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The Second-Hand Fashion Market:
does informing consumers on its sustainability
increase their willingness to buy?

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*A mamma e papà,
per la vita, la cura e l'amore di ogni giorno.*

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1. Introduction

Second-hand shopping refers to buying goods that were previously owned by others (Roux and Guiot, 2008). Customers are the main partners and suppliers in the second-hand fashion business model, which aims to reduce resource usage and waste. The second-hand market contributes to the circular economy, in which loops of the material decrease the flow of resources and waste (Geissdoerfer et al., 2017). Reuse is one approach to do this. It is intended to highlight that there are several reasons why consumers buy from the second-hand market and these include fashion, economic and recreational motivations. The first refers to the desire to feel unique, the second refers to the financial savings gained by buying second-hand products, and finally, recreational motivations refer to the nostalgic pleasure experienced (Chandrasekaran Padmavathy et al., 2019). In addition, consumers are developing greater sensitivity to sustainability issues and are trying to limit the damage by buying second-hand (Dissanayake et al., 2021). There is evidence that in order to ensure an economic system capable of fostering long-term growth of the second-hand fashion market, a circular economy and a sustainability approach are the pillars (Patrizia Gazzola et.al, 2020). However, many consumers have resisted buying second-hand items, and there appears to be a contradiction with current "fast fashion" preferences in this sector (Lisa McNeill et al., 2015). Therefore, there is a real need to develop positive behavior and motivate people to purchase in a more sustainable manner (Barbara Borusiak et al., 2020). In this regard, informing consumers about the centrality of sustainability in the second-hand market, as well as stimulating more environmentally careful behaviors, could be a successful strategy for the sustainable growth of this sector (Jun Xu et al., 2022).

This study aims to test if making people aware of the sustainability of the second-hand market, would increase their willingness to buy. Moreover, this study aims to assess whether the effect of sustainability awareness on willingness to buy depends on age and gender. The study will be conducted by adopting a within-subject design. In order to collect the necessary data, participants will be asked a questionnaire. Participants will be randomly presented with a post with an image

and a text containing information about the sustainability of the second-hand fashion market. After reading the text, participants will be asked about their willingness to buy second-hand items, their awareness of the environmental impact of the fashion industry, and their knowledge of the sustainability of the second-hand market. Next, participants will be asked sociodemographic questions, other ones aimed at understanding what factors influence second-hand market purchases, questions about the value placed on sustainability, and questions to understand purchasing habits.

2. Literature Review

2.1. The Concept of Sustainability

Sustainability encompasses behaviors that can be carried on indefinitely without harming the environment, treating others as you would like to be treated, and taking into account the demands of the present generation without compromising those of future ones. (Zhang Bo et al., 2021).

The concept of sustainability finds particular relevance and several definitions in the 21st century. The origin of the word comes from the 1987 Brundtland Report, a document published by the World Commission on Environment and Development, in which the concept of sustainable development was first presented.

The concept of sustainable development has been continuously institutionalized even after its definition was introduced in the Rio Declaration (1992) and with the implementation plan in “Agenda 21”. Currently, countries are shifting towards a more sustainable path with the Paris Agreement on climate change and the UN 2030 Agenda for Sustainable Development. In this regard, the "Triple Bottom Line" is the set of the three dimensions of sustainability, specifically:

the environment, economy, and society. So, it refers to the three dimensions that inevitably affect human beings in different spheres of life (Elkington 1997).

According to Elkington (1997), companies should consider these three pillars in a coordinated way to address their sustainable development, specifically:

- *Environmental sustainability*: to preserve energy sources and biodiversity;
- *Economic sustainability*: to use resources in an efficient and respectful way while making profits for a better life;
- *Social sustainability*: to adopt working practices that preserve the dignity of its employees for poverty reduction.

Every company has an impact on the environment, economy, and society. Hence, there is a growing concern among consumers and brands about social and environmental issues (Han, Seo, and Ko, 2017).

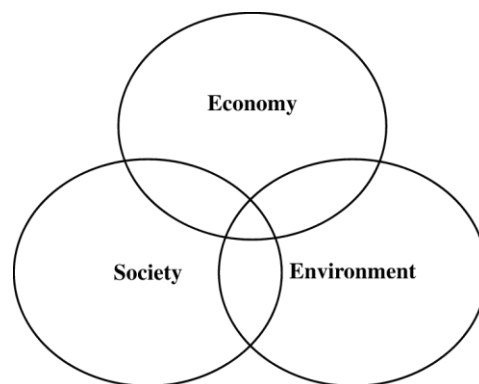


Figure 1 Triple Bottom Line Model (Elkington, 1997)

2.1.1. The Relevance of the Circular Economy

When discussing the circular economy, refers to a new economic framework that is penetrating the daily lives of companies and consumers day by day. It is a model that is undergoing a major evolution and represents the foundations of a sustainable future.

When saying that the circular economy is exploring the different spheres of society, it refers to the fact that it affects contexts such as environment, economy, and society, which were not by chance identified in the previous paragraph in relation to the dimensions of sustainability. The circular economy operates at the micro level (products, companies, consumers), at the meso level (eco-industrial parks), and at the macro level (city, region, nation, and beyond), with the aim of promoting sustainable development, which implies the creation of environmental quality, economic well-being, and social equity, for the benefit of current and future generations.

The concept of 'end-of-life' disappears when considering the circular economy and looking at an economic system that is based on the reduction, reuse, and recycling of materials in production, distribution, and consumption processes (Kirchherr Julian et al., 2017).

So, according to the U.S. Environmental Protection Agency these three principles or three R, specifically are:

1) Reduction

Reduction emphasizes the minimization of inputs during the production phase, including resources, energy, and materials, as well as the reduction of emissions and waste in the supply chain. This involves utilizing cutting-edge tools and procedures to lessen how negatively manufacturing and consumption affect society, the environment, and the human race while nevertheless focusing on financial gains (Sustainability Consortium Official Website, 2021).

Additionally, products can be redesigned by businesses to require less packaging to safeguard them while shipping (Vadakkepatt Gautham G. et al., 2020). For instance, Lavazza, a coffee company, introduced new corrugated packaging for its coffee capsules in 2021, which reduces the use of plastic by 60% compared to the original packaging

(Lavazza Official Website, 2021). On the consumer side, however, some of the attitudes that respond to this dimension of the circular economy are for example: using reusable bags for shopping instead of single-use plastic bags, or preferring products with minimal or biodegradable packaging.

2) *Reuse*

Reuse is the act of using a product again after going through its initial life cycle, that is, after being used by the original consumer (Sustainability Consortium Official Website, 2021). According to Vadakkepatt Gautham G. et al. (2020), reuse can take the form of remanufacturing the product into new items or mending products to increase their lifespan. Consider Remade in Italy, an Italian company that remanufactures computer components and smartphones, and puts them back into circulation with a new life, thus ensuring a reduction of e-waste and a reduction of the impact on the environment (Remade in Italy Official Website, 2023). On the other hand, on the consumer side, one method of reuse is to buy used products instead of new ones: buying second-hand products such as cars, furniture, and electronic products can be a form of reuse.

3) *Recycling*

Recycling is the process of transforming things into new goods or materials that can be used instead of being thrown away (Sustainability Consortium Official Website, 2021). Retailers can promote recycling by giving customers a convenient location to return items once they have reached the end of their useful lives and by offering incentives for them to do so (Vadakkepatt Gautham G. et al., 2020). An example is Dell, a computer company, which encourages recycling of its products. It offers a take-back service for recycling old computers, and some of its hardware solutions have been made using recycled plastic (Dell Official Website, 2023). On the consumer side, on the other hand, an example of recycling is waste sorting: dividing waste into compartments for recycling, such as paper, plastic, glass, and organics can be a form of recycling.

Even if the circular economy is becoming more and more popular, research on its efficiency is still very important. According to certain research, the circular economy can boost supply chain efficiency, lessen reliance on natural resources, and promote sustainable economic growth. The circular economy still faces several substantial implementation issues, such as the need for proper incentives to encourage model adoption and the incorporation of circular economy ideas into the legislative framework.

In conclusion, the circular economy is a valuable model that has become a significant source of economic and environmental study, with many research areas attempting to advance its theoretical foundations and real-world applications (Vadakkepatt Gautham G. et al., 2020). The 'Circular Economy' debate has gained traction in recent years. For example, the European Union (EU) has reframed policy commitments to "sustainable production and consumption" in terms of the Circular Economy. The EU launched a 'Sustainable Consumption and Production Action Plan' in 2008. Since then, the European Commission has reframed its waste reduction and recycling objectives in terms of the Circular Economy, launching a 'Circular Economy Action Plan' in 2015 (EC, 2015).¹ This isn't just a case of replacing old keywords with new ones. Circular Economy is a distinct set of ideas and practices that are fundamental for the future (Bali Swain et al., 2021). A critical step in building a sustainable future is the incorporation of circular principles into numerous economic sectors. The Circular Economy strategy can therefore alter production methods to meet consumer needs in novel and more environmentally friendly ways (European Commission, 2018). In this regard, customers are becoming more and more interested in the circular economy, particularly those who are concerned about the environment and try to consume and shop in a responsible and sustainable way. But what does it mean to make responsible and sustainable purchases?

2.1.2. Sustainable Consumption

According to the United Nations, sustainable consumption (SC) and production (SP) are prerequisites for sustainable development and are characterized as "doing more and better with less" (Wang et al., 2019).

Since sustainable development is based on linear thinking techniques, the circular economy concept is linked to it. In fact, some researchers contend that CE succeeds in sustainable development (Sauve, Bernard, & Sloan, 2016). Others contend that the term "sustainability" encompasses a wider range of ideas because CE is a tool for putting sustainable development concepts into practice (Kirchherr, Reike, & Hekkert, 2017; Kopnina & Blewitt, 2014). Considering the strong link between the concepts of sustainability, circular economy, sustainable consumption, and sustainable development, it is inevitable to analyze the role of consumers in this context.

Sustainable consumption is the ongoing practice of restraint of desire by avoidance of lavish purchases and deliberate consumption of products and services that meet essential needs. It emphasizes the importance of a good quality of life over materialistic standards, suggests focusing on meeting basic human needs rather than the desire for "wants" and luxuries, and shows concern for safeguarding and preserving natural resources (by reducing resource use, waste, and pollution) so that they will be available to future generations (Quoquab Farzana et al., 2020).

In this regard, it is important to consider the consumers' perceptions. Various factors, including demography, culture, education, and personal values, might influence how consumers perceive sustainable consumption. Generally speaking, consumers who are more environmentally concerned tend to view sustainable consumption favorably and are more likely to give it a priority when making purchases. In order to describe sustainable consumption behavior, words like responsible, environmentally friendly, or socially friendly consumption behavior are frequently used (Kadic-Magljalic Salma et al., 2019) and consumers are increasingly attentive to the use of these words in order to internalize them in their daily lives, in fact, according to a 2021 survey by IPSOS, 70% of Italian consumers believe that it is important to buy products from companies that are committed to sustainability (IPSOS Official Website, 2021). But how?

A 2019 study found that engagement plays a crucial role in encouraging sustainable behavior since it can raise awareness of sustainability, influence attitudes and societal norms toward sustainable consumption, and ultimately encourage sustainable behavior. This shows that participation could be a critical component of interventions and policies meant to encourage sustainable behavior. In addition, a number of other factors, such as societal standards, environmental concerns, and perceived behavioral control, have an impact on sustainable consumption behavior. As people who care more about the environment are more likely to engage in sustainable behavior, environmental concern is a major motivator for sustainable behavior. A person's perception of their ability to carry out an activity, also known as perceived behavioral control, affects how sustainably they consume. People are more inclined to engage in sustainable activity if they believe they have more control over their actions. Social norms, or what people believe to be the expectations and actions of others, can also have an impact on sustainable purchasing patterns. People are more inclined to engage in sustainable conduct if they believe it to be the norm (Kadic-Maglajlic Salma et al., 2019) Moreover, that engagement can be particularly effective in promoting sustainable behavior among young adults, who are often seen as a key target group for sustainable consumption interventions. In fact, a 2020 survey by Doxa and WWF Italia found that 74% of Italian respondents aged 18-35 consider sustainability to be important in their purchasing decisions (WWF Italia Official Website, 2020).

2.1.2.1. Why don't we buy sustainably?

A sizeable portion of consumers may not prioritize sustainable consumption either because they are unaware of its significance or don't comprehend it, or because they think it will be difficult or expensive. One of the primary reasons that consumers may not prioritize sustainable consumption is a lack of awareness and education regarding the impact of their choices on the environment. Many people may not understand the full extent of the environmental and social consequences of their consumption habits and therefore do not see the need to change their behavior. For instance, a study by Jahdi and Acikdilli (2009) revealed that many people lack a thorough understanding of the social and environmental repercussions associated with their consumption habits and the

environmental impact of those actions (Jahdi et al., 2009). Additionally, a study by the consulting company Accenture revealed that only 36% of consumers surveyed have a thorough awareness of sustainable products and their features (Lacy et al., 2010). Another barrier to sustainable consumption is the perception that environmentally friendly products are too expensive or less convenient than traditional alternatives. Consumers may be hesitant to pay a premium for sustainable products, or may not want to sacrifice the convenience or quality they are used to. According to a survey by the market research firm Nielsen, 48% of respondents said that the high cost of sustainable items deters them from buying (Kuah et al., 2020). In addition, a study noted in the *Journal of Business Ethics* showed that customer behavior can be negatively impacted by the sense of financial sacrifice associated with purchasing sustainable items (Choi et al., 2011). There may also be cultural or social factors that discourage sustainable consumption, such as a focus on materialism and consumerism, or a lack of social pressure to make sustainable choices. Indeed, social psychologist Tim Kasser's research has demonstrated that a society that values materialism and consumerism frequently opposes sustainable purchasing patterns (Kasser, 2018). Only 26% of interviewed customers, according to a study by the research firm Ipsos, report feeling considerable social pressure to make sustainable buying decisions (Pedregal et al., 2011).

Consumers may choose non-sustainable forms of consumption due to cognitive issues like knowledge or lack of awareness about sustainable consumption, as mentioned before. For instance, many consumers might not be aware of the harmful effects that the products they buy have on the environment or they might not be able to recognize sustainable alternatives. Furthermore, competing information and beliefs might make consumers doubtful and confused, which can make it challenging for them to choose sustainable consumption practices. A significant part of making non-sustainable buying decisions is emotional factors. In fact, research conducted by Dittmar et al. (2014) suggests that consumers often prioritize instant gratification, habit, and pleasure-seeking over longer-term sustainability goals, even when they are aware of the detrimental effects their decisions have on the environment. This phenomenon is driven by the emotional appeal and immediate rewards associated with non-sustainable products, such as the excitement of a new purchase or the desire to conform to social norms (Dittmar et al., 2014). For instance, while knowing that a fast fashion item was created using unsustainable

methods, a consumer can nevertheless decide to buy it due to its low price and ready availability (Alexandra Hüttel et al., 2018).

In this regard, it is interesting to examine the topic of sustainable consumption within the fashion industry and explore the motivations for choice and consequences of fast fashion.

2.2. The Fashion Industry

The world of fashion has always represented the object of consumer desire. It is an industry with complex dynamics, but it has always been a mirror of society.

The fashion industry has seen an incredible evolution, starting from artisanal tailors to establishing truly multinational corporations. In this regard, it has taken on significant complexity, given by very long production and supply chains and many players involved.

The fashion industry is part of a broader social and cultural phenomenon, referred to as the fashion system (Major & Steele, 2020). A fashion system consists of the customer, the business of fashion, and the art and skill of fashion (Osanzo Lilac, 2020).

As part of a system, the Fashion Industry has a certain complexity and therefore market segments. According to Muthu (2018), the fashion business is segmented into the following groups based on the sorts of clothing:

- *Haute Couture*: This market specializes in high-end, personalized apparel that is manufactured for specific customers. Haute couture clothing is often expensive, consisting of premium materials, and labor-intensive to produce.
- *Ready-to-Wear*: This category consists of clothes that are mass-produced in uniform sizes and marketed to consumers. Ready-to-wear clothing is made to be worn right away and is usually less expensive than haute couture clothing.

- *Premium*: This segment includes clothing that is priced higher than mass-market garments but lower than haute couture garments. These garments are often made from high-quality materials and may have limited editions or collections.
- *Fast Fashion*: This segment includes clothing that is produced quickly and inexpensively to keep up with rapidly changing fashion trends. Fast fashion garments are often low-quality and are designed to be worn for a short period of time before being replaced.
- *Super Market*: This segment includes clothing that is sold in large retail stores and is designed to be affordable and accessible to a wide range of consumers.
- *Middle Market*: This segment includes clothing that is sold in mid-range stores and is priced moderately. These garments are often made from high-quality materials and designed to be durable.
- *Down Market*: This segment includes clothing that is sold at very low prices and is designed to be disposable. These garments are often low-quality and may be made from synthetic materials.

2.2.1. Maslow's Hierarchy of needs applied to the Fashion Industry

In each of these segments, there are certain consumers with their own specific needs and consequent choices. In this regard, it is important to mention Maslow's well-known Pyramid of Needs, which can also be applied to such a context as proposed by Jackson and Shaw in 2008. This is because Fashion is a form of self-expression that is constantly evolving, with new trends emerging and old ones fading away over time. (Liu et al., 2021). Thus, it is clear that in this case there is a reference to the real needs of people who want to feel and show themselves by expressing their personality.

Maslow's hierarchy of needs theory contends that in order to satisfy more complex demands, humans must first tend to their basic needs. The hierarchy is divided into five levels, starting with physiological needs (such as food, water, and shelter), moving on to safety needs (for instance, security and stability), social needs (similar to love and belonging), esteem needs (which include recognition and respect), and finally self-actualization needs (for example, personal development and fulfillment).

