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Sustainable alternatives to purchase in the fashion industry: a customer profile analysis

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Ai miei nonni

Alla mia Luna

ABSTRACT

This thesis examines sustainable alternatives to purchase in the fashion industry, with a focus on renting. The fashion industry, especially fast fashion, is one of the most polluting sectors globally. Traditional consumption practices, based on buying new garments, are unsustainable in the long run, making it urgent to adopt innovative solutions to mitigate these effects. Renting appears to be a promising practice that can reduce over-consumption and promote sustainability. In this context, it was explored whether renting clothing could really be a valid solution to counteract the fast fashion phenomenon, by identifying the characteristics of individuals favourable to this practice. Therefore, the research question that this thesis aims to answer is "What are the characteristics that define the ideal customer profile for a business model based on the rental of clothes?".

To answer the research question, an exploratory approach was adopted, involving initial administration of a survey to collect the data that was later used to obtain the cluster analysis. The analysis has generated two clusters one more favourable and one less favourable to the renting. The characteristics of potential customers in the cluster most favourable to the renting option are: younger age, employed women, high brand interest, and moderate interest in the sustainability benefits of the rental service.
Initial conclusions from the analysis suggest that customers interested in renting are primarily motivated by the desire to possess garments of a specific brand, while promoting sustainability through renting seems to be a secondary consideration.

This thesis contributes to a better understanding of the characteristics of potential customers interested in renting, providing insights for companies wishing to introduce or enhance rental services in their business model. These insights enable a more accurate customers targeting thereby optimising organizations' activities and potentially increasing profits.

Implications for business practice are discussed in the final section together with the study limitations and suggestions for future research.

Questa tesi esamina le alternative sostenibili all'acquisto nel settore della moda, con particolare attenzione al noleggio. L'industria della moda, in particolare il fast fashion, è uno dei settori più inquinanti a livello globale. Le pratiche di consumo tradizionali, basate sull'acquisto di nuovi indumenti, sono insostenibili nel lungo periodo, rendendo quindi urgente adottare soluzioni innovative per mitigare questi effetti. Il noleggio sembra essere una pratica promettente che può ridurre il consumo eccessivo e promuovere la sostenibilità. In questo contesto, si è indagato se il noleggio nell'ambito dell'abbigliamento potesse davvero essere una valida soluzione per contrastare il fenomeno del fast fashion, identificando le caratteristiche degli individui favorevoli a questa pratica. Pertanto, la domanda di ricerca che questa tesi mira a rispondere è "Quali sono le caratteristiche che definiscono il profilo cliente ideale per un modello di business basato sul noleggio di abiti?".

Per rispondere alla domanda di ricerca, è stato adottato un approccio esplorativo, che prevede la somministrazione iniziale di un sondaggio per raccogliere i dati che sono stati successivamente utilizzati per ottenere l'analisi dei cluster. L'analisi ha generato due cluster uno più favorevole e uno meno favorevole al noleggio. I potenziali consumatori del cluster più favorevole all'opzione del noleggio sono: età giovane, donne con un'occupazione, elevato interesse per il marchio e moderato interesse per i benefici del servizio di noleggio in termini di sostenibilità.
Le prime conclusioni dell'analisi suggeriscono che i consumatori interessati al noleggio sono motivati principalmente dal desiderio di possedere capi di uno specifico marchio, mentre la promozione della sostenibilità attraverso il noleggio sembra essere una considerazione secondaria.

Questa tesi contribuisce a comprendere meglio le caratteristiche di potenziale clienti interessati al noleggio, fornendo spunti alle aziende che desiderano introdurre o migliorare i servizi di noleggio nel loro modello di business. Questi spunti consentono un targeting più accurato dei clienti, ottimizzando così le attività delle organizzazioni e aumentando potenzialmente i profitti.

Le implicazioni per le pratiche di business sono discusse nella sezione finale, insieme alle limitazioni dello studio e ai suggerimenti per la ricerca futura.

TABLE OF CONTENT

1. INTRODUCTION

For some years now, there has been a growing realisation that it is necessary to develop sustainability, taking all necessary measures to protect our planet, the people living on it, but also the economy.

There are several reasons why sustainability has become increasingly important: climate change, the growing awareness of the finite nature of natural resources, the increasing policies implemented by companies, which are now no longer only assessed for their economic performance but also for their social responsibility, as well as consumer demand for ecological and ethical products, and finally the regulations and policies introduced by various governments. Sustainability has become a global priority and we must all strive to adopt and implement innovative strategies so that we can ensure a sustainable future for our planet and future generations.

One of the most polluting sectors that is damaging our planet almost irreparably is the fashion industry. The advent of fast fashion has led consumers to want to have more and more, constantly buying clothes so that they can change their look very often to be fashionable, not realising how damaging this is and fuelling the consumerism that we have today.

Fortunately, in recent years, it seems that this trend is reversing course, in the sense that people are realizing that this practice cannot be sustainable in the long run and therefore they are looking for alternatives that can combine their desire and need to have new garments but that at the same time is not so impactful for the planet. Precisely for this reason have become more popular shops that sell used clothes but above all second-hand platforms were born, like renting and many others to meet this need of people.

The theme is becoming increasingly relevant, with a particular surge in interest towards renting: this practice is the possibility to rent clothes or items for a limited period of time and then return them to the company that offered this service, which will take care of all the necessary operations to rent the items again.

Numerous studies were conducted about this topic, in fact in literature it is possible to find articles explaining the practice, which are the benefits and challenges that renting faces, as well as the implications related to sustainability, in the sense that it was investigated whether rental is really sustainable, the benefits that bring to the

environment, but also the transparency of the companies offering this service with regard to operations, e.g. whether they indicate how many litres of water are used for washing and sanitising clothes once they are returned, or how much CO_2 emissions they generate, but also how many clothes they save from landfill each year and thus not disperse into the environment.

Focusing on Italy, other studies have been done on consumers concerning which type of dress they are most interested in renting, e.g. whether ceremonial or everyday clothes, but also the perception consumers have on this issue. Despite numerous studies on fashion rental and its environmental impact, there is a notable gap in understanding the specific characteristics and motivations of potential renting customers.

This is precisely the aim of this thesis, first of all exploring the various alternatives to purchase, focusing on renting and then identify the characteristics of potential customers who decide to use the rental service, understanding which are the drivers important for the possible customer, in particular if sustainability is one of them and try to delineate a profile encompassing all the characteristics outlined, with the aim also of helping companies who want to improve or implement renting in their business model.

The research question to be answered is: "What are the potential characteristics that can define the ideal customer profile for a fashion rental business model?".

To answer the research question, an exploratory analysis was conducted, first a survey of 31 questions was administered which received 221 answers; a cluster analysis was performed with the aim of identifying potential customer profiles. The cluster analysis was generated considering nine variables, the choice was dictated by a prior two-step analysis by checking the Silhouette coefficient. The analysis then generated two profiles one more favourable and less favourable to renting, briefly it turned out that the profile in favour of renting is a young woman, with a high education and a job, interested in the brand that could have of the garment and subsequently the sustainability that the service can offer.

The objective of this thesis is to outline a profile of a potential client favourable to rental service, by identifying their age, gender, marital status, whether they have a job or not, the number of people in the household, type of education, interest in the brand of the rented garment and attention to the sustainability of the product. All of this will help

companies that want to implement and improve their business model with rental to target their customers better.

The thesis is organized as follows: the chapter 2, deals with sustainability, its evolution over time and its presence in fashion industry. The third chapter discusses the fashion industry, first a brief presentation was made on the sector, how it has evolved over time and how much it is developed and then focus on fast fashion, first analysing its widespread in the world and its impact on society, on the environment and on the economy. Also in this chapter, alternatives to purchase in the fashion industry were analysed such as recycle, return, resell, reduce, rewear, and repair.

The thesis then move on to chapter 4, which enters into the heart of the thesis, here it is initially explained what the sharing economy and collaborative consumption are with the aim of arriving at the practice of renting: the data related to the spread of rental in the world are analysed, then it is investigated how popular it is in Italy and finally the potential benefits, obstacles and challenges that renting can offer.

Chapter 5 discusses the methodology, the data collection and the statistical technique employed to answer the research question. In chapter 6 an overview of the sample and its characteristics is provided together with a description of the results. In chapter 7 a discussion of the results is provided together with some critical consideration about the relation between renting and sustainability.

The last chapter concerns the conclusion in which all the topics dealt with the thesis are reviewed, the results obtained and the limitations of the study conducted.

Finally, an appendix is also provided to include the full questionnaire items that were not presented in the previous chapters. Furthermore, it contains a second cluster analysis outlining potential ideas for business models that could improve it.

2. SUSTAINABILITY OVERVIEW

Sustainability is defined as "*meeting the needs of the present without compromising the ability of future generations to meet their own needs.*" (Bruntland Commission, 1987).

Sustainability first emerges as a relevant topic in the late '70 and early '80 of the last century. At the beginning this world was very criticized and accused to be used only to mask the environmental degradation and facilitate business economic growth.

At its core sustainability is a concept that focuses on the condition of Earth's biophysical environment, particularly with respect to the use and exhaustion of natural resources: it is not the same as environment protection and it is not conservation or preservation of natural resources as well, it is more about finding a constant state so that the Earth or some piece of it can support the human population and economic growth without threatening the health of human, animals and plants.

Nowadays sustainability is no longer seen as a buzzword or just a marginal topic, but it has become more and more important in the day life of everyone starting from individual people, but most importantly for companies that in the last few years decided to implement in their business model practices and actions that take into consideration all the aspects that are aimed to improve and reduce the sustainability but also the social impact.

2.1 THE PATH OF SUSTAINABILITY

Historically the role of the companies in a society was to produce goods and services, create wealth and maximize value for shareholders.

It is known that the concept of sustainability started to emerge during the industrial revolution: in that era the CO_2 and greenhouse gas emissions were low but records indicated that the environment showed signs of degradation even earlier: air, water pollution and also deforestation were an issue even back in those years but it is dubious that people were interested on environmental impacts and their effect on future generations like today.

Figure 1, annual CO₂ emissions by world region.
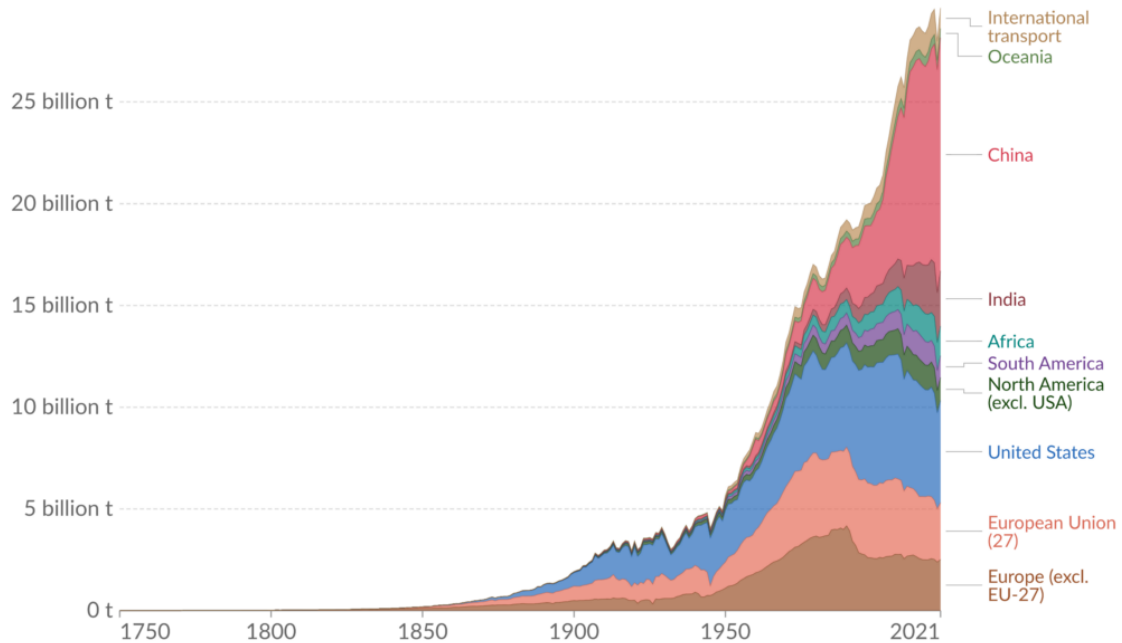
Source: Our World in Data based on the Global Carbon Project (2022)   OurWorldInData.org/co2-and-other-greenhouse-gas-emissions • CC BY

1. **Fossil emissions**: Fossil emissions measure the quantity of carbon dioxide (CO_2) emitted from the burning of fossil fuels, and directly from industrial processes such as cement and steel production. Fossil CO_2 includes emissions from coal, oil, gas, flaring, cement, steel, and other industrial processes. Fossil emissions do not include land use change, deforestation, soils, or vegetation.

The figure describes fossil fuel and industry emission; land use change is not included.

(Dhanani, 2022)

During the 19th century there were several discussions about the environmental and social consequences that industrialization had. The century witnessed the birth of environmentalist groups, publications on what is now called "sustainable development."

As the 20th century rolled on, the impact on the environment and emissions into the atmosphere started to increase more and more.

During the 1950s environmental groups raised concern about the consequences of plastic, chemicals, fossil fuels and so on. At the same time the world faced significant environmental issues, an example is the 1952 air pollution incident in London that killed 12,000 people. It wasn't until then that the topic was taken more seriously (Dhanani, 2022).

