothing.

Since guaranteeing a stable flux of materials and high-quality products is near to impossible, the quality of the materials becomes of fundamental importance for an upcycling-operating business. Having some sort of coordinating actor, to protect and organize the activities of all the stakeholders could be of great help in order to create a well-working network of firms that care about sustainability and use production processes according to its concepts in order to produce their products.

The study I am proposing could be helpful for firms that work in the fashion business to possibly get closer to a different production process than the usual. The focus being on both Luxury and fast fashion brands, makes this thesis available as an inspiration for further research on both product

types and to whomever wants to know more about the unexplored world of sustainable production processes.

My study is composed of 3 hypotheses:

Hypothesis 1. Effect of Production Process on WTP

Taken into consideration that consumers of luxury products are increasingly becoming aware of social and environmental issues, authors such as Ageorges (2010) and Kim and Ko (2012) argue that luxury product manufacturers can no longer rely on the brand name and the intrinsic quality of their products; they must build a long-lasting relationship with their customers by internalizing environmental and humane values to extend their quality expectations (Lochard & Murat, 2011). In conjunction with the previous research cited before, the objective of my research is then to identify if the usage of sustainable production process (i.e., upcycling) by luxury brands can affect consumers' willingness to pay. As a first step we consider the direct effect the sustainable production process has on said dependent variable. According to Kim, Ko, Xu, and Han (2012), sustainable development presents an opportunity to improve brand differentiation and corporate image. I can ultimately base my research on these theories to assume that an environmentally friendly production process such as "upcycling" will lead to a higher consumers WTP.

The hypothesis is then:

H1: Compared to a non-sustainable production process, the usage of an upcycling production process will have a positive effect on consumers' WTP.
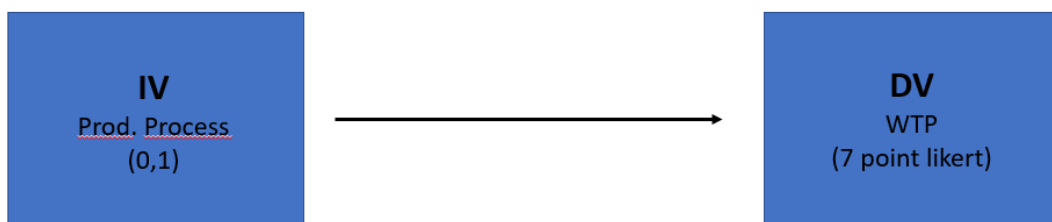

Fig.3 Hypothesis 1 model.

Hypothesis 2. Moderation effect of Brand type.

As a second hypotheses I wanted to study the moderation effect of the brand type (luxury vs. mass-market) on the relationship between production process (upcycled vs. non-sustainable) on consumers' WTP. Some researchers state that "sustainability is irrelevant for luxury products" (Davies & Streit 2013; Henninger et al. 2017; Hu et al. 2018; Joy et al. 2012; Ko e Megehee 2012). Luxury values are usually linked to personal pleasure and not to moderation and ethics, typical values of sustainability (Naderi & Strutton 2015). This link led to a commonly shared point of view for researchers so that luxury and sustainability are incompatible (Kapferer & Michaut – Denizeau 2014). Basing this second hypothesis on this previous research I can assume the WTP for upcycled products will be lower than traditionally produced ones even if talking about luxury items. Through social commitment in a sustainable production process and active customer participation, fast fashion brands can establish an intimate relationship with the consumers', contributing to a sustainable growth of the brand.