According to the hierarchy, people should prioritize their basic demands for functional and comfortable clothing when it comes to fashion. As their demands advance in the hierarchy, individuals might start looking for clothing and accessories to satisfy social wants like the need to fit in. Further up the ladder, people might go for clothing that satisfies their esteem demands, such as designer brands that imply success and prestige (Alibrio Alessia, 2021).

At the top of the hierarchy, people might look for clothing that satisfies their self-actualization desires, which are associated with fulfillment and growth on a personal level. Some high-end clothing companies make an effort to meet these needs by expressing values and viewpoints that coincide with those of their target market. A brand might, for instance, place a strong emphasis on social responsibility or sustainability, which might appeal to customers who prioritize similar principles in their own life.

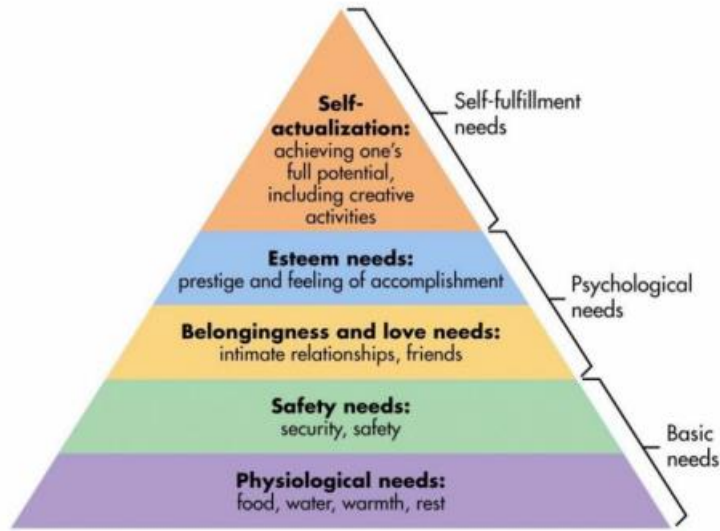


Figure 2 Maslow's Hierarchy of Needs (Alibrio Alessia, 2021)

Overall, the correlation between fashion and Maslow's hierarchy of needs implies that the purpose of clothing is to satiate psychological and emotional demands as well as aesthetic and utilitarian ones.

Maslow's hierarchy of needs plays a role in shaping consumers' purchasing intentions from different perspectives, including *fast fashion*. By incorporating social identity, individuals belonging to certain gender groups or occupying particular positions are more inclined to purchase specific fashion items, making it crucial for companies to target their intended customers.

Looking deeper, Maslow's hierarchy of needs emphasizes the importance of *personal identity*, but it's essential to note that life is not an individual journey, and humans are part of various social groups. Social identity is a concept that refers to an individual's understanding of their role within a group (McLeod, 2019). According to social identity theory, individuals define themselves based on social factors, such as the perception of belonging to a particular group (Tajfel, 1981). Tajfel's definition of social identity suggests that an individual's self-concept is influenced by their knowledge of their membership in one or multiple social groups and the emotional significance attached to this membership (Xitong Xiang, 2021).

Gender is one of the most prevalent social identities. Studies indicate that women are 9% more likely than men to buy fashion items in all segments of the market, except for accessories (Stuart, 2019). While women are generally more involved in shopping than men, their multiple identities are also significant. Besides being a woman, a person may be a mother or daughter, which may prompt them to buy clothes for children and seniors more frequently than men (Stuart, 2019). With the advantages of online shopping such as greater product choices and reduced costs for transportation and time, young people tend to shop online, leading to the rapid growth of the online fashion market. According to Orendorff (2021), the market value of the online fashion industry will increase from €630 billion in 2021 to over €840 billion in 2025. As a result, women are still viewed as the majority and the driving force behind this online shopping trend (Xitong Xiang, 2021).

Deepening this topic in the *fast fashion* perspective, it is a fashion trend that offers a range of high-fashion clothing items inspired by celebrities or runway shows (Rauturier, 2021). The reason why fast fashion has a place in the fashion market is due to people's desire or need to be accepted by society, as indicated by Maslow's need for love and belonging. When people around us start wearing a particular fashion item, others tend to follow suit by purchasing the same or similar item, in order to fit in with the group. An example could be the slip dress, a type of lingerie-style dress worn as an evening dress. Initially popular in the 90s, it has made a comeback thanks to celebrities wearing it as a red carpet-dress and has since become a must-have for many women. Although the slip dress is essentially a night dress, its popularity among celebrities has made it a stylish and chic clothing item. However, fast fashion and the fashion industry in general also have a dark side, which in recent years has been weighing on sustainability issues.

2.2.2. The dark side of the Fashion Industry

Given the significance of the fashion business in our daily lives and the approximately 300 million people it employs worldwide, the Fashion Industry is regarded as a significant sector in the economy (Aya Abdelmeguid et al., 2022). Thus, with 1.7 million people and a revenue of roughly

166 billion euros, the fashion industry also contributes significantly to the European manufacturing sector (European Commission, 2022).

Over time the Fashion Industry has tried to focus on speed, cost-cutting, flexibility and change. The latter is certainly one of the keys to success in achieving a competitive advantage in the market (Esben Rahbek Gjerdrum Pedersen et al., 2016). The "fast-fashion" phenomenon, which are mentioned in the previous paragraphs and places undue strain on the environment, is the fundamental reason why the Fashion Industry is based on the idea of change. The availability of additional collections each year, together with fresh designs, more affordable costs, and ongoing shifts in consumer demand and fashion trends, has caused an approximately 50% increase in the production of clothing and a 40% decrease in the use of clothing as a result of the availability of more collections per year, new styles, and lower prices coupled with a constant change in demand and trends (Atstja et al., 2021; Wiederhold and Martinez, 2018).

The combination of decreasing production costs and faster manufacturing processes has created a perfect environment for the "fast fashion" business model, where consumers can obtain replicas of the latest fashion trends before the original items are available in stores. This has led to a significant transformation of the traditional fashion industry, with companies like Zara, H&M, Forever21, and Topshop offering low-cost clothing that imitates or duplicates current fashion trends. While this approach has made fashion more accessible to a wider range of consumers, it has also led to negative consequences such as the devaluation of intellectual property owned by designers, increased carbon footprint, and a throwaway culture. Fast fashion companies focus on following consumer trends rather than creating original designs, leading to accusations of intellectual property infringement and discouragement of creativity and individuality. This approach may also benefit established brands over emerging designers who are overshadowed by the trend-setting influence of the former (Mark K. Brewer, 2019).

Clearly, excessive resource utilization, consumption, and short product life span have generated a number of negative impacts on society, constituting a business model that is not very efficient in the long run. In fact, according to Gabriel and Luque (2020), one of the industries with the greatest global water consumption and pollution rates is Fashion. In fact, it is about the excessive use of chemical agents, and water in the production chain, as well as worrisome labor situations involving exploitation and wages. It is enough to think that in Europe, about 12 million tons of clothing end

up in landfills each year, equivalent to 80 kg per person (Luca Coscieme et al, 2022). However, this number can vary greatly by country.

Considering the environmental impact caused by fast fashion, there are key areas to analyze such as water pollution, greenhouse gas emissions, textile waste, and resource consumption.

- *Water Pollution:*

The textile industry, a key component of the fast fashion system, has been identified as a major contributor to water pollution. During the dyeing and finishing processes, toxic chemicals are discharged into water bodies, making the fashion industry the second-largest polluter of freshwater globally. The release of these chemicals poses a serious threat to aquatic ecosystems and human health.

- *Greenhouse Gas Emissions:*

Fast fashion's clothing production contributes significantly to greenhouse gas emissions. It is estimated that the fashion industry emits more carbon dioxide (CO₂) than the combined emissions from all international flights and maritime shipping. These emissions contribute to global warming and climate change, exacerbating environmental challenges.

- *Textile Waste:*

The fast fashion model, characterized by the production of low-cost clothing in large quantities, leads to an alarming amount of textile waste. Each year, approximately 92 million tons of textile waste are generated by the fashion industry. This waste not only takes up landfill space but also represents a lost opportunity for recycling and reuse.

- *Resource Consumption:*

The production of clothing in the fast fashion sector heavily relies on the consumption of natural resources. Water, petroleum, and cotton are among the resources used extensively. For example, the production of a single cotton t-shirt requires approximately 2,700 liters of water. Such resource-intensive processes contribute to environmental degradation and depletion of valuable resources.

Parallel to the aforementioned observation, there is a paradoxical increase in consumer awareness regarding sustainability in the fashion industry. It is noteworthy that this concern is no longer confined to a minority of environmentally conscious individuals, as even those who do not consider themselves to be "ethical" are increasingly interested in the manufacturing process due to news and media coverage. As a result, it has become commonplace to expect fashion brands to provide sustainability reports or offer eco-friendly collections. This trend reflects a shift in consumer attitudes toward responsible consumption and a desire for greater transparency and accountability in the fashion industry (Alibrio Alessia, 2021).

Moreover, as the years have passed and with the evolution of social ideals and habits, the needs and expectations of the consumers themselves have also changed as a result. Indeed, consumers are not satisfied with the end product as such, but want more, starting from the emotional value that a product can confer, up to its qualities in terms of materials and sustainability. At this point, it is important to define the concept of "sustainable fashion" and its implications for "new" markets and more conscious consumption.

2.3. Sustainable Fashion

The concept of sustainable fashion involves ethical practices, durability, and the reuse of products, however, there is currently no industry standard definition for it. Various terms such as organic, green, fair trade, sustainable, slow, eco, etc. are used to describe sustainable fashion, each attempting to address different issues in the fashion industry such as animal cruelty, environmental damage, and worker exploitation (Marie-Cécile Cervellon et al., 2012). The terms are often used interchangeably and for different purposes. To develop a more comprehensive definition of sustainable fashion, there needs to be a more extensive guide that takes into account various aspects of consumption such as laundering, use, reuse, and disposal, which can substantially impact the sustainability of a garment (Zhanna Kutsenkova, 2017).

The primary goal of the sustainable fashion movement is to dramatically reduce global apparel production and consumption (Flower, G.,2009; Kutsenkova, Z., 2017). In order to reduce waste and resource consumption, sustainable manufacturing mostly entails substituting toxic chemicals with ecologically acceptable materials and recycling used garments (Flower, G.,2009; Kutsenkova, Z., 2017). Establishing standards for ethical production and consumption is crucial in order to properly understand the changes that sustainable fashion implies. In order to promote the growth of sustainable fashion, three fundamental factors must be present: *first*, consumers' attention must be drawn away from quantity to quality by encouraging them to buy high-quality items less frequently; *second*, production must be made possible without utilizing excessive natural and human resources to speed up manufacturing; and *third*, consumers must be encouraged to use consumption to prolong life. There are several advantages to implementing a more sustainable fashion system, and informed consumers are becoming more socially aware when making purchases (Zhanna Kutsenkova, 2017).

2.3.1. Collaborative Consumption

According to Felson and Spaeth (1978), Collaborative Consumption (CC) is the act of consuming economic commodities or services while engaging in joint activities with one or more others. Möhlmann (2015, p. 194) expands on this definition by referring to it as a structured network or system where sharing activities, such as renting, lending, trading, bartering, and swapping of goods, services, transportation options, space, or money, take place, but excludes sharing activities that do not involve payment (Möhlmann, 2015; Gopalakrishnan et al., 2018). According to Botsman (2010), CC has the potential to be just as momentous as the industrial revolution in terms of transforming people's perspectives on ownership. Therefore, CC is viewed as a viable alternative mode of consumption (Botsman and Rogers, 2011), and it is anticipated to have an impact on how businesses construct their value propositions. For instance, Airbnb and BlaBlaCar are among the more well-known CC systems available (Gopalakrishnan et al., 2018).

In this regard, renting, exchanging, sharing, and other alternative forms of consumption were divided into three systems by Botsman and Rogers (2011): collaborative lifestyle, redistribution markets, and product service systems.

- *Collaborative lifestyle* involves the sharing of less tangible things. Time, space, talents, and money are only a few examples of things that people with comparable interests or needs might share and exchange (Botsman 2010; Bagó 2015; European Sharing Economy Coalition 2015).

- *Redistribution markets* offer consumers the used or pre-owned items they need from places where they are not needed. The objects can be given away again, traded, or sold for money. It can also be considered a way to prolong the product's life cycle and so lowering waste. Exchanges are excellent instances of this system (Botsman 2010; Bagó 2015; European Sharing Economy Coalition 2015)

- By charging for the privilege of usage, *product service systems* or *product-based systems* allow users to utilize a product without having to purchase it. The many types of collaborative consumption can be broken down into ownership-based approaches (such as the reuse of items through donations, sales, or swaps) and ownership-substituting techniques (such as lending, renting, sharing, and leasing) from the standpoint of ownership (Scholl et al. 2013). Regarding the target audiences, the supply can also be divided into business-to-business (B2B), company-to-consumer (B2C), and peer-to-peer (P2P) formats (Jochen Strähle, 2017).



Figure 3 Collaborative consumption models.(Botsman and Rogers, 2011; Jochen Strähle, 2017)

However, this thesis will focus exclusively on the redistribution market (RM) system within CC, which involves the selling of used goods with or without monetary exchange. RM provides a solution to the textile industry's growing problem of increased waste by promoting the reuse and resale of old products instead of disposing of them. Adopting RM practices in the apparel industry can have a significant impact on reducing carbon emissions, water usage, and waste generation. For instance, a 10% increase in second-hand garment sales can save about 3% in carbon emissions, 4% in water usage, and 1% in waste per ton of garments (WRAP, 2017). Thus, RM can play a crucial role in mitigating textile waste, and a deeper understanding of this business model can offer strategies for reducing surplus textile and apparel products (Gopalakrishnan et al., 2018).

2.3.2. The Second-Hand Fashion Market

Among the various declinations that fashion has taken over time, there has always been the second-hand market. The second-hand fashion market is about the consumption of items that have already been used by someone in the past. These items are exchanged through so-called "second-hand" stores, which are invaluable resources for selling unique and quality products (Thamoda Geegamage et al, 2021). In the past, clothing exchanges took place mainly between friends and family members, with the aim of reusing clothes that were still in good condition. *Second-hand*

items are frequently confused with *vintage goods*. However, it's critical to comprehend how the phrases differ from one another.

Products that have been possessed but not necessarily utilized before are referred to as vintage.

Additionally, anything created between the 1920s and the early 1980s can also be considered vintage (Cornett 2010). The age, era, and condition of the items all affect the vintage product's worth (Cervellon et al. 2012; Gopalakrishnan et al., 2018).

The similarities between these commodities and second-hand goods is that both were once owned. According to Cervellon et al. (2012), second-hand things are "whatever previously-worn apparel there is, regardless matter how old it is." Moreover, an article of used clothing will never be priced as much as a brand-new equivalent (Turunen and Leipämaa-Leskinen 2015). In recent years, the second-hand market has grown significantly, with the rise of environmental awareness and sustainability, and the expansion of e-commerce platforms that have made it easier for people to buy and sell used clothing. Although fast fashion has received a lot of attention lately, customers' purchasing habits are currently changing. Consumers and businesses alike are becoming more interested in the topic of sustainability (Jochen Strähle, 2017).

2.3.2.1. The Second-Hand Fashion Market and Circular Economy

Even if 95% of the materials used to make garments might be recycled, only 1% of them actually are (Atstja et al., 2021). According to the US Environmental Protection Agency, almost 10 million tonnes of textiles and clothing are disposed of or burned each year because it is more economical for fashion retailers and labels to do so. Therefore, it is essential that fashion shops and companies act quickly to address these issues. In this regard, it is important to define the impact that the second-hand market can have in terms of sustainability and circular economy. In the biological or technical cycles, the circular economy in the fashion industry recommends that items are returned to the production cycle multiple times (Abdelmeguid et al., 2022). Bio-based textiles, materials, and fibers that may be broken down or degraded, such bio-based polyester, are typically ideal for biological cycles (Dissanayake and Perera, 2016; Abdelmeguid et al., 2022). also to guarantee toxic chemicals used in the manufacturing process should be replaced with bio-based materials and coatings, and natural dyes should be employed, such as air-dyeing technology, to lessen water

contamination (Dissanayake and Weerasinghe, 2021). However, due to the fact that the majority of current textiles and fibers are comprised of synthetic materials and are thus non-composable and non-degradable, biological cycles are not always a practical alternative (Colucci and Vecchi, 2021; Niinimäki, 2018). In such circumstances, companies in the fashion industry choose the technical cycle circularity strategies – reuse, repair, remanufacture, and recycling – to ensure product life longevity, keep the materials and textiles in the loop, and minimize waste (Palm et al., 2021; Abdelmeguid et al., 2022).

Reusing a product to extend its life is one option to operationalize the CE (Geissdoerfer et al., 2017). According to Bocken et al. (2016), there are three resource cycles inside the CE:

The market for used clothing is slowing, contracting, and creating smaller loops. The slowing resource loop strategy-based business model creates durable products and finds solutions to prolong product life. A business operationalizes the resource loop that is slowing down by offering services like repairs and remanufacturing (Machado et al., 2019).

Consumers are concerned about the effects of their own consumption, but there are alternative ways to reuse products and reuse measures are not just for business models.

Reuse is a strategy to reduce waste, and these actions are driven by sustainable proposals (Geissdoerfer et al., 2017). In this setting, "slow fashion" has gained prominence in contrast to fast fashion sold by large shops by shifting mindsets from quantity to quality (Vehmas et al., 2018). As consumers got more conscious of their own behavior and began to pay attention to how to dispose of their old garments and minimize their consumption of fashion, the fashion companies started exploring for options to recycle its products and receive used products. In this regard, CE creates opportunities for a closed-loop fashion system that is more sustainable (Vehmas et al., 2018). Because of this, the market for used apparel has grown recently (Gopalakrishnan and Matthews, 2018; Xu et al., 2014).