In 1962, Rachel Carson published a book called "The Silent Spring" that helped define the way people perceive the environmental movement now, because until then environmentalist was based on pollution and nature conservation (Dhanani, 2022).

The environmental movement experienced a transformation, as environmental concerns became increasingly alarming for the average citizen. People were afraid that current economic growth rates could endanger both human survival and the planet.

Through the 1970s the movement advanced worldwide and on April 22, 1970, it was celebrated the first Earth Day and Greenpeace was founded the following year (Dhanani, 2022).

It is important to mark that during those years ONU started to directly intervene on the theme.

In 1972 the word sustainability was used for the first time in a similar context as today. During the same year, it took place the first UN conference on the Human Environment, in which victims of environmental disasters shared their stories for raising attention to politicians (Dhanani, 2022).

The next year, so in 1973, it was founded UNEP United Nations Environment Programme that works against climate changes and in support of environmental protection.

The international oil crisis of 1973 further attracted public attention, showing the real pragmatism of the environmental crisis and its strong interdependence with socio-economic crises (Dhanani, 2022).

In 1987 the Brundtland Mondial Commission for the environment and development of the United Nations, published "Our Common Feature" report in which it is possible to find the first official and most famous definition of "sustainable development" which states: *"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs"* (Bruntland Commission, 1987).

In 1988 global warming became recognized on a wider scale when a NASA scientist claimed that the climate was changing. Around this time business also started to consider environmentalist something that they can use to leverage on for their economic purposes. Simultaneously it was used for the first time the term "*Greenwashing*" that was coined by Jay Westerveld in 1986 in an essay examining the dubious practices of the hotel industry (Dhanani, 2022).

With all these alarming signals of climate change, buyers began to realise their purchasing power and make changes to consumption during the '90s.

During those years the world "sustainability" started to become an urgent term also in the

political world, in fact in 1992, there was held the *"Rio de Janeiro Conference on Environment and Development"* also called "Earth Summit" in which the World Heads of States gathered together to address emerging environmental issues for the first time on a global level. The conference also shaped the *"Agenda 21"*, a report that established the importance of the commitment of all countries in solving social and environmental problems. Ten years after the Rio de Janeiro Summit, the actions of Agenda 21 were reinforced at the "Earth Summit on Sustainable Development" in Johannesburg. The main objective was to review the progress made in the environment, with the aim of strengthening the integration of the social, economic and environmental dimensions. However, it was found that the results achieved in the previous decade were very far from expectations (Dhanani, 2022).

Another example of political interest is that in 1993 President Bill Clinton established the "President's Council on Sustainable Development" with the intention to advise him and the future US Presidents about sustainable development and for develop new approaches to achieve their economic, environmental and equity goals (Dhanani, 2022).

Other important event was the first COP, Convention of the Parties, meeting that was held in Berlin in March 1995.

In 1997, it was adopted the Kyoto Protocol at the Conference of the Parties 'COP 3' of the United Nations Framework Convention on Climate Change (UNFCCC), but it only entered into force in 2005, briefly it was about the commitment of the industrialized countries and economies in transition to limit and reduce greenhouse gases (GHG) emissions in accordance with agreed individual targets. The treaty provided for an obligation to reduce emissions of pollutants by no less than 8.65% of the emissions recorded in 1990 - considered as the base year (United Nations, 2024).

The new Millenium opened with great hope, leading the United Nations to outline at the Millennium Summit the 8 Millennium Development Goals (MDGs) which evolved in the 17 Sustainable Development Goals in 2015.

The 8 Millenium Development Goals were (United Nations, 2024):

1. eradicate extreme poverty and hunger in the world.
2. Make primary education universal.
3. Promote gender equality and empower women.
4. Reduce child mortality.

5. Improve maternal health.

6. Combat HIV/AIDS, malaria and other diseases.

7. Ensure environmental sustainability.

8. Develop a global partnership for development.

Progress towards achieving the Goals has been uneven, in fact some countries achieved most of the goals fixed, while others were not on track to realise even one.

The conference of the United Nations of September 2010 examined the progress done until that date and established a new global action plan for achieving the 8 Goals fixing the expiring date in 2015.

2015 was characterized by three milestones for the humanity: *Paris Climate Agreement*, encyclical "*Laudato Si*" by Pope Francis and the *2030 Agenda for Sustainable Development* with the 17 Sustainable Development Goals.

Paris Climate Agreement is an international treaty ratified by 196 countries. It includes commitments from all countries to reduce their emissions and work together to adapt the impacts of climate change and appeals countries to strengthen their commitments over time. The Agreement provides also a pathway for developed nations to assist developing nations in their climate mitigation and adaptation efforts while establishing a framework for the transparent monitoring and reporting of countries' climate goals (United Nations, 2015).

Encyclical "Laudato Si" is the second encyclical written by Pope Francis during his third year of pontificate; the main topic discussed is the interconnection between the Earth's environmental crisis and the social crisis of humanity, i.e. integral ecology. In particular, the six chapters of the Encyclical deal with themes that must be interpreted together regarding concern for nature, fairness to the poor, commitment to society, but also joy and inner peace (Piro, 2018).

The Agenda 2030 for Sustainable Development was adopted in 2015 by all the Member States of United Nations and it is a plan of action for people, planet and prosperity, it also seeks to strengthen universal peace in broader freedom. At its heart, there are the 17 Sustainable Development Goals which are an urgent call for action by all countries, both developed and developing ones, in a global partnership. They acknowledge that

eradicating poverty and other deprivations must be accompanied by strategies to enhance health and education, reduce inequality and stimulate economic growth, all while tackling climate change and working to preserve the oceans and forests (United Nations, 2016).

Figure 2, 17 Sustainable Development Goals.

(EarthData, 2016)

Each goal of the SDG framework serves as an aspiration of what U.N. member countries hope to ideally achieve in the future. The vision of the SDG framework encourages every country to assume responsibility for planning and providing better outcomes for future generations, leaving no one behind (EarthData, 2016).

Another important milestone to consider is the 2015 Paris COP focused mainly on the big environmental issue, it defined a global framework to limit global warming below 2°C and continuing with efforts to limit it to 1.5°C in order to avoid dangerous and irreversible climate change and all the phenomena that could result from it (Dossi, 2023).

The picture of the great advancement made in the last decade is effective if the Paris Agreement is compared with the Kyoto Protocol; in fact, the ratification of the treaties at national level was necessary for international resolutions to actually enter into force. In the case of the Paris Cop, ratification had to wait less than a year to cross the 55-state threshold, while the Kyoto agreements had to wait eight years (Dossi, 2023).

Talking about today, every country in the world is called to contribute to bring our World in a sustainable path. The Agenda also has put down on paper the unsustainability of the actual model of growth, not only in the environment point of view, but also in the social

and economic sectors, thereby definitively overcoming the idea that sustainability is solely an environmental issue.

The accomplishment of the Agenda, in fact, requires a strong involvement of everyone and a constructive collaboration between all components of society, from business to the public sector, from civil society to politics and individual citizens.

2.2. SUSTAINABILITY IN FASHION INDUSTRY

The fashion industry represents an important part of our economies, with a value of more than 2.5 trillion $USD and employing over 75 million people worldwide (Bringé, 2024). In fashion industry sustainability means to create and consume cloths in a "sustainable" way that protects the environment and people who produce those clothes. Furthermore, true sustainability should guarantee that the production process prioritizes environmental and social responsibility, encompassing everything from material sourcing and manufacturing practices to the well-being of workers and equitable compensation (Bringé, 2024).

It was the concept of sustainable development that provided the foundation for debate and action in the fashion industry, pushing towards the adoption of more responsible and sustainable practices. As a result, the fashion industry became aware of its environmental and social impacts, initiating the search for innovative solutions and collaborations between brands, manufacturers, consumers and non-governmental organisations.

The concept of sustainable development has indeed promoted the establishment of various standards and certifications, such as the Global Organic Textile Standard (GOTS), aimed at promoting the production of organic textiles. These standards provide consumers the possibility to identify products that adhere to sustainable practices. Moreover, the emphasis on sustainability has stimulated significant research and innovation within the fashion industry, particularly in the field of materials and technologies. This focus has led to the development of more environmentally friendly alternatives and has contributed to reducing the reliance on non-renewable resources, further advancing the cause of sustainability in fashion (Oscalito, 2024).

In the last years fashion industry is undergoing an important transformation with the raise of sustainable fashion indeed, it has transitioned from a niche movement to a mainstream trend, reshaping the fashion industry's landscape. This shift is driven by increasing environmental consciousness among consumers, a rising demand for ethically produced

goods, and a growing desire for mindful consumption practices. As a result, sustainability has become a focal point for both consumers and brands, influencing not only purchasing decisions but also shaping the future trajectory of fashion.

The concept of circular economy, in this industry has become very popular as brands but also consumers are recognizing that fashion waste has converted in a problem. Indeed, many fashion companies are starting to adopt innovative practices in order to encourage the reuse of cloths like for example clothing rental, second-hand marketplace and take-back programs. It is possible to make some examples: for clothing rental reference can be made to "Nuuly" in US, "Dressyoucan" in Italy; for second-hand marketplace "Vinted", "Vestiarie Collective" and of course all the shops that sell second-hand clothes like for example "Humana" and for what concern the take-back programs it is possible to cite "H&M Garment Collecting", "OVS riciclo abiti usati" in Italy and the latest "Zara Pre-Owned".

Moreover, technology plays a pivotal role in the advancement of sustainable fashion. AI, machine learning, and data analytics are transforming the design, production, and consumption processes in fashion industry. Virtual fashion shows and digital showrooms are replacing physical samples, reducing environmental footprints associated with traditional fashion events. 3D printing enables intricate and customized designs while minimizing material waste.

Blockchain technology enhances transparency in supply chains, allowing consumers to trace garment journeys from raw materials to store shelves.

It is significant also to mention some data that shows how fashion industry is impacting the environment: the fashion industry is responsible for the production of up to 10% of the global carbon dioxide output and accounts for one-fifth of the 300 million tons of plastic produced globally each year, according to the United Nations Environment Programme (Bloomberg, 2022).

"It takes a lot of water to produce textile, plus land to grow cotton and other fibres. To make a single cotton t-shirt, 2,700 litres of fresh water are required according to estimates, enough to meet one person's drinking needs for 2.5 years. The textile sector was the third largest source of water degradation and land use in 2020. In that year, it took on average nine cubic metres of water, 400 square metres of land and 391 kilogrammes (kg) of raw materials to provide clothes and shoes for each EU citizen. Textile production is

estimated to be responsible for about 20% of global clean water pollution from dyeing and finishing products" (European Parliament, 2024). A single laundry load of polyester clothes can discharge 700,000 microplastic fibres that can end up in the food chain because washing synthetic products leads to the accumulation of more than half a million tonnes of microplastics on the bottom of the oceans every year. In addition to this global problem, the pollution generated by garment production has a devastating impact on the health of local people, animals and ecosystems where the factories are located (European Parliament, 2024).

3. THE FASHION INDUSTRY

Generally, the term "fashion" refers to a prevailing mode of expression, whether it be custom, style of dress, speech, or other.

Throughout history, styles in clothing have been served as a means for individuals to express emotions or solidarity with others: fashion can be seen as expression of uniqueness; a person's fashion gives the world around them an idea of who they are.

Fashion has been used and in a sort of way still is, an indicator of social class or social status, or as an indication of how attuned people are to the popular trends of the time. Fashion may vary significantly within a society according to age, social class, generation, occupation, and geography.

The term "Fashion" often carries a positive connotation, it is used as a synonym of glamour and style. In this context, fashion serves as a collective expression artistic flair, allowing a society to explore its ideals of beauty and goodness. Counterpointed the term can be seen in a negative way, as a synonym for fads, trends and materialism.

The evolution of fashion has been linked to cultural shifts, but also the fashion industry itself has also played a pivotal role in developing new clothing trends (Encyclopedia, 2024).

3.1. HISTORICAL INSIGHTS

The concept and practice of "fashion", understood in its broadest sense, it is not limited only to the way of dressing up, has taken on multiform expressions and had a different weight in the cultural representation and social life of the various human communities in different epochs, so much that it can constitute a valid yardstick, among others, for measuring the forms of historical becoming and the peculiar characteristics of individual civilisations.

Clothing can be traced back to the beginnings of mankind itself. Initially, it served the simple purpose of protecting the body, men understood how to tan leather, furs and animal skins were placed around the body, with the aim to protect it from the cold and rain, but also from superficial injuries.

With the development of mankind, began to develop culture. As time passed, men have also learnt to process other types of textiles, such as the Chinese, who discovered as early as 3000 B.C. that it was possible to recover silk filament directly from cocoons, thus

starting silkworm breeding. With the onset of textile production and the progressive advancement of technology, clothing from a primary need gradually became also a phenomenon of custom. Religion and social status gained in importance, in fact a certain way of dressing meant belonging to a certain social class, but also representing a certain job and these were also expressed through the material and patterning of clothing (CM Models, 2024).

Fashion industry is a product of the modern age: in the past all clothing were handmade for individuals, they were produced at home or were ordered to the dressmakers and tailors, so it is possible to say that prior, almost all clothes were unique (Valerie Steele, 2024). Given this fact, fashion was something reserved for the rich since they were the only segment of the population that could afford custom-made and precious clothes while the rest of the poorer population had to make their clothes with scraps and shoddy materials.