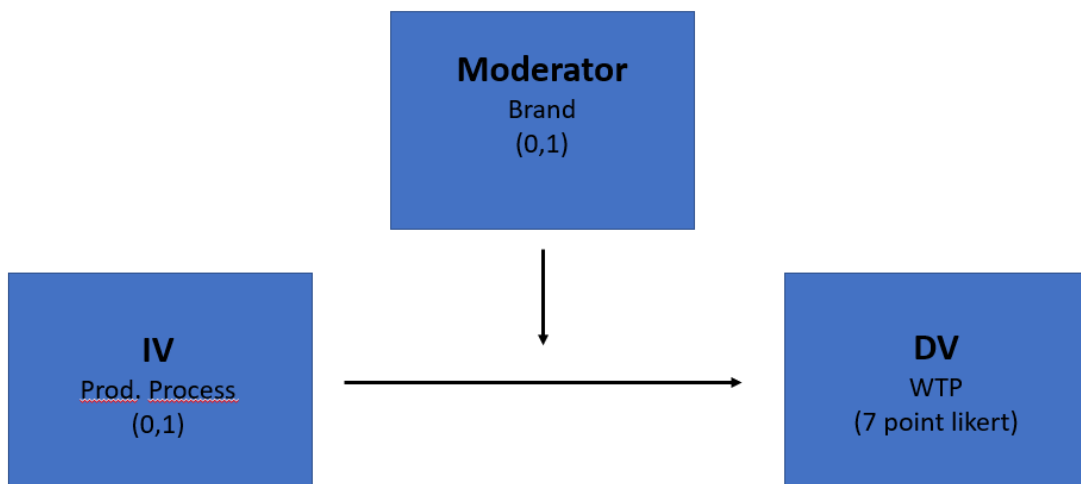H2b: The WTP for an upcycled Mass Fashion product will be higher than a traditionally produced one.

Fig.4 Hypothesis 2 model.

I used a codification of "Mass fashion = 0" and "Luxury = 1" for the Brand IV. The method used for the DV and IV are the same as H1.

Hypothesis 3. Mediating effect of Emotions on the effect of the Production type on WTP as a function of the Brand.

The third hypotheses I make is based on the emotions that can influence the consumption of sustainable items. In the previous chapter we talked about various emotions affecting the consumption of sustainable products, but we will focus our analysis on the disgust, pride, and shame/guilt. Many consumers do not have a good perception about the recycle of materials due to the contamination said materials could have. In particular, this perception leads to a negative WTB (O'Reilly, Rucker et al., 1987; Liu, Li et al., 2009) and contributes to diminishing the perceived value of the product. Previous research has shown that disgust should lower consumers' willingness to pay and this effect is lower for luxury brands than fast fashion ones. Moreover, pride and shame play a very different role in terms of how they affect the consumer experience. Pride is more related to the consumption of sustainably produced items and, as stated before, the feeling of pride depends on whether the consumer has a conspicuous consumption, or a style buy. We can assume from previous research that luxury consumption is highly influenced by anticipated emotions such as pride and shame, leading to a lower WTP when an anticipated shame emotion due to the possibility of harming the environment is shown and a higher one when anticipated pride is shown at the moment of buying a product. Past research shows how, when a negative message framing containing anticipated shame is shown, consumers feel a self-threatening emotion that might induce them to cope and regain a positive view of themselves by modifying their behavior (Amatulli, C., De Angelis, M., Peluso, A.M. *et al.*, 2019).

The mediator emotions will be measured with pre-validated scales.

My hypotheses will then be:

H3a: The relationship between Production process and WTP is negatively mediated by Disgust, moreover the effect will be higher for upcycled Fast fashion products than Luxury products.

H3b: The relationship between Production process and WTP is positively mediated by Pride, moreover the effect will be higher for upcycled Luxury products than upcycled Fast fashion products.