2.3.3. Consumers' Point of View

The desire of consumers is certainly one of the prime drivers of change. Their thoughts and intentions are fundamental to safeguarding resources from small everyday actions to their

purchasing behavior. After analyzing consumers' perceptions of sustainable consumption, what is their point of view in the specific case of the Fashion Industry?

With its often changing collections and low pricing, the fast fashion idea, made popular by companies like H&M and Zara, has a significant impact on today's customer. More fashion-conscious consumers now make timely demands for the proper goods. The most important elements influencing consumers to pick fast fashion are low pricing and trendiness. Fast fashion retailers' distribution strategies, display options, and store environments are persuasive elements that draw customers in and foster a hedonistic buying experience. To maintain quick renewal cycles and instill a sense of urgency in customers, fast fashion merchants restrict the range of products they sell. They desire unique products because of this. This rarity principle induces a sense of urgency in the buying process and pleasure in the consumption phase after the purchase (Jochen Strähle, 2017).

However, consumers have been proven to have become more responsive, displaying greater awareness along with a willingness to modify actions and employ other items. In fact, more customers are becoming fans of the notion of *purchasing used clothing*. Despite this, typical stream studies on sustainable consumption patterns reveal a discrepancy between intentions and actual behavior (Bali Swain et al., 2021). Henninger & Singh's (2017) assertion that customer environmental concerns do not always translate into their shopping patterns supports this. On the other hand, GreboszKrawczyk & Siuda (2019) discovered that environmentally friendly views indicate both consumers' general propensity to engage in sustainable activities as well as their predisposition to favor (or dislike) specific sustainable behaviors. The first study to establish a link between eco-attitudes and eco-behavior was Wiederhold & Martinez et al.'s (2018) investigation (Musova et al., 2021).

According to Haanpää (2007), there are many "green" habits. Green customers often care about the environment, buy products carefully, and volunteer at various environmental preservation initiatives. They also have an interest in living eco-friendly lifestyles. Customers continue to be impacted by society norms, often known as rules, standards, or requirements for behavior. According to Musova et al. (2002), many individuals still lack confidence and have contradictory

ideas regarding environmental conservation. In order to establish consensus-building rules, validate behavior and attitudes, and establish social standards and norms that encourage pro-environmental behavior, interpersonal communication is therefore crucial (Fell et al., 2009; Musova et al., 2021).

2.3.3.1. Why Consumers Buy or Not Second-Hand Fashion

However, there are explanations for both positive and negative customer views toward the used market.

Strähle (2017) lists the following as reasons why consumers choose to purchase used clothing:

- Purchasing used clothing is often driven by *financial considerations*. Fair prices are frequently a driving force behind consumers' decisions to purchase used fashion items. In contrast to normal retailers, where prices are frequently greater than the real production value, they think that the prices for used clothing are based on their quality. This means that buyers can buy used goods and still get high-quality goods while saving money.
- *Frugality* is another economic factor that influences second-hand fashion goods purchases. Consumers that are frugal are frequently concerned with making wise decisions, reusing resources, and managing their finances. They are limited in their ability to obtain and creatively utilize economic commodities and services to accomplish longer-term objectives. These customers find that buying used items is the best way to save money and get the most out of their purchases.
- *Hedonic and recreational shopping* is the second motivation covered in this section. Shopping and buying used goods provides enjoyment and pleasure for many people. One reason people purchase used clothing is for nostalgic reasons. This entails investing in vintage clothing that evokes fond recollections of the time they were created. Customers appreciate going back in time to experience memories connected to particular trends and times, and purchasing used goods might enable them to do so.

- Another reason for buying used fashion items is the need for *originality*. Customers look for uncommon and rare goods that aren't frequently available at traditional retailers. This enables people to show their uniqueness and stand out from the crowd.
- *Treasure-seeking* is the desire to discover something uncommon, priceless, and unique while browsing second-hand stores. Although it can be a laborious and time-consuming process, some customers find that part of the fun of buying used goods is the excitement of the hunt.
- The last motivation why people buy at second-hand stores is to *interact with others*. Shopping for used goods can be a fun social activity, and lots of customers like to browse with friends or family. Additionally, some thrift stores might offer a sense of community where frequent visitors are acknowledged and welcomed by the staff and other customers. Customers may feel a sense of connection and belonging as a result.

Along with the reasons why people buy used goods, there are also things that discourage people from doing so. Not all customers view clothing as a product that can simply change owners. Some of them, according to Roux and Korchia (2006), "can only be owned by one person, just as food can only be consumed by one mouth." The belief that clothing is an extension of the body is connected to this style of thinking. Issues about contamination and germs are included in these issues about wearing old items (Xu et al. 2014). In addition to the *hygiene* issue, fear of the unknown is another issue that prevents consumers from purchasing used goods because they don't know who the previous owner was (Roux & Korchia, 2006). The *demand for status* comes in third behind hygiene and fear of the unknown. It is detrimental to buy used goods since onlookers can assume that second-hand shoppers cannot afford to buy brand-new clothing (Roux and Korchia, 2006; Strähle, 2017). Additionally, some consumers may not be aware of the availability of second-hand fashion products or may not know where to find them.

2.3.4. Companies' Initiatives

Many fashion firms are aiming to increase their sustainability by concentrating on upstream elements of the value chain rather than downstream options like reuse, remanufacturing, and end-of-life of clothing. Some fashion businesses, however, have created ideas that are centered on the downstream concept, such as resell/reuse platforms for extending the life of clothing and maximizing its resell value. Customers are invited to donate their out-of-style clothing from the brand, which is then sold in second-hand stores with the company's name on it.

A business that has used this idea is *Filippa K*, a premium clothing line from Sweden. They developed Filippa K second hand, a store where clients can sell their used clothing and receive 50% of the sales profit if the item finds another owner, in partnership with a second-hand retailing specialist. Another high-end Swedish clothing company, *Boomerang*, encourages customers to give their gently used clothing in-store so that it can be recycled or resold for Boomerang home collection goods. High-quality outdoor clothing company *Patagonia*, which is based in the USA, offers its consumers the chance to return unwanted merchandise in-store. In addition, it has created a platform for customers to sell Patagonia products on eBay.

Moreover, *H&M*, despite its “fast fashion” nature, has launched a program called "Conscious Exclusive" that includes a line of clothing made entirely from sustainable and recycled materials. In addition, they have a program called "Garment Collecting" where customers can donate their old clothing at H&M stores, which are then either recycled or reused.

In the end, *Levi's*, has a program called "SecondHand" which is a buyback and resale program that allows customers to sell their used Levi's clothing back to the company in exchange for a gift card. The used clothing is then resold on Levi's website or in their retail stores.

These examples demonstrate how fashion firms can provide new opportunities for customer interaction through second-hand retail operations while also helping the business by engaging with current clients and expanding into new markets. However, because most retail companies know

nothing about the requirements of second-hand buyers or the second-hand market, they must work with subject matter experts in the new industry to take advantage of their expertise and resources, as Filippa K and Patagonia have done.

As a result, the fashion industry is still far from being a circular system, where materials are created and recycled to provide "additional value" rather than "additional waste". However, due to regulatory shortcomings, logistical issues, a lack of technical and financial resources, a lack of comprehensive solutions, and a lack of suitable infrastructure, the shift to "circular models" is painfully delayed for many pioneers' enterprises (Gazzola et al., 2020).

3. Hypothesis Development

The goal of this Master's thesis is to further study the fundamental role that sustainability plays today in the fashion industry and, in particular, in the second-hand market, based on the literature review already developed. This thesis will assess that the consumers' sustainability awareness of the second-hand fashion market will increase their willingness to buy. Moreover, through serial moderation, this research will explore the moderating role of age and gender on sustainability awareness and willingness to buy. The latter is used as the dependent variable and sustainability awareness as the independent variable; the relationship is moderated by age and gender.

Regarding age, it is hypothesized that older consumers may exhibit a negative moderating effect compared to younger consumers. This is founded on the knowledge that younger people, in particular millennials and Generation Z, have a propensity to be more conscious of sustainability issues and to adopt sustainable practices. They have grown up at a time when ethical consumption and environmental issues have attracted a lot of attention, which has increased their appreciation of the sustainability advantages the second-hand clothing industry offers (Gazzola et al., 2020). Instead, older generations may be less familiar with new online platforms and the ways of buying in the second-hand market, making them less likely to adopt this type of consumption. Furthermore, older generations have established purchasing preferences and less inclination to change their consumption habits (Bulut et al, 2017). This is a crucial aspect because it sets up traditions and buying habits that are difficult to eradicate.

In the case of gender, it is hypothesized that gender will have a positive moderating effect. This suggests that the effect of sustainability awareness on willingness to buy will be more pronounced among the female gender compared to the male gender. This hypothesis is supported by previous research indicating a higher sensitivity of women to environmental issues and their greater engagement in sustainable consumption practices (Bali Swain et al.,2021).

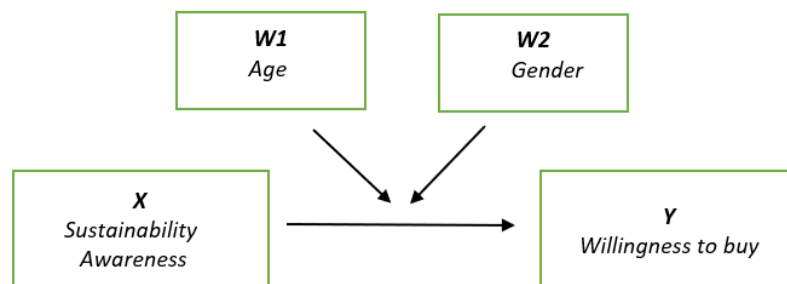


Figure 4 Conceptual Model

3.1. Sustainability Awareness

Sustainable awareness refers to the level of consciousness and understanding among consumers regarding the environmental and social impact of their fashion choices, specifically in the context of second-hand clothing. It encompasses knowledge about the benefits of sustainable fashion practices, such as reducing waste, conserving resources, and promoting ethical labor conditions. One requirement for changing one's environmental attitude and behavior in the face of accelerating climate change and global warming is *sustainability awareness*. Around the world, higher education bears the responsibility of influencing faculty and staff's environmental awareness and influencing future generations' perceptions of the value of protecting the environment (Hamid et al., 2017). It reflects consumers' understanding of the environmental and social benefits associated with purchasing and wearing second-hand clothing items. Consumers must be made more aware of the consequences of their clothes purchases and the harsh reality of unethical brands in order to

facilitate a change in the global fashion sector, especially to preserve natural resources (Smith et al., 2020). In the Fashion Industry, consumer attitudes and choices are shaped by sustainability awareness. Consumers who are aware of sustainability issues are more likely to hold pro-environmental beliefs *and want to use their purchasing decisions to bring about good change* (Birtwistle et al, 2007). So, it can be stated that:

H1: *If people were more informed about the sustainability of the second-hand fashion market their willingness to buy would increase.*

3.2. Age

Age refers to the number of years since a person's birth. It is regarded as a factor that may affect the intensity or direction of the association between sustainability awareness and willingness to buy. In the market for used clothing, age is a crucial variable to take into account because it has a big impact on customer behavior and market dynamics. The familiarity, acceptance, and participation with used clothing may differ among different age groups. Consumers of younger generations Y, or Millennials (born 1977–1994) and Z (born after 1995) are distinguished from older generations by having a stronger knowledge of sustainability (Kusa & Greskova, 2016).

Younger customers, such those in the Millennial and Gen Z cohorts, frequently demonstrate a greater inclination for embracing ecological activities, such as purchasing used clothing. They are more inclined to respect distinctive and retro looks, accessibility, and the environmental advantages of waste reduction through clothes reuse. They might actively look for environmentally friendly alternatives, respect the distinctiveness and affordability of used goods, and give the environment a top priority when making purchases.

On the other hand, older shoppers may have different attitudes and reasons when it comes to used clothing, such as those in the Gen X or Baby Boomer eras. Economic concerns, individual fashion tastes, and cultural conventions The opinions of older generations are not always flexible when it comes to sustainability issues, and thus, since the second-hand market is still taboo for many of them and sustainability represents an issue closer to young people, this might suggest that indeed older generations are not open to this kind of change may have an impact on people's propensity to engage in the second-hand market (Casalegno et al., 2022).

Taking into consideration these previous findings, it can be expected that:

H2: *If people were more informed about the sustainability of the second-hand fashion market, their willingness to buy would increase, and this relation would be negatively moderated by the age of consumers.*

3.3. Gender

The social and cultural roles, actions, and expectations that come with having a male, female, or other gender identity are referred to as gender. Gender is taken into account as a demographic variable in the framework of the model studying the relationship between sustainability awareness and willingness to buy in the second-hand fashion market. The variable recognizes the various identities and experiences that influence people's choices in clothing, including their propensity towards eco-friendly fashion. Gender can affect how people perceive, are motivated by, and feel about sustainable fashion, according to research. Individuals' level of sustainability knowledge and inclination to engage in sustainable fashion practices, such buying used clothing, can be influenced by cultural norms, societal expectations, and personal identity aspects related to gender. Age, but also gender (as mentioned in the previous chapter) are statistically important factors influencing environmentally conscious consumers, according to earlier research by Musova et al. (2021). It also supports the findings of Liobikien et al. (2017), who discovered that women are more ecologically conscious and more likely to act responsibly than men. Different patterns of sustainability awareness and willingness to purchase in the second-hand fashion market, for instance, may be shaped by gender norms and socialization. Women may be more exposed to and aware of sustainability challenges in the industry because they are frequently the target of societal pressure and expectations about fashion. This understanding may result in a greater desire to purchase used clothing as a way to promote sustainability and lessen the impact on the environment.

Men may have distinct societal expectations and standards around fashion, which may affect how aware they are of sustainability issues and how open they are to wearing used clothing. In order to detect potential disparities in consumer behavior and to develop tactics that would support sustainable fashion practices among various gender groupings, it is important to understand how gender and sustainability awareness interact. Thus, it can be stated that:

H3: *If people were more informed about the sustainability of the second-hand fashion market, their willingness to buy would increase, and this relation would be positively moderated by the gender of consumers.*

4. Methodology

In order to observe the effect on willingness to buy of sustainability awareness of the second – hand fashion market and to observe whether age and gender moderate the relationship, a quantitative methodology was adopted. The questionnaire was developed through Qualtrics, and the data were analyzed using SPSS. The survey presented single condition for all participants simulating a typical social media post, with an image and a short caption, concerning the sustainability of the second-hand market. In particular, an image was presented with the slogan “second-hand is sustainable” and the circular economy symbol consisting of trousers. Below the image was an informative caption aimed at conveying the positive impact that the second hand fashion market has on the environment and sustainability in general.

In order to conduct the analysis, an experiment was conducted through a within-subject design. It provided evidence that a cause-and-effect relationship exists between the chosen variables as shown in the conceptual model above. Specifically, the participants were presented with a scenario and then asked survey questions. In addition, the survey presented single condition for all participants, that were not previously informed of the objective of the research, nor of the possibility to see the scenario. The questionnaire was edited with Qualtrics in order to get primary data. The survey was made of 21 questions (all pre-validated scales) mainly using a five points

Likert scale as a measure of the answers, but also some multiple questions. After the presentation of the scenario, participants were presented with questions to test the research hypothesis.

4.2. Measurements

All constructs were adapted from previous research with minor modifications. Because the sample only includes Italian respondents, all scales and questionnaire items were given in Italian. First of all, participants had to rate how often they buy second-hand clothes using a five-point Likert scale (Colasante et al., 2021). Next they were asked where they usually buy second-hand clothing using a six-item measure adapted from Lee et al. (2019) and, in particular: “Websites or apps specializing in second-hand clothing”; “Second-hand markets”; “Charity shops”; “Physical shops specializing in second-hand clothes”; “Social media platforms (e.g. Instagram or Facebook Marketplace)”; “I don't buy second-hand”.

To measure *willingness to buy*, participants had to rate on a five-point Likert scale (Koay et al., 2022) the extent (1 = Strongly disagree... 5 = Strongly agree) to which they are likely to buy second-hand clothes in the future. Then, they were asked to indicate, on a five-point Likert scale (1 = Strongly disagree... 5 = Strongly agree) adapted from Hur (2020), how much they agreed with the following statements: “More physical shops/events selling second-hand clothes, so you can hold the garment in your hand and try it on”; “If there was a dedicated online shop”; “Easy access to apps or online second-hand clothes shops”; “If charity shops had online sections”; “Availability of products (quality, style, size and colors)”.

In order to measure *sustainability awareness*, participants had to rate how often they read the labels on clothes to check whether they have been produced in an environmentally friendly way, how often they choose clothes that require lower washing temperatures or less ironing, and how often they choose clothes that they can wear for a long time over those that go out of fashion quickly, using a five-point Likert scale (1 = Never... 5 = Always) adapted from Colasante et al. (2021). Moreover, they were asked to indicate, on a five-point Likert scale (1 = Strongly disagree... 5 = Strongly agree) adapted from Zhang (2021), how much they agreed with the following statements: "I am informed about the environmental issues of the fast fashion industry, such as waste and pollution caused by excessive clothing production"; "I am informed about clothing brands that sell eco-friendly fashion products". Then they had to rate on a five – point Likert scale (1 = Strongly

disagree... 5 = Strongly agree) adapted from Sharma et al. (2013) how much they knew about the sustainability of the second-hand market before reading the post at the beginning of the survey. Then respondents indicated, on a five-point Likert scale (1 = Strongly disagree... 5 = Strongly agree) adapted from Koay et al. (2022) the extent to which they agreed with the following statement: "Air pollution can occur during some common textile dyeing processes"; "A lot of water is used during the dyeing and finishing process of clothes".

In the end, participants had to rate on a five-point Likert scale (Valle et al., 2016) the extent (1 = Strongly disagree... 5 = Strongly agree) to which they are agreed with the following statements: "I believe that buying second-hand by me will help reduce pollution and improve the state of the environment"; "I believe that second-hand purchase by me will contribute to reducing the waste of natural resources"; "I believe that second-hand purchase by me will contribute to the protection of natural resources".