Taking a step forward, it comes the 18th century with the industrial revolution and the rapid development of new technologies and methods changed everything: there were created new machines, which allowed the creation of new products in a shorter time with fewer workers and so the clothes production increased rapidly. The three most important invention were the "Cotton Gin", the "Spinning Jenny" and the "Printing Presses". Moreover, skills required by workers changed completely, clothing and fabrics could be produced by the thousands in fraction of time. Those inventions combined with the development of new skills mentioned above and the mass production methods led to the creation of new factories where it was possible to make standardized and affordable garments in larger quantities (Marshall, 2023).

Industrial revolution had positive but also negative impacts on the apparel industry workforce: on the one hand the factory system created job opportunities for many individuals, but on the other hand working conditions were really bad, long hours shifts, low wages and unsafe environments.

Since mechanised production increased output, the apparel industry was able to meet the rising demand domestically but also internationally and, in this way, global trade networks started, allowing the exports of textiles and garments to new markets around the world. Apparel industry was one of the key players in the globalisation process, the establishment of the global supply chain brought the formation of factories on foreign soil

and the expansion of retail markets. As clothing styles, trends and designs journeyed through global supply chains, they intertwined with local cultures and traditions, resulting in distinct fashion identities. The growth of apparel industry on a global scale resulted in some dark connotations: the rise of the African Slave Trade that brought African people to America to pick cotton for the apparel manufacturing, but also the treatment of indigenous people (Marshall, 2023).

As clothes became cheaper and easier to buy, they were no longer the domain of the upper and middle-class; working-class started to buy fashionable clothing and the rich needed a way to feel superior again, so the custom-made clothing by artisan became popular once more and according to this logic, Haute Couture was born (Marshall, 2023).

The 20th century brought radical changes in the apparel industry due to technological advancements, social and cultural shifts and global events. The first part of the century witnessed the rise of mass production and the emergence of "ready to wear" clothing that provided standardised sized and styles for immediate purchase (Marshall, 2023).

The '60s of the past century marked the introduction of new materials, in particular synthetic ones like nylon and rayon. This marked the broadening of design options and the availability of more cost-effective alternatives to natural fabrics.

During these years there were also the explosion of fashion, women's liberation and the beginnings of the environmental movement (Marshall, 2023).

In the '90s labour costs increased in developed countries this led to the relocation of apparel manufacturing to more affordable regions, particularly in Asia and Latin America. As a result, agreements were sanctioned between the various states to regulate the exchange of textiles and apparel that until then had been protected by restrictions and quotas (Marshall, 2023).

Many brands and retailers shifted their production to countries like China, Bangladesh, India and so on. Today it is estimated that 60-70% of the world's apparel is made in Asia, with China as the largest producer (Marshall, 2023).

Talking about some data and results, revenues in fashion market is expected to reach US $665.40bn in 2024. Revenue is expected to show an annual growth (CAGR 2024-2029) of 9.03% resulting in a projected market value of US $1,025.00bn by 2029. The number of users is expected to be 2.6bn by 2029 and the average revenue per user (ARUP) is

expected to amount to US $343.00 (Insights, 2024).

Figure 3, Revenue in Fashion Market Worldwide
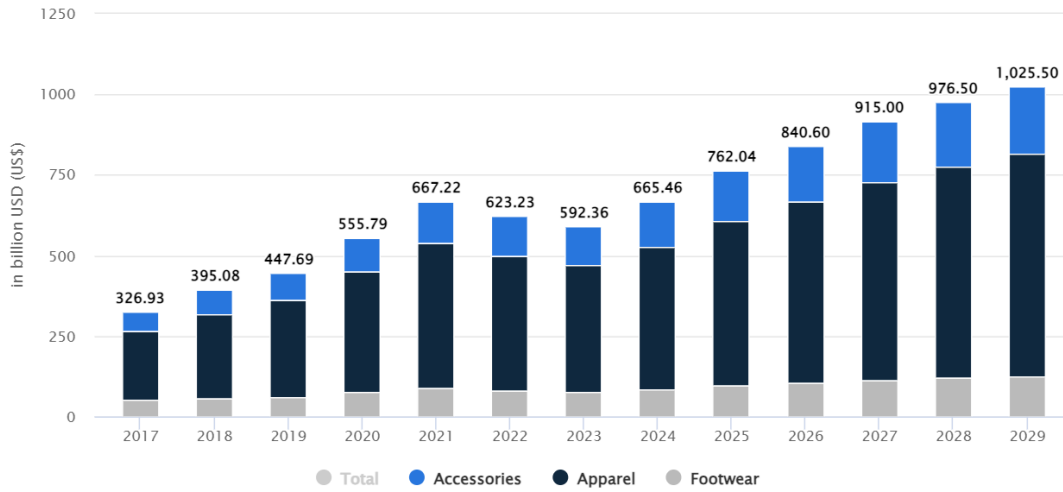
To go more specific, the global revenue for the apparel market is projected to consistently rise from 2024 to 2028, with a total increase of 0.2 trillion US dollars. After eight consecutive years of growth, this indicator is expected to reach two trillion US dollars, setting a new peak in 2028 (Smith, 2024).

Figure 4, Revenue of the apparel market worldwide from 2018 to 2028.
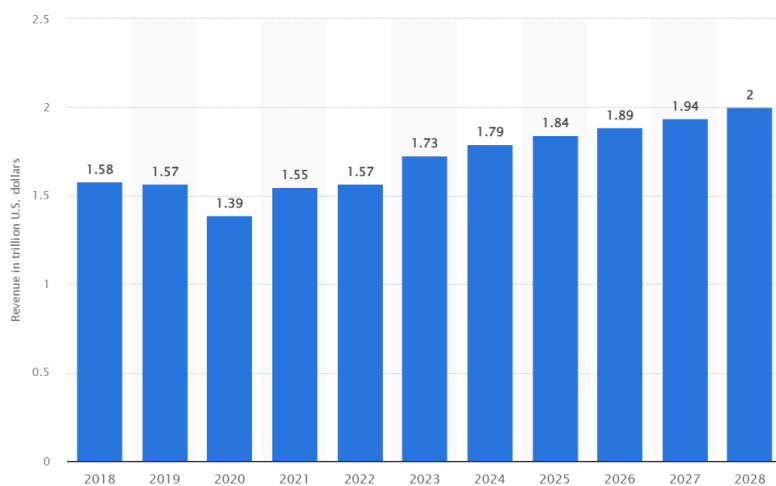
As it is possible to see in this graph, revenues suffered a setback in 2020, due to the global pandemic, having then a slow regrowth over the next two years (2021-2022) and then from 2023 onwards, it can be said that the apparel market have resumed its run generating

revenues of 1.73 trillion U.S. dollars.

For what concern the impact on people and on the planet, it will be discussed in the next chapters.

3.2. FAST FASHION

Fast fashion is a term used to describe the rapid production of inexpensive, low-quality clothing that often mimics popular styles of fashion labels, big-name brands and so on. Fast fashion brands offer new trends at cheap prices, encouraging consumers to continually buy new products consequently, previous purchases, perhaps worn very few times, are soon disused (Kelleher, 2024).

Previously new clothing collections could be expected four times a year, generally in correspondence with the start of the new season, now, with fast fashion, consumers can expect new lines of clothing much more frequently, in fact some brands generate 36 collections per year (Kelleher, 2024).

The fast fashion model started to emerge in the 1970s when companies of the fashion industry started to export their production in countries such as China, Bangladesh, India where labour and raw materials were cheaper than Western countries with the aim to save money (Kelleher, 2024).

In 1990, the New York Times published an article using the term "fast fashion" for the first time. The piece was about a new fashion retailer, "Zara", with a mission to transform a garment – from an idea in the designer's brain to being sold on racks in store – in only 15 days (Birch, 2023). It is precisely in these years that this business model has taken hold between companies.

In the late '90s and early 2000s low-cost fashion reached a peak. Online shopping took off and fast fashion retailers like "H&M", "Zara" and "Topshop" became very popular. These brands adopted the styles and design elements from top fashion houses and reproduced them quickly and inexpensively, allowing everyone to shop for trendy clothes whenever they wanted. (Rauturier, 2023).

Coming to present day, consumers have shifted to online shopping from companies that were founded specifically to operate as fast fashion businesses. These businesses do not have a physical store and they do not produce their apparel in developed countries. The

mission of these companies is to allow consumers to purchase trendy clothes quickly for the lowest possible price. Online fast fashion companies like "Shein" and "Fashion Nova" have been on the rise since the early to mid-2000s, experiencing exponential growth during the COVID-19 pandemic. Alongside older, more traditional fast fashion brands such as "Zara", "H&M", and "Uniqlo", they have contributed to a $33 billion global market, which is projected to reach $40 billion by 2025. While the popularity of fast fashion brands has continued to grow, in recent years, consumers have begun to recognize the issues associated with these companies, making them a controversial topic (Williams, 2022).

Figure 5, Global Textile production.
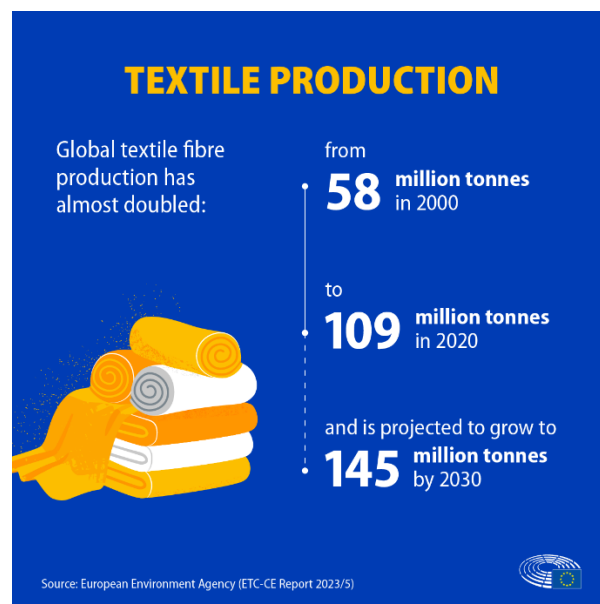
(European Parliament, 2024)

This infographic speaks clearly about the numbers in the textile sector: global textile fibre has doubled in the last twenty years and it is projected to almost triplicate in 2030, implying how dramatic the situation is becoming.

3.2.1. FAST FASHION'S IMPACT ON SOCIETY

Fashion industry is one of the most labour-dependant industries, it plays a substantial role in providing employment, in particular for women, and creates significant economic opportunities, especially in developing countries.

However, fast fashion industry faces numerous challenges related to poor working conditions that brings health and mental issues, for example the exposure to cotton dust

and other particles causes respiratory, development and reproductive issues among workers, but also, excessive working hours and low wages with workers subjected to abusive practices. Furthermore, the fashion industry experiences a widespread presence of child labour. In many countries, labour laws are very weak with the consequence that employers can easily hire children and exploit their work. All these things have led to NGO campaigns and gained media attention particularly regarding cotton cultivation and textile production (Williams, 2022).

It is important to reflect briefly on the women and child conditions. As said before, fast fashion is highly dependent on female work. Women compose most of the Asian garment producers' workforce – around 80% - with men generally occupying managerial positions (Colnago, 2019). The majority of females is subject to many experiences of inequality, like gender pay gaps, sexual harassment and lack of human rights protection. One factory that provides examples of these abuse is the supplier for "H&M" whose workforce is comprised of 74% women. In these factories, violence and harassment not only take place at the physical production locations, but also during commutes and in housing provided by the employer (Colnago, 2019).

Global supply chain is opaque, and this can help hide child labour. Children who work in factories are being deprived of a childhood, from getting an education and in most of the cases those children are condemned to a life in poverty. The reasons that push families to employ their children is the low cotton prices and wages (Williams, 2022).

In most countries child labour is prohibited, however there is often poor enforcement of labour laws. Several factors including corruption, pressure from industry, trade interests but also weak governments can undermine the efforts to eradicate child labour.

Supply chains in the garment sector often show a high degree of fragmentation, involving numerous actors that add value at different levels (European Commission, 2024).

The turning point that drove the attention to the poor working conditions in which workers were forced to work was the collapse of the Rana Plaza building in Dhaka, Bangladesh. The incident brought the loss of more than 1,1132 people, mostly women and girls and left more than 2,500 injured (Eliaers, 2023).

Companies have apparently begun to be more transparent about their product manufacturing practices and the working conditions of their workers e.g. by publishing the sustainability report, but we know that most fast fashion companies do not have direct

control over their suppliers, so the social and environmental issue is still a very hot topic.

## 3.2.2. FAST FASHION'S IMPACT ON ENVIRONMENT

The fast fashion and clothing industry generate massive amount of waste and emits pollution in the process. Producing just one cotton t-shirt requires more than 700 gallons of water and releases the same greenhouse gas emissions as driving a car for about 10 miles (Janet Domenitz, 2023).

The factors that do the most damage to our planet are:

- *Water pollution*: the production of clothing requires many litres of fresh water, which is often released back into the environment containing large amounts of dangerous chemicals that have been used during the dyeing and treating process (Janet Domenitz, 2023). Textile production is estimated to be responsible for about 20% of global clean water pollution from dyeing and finishing products (European Parliament, 2024).

- *Plastic pollution*: nowadays most of the clothing are made with synthetic fibres and this is the cause of ocean plastic pollution in the form of the microplastics. The majority of microplastics from textiles are released during the first few washes. According to the article "What's the problem with fast fashion?" recently, scientists discovered the highest level of microplastics (tiny pieces of plastic less than 5mm long) on the seafloor ever recorded, and clothing production and use could spew up to 22 million metric tons of microplastics to the ocean between 2015 and 2050 (Janet Domenitz, 2023).