H3c: The relationship between Production process and WTP is negatively mediated by shame, moreover the effect will be higher for upcycled Luxury products than upcycled Fast fashion products.
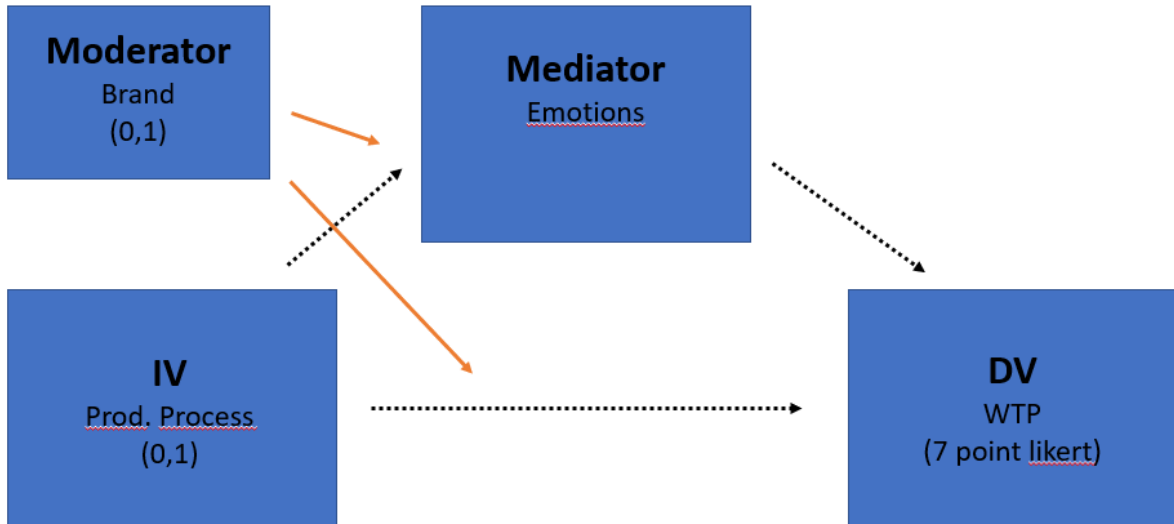

Fig.5 Hypothesis 3 model.

The sample I used for my study is a convenience, non-probability sample. The participation to the study was made possible by clicking on a link leading to a Qualtrics survey panel. This link was shared by me and after shared by participants as well.

The Qualtrics started after a brief explanation of the scope of the study with some questions about the familiarity with the upcycling production process as to measure the "perceived familiarity" of the sample.

After that, the participants were presented with one of 4 conditions with two fictious brands to not induce any confusion or preference for pre-existing brands. The questions about this brands and products will be used to measure the DV and the mediation/moderation effect of study 2,3,4.

Condition 1:

Prada, a well-known Italian luxury brand, recently launched a new **bag**, using **genuine leather**.

The product got an exclusive and elegant design, handcrafted following an artisanal process known worldwide that guarantees an unmistakable style.

Condition 2:

H**&**M, a well-known Swedish fast fashion brand, recently launched a new **bag**, using **nylon**.

The product, made with a standard traditional process, has a practical and sporty design that guarantees a good combination of style and comfort.

Condition 3:

Prada, a well-known Italian luxury brand, recently launched a new **bag** with an exclusive and elegant design made with an innovative sustainable production process called **upcycling**. The material of the bag is entirely composed of Nylon recovered from lost fishing nets recovered from the bottom of the sea in order to create a new material called "Econyl".

Upcycling is the process of combining (without any other process) sub products, waste materials, unused or undesired products into new materials or final products.

Condition 4:

H&M, a well-known Swedish fast fashion, recently launched a new **bag** with an exclusive and elegant design made with an innovative sustainable production process called **upcycling**. The material of the bag is entirely composed of Nylon recovered from lost fishing nets recovered from the bottom of the sea in order to create a new material called "Econyl".

Upcycling is the process of combining (without any other process) sub products, waste materials, unused or undesired products into new materials or final products.

1. Prada	2. H&M
LUXURY – TRAD. PROCESS	**FAST FASHION – TRAD PROCESS.**
3. Prada	4. H&M
LUXURY – UPCYCLED	**FAST FASHION – UPCYCLED**

I then controlled if my manipulation gave good results, measured the brand attitude, the familiarity with the upcycling process and the brands, the level of emotions, the environmental concern, the status, the perceived quality of the product, the fit of the brand with sustainability and most importantly the willingness to buy and the willingness to pay.