After that, there were presented questions to test their *motivation to buy or not* second-hand fashion items and the *environmental concern* of the respondents. They had to rate, on a five-point Likert scale (1 = Strongly disagree... 5 = Strongly agree) motivations to buy second-hand fashion items, using a six-item measure adapted from Colasante et al. (2021): "Economic reasons"; "Product quality"; "Reducing pollution from the production of new clothes"; "Finding exclusive articles"; "My peers buy similar clothes"; "Use garments that have not yet completed their life cycle". Next, they had to rate, on a five-point Likert scale (1 = Strongly disagree... 5 = Strongly agree) motivations to not buy second-hand fashion items, using a six-item measure adapted from Colasante et al. (2021): "Poor availability of dedicated apps"; "Low availability of dedicated shops"; "Low impact on environmental protection"; "Poor hygiene"; "Poor quality"; "Difficult to find the right size".

In order to test their environmental concern participants had to rate how often they correctly recycle the waste materials they produce daily (separate waste collection), how often they avoid buying products from companies that do not respect the environment in their production cycles, and how often they consciously buy products with reduced or recyclable packaging, using a five-point Likert scale (1 = Never... 5 = Always), adapted from Colasante et al. (2021).

Moreover, they were asked to indicate, on a five-point Likert scale (1 = Strongly disagree... 5 = Strongly agree) adapted from Özden (2008), how much they agreed with the following statements:

"Environmental problems affect not only the current generation but also the future generation"; "The most important tool for combating environmental problems is efficient environmental education"; "Environmental problems can be solved without major changes in our lifestyle"; "Environmental problems are the most important to solve in our country"; "Environmental problems are not my responsibility". The last part of the questionnaire included three socio-demographic questions regarding respondents' age, gender, and level of education.

Once a certain number of responses to the survey had been obtained, data analysis through SPSS was carried out, which will be explained in the following paragraphs.

First of all, univariate descriptive analysis of the variables under study was done by calculating the indices of centrality and variability for the quantitative variables and frequency tables for the qualitative variables. Subsequently, it was considered interesting, before proceeding with the analysis of the main models, to investigate secondary relationships between the variables, which could add value to the research. In particular, a paired-sample t-test and an ANOVA were carried out in order to investigate and compare the motivations that drive consumers to buy from the second-hand fashion market. In conclusion, in order to test the assumptions built on the conceptual framework, hence:

- The relationship between the dependent variable (willingness to buy) and the independent variable (sustainability awareness), with age and gender as control variables;
- The moderation model, with the dependent variable (willingness to buy), and the independent variable (sustainability awareness), age and gender as moderators.
- Multiple linear regressions analysis were conducted. In order to test the hypotheses, the sustainability awareness variable was created on SPSS, consisting of its eleven items (pre-validated scales described above), for which a reliability analysis was carried out, which will be described in the appropriate section.

For completeness, the items that make up the sustainability awareness variable are also given here in list form:

1. How often do you read clothes labels to check if they have been produced in an environmentally friendly way?
2. How often do you choose clothes that require lower washing temperatures or less ironing?
3. How often do you choose garments that you can wear for a long time versus those that go out of fashion quickly?
4. Indicate on a scale of 1 (not at all) to 5 (very much) the extent to which you agree with the following sentences. - I am aware of the environmental issues of the fast fashion industry, such as waste and pollution caused by excessive clothing production.
5. Indicate on a scale of 1 (not at all) to 5 (very much) the extent to which you agree with the following sentences. - I am informed about clothing brands that sell eco-friendly fashion products.
6. Indicate how much you knew about the sustainability of the second-hand market before reading the post at the beginning of the survey.
7. Indicate on a scale of 1 (not at all) to 5 (very much) the extent to which you agree with the following sentences. - Air pollution can occur during some common textile dyeing processes.
8. Indicate on a scale of 1 (not at all) to 5 (very much) the extent to which you agree with the following sentences. - A lot of water is used during the process of dyeing and finishing clothes.
9. Indicate on a scale of 1 (not at all) to 5 (very much) the extent to which you agree with the following sentences. - I believe that buying second hand will help reduce pollution and improve the state of the environment.
10. Indicate on a scale of 1 (not at all) to 5 (very much) the extent to which you agree with the following sentences. - I believe that buying second-hand by me will help reduce the waste of natural resources.

11. Indicate on a scale of 1 (not at all) to 5 (very much) the extent to which you agree with the following sentences. - I believe that second-hand shopping on my part will contribute to the protection of natural resources.

4.3. Sample and descriptive analysis.

A total of 223 Italian people, recruited via email, Whatsapp and Instagram stories using a convenience sample, composed the final dataset, and as respondents were chosen on the basis of the ease of achievement, therefore results may not be entirely representative. The sample used is a convenience sample, The sample was categorized according to socio-demographic variables.

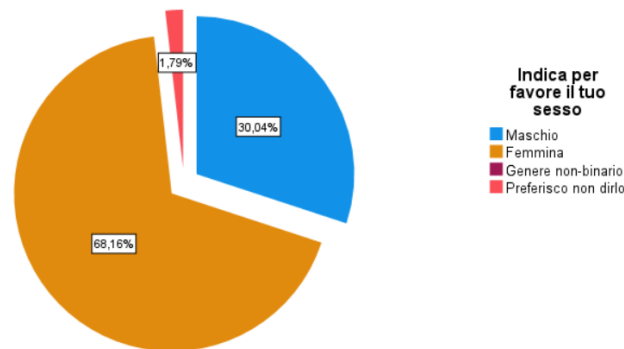


Figure 5 Gender

Looking at demographic data, most of the sample were women (68,2%) and the sample was mainly composed by students between 18 and 24 years old. The most frequent levels of education are “Laurea” (52%) and “Diploma” (27.4%). Moreover, the sample has an average age of about 33 years old while the median is lower (25 years) showing an asymmetry. The youngest respondent is 14 years old and the older one is 68 years old. The 75% of the sample is under 39 years old.

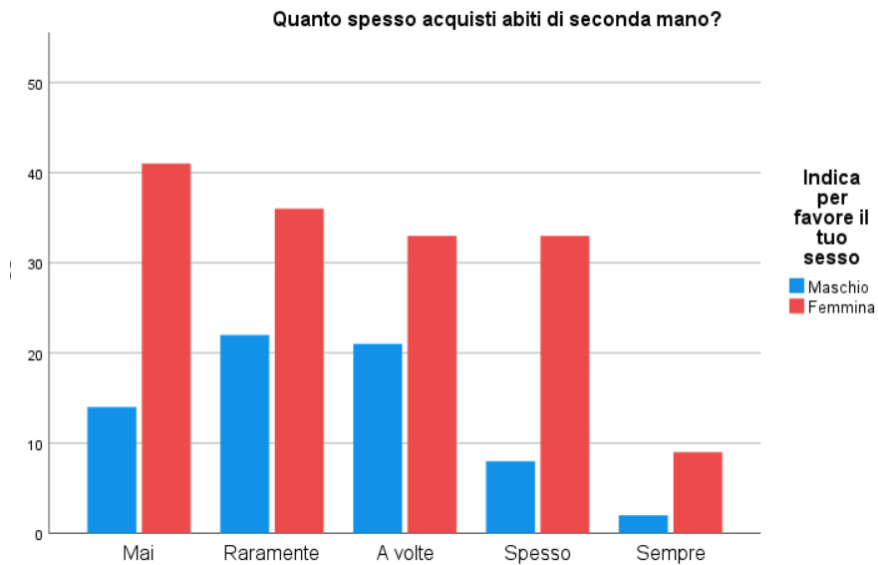


Figure 6 How often do you buy second-hand clothing?

Most of the sample (28.4%) never buy second-hand clothes. On a scale from 1 to 5 the average of the frequency of buying second-hand clothes is 2.44. Next, the question: “Where do you usually buy second-hand clothes?” shows that the most frequent place where the respondents buy second-hand clothes is the second-hand market (39.5%), then they use specialized websites (17.3%) or specialized shop (13.7%).

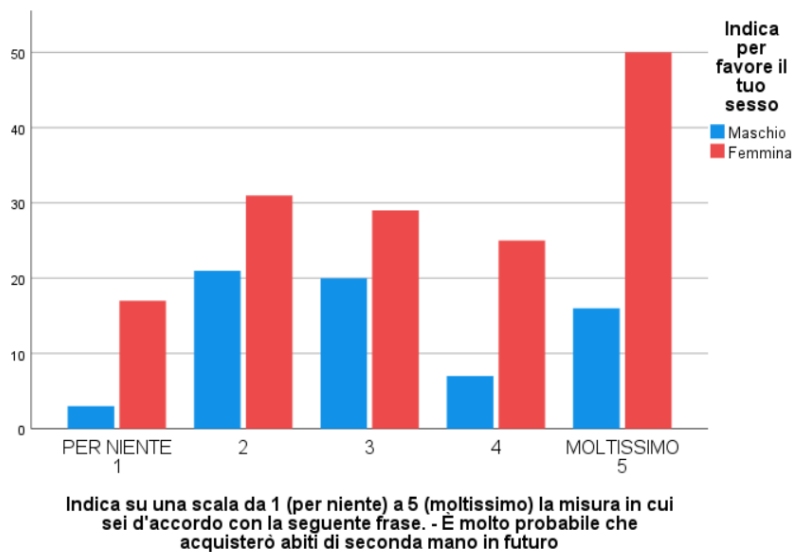


Figure 7 Likelihood of buying second-hand clothes in the future

It is important to notice that the likeliness to buy second-hand clothes in future for the respondents is quite good (26,4% rated 5) and they are mostly women.

Instead, for the question “ Indicate on a scale of 1 (Strongly disagree) to 5 (Strongly agree) how much these factors might influence your intention to buy second-hand clothes.” The factor that on average (3.62) was found to have the greatest influence on the intention to purchase is the availability of the products (quality, style, size and colours).

Also, it was found that the reason that on average was most important in choosing to buy second-hand clothing is the "Reduction of pollution linked to the production of new clothes" and the motivation for not buying second-hand clothes that was, on average, the most important is 'Poor hygiene' (as confirmed from the previous studies in the literature review).

Proceeding with the analysis, on a scale from 1 to 5 the average frequency of “How often do you read the labels on your clothes to check if they have been produced with respect for the environment?” is 2.51 with a median of 2.

However, isn't so common to choose clothes that require lower washing temperatures or less ironing either (mean=2.35, median=2).

The question: “How often do you choose items that you can wear for a long time versus those that go out of style quickly?” has obtained a higher score with a mean of 3.61 and a median of 4.

On average, people are more knowledgeable about the environmental issues of the fast fashion industry, such as waste and pollution caused by the overproduction of clothing than about clothing brands that sell eco-friendly fashion products.

The sentence on the consequences of buying second-hand clothes with which respondents, on average, found themselves most in agreement with is “I believe that my second-hand purchase contributes to the conservation of natural resources”.

Moreover, on average, the sample separates waste very often (mean=4.19, median=5). With lesser but still moderate frequency, the sample avoids buying products from companies that do not respect the environment in their production cycles (mean=2.89, median=3) and knowingly buys products with reduced or recyclable packaging (mean=2.94, median=3).

The sample was on average more in agreement with the statement "-Environmental problems affect not only the current generation, but also the future one" and with "*The most important tool to*

combat environmental problems is effective environmental education" . Therefore, *it is interesting to notice that the score of "Environmental problems are not my responsibility" is quite low (mean=1.76, median=1).*

The last important consideration for this part of the analysis is that most of the sample knew little (34.2%) or moderately (34.6%) about sustainability before the survey.

4.4. Test analysis

Tests were carried out to analyse any interesting relationships between the variables. In particular it was considered interesting, before proceeding with the analysis of the main models, to investigate secondary relationships between the variables, which could add value to the research. After studying several relations, it was possible to identify the most interesting ones about the reasons why survey participants buy second-hand clothing. In particular, it has been computed a *paired-sample t-test*. This test is used to compare the means of two variables taken from the same sample of units and verifies whether there is a statistically significant difference in the means of the two scale variables, in this case the variable: "Reduction of pollution" and " Garments that have not yet finished their life cycle". The null hypothesis of the paired-samples t-test is that the means of the two variables are equal, while the alternative hypothesis is that these means differ significantly in population.

It has rejected the null hypothesis of equal means, concluding that the means are significantly different if the p-value is less than 0.05.

It is possible to note how the average of the variable "Reduction of pollution" seems to be greater than the mean of the variable "Garments that have not yet finished their life cycle", however, to determine whether or not this difference is statistically significant it was necessary to carry out the test. The test is statistically significant (p-value<0.001) therefore it was possible to reject the null hypothesis that the two means are equal and conclude that, on average, reducing pollution was a significantly greater motivation than using garments that did not finish their life cycle.

For the same reasons, it was computed the ANOVA test to verify if there is a significant difference among the education levels for the variable "Economic reasons". Moreover, the highest average score given to the financial reasons corresponds to the level of education "Diploma" and the lowest average score corresponds to the level of education "Post-laurea".

Then, the test for the *homogeneity of the variance* isn't statistically significant ($p\text{-value} > 0.05$), hence it can be possible to use the classic ANOVA test since the assumption is verified.

The ANOVA has a 0.05 p-value, so the post-hoc test was done to compare all the possible levels of education.

There is a statistically significant difference in the score given to the variable "Economic reasons" between the level of education Diploma and the Post-Laurea one. In particular, is more important for people with Diploma as levels of education.

It repeated the procedure using the variable "My peers buy similar clothes "

It is noticeable that the people who consider more important this aspect are the ones with the level of education "Diploma".

The *test of homogeneity of variance* is statistically significant ($p\text{-value} < 0.001$), hence the null hypothesis of homogeneity of variance was rejected, and the robust version of the ANOVA test was done.

The *Brown-Forsythe* robust test is statistically significant ($p\text{-value} < 0.005$) hence at least one educational level has an average score for the dependent variable significantly different. It is possible to use the posthoc test to verify where this difference is.

The pairs with significant differences in terms of "My peers buy similar clothes" are Diploma and Laurea, and Diploma and Post-laurea. In both cases is significantly higher for the level of education Diploma.

4.5. Reliability Analysis

Finally, the hypothesis that sustainable awareness influences the willingness to buy second-hand clothes and that this relationship is moderated by age and gender are tested.

The first step is to create the sustainable awareness variable on SPSS using its eleven questions (described in the "measurements" paragraph above). It is necessary to check the *reliability* of these items. The Cronbach's alpha is considered to do this analysis.

Cronbach's alpha is an index that evaluates the reliability of a construct and varies between 0 and 1. It is interpreted as follows:

- $0 \leq \alpha < 0.6$: insufficient;
- $0.6 \leq \alpha < 0.7$: discrete;
- $0.7 \leq \alpha < 0.8$: good;
- $0.8 \leq \alpha < 0.9$: optimal;
- $0.9 \leq \alpha < 1$: excellent.

Reliability Statistics	
Cronbach's Alpha	Number of Items
,837	11

Tab. 1 Reliability Analysis

The Cronbach'Alpha is *optimal* hence it can be created a construct (Sustainable awareness) using all these items. The construct is created as the mean of the single score given at the 11 questions.

4.6. Results

This section involves the analysis of the conceptual model along with an interpretation of the findings. The moderation model can be analyzed using a *multiple linear regression* entering the product of the independent variables and the moderator (interaction). The model needs to considering also the single moderator.

The first step is to mean-center, i.e. subtract the mean, the quantitative variables sustainable awareness and age. This procedure is needed to avoid multicollinearity problems. Below is reported the collinearity statistic without the mean centering and it is noticeable that the VIF index is higher than the maximum acceptable value of 5.

Multiple linear Regression Models:

Coefficients^a

	B	Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Tolerance	VIF
(Constant)	-,097	1,151		-,085	,933		
Sustainability Awareness	1,261	,358	,644	3,521	<,001	,112	8,967
Gender	,116	,190	,039	,608	,544	,898	1,114
Age	,036	,028	,370	1,305	,193	,046	21,527
Sustainability Awareness*Gender	,111	,278	,047	,397	,692	,262	3,817
Sustainability Awareness_Age_NC	-,018	,009	-,667	-2,093	,037	,037	27,215

a. Dependent Variable: Willingness to Buy.

Tab. 2 Moderation model

The final model is:

Coefficients^a

	B	Std. Error	Standardized Coefficients Beta	t	Sig.	Tolerance	VIF
(Constant)	3,236	,160		20,259	<,001		
Sustainability Awareness centered	,677	,237	,346	2,861	,005	,256	3,912
Gender	,116	,190	,039	,608	,544	,898	1,114
Age centered	-,020	,006	-,201	-3,219	,001	,961	1,041
Sustainability Awareness*Gender	,111	,278	,047	,397	,692	,262	3,817
Sustainability Awareness*Age	-,018	,009	-,130	-2,093	,037	,966	1,035

a. Dependent Variable: Willingness to Buy.

Tab. 3 Moderation Model

All the VIF are below 5.

From this model, it is interesting to analyse the effect of the independent variable Sustainability Awareness centered and of the interaction of this variable with Age centered and Gender.

Sustainability Awareness centered results statistically significant (p-value <0.05). The coefficient is positive (0.677) hence *when sustainable awareness centered increases the dependent variable (willingness to buy) increase too*. Specifically, for each unit increment in Sustainability Awareness centered there is an increment of 0.677 in the dependent variable.

Regarding the moderation, Gender isn't significant (p-value>0.05) while Sustainability Awareness*Age is significant (p-value<0.05) and negative (-0.018). Hence, when the Age centered increases the effect of Sustainability Awareness centered on willingness to buy decreases.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,452 ^a	,205	,186	1,229

- a. Predictors: (Constant), Sustainability Awareness*Age, Gender, Age centered, Sustainability Awareness*Gender, Sustainability Awareness centered

Tab. 4 Model Summary

The model explains about 20% of the overall variability of the phenomenon.