- *Climate pollution*: merchandise pollutes the environment even long after they have been disposed of incinerating garments creates harmful air pollution. In landfills clothing releases greenhouse gas. In a nutshell the fashion industry is responsible for 10% of global carbon emissions (Janet Domenitz, 2023) that is more the international flights and maritime shipping combined.

Figure 6, Annual scope one and two market based carbon emissions released by leading

European apparel retailers in 2023(in metric tonnes of carbon dioxide equivalents).
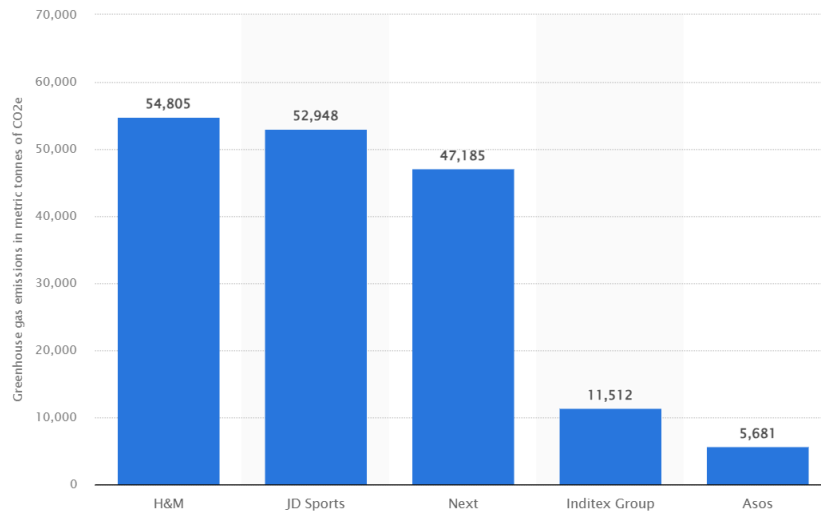
(Smith, 2024)

In this graph it can be studied more closely the annual scope one and two market based carbon emissions and the carbon emissions of the European apparel retailers in 2023. "The Greenhouse Gas Protocol classifies emissions into three categories. Scope 1 refers to a company's direct emissions such as fuel combustion. Scope 2 refers to energy-related indirect emissions, and Scope 3 includes operational emissions associated with the value chain, e.g. transport and delivery processes" (Smith, 2024).

Moreover, less than half of clothing are collected for reuse or recycling and only 1% of used clothes are recycled into new clothes. On average Europeans use nearly 26 kilos of textiles and discard about 11 kilos of them every year. Used clothes can be exported outside the EU but are mostly (87%) incinerated or landfilled (European Parliament, The impact of textile production and waste on the environment, 2024).

Concluding the impact fast fashion has on the environment, but also on people is very worrying and companies must put more effort into trying to limit it, because if they do not, the consequences for future generations will be really serious.

3.2.3. FAST FASHION'S IMPACT ON ECONOMY

The impact of fast fashion on economy can be both positive and negative.
For what concern the positive aspects, in developed countries, consumers as mentioned before, can purchase more clothes at a lower cost and companies remains unchanged or

increase their profit.

In developing countries, important infrastructures are improved or constructed to enable more businesses to begin operations there, which in the long run improve the economic growth and consequently the quality of life (Williams, 2022).

Regarding the negative impacts, one of the biggest issues of fast fashion is the high production costs associated with the production of a million of clothes in a small amount of time. Even though the high production costs, fast fashion companies keep low prices meaning that retailers are unable to generate a profit leading to an unsustainable business model (Behera, 2022).

3.3. ALTERNATIVES TO PURCHASE IN FASHION INDUSTRY

In this chapter the main goal is to explore the solutions that companies have started to implement in the last few years in order to reduce the social and environmental impact and furthermore to give a snapshot of the alternatives that companies are using, in particular second hand, take back programs and rental services.

In the last few years, many companies have committed themselves to take a step towards a more sustainable model. They started to create eco-friendly collections, using for example natural materials, recycled materials, recollection of used clothes and also, they started to create their second-hand platform like "Zalando".

The company "H&M", despite being considered a somewhat controversial company for all the reasons listed above, was one of the first companies that understood the importance of being sustainable and engaged itself for sustaining the Paris Agreement.

From 2015 the company collaborates with Ellen MacArthur Foundation that is an organization that works to accelerate the transition to a circular economy. Circular economy is defined as a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. In this way, the life cycle of products is extended. In practice, it implies reducing waste to a minimum. When a product reaches the end of its life, its materials are kept within the economy wherever possible thanks to recycling. These can be productively used again and again, thereby creating further value (European Parliament, 2023). Since 2013, the company has had the Garment Collection programme in its shops worldwide, giving also incentives to their loyal customers.

Figure 7, Example of garment collection in H&M store in Italy.

In this image, taken in the "H&M" store in Rozzano, it is possible to see an example of the garment collection, people have the possibility to bring their clothes and in exchange they will receive points and a digital discount.

In 2019, the company launched a rental service in one of its shops in Stockholm. There, it is possible to rent clothes from the Conscious Exclusive collection. They have also placed a machine called LOOOP that turns old garments into new ones in just eight steps. The H&M case is just one of the many examples that people can now witness in shops of the fast fashion industry (The Green Side of Pink, 2023).

Many solutions can be taken in consideration by the companies: use recycled, organic materials, collection points for used clothes, second hand platforms and also rental platforms.

The next sub charters will be about the possible solutions in part related to the so called "5 Rs of Fashion": Recycle, Resell, Reduce, Rewear, Repair that are addressed both to individuals but also companies. For renting there will be a dedicated sub-chapter in the next pages.

3.3.1. RECYCLE

Recycle means turn used and waste materials into new products. This process uses less

energy and resources then making a new one, so it offers a big boost to our environment. The recycling process is a loop process that can be divided into 3 steps: the first one is the collection of the waste materials, the second one is the processing of wastes and the third one is the purchasing of recycled products (Team Mygov, 2019).

Nowadays in the market there are many natural and recycled fibres that companies can use in order to produce their products, apart from classic ones that are already widely used such as organic cotton, linen, silk and wool, new and innovative ones are emerging such as: cellulosic fibres which belongs to original plant fibres, they are environmental friendly with considerably smaller ecological footprint than that of other fibres (Ritu Pandey, 2020). Another example are the protein fibres that are derived from animals' hairs and insects. Silkworms are not killed during manufacturing of peace silk. Melange spun silk developed from the silk production processing waste is utilized for various diversified applications (Ritu Pandey, 2020). Last but not least, the recycled fibres are the most emerging classes of fibres utilizing the used textiles and plastic bottles. Recycling prevents the huge quantity of used textiles and plastic bottles from being discarded into landfill. Annually, around seventy million barrels of oil are used every year to produce polyester fibre, causing water pollution and CO_2 emissions. Recycling of used polyester fabrics and plastic bottles is more preferable compared to manufacture new petroleum-based fibres (Ritu Pandey, 2020).

There are companies that started to create their products using scraps of food like for example orange peel, but also banana peel.

All the solutions mentioned above if they were adopted by the majority of companies, can be very useful in order to reduce the impact of fashion industry, of course the products that have been created with these materials would be more expensive.

3.3.2. RETURN AND RESELL

For the past twenty-five years we have always been used to see yellow bins around the city where people can put clothes they no longer use and those will be recycled or donated to associations that help the neediest people.

In recent years, it has become common in most physical fast fashion shops to be able to bring in clothes that are no longer used and in return receive discounts or loyalty points. There are many examples like "H&M", "Zara", "Patagonia", "North Face", "OVS" and

many others.

The collected garments are inspected to check their condition: if they are still in good condition, they will be donated to charities or sold as second-hand garments those that are no longer wearable will be recycled and made into new products.

Another option is reselling clothes in second hand platforms or shops. Before our lives became as digitised as they have become in recent years, people used to bring their used clothes in second hand shops or markets, earning a small amount decided by the retailer. This practice is still widespread, but in recent years, in particular after Covid-19 where the criticalities of the sector were further highlighted, the platforms on the web have become popular especially among the new generations that are becoming very careful towards sustainability. They allow people who own garments that no longer use to be able to sell them directly, deciding on the price, taking care of packaging and shipping. The most famous platforms are "Vinted", "Vestiarie Collective", where it is possible to find second-hand luxury products and "Depop".

3.3.3. REDUCE, REWEAR, REPAIR

It is preferable that people reduce the number of garments they purchase, but also people should do a massive decluttering of their wardrobes in order to minimize clothes that they own. This practice can bring many benefits, the first one and maybe the most important one for many is the money saved, but also the minimisation of the impact on the environment and on society. Of course, clothes and accessories that are disposed must not be thrown away and left as trash, they should be donated or sell to someone in order to incentivise circular economy.

Strictly connected to reduce, there is the concept of rewear, in fact there are studies that show the importance of wear a garment until they are worn out in order to reduce the environmental impact. Researchers found that an item of clothing usually lasts between 100-200 wears, however only a small amount of clothing gets that amount of use. On average, people buy 56 new pieces of clothing each year, yet some pieces will only be worn a handful of times (Clean Up, 2024). Related to rewear there is the practice of the exchange. It is common that people give their clothes to friends and family. In big cities mostly, people organize events called "Swap Parties" in which individuals can swap their

clothes, accessories, bags and so on, giving to them a new life, this is an example of circular economy and an occasion to save money. It is possible to exchange only garments in good to excellent condition. There are also websites or apps where people can do this practice, like for example in Italy "Baratto.it" or "Swapclub.it".

Finally, the practice to repair clothes. Most of the time if we have a t-shirt or jeans that have a hole, we throw it away and buy new one, but for practicing circular economy and try to reduce the impact on the planet it is more sustainable to repair it and extend the useful life for two years more, in fact lengthening the life of our clothing from 1 to 2 years decreases their carbon footprint by 24% (Castro, 2014).

4. FASHION INDUSTRY AND THE "ACCESS ECONOMY"

An access-based business model involves paying to use something instead of owning it. There are many examples that can be done like car-sharing, bike-sharing, office furniture, house sharing but also it can be applied to raw materials. These models have environmental advantages since they encourage the reduction of consumption and the reuse and recycling of goods.

The transition from ownership to access-based consumption marks a significant shift in the approach to goods. By opting for access over ownership, individuals are encouraged to use goods more efficiently, thereby reducing the overall demand for raw materials and minimizing environmental impact. Additionally, the emphasis on reuse and recycling inherent in access-based consumption fosters a more sustainable lifecycle for products, contributing to the preservation of natural resources and the mitigation of ecological concerns.

4.1. SHARING ECONOMY

For ages people have organized resource sharing, many examples can be made: in the B2B market sharing resources trace back to the sharing of machinery in agriculture and forestry, in B2C market with self-service laundries, ski, video and car rental, in fact the practice of car sharing was invented in 1948 in Zurich. Sharing economy, as we understand it today, has developed in more recent year becoming very popular and used also in the C2C market (e.g. Uber, Airbnb).

There is much debate as to when the term "Sharing Economy" appeared for the first time, limiting the analysis to public and reliable sources, it seems that the authorship can be attributed to Lawrence Lessig, who in his book "Remix. Making Art and Commerce Thrive in the Hybrid Economy", published in 2008, makes a clear distinction between the *commercial economy*, in which price is the central point of exchange, and the *sharing economy*, in which the elements that define exchange are multiple and the only one that is certainly inappropriate is price (Maggioni, 2017).

As for the expression "collaborative consumption", it first appeared in 1978, so thirty years before the book cited before, when Marcus Felson and Joe L. Spaeth published an article called "Community Structure and Collaborative Consumption: a Routine activity approach" where a theoretical model principle is represented (Borsa Italiana, 2022). In

this article, the phenomenon of collaborative consumption is studied for the first time, which is defined as "events in which one or more persons consume goods or services in the process of engaging in joint activities with one or more third parties". The examples given in this book are far from what we intend today as a sharing economy, but starts to make people think about consumption behaviour, not only as something individual but also as an activity that people carry out to involve themselves in common actions with other people (Maggioni, 2017).

Summarizing, over the years, the term, sharing economy has been given various names and definitions, but over time some of these have been well defined by experts.

Sharing economy is defined by the Oxford English Dictionary as "An economic model in which goods and services are offered, exchanged, or shared between individuals, either free or for a fee, typically by means of online platforms designed for the purpose" (Oxford English Dictionary, 2012).

Apart from the definition of the dictionary, many articles were written about the meaning of "Sharing economy" but in this thesis, only 3 will be analysed.

In compliance with Schor, there is not a unique definition that is able to describe the vast world of sharing economy because there are great differences among participants and the activities put in practice. The author divides the activities in four categories: the first one is the recirculation of goods that indicate increased utilization of durable assets, exchange of services and sharing of productive assets. The second activity is to facilitate the use of durable goods and other assets more intensively; in wealthy nations, households purchase products or hold property that is not used to capacity. After the 2008 world crises, renting assets has become more economically attractive and similar initiative proliferated. The third practice is service exchange which pair users who need tasks done with people who do them. The last category is sharing assets or space in order to enable production, rather than consumption. Concluding, while all sharing platforms effectively create "markets in sharing" by facilitating exchanges, the imperative for a platform to generate a profit influence how sharing takes place and how much revenue devolves to management and owners (Schor, 2014).