The results show that the sample was not familiar at all with the upcycling production process, and some manipulation checks have not proven to be significant since the respondents did not have a good familiarity level with the sustainable process. The differences between the perceptions of the emotions are incredibly high, the respondents will feel more pride when buying a traditionally produced luxury item than an upcycled one.

When testing the perception of contamination, the results have proven to be lower than expected and were not significant in many of my further analysis, effectively demonstrating a divergent tendency from past literature, that assumes that the disgust and contamination will affect the WTP and WTB of consumers.

I discovered a moderation effect of the brand typology on the effect of the production process on WTP; the analysis shows how the WTP is higher for traditionally produced luxury items vs upcycled luxury and fast fashion items.

Unfortunately, no moderation mediation effect was proven to be significant. The most relevant emotions as a mediator have proven to be "Pride", with an almost significant level of the p-value.

In general, we can confirm that emotions like pride and shame, have an impact on the perceptions of the consumers, and their WTP, especially when considering luxury items, they seem to be affected more by these two emotions. This follows the previous research findings, believing that an anticipated shame or pride could impact on the consumption of fashion items; in particular, with an anticipated shame, the future consumption is reduced and with an anticipated pride, the consumption is boosted.

My study provides important information for fashion firms, both luxury and fast fashion.

The current trend in fashion is slowly moving away from fast fashion to a more sustainable production process and therefore, this topic is more relevant than ever.

First, I have demonstrated how the production process is a fundamental factor to keep track on when communicating with consumers since it influences their willingness to buy and willingness to pay depending on the type of brand. Fast fashion brands should invest in a more sustainable production process since the results imply that for this firms, consumers are more inclined to pay an overprice to get an upcycled product than they are for a traditionally made one.

For luxury items the opposite relationship was discovered, traditionally made items are perceived of more durable and functional (following the previous research findings) and the willingness to pay is higher for the traditionally produced ones than the upcycled ones.

No previous research has studied the mediation of emotions when also considering a relationship with the production process and the brand typology. My study has proven that the mediation of emotions has no statistical significance on this relationship, therefore proving how when a new sustainable production process is considered, the emotions do not influence it. The result was slightly not significant, so further analysis is necessary to confirm this hypothesis.

Moreover, the sample has perceived both the upcycled variants of product shown as luxurious. This result shows how not only sustainability and fashion could go together, but even luxury and sustainability are not as utopic as a couple as previous research has shown.

My study helps fashion firms move away from traditional production processes, to accomplish a more sustainable supply chain, and showing a "greener" attitude. It has been proven that modern consumers, especially Millennials and Gen Z are more aware of sustainability and desire to express their beliefs with the products they buy, garment being one of them. Considering the lower buying purchasing power of this new generations, fast fashion firms must consider a transition to an upcycling production process, to leverage their partnerships with stylists to rely on their power of designing new clothing lines to improve the loyalty of consumers and eventually get a great ROI.

As far as luxury fashion goes, it looks like the customers idealize the concept of luxury fashion with a traditionally handmade garment, and tend to prefer that to an upcycling one, even when the description of the product shows as this piece of garment is in line with the tradition of the brand. Communication becomes key for this issue, perceived quality in the upcycled items is slightly lower; a good communication strategy might solve the issue, moving the consumers perceptions

up, while giving the chance to a luxury traditional firm to gain popularity in the news and positive WOM from sustainably inclined customers.

The marketing sector of fashion firms gains even more power than it has ever had, showing the quality of the upcycled product could invert the trend talked about before, and lead the new "green" customers to pay an overprice to help the environment. Upcycling as a sustainable production process is still very "new" and consumers are not completely aware on how this production process really works so a good communication strategy and an early investment to move in this direction might represent the chance to build a POD (point of difference) and strengthen the power of the firm against the competitors.