In order to analyse the relation between Sustainability Awareness and Willingness to buy it has been used a *multiple linear regression*. In this case, Age and Gender are the control variables.

Multiple linear Regression Model:

Coefficients^a

	B	Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	1.613	.471		3.425	<.001
Sustainability Awareness	.735	.120	.380	6.131	<.001
Gender	.027	.160	.011	.171	.865
Age	-.020	.006	-.203	-3.305	.001

- a. Dependent variable: Willingness to Buy.

Tab. 5 Multiple Linear Regression Model

From this model, it is interesting to analyse the effect of the independent variable Sustainability Awareness on the dependent variable Willingness to Buy.

Sustainability Awareness results statistically significant (p-value <0.05). The coefficient is positive (0.735) hence *when sustainable awareness increases the dependent variable (willingness to buy) increase too*. Specifically, for each unit increment in Sustainability Awareness there is an increment of 0.735 in the dependent variable.

Considering the control variables, the study shows that Age (p-value <0.05) influence the Sustainability Awareness, despite of Gender that is not significant (p-value > 0.05).

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.437 ^a	.191	.180	1.229

a. Predictors: (Constant), Sustainability Awareness, Age, Gender.

Tab. 6 Model Summary

4.7. Results discussion

The objective of this thesis is to verify the hypothesis present in the conceptual model. Supporting H1, the p value that results from the multiple linear regression for sustainability awareness was significant (p-value <0.05), and considering coefficient is positive (0.735) hence *when sustainable awareness increases the willingness to buy (dependent variable) increase too*. Therefore, **H1 is verified.**

Supporting H2, moderation analysis shows that Age is significant (p-value<0.05) and negative (-0.018). Hence, when the age increases the effect of sustainability awareness on the willingness to buy decreases. *This result shows that indeed younger people show a greater knowledge of sustainability and a greater propensity to buy more from the second-hand fashion market.* On the contrary, with advancing age we notice a lower sensitivity to these topics and a lower propensity to buy second-hand fashion goods. Hence, **H2 is verified.**

Regarding H3, moderation analysis shows that Gender is not significant ($p\text{-value} > 0.05$) and the expected effect of gender on the relationship between sustainability awareness and willingness to buy does not verify what is predicted. Thus, **H3 is rejected**.

5. General Discussion and Conclusions

The performed analysis provides very interesting results concerning consumers behavior for the second-hand fashion items when they are aware about the sustainability of this market. Indeed, findings demonstrate that effectively when consumers are aware about sustainability of the second hand fashion market, they are more propense to buy these kind of items. In fact, the analysis allow us to reconfirms what has been stated in past studies (Lee et al., 2019), which shows that consumers who were informed about the environmental and social benefits of second-hand clothing consumption showed a greater propensity to purchase such products than those who had limited awareness. Taking into account another important aspect, as it already tested in previous literature (Smith et al., 2022), consumers tend to be poorly informed about sustainability and that this lack of knowledge negatively influences their sustainable purchasing behavior. In particular, consumers with a higher awareness of sustainability demonstrated a greater propensity to purchase sustainable products. In spite of the fact that, as reported in the literature review, there was a greater interest in such products, survey participants indicated that they knew little or only moderately about sustainability in the second-hand fashion market before being subjected to the scenario of this thesis. According to the moderation effect, it was possible to enrich past studies (for instance, Gazzola et al., 2020) by testing the role of age and gender on the relationship between sustainability awareness and willingness to buy. In this regard, while past literature has expressed the inclinations of younger generations (by age) and women (by gender) with regard to sustainable fashion in general, this research specifically investigates the role of age and gender in the second-hand fashion market. In fact, the result that emerged is interesting, because while past research has looked more at the role of younger consumers, in this case it was possible to test what was expected of older ones: in particular, when the age of consumers increases, despite awareness of the sustainability of the second-hand market, its effect on willingness to buy decreases. Unfortunately,

however, the effect predicted by gender as a moderator was not significant. Another important aspect that emerges from the research is the analysis of secondary but interesting relationships between the variables. In particular, the focus was on the motivation to buy or not to buy second hand fashion and environmental concern. It is no coincidence that the motivation of 'poor hygiene' is among the reasons why consumers do not buy second hand items, prejudice and misinformation already established in previous literature (Borusiak et al., 2020). On the other hand, among the reasons for purchasing, economic reasons stand out, for example, on which the relationship with the level of education of the participants was deepened. Not surprisingly, those with a lower level of education prefer economic reasons as a motivation for choosing second-hand, as opposed to those with a higher level of education, which could coincide with a higher level of income and would further explain why the older generations do not choose this type of market. Furthermore, about economic concern, there are many people who pursue sustainable habits, such as separate waste collection, and few who believe environmental problems are not their responsibility. However, it is crucial that people are more educated about the fast fashion industry's environmental difficulties, such as waste and pollution caused by overproduction of clothing, than *they are about clothing firms who sell eco-friendly fashion products and could represent a real challenge for businesses*. Finally, one of the most significant insights emerging from the research is the importance that people recognized in education about the sustainability of a market such as second-hand fashion in order to safeguard natural resources and slow down the impact of environmental problems on society and the planet.

5.1. Managerial and Marketing Implications

According to this research is important to highlight a central consideration: the role of sustainability awareness is a key driver of pro-environmental consumer choices. Starting from this point, it is possible to identify some interesting managerial and marketing implications.

Businesses in the fashion sector have a huge impact and responsibility on consumers' purchase decisions through their environmental practices and circular solution offerings. At first look, businesses determine the options from which customers can select. However, in the end, it is up to the customer to decide whether to accept the product's characteristics and the suggested price in response to these corporate propositions. Because of this, they should focus as much as we can on

products and services that are environmentally friendly. However, as expressed in the paragraph above, many people are not aware of brands that offer sustainable solutions, and this can only mean one thing: companies need to engage in both the offerings and the communication through which they reach the consumer.

Companies can adopt several strategies to offer more sustainable products in the second-hand fashion market. Among possible solutions:

- Promote recycling and reuse: Companies can encourage consumers to donate, exchange, or sell their used garments instead of throwing them away. They can provide incentives such as discounts on new purchases or loyalty programs to encourage recycling and reuse behaviour.
- Develop repair and reconditioning programs: Companies can offer repair or reconditioning services to extend the useful life of used clothing. This can be done through partnerships with local tailors or by opening dedicated service points.
- Partner with second-hand fashion platforms, such as Vinted or Vestiaire for example: Companies can partner with online platforms or physical stores that specialize in selling second-hand fashion. These partnerships can help reach a wider audience and provide a sustainable disposal route for used garments.
- Adopt sustainable materials: Companies can use sustainable and eco-friendly materials when producing new clothing. This can include the use of organic, recycled or environmentally friendly fabrics.
- Communicate sustainability: Companies must transparently communicate their efforts and progress toward sustainability in the second-hand fashion industry. This communication can take place through the company's website, social media channels, and product labelling.

Regarding *marketing strategies* for the second-hand fashion market:

- Education and awareness: Companies can inform consumers about the environmental and social benefits of buying second-hand fashion. An awareness campaign can be conducted that highlights the positive impact of recycling and reusing clothing.
- Storytelling: Companies can tell engaging stories about the origins and stories behind second-hand clothing. This can create an emotional connection with consumers and emphasize the uniqueness and intrinsic value of such garments.
- Collaborations with influencers and experts: Companies can work with influencers and experts in the field of sustainable fashion to promote their second-hand products. These collaborations can increase the visibility and appeal of sustainable offerings.
- Engaging shopping experiences: Companies can create unique shopping experiences for customers, such as by organizing clothing swap events, pop-up stores, or fashion shows featuring second-hand garments.

Considering these strategies, it is also important to take into account the *age* factor that was central to this research. In fact, since the older generations turn out to be less sensitive to these issues, it would be necessary to reach them through alternative ways. More traditional communication, such as newspapers, television, and billboards, which, however, do not only contain information about the sustainability of this market, but focus on initiatives aimed at them. In particular, it could be think to organize events between parents and sons, a kind of meeting between generation.. That's because their sons, belonging to a younger generation and sensitive to these issues, could certainly help in achieving the goal: bring their parents closer to this market.

Clearly, policymakers also play a central role in this mission. Indeed, they should disseminate information about the consequences of fast fashion, the sustainability of the second-hand market,

and promote incentives in buying sustainable products for the well-being of the environment and beyond.

An interesting initiative could be the adoption of *gamification*.

Gamification refers to the application of typical game elements and mechanics in nongame contexts in order to engage and motivate people.

In the context of educating consumers to purchase second-hand goods, gamification could be used to create an engaging and interactive experience. For example, an app or online platform could be developed that offers challenges, rewards, and goals centered on the purchase of second-hand goods. Users could earn points, level up, or earn virtual rewards for their sustainable consumption behaviours, such as buying used products instead of new ones.

In addition, gamification could be combined with storytelling and social media elements to create a community of consumers committed to sustainability and buying second-hand goods. For example, users could share their shopping experiences, exchange tips, and challenge each other to participate in sustainable consumption initiatives.

The use of gamification could make learning and adopting sustainable behaviours more fun, challenging, and memorable for consumers. However, it is also important to consider the limitations and ethical aspects of gamification, such as the risk of excessive manipulation or distortion of people's intrinsic motivation. Therefore, it is critical to design and implement gamification in an ethical manner consistent with sustainability goals.

The fashion industry is still a long way from being a circular system, where materials are created and recycled to provide "additional value" rather than "additional waste". However, due to regulatory shortcomings, logistical issues, a lack of technical and financial resources, a lack of comprehensive solutions, and a lack of suitable infrastructure, the shift to "circular models" is painfully delayed for many pioneers' enterprises (Gazzola et al., 2020). Furthermore, through this research and the important implications that emerged from it, it was possible to contribute to the identification of a common direction that companies and policymakers should follow in order to protect the future of our environmental resources and use alternative methods for the development of such an important sector as the fashion industry.

5.2. Limits and Future Research

Despite the fact that this study provides highly important insights into the second-hand fashion market and the consumer behaviour in reaction of its sustainability, there are several limitations that would be interesting to address in future research. Indeed, given how this market is still expanding today, important new study ideas continue to emerge that can lead to substantial conclusions on consumer behaviour on second-hand fashion market, thus future academics should monitor new studies, companies and policymakers initiatives.

This study's sample consists solely of respondents of Italian nationality. Including people of different nationalities in the study would be beneficial and intriguing to examine if the results are similar in other countries outside of Italy or if they vary based on the nationality of the participants. Moreover, the sample size for this study is 223 persons. Increasing the number of respondents to obtain more responses could enhance the reliability and generalizability of the results. This additional data could either support or potentially alter the findings obtained in this study.

The study utilized a text description and an image as stimuli. However, using different types of stimuli, such as real videos or photographs, might have been more impactful and engaging, potentially leading to different responses from the participants.

In addition, qualitative data was not collected in this study. Qualitative research methods, such as interviews or focus groups, could provide valuable insights into consumer behavior. Participants could shed light on their concerns and offer further insights into the reasons behind their purchasing decisions.

In future research, it might be interesting to focus on a specific type of product in the second-hand fashion market, studying interesting approaches for different brands. In addition, it would be useful to explore possible interventions by policymakers and in particular, the gamification approach.

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7. Appendix

- Descriptive analysis

Frequencies

Statistics

Indica per favore il tuo sesso

N	Valid	223
	Missing	118
Mode		2
Range		3
Minimum		1
Maximum		4

Indica per favore il tuo sesso

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Maschio	67	19,6	30,0	30,0
	Femmina	152	44,6	68,2	98,2
	Preferisco non dirlo	4	1,2	1,8	100,0
	Total	223	65,4	100,0	
Missing	System	118	34,6		
Total		341	100,0		

Statistics

Indica il tuo livello di istruzione più alto (compreso quello che stai conseguendo attualmente).

N	Valid	223
	Missing	118
Mode		2
Range		3
Minimum		1
Maximum		4

Indica il tuo livello di istruzione più alto (compreso quello che stai conseguendo attualmente).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma	61	17,9	27,4	27,4
	Laurea o titolo equivalente	116	34,0	52,0	79,4
	Post-laurea o equivalente	37	10,9	16,6	96,0
	Dottorato di ricerca o equivalente	9	2,6	4,0	100,0
	Total	223	65,4	100,0	
Missing	System	118	34,6		
Total		341	100,0		

Statistics

		Quanto spesso acquisti abiti di seconda mano?	Di solito, dove acquisti abbigliamento o di seconda mano?
N	Valid	278	271
	Missing	63	70
Mean		2,44	3,24
Median		2,00	2,00
Std. Deviation		1,190	1,912
Minimum		1	1
Maximum		5	6
Percentiles	25	1,00	2,00
	50	2,00	2,00
	75	3,00	6,00

Frequency Table

Quanto spesso acquisti abiti di seconda mano?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mai	79	23,2	28,4	28,4
	Raramente	69	20,2	24,8	53,2
	A volte	69	20,2	24,8	78,1
	Spesso	50	14,7	18,0	96,0
	Sempre	11	3,2	4,0	100,0
	Total	278	81,5	100,0	
Missing	System	63	18,5		
Total		341	100,0		

Di solito, dove acquisti abbigliamento di seconda mano?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Siti web specializzati in abbigliamento di seconda mano	47	13,8	17,3	17,3
	Mercatini dell'usato	107	31,4	39,5	56,8
	Negozi di beneficenza	1	,3	,4	57,2
	Negozio fisico specializzato in abbigliamento di seconda mano	37	10,9	13,7	70,8
	Piattaforme di social media (ad esempio, Instagram o Facebook Marketplace)	8	2,3	3,0	73,8
	Non acquisto usato	71	20,8	26,2	100,0
	Total	271	79,5	100,0	
	Missing	System	70	20,5	
Total		341	100,0		

Statistics

		Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto questi fattori potrebbero influire sulla tua intenzione di acquistare abiti di seconda mano. - Più negozi/eventi fisici che vendono abiti di seconda mano, in modo da poter tenere in mano il capo e provarlo	Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto questi fattori potrebbero influire sulla tua intenzione di acquistare abiti di seconda mano. - Se ci fosse un negozio online dedicato	Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto questi fattori potrebbero influire sulla tua intenzione di acquistare abiti di seconda mano. - Facile accesso alle app o ai negozi online di abbigliamento o di seconda mano	Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto questi fattori potrebbero influire sulla tua intenzione di acquistare abiti di seconda mano. - Se i negozi di beneficenza avessero sezioni online	Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto questi fattori potrebbero influire sulla tua intenzione di acquistare abiti di seconda mano. - Disponibilità dei prodotti (qualità, stile, taglia e colori)
N	Valid	269	253	253	253	253
	Missing	72	88	88	88	88
Mean		3,23	3,49	2,94	2,97	2,88
Median		3,00	4,00	3,00	3,00	4,00
Std. Deviation		1,333	1,268	1,286	1,329	1,343
Minimum		1	1	1	1	1
Maximum		5	5	5	5	5
Percentiles	25	2,00	3,00	2,00	2,00	3,00
	50	3,00	4,00	3,00	3,00	4,00
	75	5,00	5,00	4,00	4,00	5,00

Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con la seguente frase. - È molto probabile che acquisterò abiti di seconda mano in futuro

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	25	7,3	9,3	9,3
	2	68	19,9	25,3	34,6
	3	66	19,4	24,5	59,1
	4	39	11,4	14,5	73,6
	MOLTISSIMO 5	71	20,8	26,4	100,0
	Total	269	78,9	100,0	
Missing	System	72	21,1		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto questi fattori potrebbero influire sulla tua intenzione di acquistare abiti di seconda mano. - Più negozi/eventi fisici che vendono abiti di seconda mano, in modo da poter tenere in mano il capo e provarlo

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	21	6,2	8,3	8,3
	2	38	11,1	15,0	23,3
	3	60	17,6	23,7	47,0
	4	64	18,8	25,3	72,3
	MOLTISSIMO 5	70	20,5	27,7	100,0
	Total	253	74,2	100,0	
Missing	System	88	25,8		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto questi fattori potrebbero influire sulla tua intenzione di acquistare abiti di seconda mano. - Se ci fosse un negozio online dedicato

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	40	11,7	15,8	15,8
	2	59	17,3	23,3	39,1
	3	69	20,2	27,3	66,4
	4	47	13,8	18,6	85,0
	MOLTISSIMO 5	38	11,1	15,0	100,0
	Total	253	74,2	100,0	
Missing	System	88	25,8		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto questi fattori potrebbero influire sulla tua intenzione di acquistare abiti di seconda mano. - Facile accesso alle app o ai negozi online di abbigliamento di seconda mano

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	39	11,4	15,4	15,4
	2	67	19,6	26,5	41,9
	3	51	15,0	20,2	62,1
	4	54	15,8	21,3	83,4
	MOLTISSIMO 5	42	12,3	16,6	100,0
	Total	253	74,2	100,0	
Missing	System	88	25,8		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto questi fattori potrebbero influire sulla tua intenzione di acquistare abiti di seconda mano. - Se i negozi di beneficenza avessero sezioni online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	47	13,8	18,6	18,6
	2	61	17,9	24,1	42,7
	3	62	18,2	24,5	67,2
	4	41	12,0	16,2	83,4
	MOLTISSIMO 5	42	12,3	16,6	100,0
	Total	253	74,2	100,0	
Missing	System	88	25,8		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto questi fattori potrebbero influire sulla tua intenzione di acquistare abiti di seconda mano. - Disponibilità dei prodotti (qualità, stile, taglia e colori)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	16	4,7	6,3	6,3
	2	32	9,4	12,6	19,0
	3	59	17,3	23,3	42,3
	4	72	21,1	28,5	70,8
	MOLTISSIMO 5	74	21,7	29,2	100,0
	Total	253	74,2	100,0	
Missing	System	88	25,8		
Total		341	100,0		