Frenken, Meelen, Arets and van de Glind, defined sharing economy as "consumers granting each other temporary access to under-utilised physical assets ("idle capacity"),

possibly for money": dividing this definition into three elements, it is possible to distinguish the sharing economy from other economic forms. Sharing is about consumer-to-consumer (C2C) platforms and not about renting or leasing a good from a company (B2B). Sharing is about consumer providing each other temporary access to a good and not about the transfer of ownership of a good. Sharing economy does not include the second-hand economy, in which goods are sold or given away between consumers. Sharing is about a more efficient use of physical assets and not about private individuals delivering each other a service. Internet platform that brings consumers together to provide each other with services represent the on-demand platform (K. Frenken, 2015). The definitions given are different from one another, but the idea behind them and so behind sharing economy is to return value to otherwise "wasted" products and services by promoting social sharing and efficiency.

Lastly, according to Hu, "sharing economy may refer to a market model that allows sharing of access to goods and services, or an online platform that enables individuals or small entities as buyers or sellers to "transact". The promise of this emerging industry lies to increase the use of resources/ assets and improving the efficiency of transactions" (Hu, 2020). In other words, the sharing economy is a market model for sharing access to goods and services, usually through online platforms that allow individuals or small businesses to buy and sell. This approach aims to make better use of available resources and to make transactions more efficient.

From an historical point of view, this phenomenon began to develop exponentially, becoming universally recognisable as of 2008 in the aftermath of the financial crisis that started in the United States and then spread like wildfire. The crisis brought a reduction in disposable income for households and increased the unemployment rate in the vast majority of advanced countries. The two-year period 2007-2008 is remarkable to remember also because it brought major innovations in the field of technology that opened the door to the sharing economy: the spread of the first iPhone, which made mobile internet access easy and frequent, and the development of social networks (Maggioni, 2017).

So, it can be stated that technology has boosted the spread of sharing economy, reducing transaction costs, making sharing asset cheaper and easier to reach and also available on

a broader scale. The major shift compared to the past is the abundance of data on people and things, enabling physical assets to be disaggregated and consumed as services. Although sharing things was possible before the internet, it was often more trouble than it was worth. (The economist, 2013).

Strictly related to technology, as said before, there is the rise of social media, electronic markets and mobile devices: networking among people has become easier with social networks and community online, they link many consumers who are willing to share their goods among each other. Electronic market platforms reduce the high search and transaction costs. Social networks and communities create mechanisms for trust and reputation since people can leave ratings, feedback, and offer integrated fulfilment as well as payments functions which ensure easy and reliable compensation for using the shared services. Mobile devices have spread the use of app that are more easy, fast and accessible for people that want to rent something, moreover through app, people choose the renter safer reading for examples the feedback that previous users left (Thomas Puschmann, 2015).

Sharing platforms increasingly cover important sectors of the economy like transportation, accommodation and rental, retail and many others (Martens, 2016). For some of those sectors, sharing economy is disruptive, in the sense that existing business models were forced to change in order to catch new opportunities. There are many examples of sectors that changed a lot for adopting the concept of "sharing economy" but in this thesis will be mentioned only two: the first one to experience a significant impact on total transaction value was peer-to-peer financial services, which introduced crowdfunding to achieve shared goals and peer-to-peer lending for micro-finance and personal loans. The second sector is labour-hire services, encompassing everything from odd jobs to care work and professional freelancing; this sector has the highest number of income-earning users. Accommodation services like Airbnb also saw considerable growth. (Sweeney, 2018).

Nowadays many examples of platforms that offer this kind of service can be done, the most famous ones are "Airbnb" and "Uber" but there are many others.

Another factor that improved sharing economy is the changing in consumer behaviour, in fact now people prefer not to own goods, but temporary usage has become more attractive, the most common reasons are convenience, lower prices and ecological sustainability.

To better understand the characteristics of companies using the sharing economy, it is possible to identify five important features (Botsman, 2015):

1. "The core business idea is to unlock the value of unused or under-utilized assets if it is for monetary or non-monetary assets".

2. "The company should have a clear mission based on strong values and be built on important principles such as transparency humanness and authenticity that inform short and long-term strategic decisions".

3. "The suppliers on the supply-side should be valued, respected and empowered and the companies committed to making the lives of them economically and socially better".

4. "Customers on the demand side of the platform should benefit from the ability to get goods and services in more efficient ways that mean they pay for access instead of ownership".

5. "The business should be built on distributed marketplaces or decentralized networks that create a sense of belonging, collective accountability and mutual benefit through the community they build".

Even though those five points were explained nine years ago, they are still very relevant today.

According to a report published in 2016 by the European Commission as a result of the Digital Economy Research Programme at the JRC Institute for Prospective Technological Studies, there has been some debates about the reasons why people participate in the "sharing economy" and whether these activities generate social capital and generalized trust. Some critics stated that large companies, such as "Airbnb" and "Uber", have adopted the values of the traditional community-based sharing movement to pursue economic self-interest, in fact there has been considerable speculation about the socio-economic and environmental benefits generated by sharing platforms, as well as their impact on labour rights and distributional issues. (Martens, 2016).

From a social point of view, the innovative aspect of the sharing economy lies in the fact that it theoretically allows the valorisation of individual labour to be freed from the traditional concepts of profit margin and profit. People could valorise their time beyond fixed and pre-established patterns of work, considering collaboration a natural dimension.

In recent years, however, several critical issues have also emerged, as in the case of the 'GIG economy' (the term usually indicates all those business model where the workforce is mainly represented by independent contractors and freelancers instead of permanent employees, in which usually contractors are paid for each individual job performed, e.g. riders and "Uber"), which has forced a debate on the working conditions imposed by e-commerce and food delivery companies on riders and drivers.

New forms of economy are often associated with new regulatory problems related to the definition of the legal status and protections of workers. The legislator is faced with the challenge of guaranteeing consumers and workers, within the new paradigms, fairness and transparency (also in terms of rules and taxation) on aspects such as safety, health, privacy, and the transparency of the conditions underlying the services or goods used (Borsa Italiana, 2022). Focusing on Italy, an initial bill was made in 2016 identifying the Competition and Market Authority as the entity entitled to regulate and supervise the sector. Every year, the sharing economy platform will have to present a policy document that will be subject to the Authority's verifications as a binding condition for registration in the national electronic sharing economy register (Maggioni, 2017). The sharing economy is constantly evolving and therefore more difficult for legislators to regulate because it follows the development of technology.

Talking about data and results, the total value of the global sharing economy is forecasted to reach 7.944 trillion US dollars by 2031, up from 150 billion US dollars in 2023. This has translated to a compound annual growth rate (CAGR) of approximately 32 percent (Statista Research Department, 2024). According to ISO Foresight Trend Report, sharing economy is expected to grow approximately at a rate of 25% in the coming years.

*Figure 8, Value of the sharing economy worldwide in 2021 and 2023 with a forecast for 2027 and 2031.*
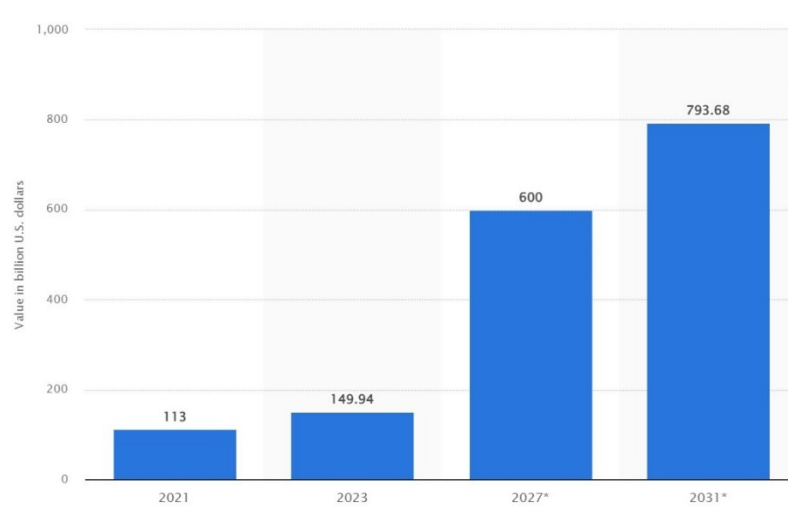
(Statista Research Department, 2024)

With regard to users, in accordance with a survey that was made by the website "Survey Monkey" the majority of people who use services offered by sharing economy has an age between 18 and 34 years old (73%). They use mostly house sharing services and ride sharing services (Survey Monkey, 2024).

Focusing on the Italian population, in 2019, Coldiretti led an investigation about how much Italian people use and like services offered by sharing economy. About 43% of Italians tried a service in the last year, the most popular services used are coworking and car sharing (Coldiretti, 2019).

Figure 9, Most sharing economy-friendly cities worldwide 2022.
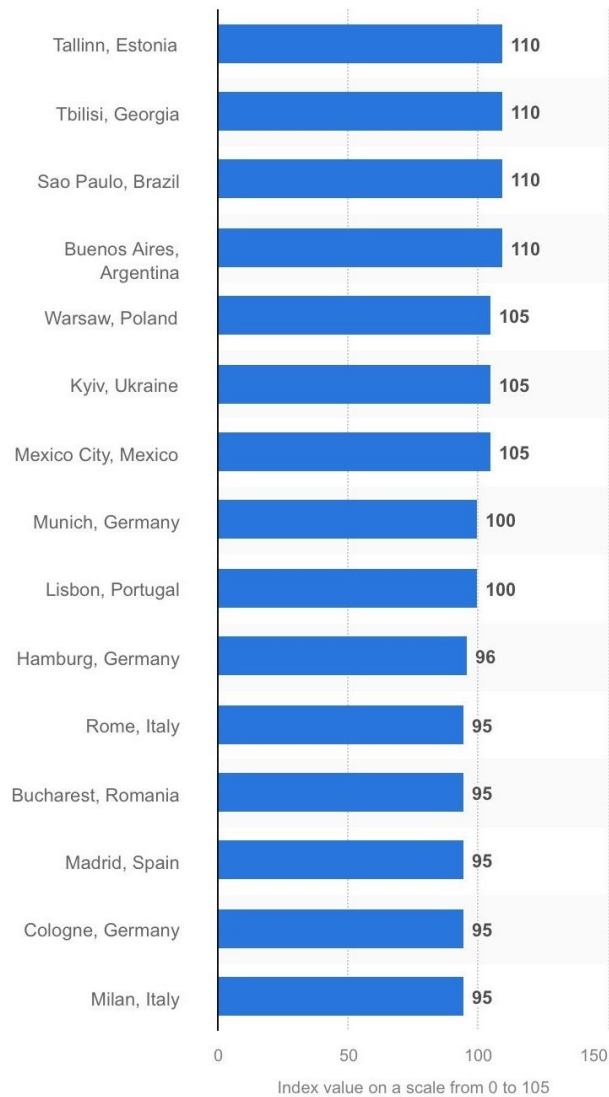
(Dyvik, 2023)

In this graph it is possible to see that in 2022, the cities ranked most friendly to the sharing economy based on the 2022 Sharing Economy Index were Tallinn, Tbilisi, Sao Paulo, and Buenos Aires. Remarkably to note are also Warsaw, Kyiv, and Mexico City followed behind with scores reaching 105. The sharing economy index takes into consideration the following factors: ride-hailing services, flat-sharing services, availability of e-scooters, carsharing apps, gym sharing, and ultrafast delivery apps (Dyvik, 2023).

Sharing economy has positive environmental impacts: it reduces the total resources required and it helps reduce pollution, emissions and carbon footprint. For example, car

sharing gives people the possibility to use car without owning it, this option clearly can reduce global car production and so save CO_2 and other emission. Another example is the use of private accommodation instead of hotels when travelling: in the long run, this practice can lead to reduce need for new hotels and consequently offset wholly or partly the initial emission increases. The environment aspect is one of the drivers with social and economic aspect that people consider when choosing for a service of sharing economy (Zhifu Mi, 2019).

It is important to take into account also the rebound effect or price or income effects from sharing economy, in fact if the price of a good or service is reduced because of sharing economy initiatives, people tend to want more of it. Continuing with the example of car sharing, families will have cheaper and easier access to cars and thus drive more than they would otherwise do and so the emissions will increase, this is the price effect (rebound through price). Moreover, some of the expenses saved from the lowered price will likely to be used to buy other goods and services and this is the income effect (rebound through income or indirect rebound effect). Families saving money from not having their own car, might use the money saved for other activities, like for example to fly on vacation abroad with the consequence of increasing CO_2 emissions (John Magne Skjelvik, 2017).

4.2. COLLABORATIVE CONSUMPTION

Collaborative consumption is defined by Botsman and Roo Rogers as an economic model based on the sharing, exchange, trade or hire of products and services, to which access is allowed beyond ownership. It is a way of reinventing not so much what we consume but the way we consume (Rachel Botsman, 2010).

It is considered part of the sharing economy because it means that individuals rent out their underused assets. This approach is most likely to be used when both the price of a particular asset is high and the asset is not always used by one person (Chen, 2023).

The first time this concept started to appear is when Rachel Botsman and Roo Rogers in 2011, published a book called "What's Mine is Yours" in which they explained the concept that was rapidly evolving. There are two diverse ways to engage with collaborative consumption, one as a "peer-provider" offering assets to borrow and the second one as "peer-user" renting, borrowing or sharing the assets offered by peer-providers (Wahl, 2017).

It is important to make a distinction between the different types of collaborative consumption identified in the book mentioned before.

The first one is the "product service system" (PSS), which allows people to receive benefits of a product without having to actually own it. Another kind of PSS enables people to share or rent privately owned items via a social P2P marketplace. Product service system is a competitive system of products, services, supporting networks and infrastructure. The system includes product maintenance, parts recycling and eventual replacement, in order to meet customer needs more competitively and with less environmental impact during the entire product life cycle. PSS requires a coordinated approach by different stakeholders: industry, government, civil society. If used globally, PSS could help reduce resource consumption and waste generation, as the production of new goods is also reduced (Wahl, 2017).

Another type of collaborative consumption is "redistribution markets" that are online marketplaces enabling goods that are no longer used by their original owners and they can be reused again (Wahl, 2017).

The third type of collaborative consumption identified by Botsman and Rogers in their book it is "collaborative lifestyle" which means that people share time, skills, space and money. Both the types mentioned above are also enablers of "collaborative lifestyles" which utilize a hybrid system of all three types of collaborative consumption. Matching spare capacity with unmet needs through "collaborative lifestyles" generates additional benefits, fostering human connections beyond the virtual realm on a local or regional scale (Wahl, 2017).

The four-principles underpinning collaborative consumption are: critical mass, unused capacity, trust in the common good and trust between strangers.

For what concern the first one, the meaning is that the exchange service must offer a quantity of goods such that everyone can find something which they are interested and be satisfied with the exchange and consequently reuse the service.

The second principle is related to the idea that our society is surrounded by thing that are either not used or are rarely used, so collaborative consumption is the mean by which people can use this unused capacity.

The third one is referring to the fact that the value of the commons is the basis for the

application of the collaborative consumption and is one of the principles of modern democracy.

The last principle refers to the fact that using peer-to-peer services is possible to act without intermediaries and have relationships with strangers. This situation can bring many risks and also "fear" across customer, but thanks to the new platforms, that helps people to manage autonomously exchange and services, with the chance to read feedback, it is possible to take conscious decisions (Creatuse, 2017).

In 2023, the collaborative economy expanded to encompass more than 10,000 businesses, offering a wide range of goods and services across 133 out of the world's 196 nations. Approximately 500 million individuals in China, Germany, France, the United Arab Emirates, the United Kingdom, and the United States of America engaged in sharing services to generate income between 2020 and 2023, while 680 million people utilized these services as consumers of the collaborative economy. China stands out as the foremost market for the collaborative economy, with 73% of its online population participating and 55% providing goods and services (Gerlich, 2023).

For what concern the collaborative consumption in fashion industry, it is possible to make a reference to the practice of renting that will be discussed in the next chapter.

4.3. RENTING IN FASHION INDUSTRY

Rental is defined as an arrangement to rent something, or the amount of money that you pay to rent something (Cambridge Dictionary, 2024). There are many examples that can be done, the most popular one is the renting of a house; over the last few years the practice has increased significantly due to the growth of population in urban areas, the difficulty of access to the housing market for financial restrictions and the increasing prices and changes in life habits, especially among young generations (Valls, 2024). Another example quite common is the rental of car, customers through car rental operators can choose among a wide range of vehicles and use it for hours, days, weeks and months. In recent years, the practice of car sharing has also become widespread, but this was discussed at length in the previous chapter.

In fashion industry, rental is typical of high-quality and high-priced clothing or accessories. The company who is offering this type of service is in charge of the maintenance, inspection and sanitisation of the products. By redirecting attention from

ownership to utilization, the useful life of the product can be notably prolonged, thereby mitigating the environmental impacts linked to the production of a new garment.

In addition, people are able to try and use for a limited time period high fashion products that without renting they would not be able to have due to the high price.

This practice brings for sure many advantages not only from an environmental point of view but also from an economic point of view because people can spend less money for something that maybe they could not afford at full price.

Renting could be a benefit for fashion companies as well because they can strengthen their competitive advantage on the market and improve their business models.

Fashion renting phenomenon originates from the United States thanks to "Rent the Runway" platform, it offers luxury clothes and accessories, today is the industry leader rated 1 million dollars. The platform gives the possibility to consumers to choose between four new pieces per month for 89$, but also to have limited access by paying 159$.

This phenomenon has finally arrived in Italy too, but unfortunately is not yet widespread as we will see in the following chapters of this thesis. There are some platforms that offer this service like "DressYouCan" and "Drexcode"; the first one offers high fashion dresses, clothes made by emerging designers and vintage clothes, while the second one is specialized in wedding dresses rental, in Milan "La Rinascente" it is possible to find a corner of this company where people can see and touch with their hands clothes and accessories that they can rent. Furthermore, there is the example of the company "Twinset" which has created a totally Made in Italy collection called "Pleasedontbuy" exclusively dedicated to rental. Another startup which allows people to rent bags or put them on hire is "Sisterly", unlike other rental models, they do not buy additional stock avoiding to add more items in circulation, but they educate and incentivise users to make their bags available on their peer-to-peer app (Sisterly, 2024). Lastly, the most recent example is Ralph Laurent that has developed a new service called "The Lauren Look" that offer to its customers the possibility to rent items paying a monthly subscription of 125$, it is the first luxury brand that has introduced a subscription rental service (Ellen MacArthur Foundation, 2023).

4.3.1. RENTING'S DATA

Global Online Clothing Rental Market size was valued at USD 1.23 Billion in 2022 and

is expected to grow from $1.33 Billion in 2023 to $2.56 Billion in 2031, at a CAGR of 8.5% during the period 2024-2031 (SkyQuest, 2024).

Online clothes rental sector is predicted to grow as online retail grows, serving as its primary driver. Additionally, technological advancement, increased internet access and the rising prevalence of online shopping platforms have significantly fuelled industry growth. Moreover, the surge in popularity of fashion vlogs, cinema and television is likely to boost market expansion (SkyQuest, 2024).

According to Statista, between the years 2021 and 2026, the revenue of rental apparel market worldwide was forecasted to steadily increase reaching approximately 7.5 billion U.S. dollars by 2026 (Smith, 2023).

Figure 10, Revenue of the rental apparel market worldwide from 2019 to 2026 (in billion U.S. dollars.
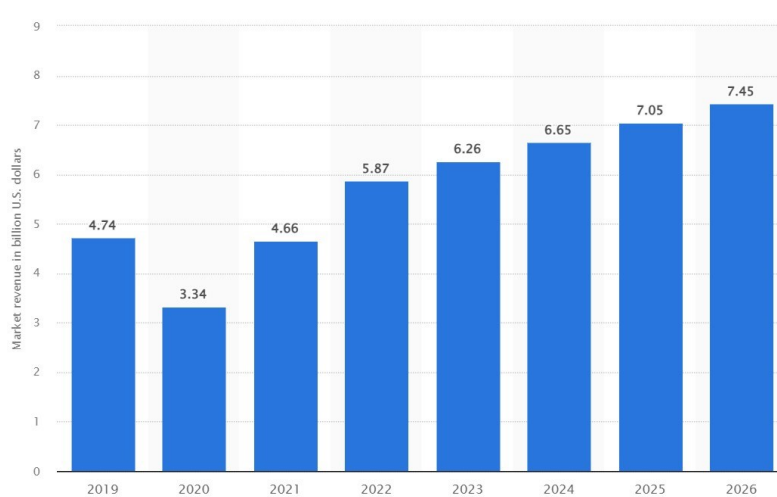
(Smith, 2023)

In this graph it is possible to study the performance of the rental apparel market. It suffered a shut down in 2020 due to the Covid-19 pandemic which has brought practically all economic sectors to a standstill, but then from 2021, revenues started to grow again, also thanks to a new consumer awareness of sustainability issues.

The primary regions in the apparel rental market include Asia-Pacific, Europe, the Americas, the Middle East and Africa. Europe is projected to experience the most rapid growth in the apparel rental market, driven by numerous traditional players venturing into rental services. Additionally, the presence of specialized platforms, will further contribute

to the shift expansion of the European rental market in the near future. In particular, the major countries where the apparel rental market are most diffused are US, China, India, UK and South Korea (Global Data, 2024).

In 2023, United States accounted for the highest market share, in the wake of the previous year in which North America registered a market share of over 39.13%.

Also, Asia Pacific countries are remarkable to notice since the growing consumer awareness and access to the internet are two of the growth drivers. For example India and China have more than 34% of the world's population and so the increased awareness can have an impact on worldwide growth, consumers in these developing nations are discovering a better way to get their desired outfits without having to buy them, therefore clothing rental is a realistic choice for them (SkyQuest, 2024). In particular China held the largest share of the APAC market in 2023 and India is expected to witness a promising CAGR in the coming years (Market Data Forecast, 2024).

Figure 11, Online clothing rental market by clothing style.
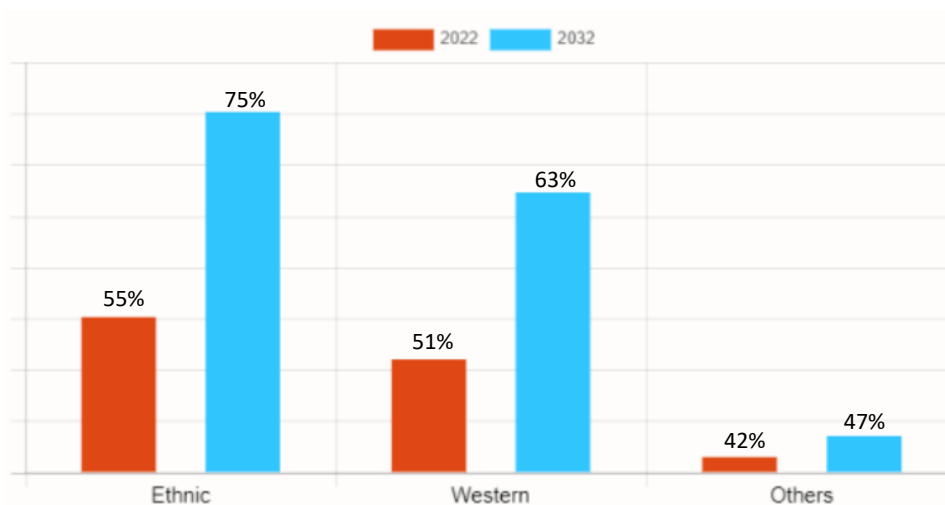
(Allied Market Research, 2023)

In the graph, taken from a report generated by Allied Market Research, is possible to notice that the ethnic segment accounted for 55% of the online clothing rental market share in 2022 and it is expected to sustain its dominance during the forecast period (2022-2032). When talking about ethnic wear, reference is made to the cultural heritage and traditions that characterize the countries taken into consideration in the report so North America, Europe, Asia-Pacific and LAMEA. Particularly in Asian countries, the demand

for ethnic clothes is higher since people use to dress costly ethnic wears for wedding ceremonies and traditional festivals. For North Americans and Europeans, ethnic wears are for example bridal dresses, party wear for official and friendly gatherings (Allied Market Research, 2023).

4.3.2 IS RENTAL IN FASHION POPULAR IN ITALY?

In the last few years, the phenomenon of fashion renting has arrived also in Italy, in particular thanks to the platforms of "Dress You Can" and "Drexcode". People who use this service tend to rent cloths for special occasions like weddings since they do not want to spend a large amount of money for a dress that they will wear just one time.

The Italian fashion rental market, compared to the United States, is still in its infancy, even if in the recent years Italian consumers have shown a desire for sustainable solutions in fashion rental market. In addition, there are still not many companies that have opened up to this new type of business.

This kind of practice is commonly used by millennials and Gen Z since they are more careful about the theme of sustainability and more sustainable consumption choices, in fact the CEO of the Italian start-up "Dress You Can" in 2021 claimed that 25% of their sales is generated from Gen Z (Il Sole 24 Ore, 2021).

In 2019, a research was conducted by YouGov.it, an international research institute, about the latest trend that was becoming popular in Italy called "fashion for rent". YouGov.it investigated the perception of the service among Italians, focusing on 3 crucial targets: Fashion Addicts, Luxury Lovers and Early Adopters. From this research emerges that only 27% of Italians interviewed know about rental opportunities so it was a practice still not extremely popular. Also, in this research emerge that the majority of people interviewed are more inclined to rent clothes and accessories for special occasions and another driver that brings people to approach to this new service is the possibility to save money (Stevanin, 2019).

This research can be considered a little bit old since five years passed and many events happened like scandals, crisis, including, most importantly, the spread of Covid-19 that changed scenarios completely in fact people became more attentive to the hygiene issue for example. It does not comprehend relevant topics that have become very important in the contemporary society, like the sustainability, people are very committed to the impact

that fashion industry has on society and environment. Furthermore, it does not take into consideration if rental can be really an engine to incentivise sustainability and consequently minimize the waste and all consequences that fashion industry generates, and last but not least which are the characteristics of people that use this service or want to try it.

In general, there are very few studies that make a deep analysis about renting clothes in Italy and for this reason, this thesis will comprehend all this gap topics.

4.3.3. POTENTIAL BENEFITS, OBSTACLES AND CHALLENGES OF RENTAL FASHION

Considering potential benefits, rental fashion is an opportunity to keep the wardrobe always new without spending a huge amount of money, moreover most rental companies allow customers to rent designer clothing and accessories at a discounted price with respect to the retail price. Usually, rental companies offer a subscription price and people have the possibility to choose a precise number of items and keep them for some days and at the end of the rental period there is also the possibility to keep them by buying at a special price.

People who join the rental service have the possibility to experiment different styles, in fact most of the companies give the possibility to send back the rented item if it does not fit or it does not meet the "taste" or the expectancy of the person.

For what concern sustainability, renting cloths is certainly more sustainable than buying new cloths in the short run, because it helps to reduce the demand and production for new clothes and helps to decrease textile waste.