Statistics

		Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento o di seconda mano. - Ragioni economiche	Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento o di seconda mano. - Qualità dei prodotti	Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento o di seconda mano. - Riduzione dell'inquinamento legato alla produzione di nuovi abiti	Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento o di seconda mano. - Trovare articoli esclusivi	Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento o di seconda mano. - I miei coetanei acquistano abiti simili	Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento o di seconda mano. - Utilizzare capi che non hanno ancora terminato il loro ciclo di vita
N	Valid	245	245	245	245	245	245
	Missing	96	96	96	96	96	96
Mean		3,27	3,47	3,63	3,55	2,23	3,23
Median		3,00	4,00	4,00	4,00	2,00	3,00
Std. Deviation		1,280	1,133	1,193	1,212	1,210	1,298
Minimum		1	1	1	1	1	1
Maximum		5	5	5	5	5	5
Percentiles	25	2,00	3,00	3,00	3,00	1,00	2,00
	50	3,00	4,00	4,00	4,00	2,00	3,00
	75	4,00	4,00	5,00	4,50	3,00	4,00

Frequency Table

Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento di seconda mano. - Ragioni economiche

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	25	7,3	10,2	10,2
	2	49	14,4	20,0	30,2
	3	59	17,3	24,1	54,3
	4	60	17,6	24,5	78,8
	MOLTISSIMO 5	52	15,2	21,2	100,0
	Total	245	71,8	100,0	
Missing	System	96	28,2		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento di seconda mano. - Qualità dei prodotti

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	16	4,7	6,5	6,5
	2	30	8,8	12,2	18,8
	3	71	20,8	29,0	47,8
	4	80	23,5	32,7	80,4
	MOLTISSIMO 5	48	14,1	19,6	100,0
	Total	245	71,8	100,0	
Missing	System	96	28,2		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento di seconda mano. - Riduzione dell'inquinamento legato alla produzione di nuovi abiti

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	13	3,8	5,3	5,3
	2	35	10,3	14,3	19,6
	3	53	15,5	21,6	41,2
	4	73	21,4	29,8	71,0
	MOLTISSIMO 5	71	20,8	29,0	100,0
	Total	245	71,8	100,0	
Missing	System	96	28,2		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento di seconda mano. - Trovare articoli esclusivi

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	23	6,7	9,4	9,4
	2	19	5,6	7,8	17,1
	3	65	19,1	26,5	43,7
	4	77	22,6	31,4	75,1
	MOLTISSIMO 5	61	17,9	24,9	100,0
	Total	245	71,8	100,0	
Missing	System	96	28,2		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento di seconda mano. - I miei coetanei acquistano abiti simili

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	87	25,5	35,5	35,5
	2	70	20,5	28,6	64,1
	3	48	14,1	19,6	83,7
	4	25	7,3	10,2	93,9
	MOLTISSIMO 5	15	4,4	6,1	100,0
	Total	245	71,8	100,0	
Missing	System	96	28,2		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento di seconda mano. - Utilizzare capi che non hanno ancora terminato il loro ciclo di vita

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	27	7,9	11,0	11,0
	2	47	13,8	19,2	30,2
	3	70	20,5	28,6	58,8
	4	45	13,2	18,4	77,1
	MOLTISSIMO 5	56	16,4	22,9	100,0
	Total	245	71,8	100,0	
Missing	System	96	28,2		
Total		341	100,0		

Statistics

		Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti le seguenti ragioni per non acquistare abbigliamento o di seconda mano. - Scarsa disponibilità di app dedicate	Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti le seguenti ragioni per non acquistare abbigliamento o di seconda mano. - Scarsa disponibilità di negozi dedicati	Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti le seguenti ragioni per non acquistare abbigliamento o di seconda mano. - Scarso impatto sulla tutela dell'ambiente	Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti le seguenti ragioni per non acquistare abbigliamento o di seconda mano. - Scarsa igiene	Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti le seguenti ragioni per non acquistare abbigliamento o di seconda mano. - Scarsa qualità	Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti le seguenti ragioni per non acquistare abbigliamento o di seconda mano. - È difficile trovare la taglia giusta	Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti le seguenti ragioni per non acquistare abbigliamento o di seconda mano. - È difficile trovare abiti alla moda
N	Valid	234	234	234	234	234	234	234
	Missing	107	107	107	107	107	107	107
Mean		2,50	3,00	2,50	3,24	2,82	3,00	2,34
Median		2,00	3,00	2,00	3,00	3,00	3,00	2,00
Std. Deviation		1,271	1,238	1,314	1,456	1,377	1,231	1,176
Minimum		1	1	1	1	1	1	1
Maximum		5	5	5	5	5	5	5
Percentiles	25	1,00	2,00	1,00	2,00	2,00	2,00	1,00
	50	2,00	3,00	2,00	3,00	3,00	3,00	2,00
	75	3,00	4,00	3,00	5,00	4,00	4,00	3,00

Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti le seguenti ragioni per non acquistare abbigliamento di seconda mano. - Scarso impatto sulla tutela dell'ambiente

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	73	21,4	31,2	31,2
	2	48	14,1	20,5	51,7
	3	60	17,6	25,6	77,4
	4	30	8,8	12,8	90,2
	MOLTISSIMO 5	23	6,7	9,8	100,0
	Total	234	68,6	100,0	
Missing	System	107	31,4		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti le seguenti ragioni per non acquistare abbigliamento di seconda mano. - Scarsa igiene

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	38	11,1	16,2	16,2
	2	44	12,9	18,8	35,0
	3	45	13,2	19,2	54,3
	4	39	11,4	16,7	70,9
	MOLTISSIMO 5	68	19,9	29,1	100,0
	Total	234	68,6	100,0	
Missing	System	107	31,4		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti le seguenti ragioni per non acquistare abbigliamento di seconda mano. - Scarsa disponibilità di app dedicate

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	63	18,5	26,9	26,9
	2	65	19,1	27,8	54,7
	3	54	15,8	23,1	77,8
	4	30	8,8	12,8	90,6
	MOLTISSIMO 5	22	6,5	9,4	100,0
	Total	234	68,6	100,0	
Missing	System	107	31,4		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti le seguenti ragioni per non acquistare abbigliamento di seconda mano. - Scarsa disponibilità di negozi dedicati

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	32	9,4	13,7	13,7
	2	52	15,2	22,2	35,9
	3	63	18,5	26,9	62,8
	4	57	16,7	24,4	87,2
	MOLTISSIMO 5	30	8,8	12,8	100,0
	Total	234	68,6	100,0	
Missing	System	107	31,4		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti le seguenti ragioni per non acquistare abbigliamento di seconda mano. - È difficile trovare la taglia giusta

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	29	8,5	12,4	12,4
	2	58	17,0	24,8	37,2
	3	61	17,9	26,1	63,2
	4	55	16,1	23,5	86,8
	MOLTISSIMO 5	31	9,1	13,2	100,0
	Total	234	68,6	100,0	
Missing	System	107	31,4		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti le seguenti ragioni per non acquistare abbigliamento di seconda mano. - È difficile trovare abiti alla moda

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	69	20,2	29,5	29,5
	2	69	20,2	29,5	59,0
	3	58	17,0	24,8	83,8
	4	24	7,0	10,3	94,0
	MOLTISSIMO 5	14	4,1	6,0	100,0
	Total	234	68,6	100,0	
Missing	System	107	31,4		
Total		341	100,0		

Statistics

		Quanto spesso leggi le etichette dei vestiti per verificare se sono stati prodotti nel rispetto dell'ambiente ?	Quanto spesso scegli capi che richiedono temperature di lavaggio più basse o una minore stiratura?	Quanto spesso scegli capi che puoi indossare a lungo rispetto a quelli che passano di moda rapidamente?	Come ti comporti di solito con i vestiti che non utilizzi più?	Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - Sono informato sulle problematiche e ambientali dell'industria del fast fashion, come i rifiuti e l'inquinamento causato dall'eccessiva produzione di capi d'abbigliamento	Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - Sono informato sui marchi di abbigliamento o che vendono prodotti di moda eco-compatibili
N	Valid	234	234	233	233	232	232
	Missing	107	107	108	108	109	109
Mean		2,51	2,35	3,61	2,73	3,11	2,58
Median		2,00	2,00	4,00	2,00	3,00	2,50
Std. Deviation		1,271	1,252	1,166	1,003	1,242	1,167
Minimum		1	1	1	1	1	1
Maximum		5	5	5	4	5	5
Percentiles	25	1,00	1,00	3,00	2,00	2,00	2,00
	50	2,00	2,00	4,00	2,00	3,00	2,50
	75	3,00	3,00	4,00	4,00	4,00	3,00

Quanto spesso leggi le etichette dei vestiti per verificare se sono stati prodotti nel rispetto dell'ambiente?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mai	62	18,2	26,5	26,5
	Raramente	67	19,6	28,6	55,1
	A volte	48	14,1	20,5	75,6
	Spesso	37	10,9	15,8	91,5
	Sempre	20	5,9	8,5	100,0
	Total	234	68,6	100,0	
Missing	System	107	31,4		
Total		341	100,0		

Quanto spesso scegli capi che richiedono temperature di lavaggio più basse o una minore stiratura?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mai	77	22,6	32,9	32,9
	Raramente	66	19,4	28,2	61,1
	A volte	34	10,0	14,5	75,6
	Spesso	46	13,5	19,7	95,3
	Sempre	11	3,2	4,7	100,0
	Total	234	68,6	100,0	
Missing	System	107	31,4		
Total		341	100,0		

Quanto spesso scegli capi che puoi indossare a lungo rispetto a quelli che passano di moda rapidamente?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mai	16	4,7	6,9	6,9
	Raramente	28	8,2	12,0	18,9
	A volte	42	12,3	18,0	36,9
	Spesso	93	27,3	39,9	76,8
	Sempre	54	15,8	23,2	100,0
	Total	233	68,3	100,0	
Missing	System	108	31,7		
Total		341	100,0		

Come ti comporti di solito con i vestiti che non utilizzi più?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Cestino	14	4,1	6,0	6,0
	Donazione	114	33,4	48,9	54,9
	Vendita	25	7,3	10,7	65,7
	Cessione ad amici e familiari	80	23,5	34,3	100,0
	Total	233	68,3	100,0	
Missing	System	108	31,7		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - Sono informato sulle problematiche ambientali dell'industria del fast fashion, come i rifiuti e l'inquinamento causato dall'eccessiva produzione di capi d'abbigliamento

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	26	7,6	11,2	11,2
	2	51	15,0	22,0	33,2
	3	65	19,1	28,0	61,2
	4	52	15,2	22,4	83,6
	MOLTISSIMO 5	38	11,1	16,4	100,0
	Total	232	68,0	100,0	
Missing	System	109	32,0		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - Sono informato sui marchi di abbigliamento che vendono prodotti di moda eco-compatibili

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	45	13,2	19,4	19,4
	2	71	20,8	30,6	50,0
	3	72	21,1	31,0	81,0
	4	24	7,0	10,3	91,4
	MOLTISSIMO 5	20	5,9	8,6	100,0
	Total	232	68,0	100,0	
Missing	System	109	32,0		
Total		341	100,0		

Statistics

Indica quanto ne sapevi sulla sostenibilità del mercato di seconda mano prima di leggere il post all'inizio del sondaggio.

N	Valid	231
	Missing	110
Mean		2,70
Median		3,00
Std. Deviation		1,005
Minimum		1
Maximum		5
Percentiles	25	2,00
	50	3,00
	75	3,00

Indica quanto ne sapevi sulla sostenibilità del mercato di seconda mano prima di leggere il post all'inizio del sondaggio.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Per niente	24	7,0	10,4	10,4
	Poco	79	23,2	34,2	44,6
	Moderatamente	80	23,5	34,6	79,2
	Molto	38	11,1	16,5	95,7
	Moltissimo	10	2,9	4,3	100,0
	Total	231	67,7	100,0	
Missing	System	110	32,3		
Total		341	100,0		

Statistics

Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - L'inquinamento atmosferico può verificarsi durante alcuni comuni processi di tintura tessile

Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - Durante il processo di tintura e finitura dei vestiti viene utilizzata molta acqua

N	Valid	231	231
	Missing	110	110
Mean		3,65	3,89
Median		4,00	4,00
Std. Deviation		1,006	1,068
Minimum		1	1
Maximum		5	5
Percentiles	25	3,00	3,00
	50	4,00	4,00
	75	4,00	5,00

Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - L'inquinamento atmosferico può verificarsi durante alcuni comuni processi di tintura tessile

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	2	,6	,9	,9
	2	29	8,5	12,6	13,4
	3	72	21,1	31,2	44,6
	4	73	21,4	31,6	76,2
	MOLTISSIMO 5	55	16,1	23,8	100,0
	Total	231	67,7	100,0	
Missing	System	110	32,3		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - Durante il processo di tintura e finitura dei vestiti viene utilizzata molta acqua

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	4	1,2	1,7	1,7
	2	22	6,5	9,5	11,3
	3	55	16,1	23,8	35,1
	4	64	18,8	27,7	62,8
	MOLTISSIMO 5	86	25,2	37,2	100,0
	Total	231	67,7	100,0	
Missing	System	110	32,3		
Total		341	100,0		

Statistics

<p>Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - Credo che l'acquisto di seconda mano da parte mia contribuirà a ridurre l'inquinamento e a migliorare lo stato dell'ambiente</p>	<p>Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - Credo che l'acquisto di seconda mano da parte mia contribuirà a ridurre lo spreco di risorse naturali</p>	<p>Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - Credo che l'acquisto di seconda mano da parte mia contribuisca alla tutela delle risorse naturali</p>
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N	Valid	230	230	230
	Missing	111	111	111
Mean		3,45	3,46	3,50
Median		3,00	3,00	3,50
Std. Deviation		1,096	1,076	1,069
Minimum		1	1	1
Maximum		5	5	5
Percentiles	25	3,00	3,00	3,00
	50	3,00	3,00	3,50
	75	4,00	4,00	4,00

Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - Credo che l'acquisto di seconda mano da parte mia contribuirà a ridurre l'inquinamento e a migliorare lo stato dell'ambiente

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	11	3,2	4,8	4,8
	2	29	8,5	12,6	17,4
	3	82	24,0	35,7	53,0
	4	61	17,9	26,5	79,6
	MOLTISSIMO 5	47	13,8	20,4	100,0
	Total	230	67,4	100,0	
Missing	System	111	32,6		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - Credo che l'acquisto di seconda mano da parte mia contribuirà a ridurre lo spreco di risorse naturali

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	10	2,9	4,3	4,3
	2	28	8,2	12,2	16,5
	3	84	24,6	36,5	53,0
	4	62	18,2	27,0	80,0
	MOLTISSIMO 5	46	13,5	20,0	100,0
	Total	230	67,4	100,0	
Missing	System	111	32,6		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - Credo che l'acquisto di seconda mano da parte mia contribuisca alla tutela delle risorse naturali

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	6	1,8	2,6	2,6
	2	36	10,6	15,7	18,3
	3	73	21,4	31,7	50,0
	4	67	19,6	29,1	79,1
	MOLTISSIMO 5	48	14,1	20,9	100,0
	Total	230	67,4	100,0	
Missing	System	111	32,6		
Total		341	100,0		

Statistics

		Con quale frequenza ricicli in modo corretto i materiali di scarto prodotti quotidianamente (raccolta differenziata)?	Con quale frequenza eviti di acquistare prodotti di aziende che non rispettano l'ambiente nei loro cicli produttivi?	Quanto spesso acquisti consapevolmente prodotti con imballaggi ridotti o riciclabili?
N	Valid	229	229	229
	Missing	112	112	112
Mean		4,19	2,89	2,94
Median		5,00	3,00	3,00
Std. Deviation		1,078	1,132	1,155
Minimum		1	1	1
Maximum		5	5	5
Percentiles	25	4,00	2,00	2,00
	50	5,00	3,00	3,00
	75	5,00	4,00	4,00

Con quale frequenza ricicli in modo corretto i materiali di scarto prodotti quotidianamente (raccolta differenziata)?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mai	7	2,1	3,1	3,1
	Raramente	15	4,4	6,6	9,6
	A volte	28	8,2	12,2	21,8
	Spesso	57	16,7	24,9	46,7
	Sempre	122	35,8	53,3	100,0
	Total	229	67,2	100,0	
Missing	System	112	32,8		
Total		341	100,0		

Con quale frequenza eviti di acquistare prodotti di aziende che non rispettano l'ambiente nei loro cicli produttivi?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mai	26	7,6	11,4	11,4
	Raramente	64	18,8	27,9	39,3
	A volte	66	19,4	28,8	68,1
	Spesso	55	16,1	24,0	92,1
	Sempre	18	5,3	7,9	100,0
	Total	229	67,2	100,0	
Missing	System	112	32,8		
Total		341	100,0		

**Quanto spesso acquisti consapevolmente prodotti con
imballaggi ridotti o riciclabili?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mai	28	8,2	12,2	12,2
	Raramente	55	16,1	24,0	36,2
	A volte	68	19,9	29,7	65,9
	Spesso	58	17,0	25,3	91,3
	Sempre	20	5,9	8,7	100,0
	Total	229	67,2	100,0	
Missing	System	112	32,8		
Total		341	100,0		

Statistics

		Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - I problemi ambientali incidono non solo sulla generazione attuale, ma anche su quella futura	Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - Lo strumento più importante per combattere i problemi ambientali è un' educazione ambientale efficace	Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - I problemi ambientali si possono risolvere senza grandi cambiamenti nel nostro stile di vita	Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - I problemi ambientali sono i più importanti da risolvere nel nostro Paese	Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - I problemi ambientali non sono una mia responsabilit à
N	Valid	223	223	223	223	223
	Missing	118	118	118	118	118
Mean		4,54	4,34	2,75	3,49	1,76
Median		5,00	5,00	3,00	4,00	1,00
Std. Deviation		,909	,935	1,388	1,052	1,199
Minimum		1	1	1	1	1
Maximum		5	5	5	5	5
Percentiles	25	4,00	4,00	1,00	3,00	1,00
	50	5,00	5,00	3,00	4,00	1,00
	75	5,00	5,00	4,00	4,00	2,00

Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - I problemi ambientali incidono non solo sulla generazione attuale, ma anche su quella futura

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	4	1,2	1,8	1,8
	2	8	2,3	3,6	5,4
	3	16	4,7	7,2	12,6
	4	30	8,8	13,5	26,0
	MOLTISSIMO 5	165	48,4	74,0	100,0
	Total	223	65,4	100,0	
Missing	System	118	34,6		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - Lo strumento più importante per combattere i problemi ambientali è un'educazione ambientale efficace

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	1	,3	,4	,4
	2	13	3,8	5,8	6,3
	3	27	7,9	12,1	18,4
	4	50	14,7	22,4	40,8
	MOLTISSIMO 5	132	38,7	59,2	100,0
	Total	223	65,4	100,0	
Missing	System	118	34,6		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - I problemi ambientali si possono risolvere senza grandi cambiamenti nel nostro stile di vita

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	57	16,7	25,6	25,6
	2	46	13,5	20,6	46,2
	3	46	13,5	20,6	66,8
	4	43	12,6	19,3	86,1
	MOLTISSIMO 5	31	9,1	13,9	100,0
	Total	223	65,4	100,0	
Missing	System	118	34,6		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - I problemi ambientali sono i più importanti da risolvere nel nostro Paese

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	11	3,2	4,9	4,9
	2	21	6,2	9,4	14,3
	3	79	23,2	35,4	49,8
	4	71	20,8	31,8	81,6
	MOLTISSIMO 5	41	12,0	18,4	100,0
	Total	223	65,4	100,0	
Missing	System	118	34,6		
Total		341	100,0		

Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con le seguenti frasi. - I problemi ambientali non sono una mia responsabilità

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PER NIENTE 1	142	41,6	63,7	63,7
	2	33	9,7	14,8	78,5
	3	19	5,6	8,5	87,0
	4	18	5,3	8,1	95,1
	MOLTISSIMO 5	11	3,2	4,9	100,0
	Total	223	65,4	100,0	
Missing	System	118	34,6		
Total		341	100,0		

Statistics

Indica per favore la tua età

N	Valid	222
	Missing	119
Mean		32,8018
Median		25,0000
Std. Deviation		13,76027
Minimum		14,00
Maximum		68,00
Percentiles	25	23,0000
	50	25,0000
	75	39,0000

- **Test**

T-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento di seconda mano. - Riduzione dell'inquinamento legato alla produzione di nuovi abiti	3,63	245	1,193	,076
	Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento di seconda mano. - Utilizzare capi che non hanno ancora terminato il loro ciclo di vita	3,23	245	1,298	,083

Paired Samples Correlations

		N	Correlation	Significance	
				One-Sided p	Two-Sided p
Pair 1	Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento di seconda mano. - Riduzione dell'inquinamento legato alla produzione di nuovi abiti & Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento di seconda mano. - Utilizzare capi che non hanno ancora terminato il loro ciclo di vita	245	,619	,000	,000

Paired Samples Test

		Paired Differences						Significance		
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	One-Sided p	Two-Sided p
					Lower	Upper				
Pair 1	Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento di seconda mano. - Riduzione dell'inquinamento legato alla produzione di nuovi abiti - Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento di seconda mano. - Utilizzare capi che non hanno ancora terminato il loro ciclo di vita	,400	1,092	,070	,263	,537	5,735	244	,000	,000

Paired Samples Effect Sizes

Pair 1	Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento di seconda mano. - Riduzione dell'inquinamento legato alla produzione di nuovi abiti - Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento di seconda mano. - Utilizzare capi che non hanno ancora terminato il loro ciclo di vita	Cohen's d	Standardizer ^a	Point Estimate	95% Confidence Interval	
					Lower	Upper
			1,092	,366	,237	,495
		Hedges' correction	1,093	,366	,236	,495

a. The denominator used in estimating the effect sizes.

Cohen's d uses the sample standard deviation of the mean difference.

Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

Oneway

Descriptives

Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento di seconda mano. - Ragioni economiche

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Diploma	61	3,48	1,361	,174	3,13	3,82	1	5
Laurea o titolo equivalente	116	3,34	1,179	,109	3,12	3,55	1	5
Post-laurea o equivalente	46	2,89	1,320	,195	2,50	3,28	1	5
Total	223	3,28	1,272	,085	3,11	3,45	1	5

Tests of Homogeneity of Variances

		Levene	df1	df2	Sig.
		Statistic			
Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento di seconda mano. - Ragioni economiche	Based on Mean	2,006	2	220	,137
	Based on Median	,795	2	220	,453
	Based on Median and with adjusted df	,795	2	211,765	,453
	Based on trimmed mean	1,845	2	220	,160

ANOVA

Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento di seconda mano. - Ragioni economiche

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9,644	2	4,822	3,035	,050
Within Groups	349,558	220	1,589		
Total	359,202	222			

ANOVA Effect Sizes^{a,b}

		Point Estimate	95% Confidence Interval	
			Lower	Upper
Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento di seconda mano. - Ragioni economiche	Eta-squared	,027	,000	,076
	Epsilon-squared	,018	-,009	,068
	Omega-squared Fixed-effect	,018	-,009	,067
	Omega-squared Random-effect	,009	-,005	,035

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.

b. Negative but less biased estimates are retained, not rounded to zero.

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento di seconda mano. - Ragioni economiche
Tukey HSD

(I) Indica il tuo livello di istruzione più alto (compreso quello che stai conseguendo attualmente).	(J) Indica il tuo livello di istruzione più alto (compreso quello che stai conseguendo attualmente).	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Diploma	Laurea o titolo equivalente	,139	,199	,765	-,33	,61
	Post-laurea o equivalente	,584*	,246	,048	,00	1,16
Laurea o titolo equivalente	Diploma	-,139	,199	,765	-,61	,33
	Post-laurea o equivalente	,445	,220	,108	-,07	,96
Post-laurea o equivalente	Diploma	-,584*	,246	,048	-1,16	,00
	Laurea o titolo equivalente	-,445	,220	,108	-,96	,07

*. The mean difference is significant at the 0.05 level.

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Indica su una scala da 1 (per niente) a 5 (moltissimo) quanto sono importanti i seguenti motivi nella scelta di acquistare abbigliamento di seconda mano. - I miei coetanei acquistano abiti simili
Tamhane

(I) Indica il tuo livello di istruzione più alto (compreso quello che stai conseguendo attualmente).	(J) Indica il tuo livello di istruzione più alto (compreso quello che stai conseguendo attualmente).	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Diploma	Laurea o titolo equivalente	,572*	,203	,017	,08	1,06
	Post-laurea o equivalente	,628*	,227	,020	,08	1,18
Laurea o titolo equivalente	Diploma	-,572*	,203	,017	-1,06	-,08
	Post-laurea o equivalente	,056	,171	,983	-,36	,47
Post-laurea o equivalente	Diploma	-,628*	,227	,020	-1,18	-,08
	Laurea o titolo equivalente	-,056	,171	,983	-,47	,36

*. The mean difference is significant at the 0.05 level.

- Regression Models

Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Sa_Age_NC, Gender, SA*Gender, SA, Indica per favore la tua età ^b	.	Enter

a. Dependent Variable: Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con la seguente frase. - È molto probabile che acquisterò abiti di seconda mano in futuro

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,452 ^a	,205	,186	1,229

a. Predictors: (Constant), Sa_Age_NC, Gender, SA*Gender, SA, Indica per favore la tua età

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	82,766	5	16,553	10,965	,000 ^b
	Residual	321,563	213	1,510		
	Total	404,329	218			

a. Dependent Variable: Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con la seguente frase. - È molto probabile che acquisterò abiti di seconda mano in futuro

b. Predictors: (Constant), Sa_Age_NC, Gender, SA*Gender, SA, Indica per favore la tua età

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-,097	1,151		-,085	,933		
	SA	1,261	,358	,644	3,521	,001	,112	8,967
	Gender	,116	,190	,039	,608	,544	,898	1,114
	Indica per favore la tua età	,036	,028	,370	1,305	,193	,046	21,527
	SA*Gender	,111	,278	,047	,397	,692	,262	3,817
	Sa_Age_NC	-,018	,009	-,667	-2,093	,037	,037	27,215

a. Dependent Variable: Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con la seguente frase. - È molto probabile che acquisterò abiti di seconda mano in futuro

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions					
				(Constant)	SA	Gender	Indica per favore la tua età	SA*Gender	Sa_Age_NC
1	1	4,600	1,000	,00	,00	,01	,00	,00	,00
	2	,988	2,158	,00	,00	,00	,00	,25	,00
	3	,250	4,291	,00	,00	,82	,00	,00	,00
	4	,148	5,571	,01	,01	,12	,01	,00	,01
	5	,013	18,879	,07	,09	,04	,15	,69	,17
	6	,002	52,044	,92	,90	,00	,84	,06	,82

a. Dependent Variable: Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con la seguente frase. - È molto probabile che acquisterò abiti di seconda mano in futuro

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	SA*Age, Gender, Age centered, SA*Gender, SA centered ^b	.	Enter

a. Dependent Variable: Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con la seguente frase. - È molto probabile che acquisterò abiti di seconda mano in futuro

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,452 ^a	,205	,186	1,229

a. Predictors: (Constant), SA*Age, Gender, Age centered, SA*Gender, SA centered

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	82,766	5	16,553	10,965	,000 ^b
	Residual	321,563	213	1,510		
	Total	404,329	218			

a. Dependent Variable: Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con la seguente frase. - È molto probabile che acquisterò abiti di seconda mano in futuro

b. Predictors: (Constant), SA*Age, Gender, Age centered, SA*Gender, SA centered

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3,236	,160		20,259	,000		
	SA centered	,677	,237	,346	2,861	,005	,256	3,912
	Gender	,116	,190	,039	,608	,544	,898	1,114
	Age centered	-,020	,006	-,201	-3,219	,001	,961	1,041
	SA*Gender	,111	,278	,047	,397	,692	,262	3,817
	SA*Age	-,018	,009	-,130	-2,093	,037	,966	1,035

a. Dependent Variable: Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con la seguente frase. - È molto probabile che acquisterò abiti di seconda mano in futuro

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions					
				(Constant)	SA centered	Gender	Age centered	SA*Gender	SA*Age
1	1	2,046	1,000	,03	,03	,03	,00	,04	,01
	2	1,688	1,101	,05	,03	,04	,00	,03	,02
	3	1,057	1,391	,00	,00	,00	,58	,00	,31
	4	,899	1,509	,00	,01	,00	,38	,00	,65
	5	,199	3,204	,34	,26	,41	,01	,32	,00
	6	,111	4,301	,58	,67	,52	,03	,61	,01

a. Dependent Variable: Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con la seguente frase. - È molto probabile che acquisterò abiti di seconda mano in futuro

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Indica per favore la tua età, SA, Indica per favore il tuo sesso ^b	.	Enter

a. Dependent Variable: Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con la seguente frase. - È molto probabile che acquisterò abiti di seconda mano in futuro

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.437 ^a	.191	.180	1.229

a. Predictors: (Constant), Indica per favore la tua età, SA, Indica per favore il tuo sesso

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.437 ^a	.191	.180	1.229

a. Predictors: (Constant), Indica per favore la tua età, SA, Indica per favore il tuo sesso

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	77.585	3	25.862	17.133	<.001 ^b
	Residual	329.064	218	1.509		
	Total	406.649	221			

a. Dependent Variable: Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con la seguente frase. - È molto probabile che acquisterò abiti di seconda mano in futuro

b. Predictors: (Constant), Indica per favore la tua età, SA, Indica per favore il tuo sesso

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.613	.471		3.425	<.001
	SA	.735	.120	.380	6.131	<.001
	Indica per favore il tuo sesso	.027	.160	.011	.171	.865
	Indica per favore la tua età	-.020	.006	-.203	-3.305	.001

a. Dependent Variable: Indica su una scala da 1 (per niente) a 5 (moltissimo) la misura in cui sei d'accordo con la seguente frase. - È molto probabile che acquisterò abiti di seconda mano in futuro

SUMMARY

Introduction

Second-hand shopping refers to buying goods that were previously owned by others (Roux and Guiot, 2008). Customers are the main partners and suppliers in the second-hand fashion business model, which aims to reduce resource usage and waste. The second-hand market contributes to the circular economy, in which loops of the material decrease the flow of resources and waste (Geissdoerfer et al., 2017). Reuse is one approach to do this. This study aims to test if making people aware of the sustainability of the second-hand market, would increase their willingness to buy. Moreover, this study aims to assess whether the effect of sustainability awareness on willingness to buy depends on age and gender. The study will be conducted by adopting a within-subject design. In order to collect the necessary data, participants will be asked a questionnaire. Participants will be randomly presented with a post with an image and a text containing information about the sustainability of the second-hand fashion market. After reading the text, participants will be asked about their willingness to buy second-hand items, their awareness of the environmental impact of the fashion industry, and their knowledge of the sustainability of the second-hand market. Next, participants will be asked sociodemographic questions, other ones aimed at understanding what factors influence second-hand market purchases, questions about the value placed on sustainability, and questions to understand purchasing habits.

Literature Review

Sustainability encompasses behaviors that can be carried on indefinitely without harming the environment, treating others as you would like to be treated, and taking into account the demands of the present generation without compromising those of future ones. (Zhang Bo et al., 2021). According to Elkington (1997), companies should consider these three pillars in a coordinated way

to address their sustainable development, specifically: *environmental sustainability*: to preserve energy sources and biodiversity; *economic sustainability*: to use resources in an efficient and respectful way while making profits for a better life; *social sustainability*: to adopt working practices that preserve the dignity of its employees for poverty reduction.

When discussing the circular economy, refers to a new economic framework that is penetrating the daily lives of companies and consumers day by day. It is a model that is undergoing a major evolution and represents the foundations of a sustainable future. The concept of 'end-of-life' disappears when considering the circular economy and looking at an economic system that is based on the reduction, reuse, and recycling of materials in production, distribution, and consumption processes (Kirchherr Julian et al., 2017). In this regard, customers are becoming more and more interested in the circular economy, particularly those who are concerned about the environment and try to consume and shop in a responsible and sustainable way. But what does it mean to make responsible and sustainable purchases?

Sustainable consumption is the ongoing practice of restraint of desire by avoidance of lavish purchases and deliberate consumption of products and services that meet essential needs. It emphasizes the importance of a good quality of life over materialistic standards, suggests focusing on meeting basic human needs rather than the desire for "wants" and luxuries, and shows concern for safeguarding and preserving natural resources (by reducing resource use, waste, and pollution) so that they will be available to future generations (Quoquab Farzana et al., 2020). In this regard, it is interesting to examine the topic of sustainable consumption within the fashion industry and explore the motivations for choice and consequences of fast fashion.

The world of fashion has always represented the object of consumer desire. It is an industry with complex dynamics, but it has always been a mirror of society.

The fashion industry has seen an incredible evolution, starting from artisanal tailors to establishing truly multinational corporations. In this regard, it has taken on significant complexity, given by very long production and supply chains and many players involved. Clearly, excessive resource utilization, consumption, and short product life span have generated a number of negative impacts on society, constituting a business model that is not very efficient in the long run. In fact, according to Gabriel and Luque (2020), one of the industries with the greatest global water consumption and pollution rates is Fashion. In fact, it is about the excessive use of chemical agents, and water in the production chain, as well as worrisome labor situations involving exploitation and wages. It is

enough to think that in Europe, about 12 million tons of clothing end up in landfills each year, equivalent to 80 kg per person (Luca Coscieme et al, 2022). However, this number can vary greatly by country.

Considering the environmental impact caused by fast fashion, there are key critical areas such as water pollution, greenhouse gas emissions, textile waste, and resource consumption. . At this point, it is important to define the concept of “sustainable fashion” and its implications for "new" markets and more conscious consumption. The concept of sustainable fashion involves ethical practices, durability, and the reuse of products, however, there is currently no industry standard definition for it. The primary goal of the sustainable fashion movement is to dramatically reduce global apparel production and consumption (Flower, G.,2009; Kutsenkova, Z., 2017). In order to reduce waste and resource consumption, sustainable manufacturing mostly entails substituting toxic chemicals with ecologically acceptable materials and recycling used garments (Flower, G.,2009; Kutsenkova, Z., 2017).

According to Felson and Spaeth (1978), Collaborative Consumption (CC) is the act of consuming economic commodities or services while engaging in joint activities with one or more others. Möhlmann (2015, p. 194) expands on this definition by referring to it as a structured network or system where sharing activities, such as renting, lending, trading, bartering, and swapping of goods, services, transportation options, space, or money, take place, but excludes sharing activities that do not involve payment (Möhlmann, 2015; Gopalakrishnan et al., 2018). These forms of consumption were divided into three systems by Botsman and Rogers (2011): collaborative lifestyle, redistribution markets, and product service systems. However, this thesis will focus exclusively on the redistribution market (RM) system within CC, which involves the selling of used goods with or without monetary exchange. RM provides a solution to the textile industry's growing problem of increased waste by promoting the reuse and resale of old products instead of disposing of them. Among the various declinations that fashion has taken over time, there has always been the second-hand market. The second-hand fashion market is about the consumption of items that have already been used by someone in the past. These items are exchanged through so-called "second-hand" stores, which are invaluable resources for selling unique and quality products (Thamoda Geegamage et al, 2021). Even if 95% of the materials used to make garments might be recycled, only 1% of them actually are (Atstja et al., 2021). According to the US Environmental Protection Agency, almost 10 million tonnes of textiles and clothing are disposed

of or burned each year because it is more economical for fashion retailers and labels to do so. Reuse is a strategy to reduce waste, and these actions are driven by sustainable proposals (Geissdoerfer et al., 2017). In this setting, "slow fashion" has gained prominence in contrast to fast fashion sold by large shops by shifting mindsets from quantity to quality (Vehmas et al., 2018). As consumers got more conscious of their own behavior and began to pay attention to how to dispose of their old garments and minimize their consumption of fashion, the fashion companies started exploring for options to recycle its products and receive used products.