Regarding possible challenges, literature shows that companies have to change their business model and customer relationship, shaping it on the basis of what they want to rent and have to justify the costs asked for the subscription and try to explain what advantages bring this kind of service.

In particular, a study conducted by "Cikis Studios" highlighted some of the challenges that fashion companies have to face for the creation of a new rental service that are:

- "Creation of new operational spaces: adoption of ad-hoc physical and digital spaces such as warehouses for clothing and e-commerce" (Poratelli, 2022).
- "Dry cleaning and product sanitation services: for the implementation of rental

systems, it is necessary to invest in cleaning solutions which must be low impact and safe for the environment, in order to be consistent with the business model implemented" (Poratelli, 2022).

- "Reverse logistics network: for the implementation of circular business models, and in particular clothing rental service, products need to be kept in circulation and multiple exchanges between the consumer and the company need to be ensured. To this end, it is necessary to implement reverse logistics systems, i.e., a reorganization of supply chains in a way that encourages the reverse flow of products and materials with the aim of offering maintenance, repair, reuse, refurbishment, remanufacturing or recycling services. In addition, companies should invest in environmentally friendly transportation and recycled packaging materials, as well as in organizing local collection and sorting points" (Poratelli, 2022).

- "Communication and marketing: to encourage the phenomenon of fashion renting, companies need to make second-hand garments more desirable than new ones. This can be achieved, for example, through convenient and timely delivery of the rental item or personalized stylistic consultancy services. Furthermore, the guarantee of product authenticity is particularly relevant for luxury clothing rental services where it is necessary to capture the consumer's attention and induce him to prefer the rental rather than the purchase of a new product" (Poratelli, 2022).

Another challenge, that can be considered also an obstacle, is related to the fact that consumers are concerned about the hygiene question, thinking that clothes and items rented are not sanitised and they can be a vehicle for diseases and bad odour. Also, consumers questioned themselves about liability in case of loss and damage (Miriam Bodenheimera, 2022).

An additional point made by consumers is that at the same price, they prefer to purchase an item rather than rent it and many may dislike the continuous reminders about the cost of rental that take place through recurrent payments. It is also difficult for customers to compare prices between items for sales and items for rent causing a bias in their mind not understanding if rental is more convenient than purchase (Miriam Bodenheimera, 2022). Some studies show that another barrier to take into consideration is the fact that customers may take less care of rental items rather than those they own and this could threaten the

capability to offer an excellent service by companies, especially luxury companies since luxury items often include delicate fabrics and complex treatments that have to be handled carefully (Miriam Bodenheimera, 2022).

The size and nature of the fashion assortment on offer by rental companies also can give certain challenges, in fact interest from consumers increases when the stock selection is large, but this requires significant investment at the beginning and consequently a great amount of starting capital. Again, new stock can be financed with the profits from existing rentals, but the rapid pace of fashion cycles can result in persistent short-term financial difficulties if a company's inventory heavily relies on trends (Miriam Bodenheimera, 2022).

Lastly the logistic (recollection, distribution, cleaning, repair and disposal) that is behind rental service is very complex and can bring a series of challenges, especially if one or all of them are outsourced to third parties. If a piece of the logistic has a problem or does not work efficiently, can jeopardize the entire chain (Miriam Bodenheimera, 2022). This point relates in part to what has already been said above.

4.4. HYPOTHESIS ABOUT THE POSSIBLE CHARACTERISTICS OF THE IDEAL CUSTOMER

A topic that connects to the possible challenges of renting is to try to hypothesize an ideal customer profile interested in renting based on the literature so far reported. It is expected that the ideal customer is a woman since usually this type of services is used by them, which belongs to Gen Z, as they are more inclined to try alternatives to purchase, as seen previously, so that she has a job with a middle income and that she still lives with the family of origin or that she lives with the partner implying that she does not yet have dependent children to support. It is also assumed that the profile wants to try this type of service to promote sustainability because she is very keen to encourage it through this practice of not buying new garments but renting second-hand ones with the aim of gradually trying to eliminate fast-fashion garments from her wardrobe and then, as a consequence of renting, also having luxury brand garments, since for the most part, rental services offer luxury garments at much lower prices than they are sold.

5. METHOD

In the previous chapter, it was discussed the implications that fashion has on our life, including the impact on environment, on society and economy. In particular a deep analysis was done on the fast fashion industry and the most important result is the urge to find solutions for countering this phenomenon that is increasingly damaging our planet. In addition, consumers are becoming more and more aware of this situation, especially after Covid-19, and they are trying to find new solutions to put in practice.

The research question this thesis seeks to answer is: "What are the potential characteristics that can define the ideal customer profile for a fashion rental business model?".

In order to try to answer this question, it was created a telematic cross-sectional survey consisting of 31 questions, with the aim of collecting as much information as possible to outline an ideal profile of customer who uses the renting service. The choice of using the questionnaire as a method of data collection is justified by the fact that it is a means of collecting information of a purely quantitative nature, statistically analysable and easily generalizable; in fact, the data obtained from the questionnaire were then identified and used for a subsequent cluster analysis. The results obtained and the survey carried out are preliminary and for exploratory purposes.

5.1. DATA COLLECTION

The target of the survey was a sample of Italian consumers aged between 18 and 60. It was not chosen to target a specific generation to address the survey, in fact it can be categorized as random sampling, since fashion is something that affects everyone, without differences in age or gender, but the results showed that the majority of the respondents were respectively Gen Z, then Gen X and Millennials. Undoubtedly, the age difference between the various respondents led to considerable differences in the results generated that will be analysed later. It is important to underline that the survey was created in Italian, since the focus of this thesis is a sample of Italian consumers, but all the questions and answers, are translated in English.

The questionnaire was generated via the 'Google Forms' application, it was administered from 9 April to 11 May and using the messaging app "WhatsApp" it was sent to family, friends and acquaintances, but it was also posted on social media like Instagram and LinkedIn, in order to have as many compilations as possible. Since it was decided to use

a random sample, the size of the sample was not decided a priori, this because more answers were obtained better was for the analysis; at closure, it received 221 answers.

The survey was studied to be fluent and quick to compile, it was created using simple and clear words, so that people did not have to spend too much time to think on the meaning of the sentence, in fact, a compilation time of about three minutes has been estimated. The questionnaire was developed on the basis of questions that could be useful for the subsequent analysis and also it was taken inspiration from previous studies.

The structure of the survey was divided in two sections: the first part concerned demographic questions such as gender, age and the Italian regions where the respondents live. The second one gets to the heart of the topic and concerns the consumer habits, for example whether they are interested in sustainability when buying a garment, or how often they buy garments from fast fashion companies. In this second part, firstly more general questions were administered and then more specific ones related to the topic of study of this thesis. The survey consists of multiple-choice questions, rating scale questions, short open questions and drop-down questions.

In some of the multiple-choice questions, it was included the possibility of answering with "other" indicating an unforeseen question, taking into consideration, when possible, different alternatives of answers. Some of the open-ended questions can be classified as "filter questions" in order to target those specific questions only to respondents who gave certain answers in the previous ones.

With regard to questions specifically, in the first section it was decided, as already mentioned, to obtain demographic data, in particular the multiple-choice questions with single answer were about the gender, age, level of education, marital status. Then it was put a drop-down question for the purpose of understanding where the respondents live. Continuing, multiple-choice single answer questions were about the number of persons in the household, household income and the type of occupation.

In the second section, there were multiple-choice questions with the possibility to choose more than one option in case they agree with more than one alternative or choose the option "more" so that they could give their answer that was not listed in those already given. As said before, this section was more specific about the topic: first of all, the respondent was asked what the most important aspects were to consider when choosing

an item, then where items or accessories are usually purchased, after how long and how an item is discarded, which is the category most purchase, how often the respondent does shop and how much she/he spends on average in a month for clothing.

From now on the majority of the questions were in rating scale so that respondents selected the numerical value on the scale that best represented their response and to ensure that the respondents understood how the rating scale worked, the relationship between the numerical values and the concepts they measured was made explicit in the rating scale itself, in general the scales had values that referred to being completely in disagreement or not in favour of being fully in agreement or in favour; the rating scale used was the Likert scale and short-open questions to obtain more in-depth information about a particular point.

A Likert scale of 1 to 7 was created, asking how much respondent was interested in sustainably produced garments, then how often she/he purchased in fast fashion stores, then the short-open question was about the favourite brands of the respondents. Following another Likert scale of 1 to 7 was administered about the favourability for trying alternatives to purchase, then it was asked whether the respondent had tried one or more solutions and related to this question there was a filter question asking to those who responded "yes" in the previous one to indicate which alternative she/he had tried. Again, it was asked if the respondent knew some platforms or physical stores that offered rental service, next the Likert scale of 1 to 7 about the favourability of renting clothes for special occasions and ordinary clothes. It was asked also through multiple-choice questions about the advantages and disadvantages that renting clothes could bring and if the respondent was willing to pay a monthly subscription for having the possibility to rent clothes with a Likert Scale of 1 to 7. The last few questions were about the preference where to rent clothes, three Likert scale of 1 to 7 have been set, about how renting could incentivize sustainability, how renting allows the respondent to have high quality garments at the same price compared to fast fashion and how renting luxury items allows the respondent to be more sustainable.

Briefly those were all the questions administered to all the respondents, in another chapter there will be all the relevant charts as to better understand the analysis.

5.2. STATISTICAL TECHNIQUE

As stated above, the data obtained were analysed through the program IBM SPSS: first

of all, it was done a Two-step Cluster Analysis to understand how many variables and how many clusters were needed to delineate the characteristics of the ideal profile, then a Descriptive Statistic to better understand the variables considered and lastly it was carried out a Cluster Analysis.

Before explaining what the statistical techniques used are, a brief explanation is given of how the questionnaire data were prepared. First, an excel sheet was created with all the questions and answers obtained from the questionnaire, then the questions with answers that did not have a scale were assigned a value of 0 and 1 based on the answers previously given (the details will be explained more specifically in the following chapters where the variables and results obtained are explained). Once this was done, the excel file created was imported into the SPSS software where a Two-step Cluster Analysis was initially carried out to identify how many variables to use and how many clusters to create; to do this, the various variables were entered by trial and error, which were previously identified to be used to generate the ideal profile. In the end, the analysis indicated that the variables were to be nine and the clusters to be created two.

Having done this, a descriptive statistic was created, again on SPSS, to give an overview of the sample and the variables, mainly studying the mean and standard deviation.

Finally, the K-means Cluster Analysis function on SPSS, was used to construct the two clusters needed for the creation of the ideal customer profile. The two final clusters were then transferred to excel to be further studied: it was used the "average.if" function to understand how much difference the two clusters had so as to make a more detailed description of the ideal customer profile

Concerning the Two-step Cluster Analysis is a synthetic methodology that utilizes algorithms to create groupings based on similarities between collections of variables within a single data set (Data Scientist, 2018). In the first step (pre-clustering), a sequential approach is used to pre-cluster the cases based on the definition of dense regions in the analysed attribute-space. In the second step (clustering), the pre-clusters are statistically merged in a stepwise way until all clusters are in one cluster.

The algorithm is based, as its name implies, on two passes of the dataset. The first pass divides the dataset into a coarse set of sub-clusters, while the second pass groups the sub-clusters into the desired number of clusters. This algorithm is dependent on the order of

the samples and may produce different results based on the initial order of the samples. The desired number of clusters can be determined automatically, or it can be a predetermined fixed number of clusters (Roy Gelbard, 2007). At the end of the process, SPSS provides the cluster quality using the Silhouette coefficient. The Silhouette statistic is computed for each observation and measures how well the observation fits into its assigned cluster. This measure has a range of [-1, 1], qualitatively, a Silhouette statistic near 1 means that the observation is firmly located in the centre of its assigned cluster. A statistic near 0 means that the observation is on the boundary between two clusters. A negative statistic means that the observation is located inside another cluster so is potentially misassigned (Wicklin, 2023).

Descriptive statistics consists of various indices used to describe and summarise the basic characteristics of collected data. Together with simple graphical analysis, descriptive statistics form the basis for any analysis. It provides a simple summary of the sample, helps us to understand whether there are errors in the data collected and gives us the basis for formulating hypotheses (Analisi statistica, 2024). In this thesis, the indices of descriptive statistics that have been studied were the standard deviation, the mean and the F value.

For what concern cluster analysis works by organising elements into groups or clusters, based on the similarity and homogeneity between them. Classification algorithms are used for this purpose: they are becoming increasingly computer-complex, but also increasingly efficient in extracting useful information from the data through accurate and timely classification.

The methods for the cluster analysis are distinguished based on the algorithms and classifications they generate. Cluster analysis techniques are hierarchical or non-hierarchical. Specifically, the analysis done for this thesis is classified under non-hierarchical cluster analysis, using the k-means method (Castigli, 2021). The basic theory of K-means is based on the idea of subdividing a set of objects into K groups (or clusters) in such a way as to obtain the maximum degree of similarity within each cluster and the maximum degree of dissimilarity between elements belonging to different clusters (Intelligenza Artificiale Italia, 2024).

The k-means algorithm, which has the advantage of converging very quickly, is an

unsupervised learning algorithm that identifies a fixed number of clusters within a data set. It allows a set of objects to be subdivided into k groups, generated by Gaussian distributions, based on their attributes. Attributes of objects can also be represented as vectors.