Consumers' perceptions of sustainable consumption in the fashion industry are influenced by factors such as affordability, trendiness, frugality, nostalgia, originality, and social interaction. Fast fashion retailers use strategies to create a sense of urgency and a hedonistic buying experience. However, there is a growing interest in purchasing used clothing as a sustainable choice, driven by fair prices, frugality, and the enjoyment of treasure-seeking and nostalgia. Concerns about hygiene, fear of the unknown, and the desire for status can discourage consumers from buying used fashion. There is often a gap between consumers' intentions and actual behavior, highlighting the importance of communication and establishing social norms to promote sustainable consumption. Overall, promoting awareness, accessibility, and addressing consumer concerns are key in encouraging sustainable consumption in the fashion industry. Fashion companies are exploring sustainability by focusing on upstream and downstream elements of the value chain. Some brands have implemented downstream initiatives like resell/reuse platforms to extend the life of clothing and maximize its value. Examples include Filippa K, Boomerang, Patagonia, H&M, and Levi's. These initiatives allow customers to sell or donate used clothing, which is then resold, recycled, or reused. However, the fashion industry still faces challenges in achieving a fully circular system due to regulatory issues, logistical constraints, limited resources, and a lack of comprehensive solutions and suitable infrastructure. While there are positive examples, the industry as a whole has a long way to go in achieving sustainability.

Hypothesis Development

This Master's thesis aims to examine the role of sustainability in the fashion industry, specifically in the second-hand market. The study focuses on consumers' sustainability awareness and its impact on their willingness to buy second-hand fashion. The research also explores the moderating role of age and gender on the relationship between sustainability awareness and willingness to buy. Regarding age, it is hypothesized that younger consumers, influenced by increased exposure to sustainability issues and a greater inclination towards sustainable practices, will exhibit a positive moderating effect. On the other hand, older consumers may show a negative moderating effect due to their lower familiarity with online platforms and the second-hand market, as well as established purchasing preferences and resistance to change.

In terms of gender, it is hypothesized that gender will have a positive moderating effect. This suggests that the relationship between sustainability awareness and willingness to buy will be stronger among women compared to men. Previous research supports this hypothesis, indicating that women tend to be more sensitive to environmental issues and more engaged in sustainable consumption practices.

By exploring these moderating factors, the study aims to deepen our understanding of the influence of sustainability awareness on consumer behavior in the second-hand fashion market.

Sustainability Awareness

Sustainability awareness in the fashion industry refers to consumers' understanding and consciousness of the environmental and social impacts of their fashion choices, specifically in relation to second-hand clothing. It involves knowledge of the benefits of sustainable practices and the need to address climate change and unethical brands. Higher education institutions play a role in promoting sustainability awareness. Consumers who are aware of sustainability issues are more likely to hold pro-environmental beliefs and make environmentally conscious purchasing decisions. The goal is to increase awareness of the consequences of clothing purchases and the importance of supporting ethical brands to preserve natural resources. So it can be stated that:

H1: *If people were more informed about the sustainability of the second-hand fashion market their willingness to buy would increase.*

Age

Age is a factor that can influence the relationship between sustainability awareness and willingness to buy in the second-hand clothing market. Younger generations, such as Millennials and Gen Z, are more knowledgeable about sustainability and more inclined to engage in eco-friendly activities like purchasing used clothing. They prioritize the environmental benefits, affordability, and uniqueness of second-hand items. In contrast, older generations may have different attitudes and reasons for their clothing choices, which may be less focused on sustainability. Economic concerns, personal fashion preferences, and cultural conventions play a greater role for them. Older shoppers may be less open to embracing the second-hand market due to taboos and a perception that sustainability is more relevant to younger generations. This suggests that age can impact people's willingness to participate in the second-hand market. Taking into consideration these previous findings, it can be expected that:

H2: *If people were more informed about the sustainability of the second-hand fashion market, their willingness to buy would increase, and this relation would be negatively moderated by the age of consumers.*

Gender

Gender plays a significant role in shaping individuals' attitudes and behaviors towards sustainability in the context of the second-hand fashion market. Cultural norms, societal expectations, and personal identity related to gender influence how people perceive, are motivated by, and feel about sustainable fashion. Women are often more environmentally conscious and socially responsible than men, which can result in a higher willingness to engage in sustainable practices such as purchasing used clothing. Societal pressure and expectations about fashion may make women more aware of sustainability issues and drive their desire to promote sustainability through their purchasing choices. On the other hand, men may have different societal expectations

and standards around fashion, which can impact their awareness of sustainability and their willingness to adopt second-hand clothing. Understanding the interplay between gender and sustainability awareness is essential for developing strategies that effectively promote sustainable fashion practices across different gender groups. Thus, it can be stated that:

H3: *If people were more informed about the sustainability of the second-hand fashion market, their willingness to buy would increase, and this relation would be positively moderated by the gender of consumers.*

Methodology

In order to observe the effect on willingness to buy of sustainability awareness of the second – hand fashion market and to observe whether age and gender moderate the relationship, a quantitative methodology was adopted. The questionnaire was developed through Qualtrics, and the data were analyzed using SPSS. The survey presented single condition for all participants simulating a typical social media post, with an image and a short caption, concerning the sustainability of the second-hand market. In particular, an image was presented with the slogan “second-hand is sustainable” and the circular economy symbol consisting of trousers. Below the image was an informative caption aimed at conveying the positive impact that the second hand fashion market has on the environment and sustainability in general.

In order to conduct the analysis, an experiment was conducted through a within-subject design. It provided evidence that a cause-and-effect relationship exists between the chosen variables as shown in the conceptual model above. Specifically, the participants were presented with a scenario and then asked survey questions. In addition, the survey presented single condition for all participants, that were not previously informed of the objective of the research, nor of the possibility to see the scenario. The questionnaire was edited with Qualtrics in order to get primary data. The survey was made of 21 questions (all pre-validated scales) mainly using a five points Likert scale as a measure of the answers, but also some multiple questions. After the presentation of the scenario, participants were presented with questions to test the research hypothesis.

All constructs were adapted from previous research with minor modifications. Because the sample only includes Italian respondents, all scales and questionnaire items were given in Italian.

Once a certain number of responses to the survey had been obtained, data analysis through SPSS was carried out, which will be explained in the following paragraphs.

First of all, univariate descriptive analysis of the variables under study was done by calculating the indices of centrality and variability for the quantitative variables and frequency tables for the qualitative variables. Subsequently, it was considered interesting, before proceeding with the analysis of the main models, to investigate secondary relationships between the variables, which could add value to the research. In particular, a paired-sample t-test and an ANOVA were carried out in order to investigate and compare the motivations that drive consumers to buy from the second-hand fashion market. In conclusion, in order to test the assumptions built on the conceptual framework, hence:

- The relationship between the dependent variable (willingness to buy) and the independent variable (sustainability awareness), with age and gender as control variables;
- The moderation model, with the dependent variable (willingness to buy), and the independent variable (sustainability awareness), age and gender as moderators.
- Multiple linear regressions analysis were conducted. In order to test the hypotheses, the sustainability awareness variable was created on SPSS, consisting of its eleven items (pre-validated scales described above), for which a reliability analysis was carried out, which will be described in the appropriate section.

A total of 223 Italian people, recruited via email, Whatsapp and Instagram stories using a convenience sample, composed the final dataset, and as respondents were chosen on the basis of the ease of achievement, therefore results may not be entirely representative. The sample used is a convenience sample, The sample was categorized according to socio-demographic variables.

Looking at demographic data, most of the sample were women (68,2%) and the sample was mainly composed by students between 18 and 24 years old. The most frequent levels of education are “Laurea” (52%) and “Diploma” (27.4%). Moreover, the sample has an average age of about 33

It is important to notice that the likeliness to buy second-hand clothes in future for the respondents is quite good (26,4% rated 5) and they are mostly women.

On average, *people are more knowledgeable about the environmental issues of the fast fashion industry, such as waste and pollution caused by the overproduction of clothing than about clothing brands that sell eco-friendly fashion products.* The sentence on the consequences of buying second-hand clothes with which respondents, on average, found themselves most in agreement with is “I believe that my second-hand purchase contributes to the conservation of natural resources”. The sample was on average more in agreement with the statement “-Environmental problems affect not only the current generation, but also the future one” and with “*The most important tool to combat environmental problems is effective environmental education*” . Therefore, *it is interesting to notice that the score of "Environmental problems are not my responsibility" is quite low (mean=1.76, median=1).*

The last important consideration for this part of the analysis is that most of the sample knew little (34.2%) or moderately (34.6%) about sustainability before the survey.

Tests were carried out to analyse any interesting relationships between the variables. In particular it was considered interesting, before proceeding with the analysis of the main models, to investigate secondary relationships between the variables, which could add value to the research. After studying several relations, it was possible to identify the most interesting ones about the reasons why survey participants buy second-hand clothing. In particular, it has been computed a *paired-sample t-test*. This test is used to compare the means of two variables taken from the same sample of units and verifies whether there is a statistically significant difference in the means of the two scale variables, in this case the variable: “Reduction of pollution” and “Garments that have not yet finished their life cycle”. The null hypothesis of the paired-samples t-test is that the means of the two variables are equal, while the alternative hypothesis is that these means differ significantly in population.

It has rejected the null hypothesis of equal means, concluding that the means are significantly different if the p-value is less than 0.05.

It is possible to note how the average of the variable “Reduction of pollution” seems to be greater than the mean of the variable “Garments that have not yet finished their life cycle”, however, to determine whether or not this difference is statistically significant it was necessary to carry out the test. The test is statistically significant (p-value<0.001) therefore it was possible to reject the null

hypothesis that the two means are equal and conclude that, on average, reducing pollution was a significantly greater motivation than using garments that did not finish their life cycle.

For the same reasons, it was computed the ANOVA test to verify if there is a significant difference among the education levels for the variable “Economic reasons”. Moreover, the highest average score given to the financial reasons corresponds to the level of education “Diploma” and the lowest average score corresponds to the level of education “Post-laurea”. Then, the test for the *homogeneity of the variance* isn’t statistically significant ($p\text{-value} > 0.05$), hence it can be possible to use the classic ANOVA test since the assumption is verified. The ANOVA has a 0.05 p-value, so the post-hoc test was done to compare all the possible levels of education. There is a statistically significant difference in the score given to the variable “Economic reasons” between the level of education Diploma and the Post-Laurea one. In particular, is more important for people with Diploma as levels of education. It repeated the procedure using the variable “My peers buy similar clothes “. It is noticeable that the people who consider more important this aspect are the ones with the level of education “Diploma”. The *test of homogeneity of variance* is statistically significant ($p\text{-value} < 0.001$), hence the null hypothesis of homogeneity of variance was rejected, and the robust version of the ANOVA test was done. The *Brown-Forsythe* robust test is statistically significant ($p\text{-value} < 0.005$) hence at least one educational level has an average score for the dependent variable significantly different. It is possible to use the post hoc test to verify where this difference is. The pairs with significant differences in terms of “My peers buy similar clothes” are Diploma and Laurea, and Diploma and Post-laurea. In both cases is significantly higher for the level of education Diploma.

Finally, the hypothesis that sustainable awareness influences the willingness to buy second-hand clothes and that this relationship is moderated by age and gender are tested.

The first step is to create the sustainable awareness variable on SPSS using its eleven questions. It is necessary to check the *reliability* of these items. The Cronbach's alpha is considered to do this analysis. The Cronbach’Alpha is *optimal* hence it can be created a construct (Sustainable awareness) using all its items.

The moderation model can be analyzed using a *multiple linear regression* entering the product of the independent variables and the moderator (interaction). The model needs to considering also the single moderator. The first step is to mean-center, i.e. subtract the mean, the quantitative variables sustainable awareness and age. This procedure is needed to avoid multicollinearity

problems. It is reported the collinearity statistic without the mean centering and it is noticeable that the VIF index is higher than the maximum acceptable value of 5. From this model, it is interesting to analyse the effect of the independent variable Sustainability Awareness centered and of the interaction of this variable with Age centered and Gender.

Sustainability Awareness centered results statistically significant (p-value <0.05). The coefficient is positive (0.677) hence *when sustainable awareness centered increases the dependent variable (willingness to buy) increase too*. Specifically, for each unit increment in Sustainability Awareness centered there is an increment of 0.677 in the dependent variable.

Regarding the moderation, Gender isn't significant (p-value>0.05) while Sustainability Awareness*Age is significant (p-value<0.05) and negative (-0.018). Hence, when the Age centered increases the effect of Sustainability Awareness centered on willingness to buy decreases. The model explains about 20% of the overall variability of the phenomenon.

In order to analyse the relation between Sustainability Awareness and Willingness to buy it has been used a *multiple linear regression* . In this case, Age and Gender are the control variables.

From the multiple linear regression model, it is interesting to analyse the effect of the independent variable Sustainability Awareness on the dependent variable Willingness to Buy.

Sustainability Awareness results statistically significant (p-value <0.05). The coefficient is positive (0.735) hence *when sustainable awareness increases the dependent variable (willingness to buy) increase too*. Specifically, for each unit increment in Sustainability Awareness there is an increment of 0.735 in the dependent variable.

Considering the control variables, the study shows that Age (p-value <0.05) influence the Sustainability Awareness, despite of Gender that is not significant (p-value > 0.05).

The objective of this thesis is to verify the hypothesis present in the conceptual model. Supporting H1, the p - value that results from the multiple linear regression for sustainability awareness was significant (p-value <0.05), and considering coefficient is positive (0.735) hence *when sustainable awareness increases the willingness to buy (dependent variable) increase too*. Therefore, **H1 is verified**. Supporting H2, moderation analysis shows that Age is significant (p-value<0.05) and negative (-0.018). Hence, when the age increases the effect of sustainability awareness on the willingness to buy decreases. *This result shows that indeed younger people show a greater knowledge of sustainability and a greater propensity to buy more from the second-hand fashion market*. On the contrary, with advancing age we notice a lower sensitivity to these topics and a

lower propensity to buy second-hand fashion goods. Hence, **H2 is verified**. Regarding H3, moderation analysis shows that Gender is not significant ($p\text{-value} > 0.05$) and the expected effect of gender on the relationship between sustainability awareness and willingness to buy does not verify what is predicted. Thus, **H3 is rejected**.

General Discussion and Conclusions

The analysis conducted in this study reveals interesting insights regarding consumer behavior in the second-hand fashion market when they are aware of its sustainability. The findings confirm that when consumers have sustainability awareness, they are more likely to purchase second-hand fashion items. Previous studies have also highlighted the positive impact of informing consumers about the environmental and social benefits of second-hand clothing consumption. Furthermore, the research explores the moderating effects of age and gender on the relationship between sustainability awareness and willingness to buy. It reveals that as the age of consumers increases, the effect of sustainability awareness on willingness to buy decreases. However, the expected moderating effect of gender was not found to be significant. The study also uncovers additional relationships between variables. It highlights that concerns about hygiene and misinformation are reasons why some consumers do not buy second-hand items. On the other hand, economic reasons stand out as motivations for purchasing second-hand clothing, particularly among consumers with lower levels of education. It is crucial to educate people about the environmental issues associated with the fast fashion industry and increase their knowledge about eco-friendly fashion products.

From a managerial and marketing perspective, businesses in the fashion sector can adopt various strategies to promote sustainable practices in the second-hand fashion market. These include promoting recycling and reuse, developing repair and reconditioning programs, partnering with second-hand fashion platforms, adopting sustainable materials, and transparently communicating sustainability efforts. Marketing strategies can focus on education and awareness, storytelling, collaborations with influencers and experts, and creating engaging shopping experiences. Considering the age factor, targeting older generations may require using traditional communication channels such as newspapers, television, and billboards to provide information about the sustainability of the second-hand market. Engaging younger generations, who are more

sensitive to sustainability issues, can also play a role in influencing their parents' purchasing behaviors. Policymakers also have a significant role to play in disseminating information about the consequences of fast fashion, promoting incentives for buying sustainable products, and supporting initiatives aimed at sustainability. Gamification is another potential approach to engage consumers and educate them about purchasing second-hand goods. It involves incorporating game elements and mechanics into non-game contexts to motivate sustainable consumption behaviors. However, ethical considerations should be taken into account to ensure gamification aligns with sustainability goals. Overall, the research contributes to identifying the direction that companies and policymakers should follow to promote sustainability and protect environmental resources in the fashion industry, which still has a long way to go in becoming a circular system.

While this study offers valuable insights into consumer behavior in the second-hand fashion market and its sustainability, there are several limitations that could be addressed in future research. It would be interesting to monitor new studies, initiatives by companies and policymakers to further investigate consumer behavior in this evolving market. Firstly, the study's sample consisted only of respondents from Italy. Including participants from different nationalities would be beneficial to examine if the findings are similar across countries or if there are variations based on nationality. Secondly, the sample size of 223 participants could be increased to obtain a larger dataset, which would enhance the reliability and generalizability of the results. More responses would provide additional support or potentially lead to different conclusions. Thirdly, using different types of stimuli, such as real videos or photographs, instead of just text descriptions and images, could have a more significant impact on participants' responses and engagement.

Additionally, qualitative research methods like interviews or focus groups could be employed to gather qualitative data and gain deeper insights into consumer behavior. Participants' perspectives and concerns could provide further understanding of the reasons behind their purchasing decisions. Future research could also focus on studying specific types of products in the second-hand fashion market, exploring different approaches by brands. Furthermore, investigating the effectiveness of interventions by policymakers, particularly the use of gamification, could be a valuable area of exploration.

By addressing these limitations and exploring these areas of research, future studies can contribute to a more comprehensive understanding of consumer behavior in the second-hand fashion market and inform effective strategies for sustainable practices.