The iterative procedure of the k-means algorithm works as follows:

1. "It forms k partitions" (Castigli, 2021).
2. "Assigns entry points to each partition (either randomly or using heuristic information)" (Castigli, 2021).
3. "Measures the centroid of each group" (Castigli, 2021).
4. "Creates a new partition by assigning each entry point to the group whose centroid is closest to it" (Castigli, 2021).
5. "In the end, it recalculates the centroids for the new groups and continues until the algorithm converges" (Castigli, 2021).

Cluster analysis is used in very different sectors, from medicine to economics to archaeology (Castigli, 2021).

In our case, all the analytical methods used have been identified as most appropriate to answer the research question and thus to generate a profile with common characteristics, in order to target companies that are willing to adopt a business model, based on renting, towards a specific type of customer.

6. FINDINGS

In the first part of this chapter will be analysed the sample distribution. In the second part will be presented firstly the two step cluster analysis to demonstrate that the variables to consider have to be 9 and the clusters to produce 2 then it is presented a descriptive statistic relative to the variables selected, so that readers can have a clearer understanding of the data produced and finally the cluster analysis produced by using the SPSS programme.

6.1. SAMPLE DISTRIBUTION

In this chapter the answers of the survey are presented relative to some variables – the demographic one used for the cluster analysis, that helps the reader to better understand the sample. Not all the answers related to the variables will be presented, only the most relevant ones, so that the speech runs as smoothly as possible, but the ones that are not presented in this chapter will be available in the annex.

Gender of the respondents:

Most of the respondents are females with a percentage of 65,9%, while the remaining 34,4% are males. Probably this marked difference is due to the fact that generally is women who are more interested in fashion than men. In this question there was also the possibility to not specify the sex, but all the respondents answer male or female.
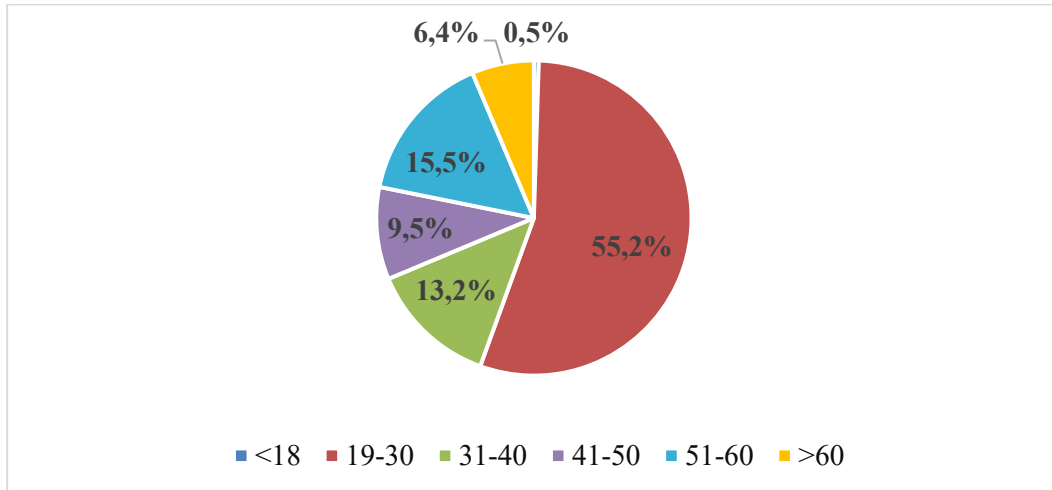
Figure 12, Gender of the respondents.
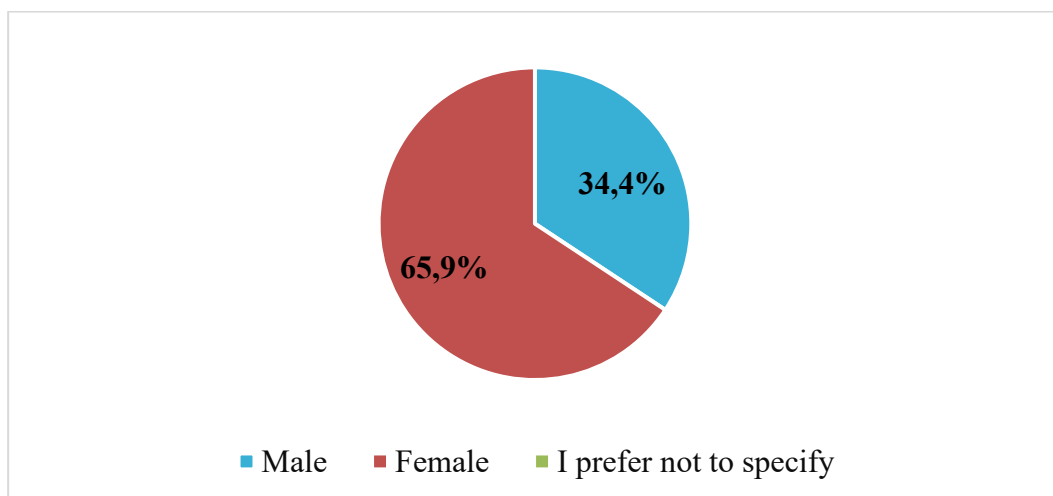
Age of the respondents:

55,2% of the respondents have an age between 19 and 30, then 15,5% is aged between 51-60, 13,2% is aged between 31- 40. So, it is possible to say that the majority of people who responded belongs to Gen Z, but we have also a conspicuous group of Gen X and Millennials.

Figure 13, Age of the respondents.

Level of education:

Talking about the level of education, 37,3% of respondents have a master's degree, 28,6% have a high school diploma and 24,4% have a bachelor degree. The remaining part of the respondents have very different levels of education, ranging from an eighth-grade diploma to a PhD. The variable education has been later transformed by associating each education category to a corresponding number of years spent in education. This provides a natural continuous variable.

Figure 14, Level of education.
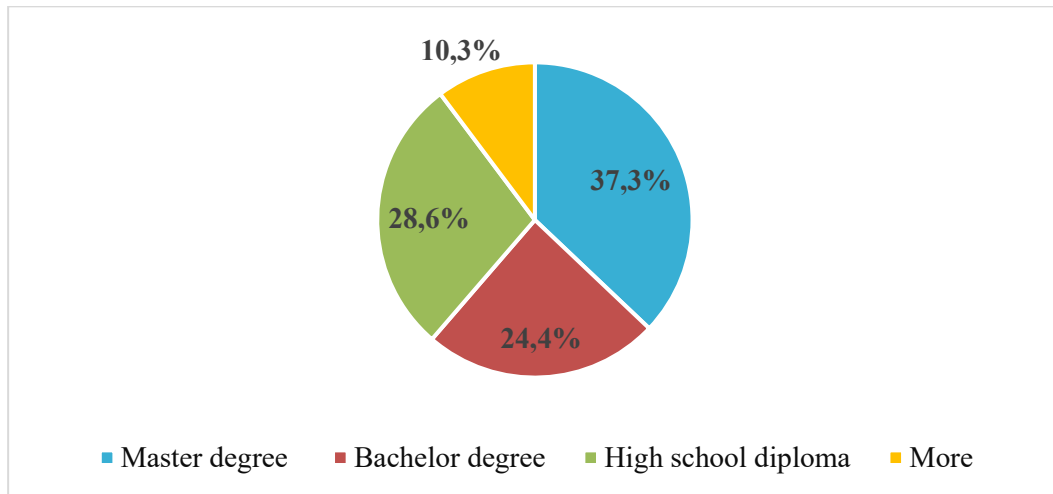
Marital status:

In this question it was asked to the respondents their marital status, 31,7% claimed that they are committed but do not live with the partner, 29,4% are married, 20,4% are single and 16,7% live with the partner. This question was useful to understand whether the respondents share the expenses with their partner or not. To reflect this situation, in the cluster analysis, the variable was transformed into a dummy variable. The value of 1 was assigned to people married or cohabiting while the value of 0 was assigned to people single, committed but not cohabiting, divorcees and widows.

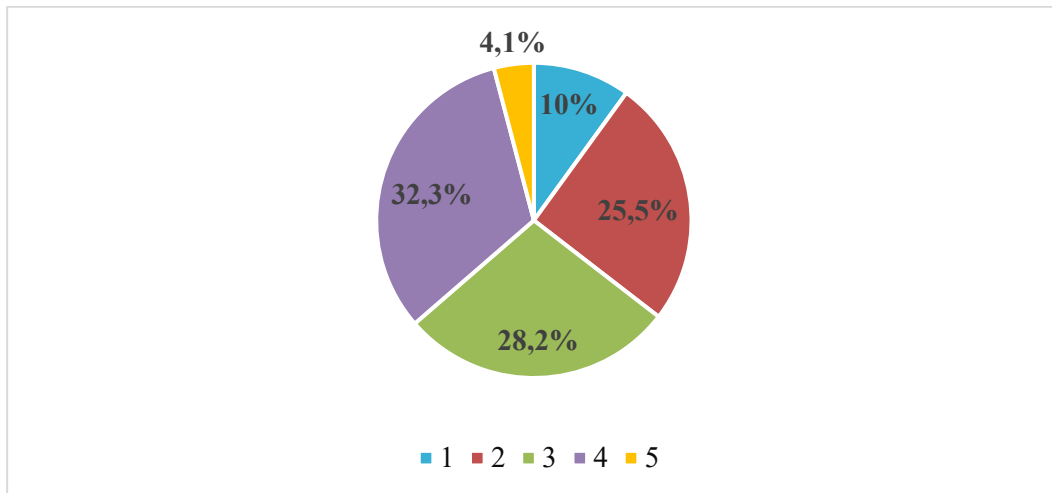*Figure 15, Marital status of the respondents.*
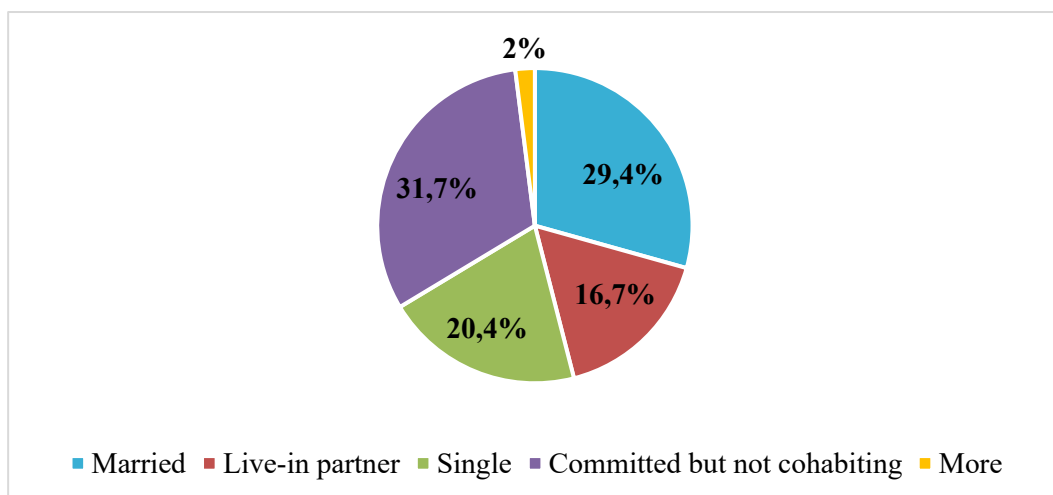
Number of people in the household:

Concerning the number of people in the household, 32,3% is composed of four people,

28,2% of three people, 25,5% of two people. The remaining part consists of either only one person or five people.

Figure 16, Number of people in the household.

Occupation:

In this question it was asked to the respondents which was their occupation. Giving the possibility to choose the answer "More" for indicating specifically which was their job, so for this reason there is a high percentage (17,8%). This question was administered with the intention of finding out whether the respondents were working and could therefore afford expenses. Also in this case, to reflect this situation, in the cluster analysis, the variable was transformed into a dummy variable. The value of 1 was assigned to respondents with a job while the value of 0 was assigned to students and the unemployed
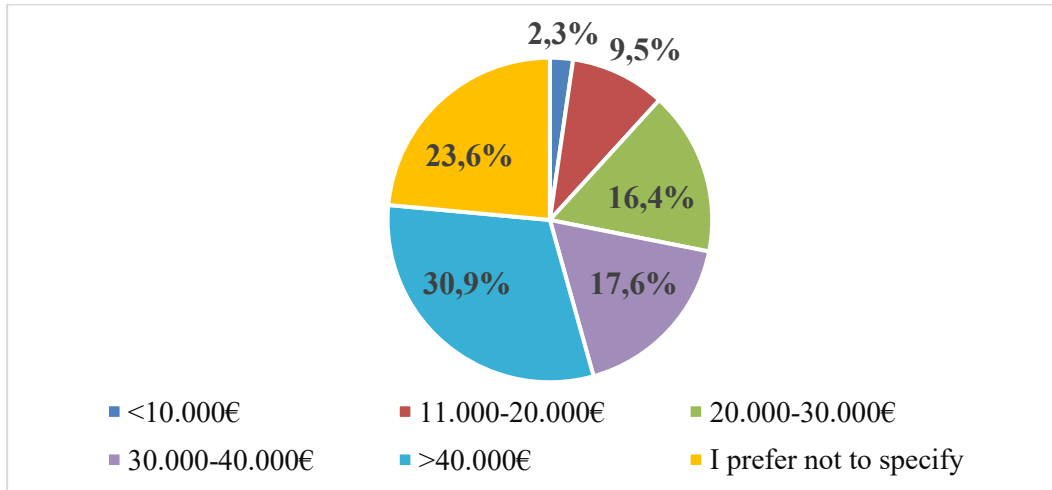
Figure 17, Occupation.
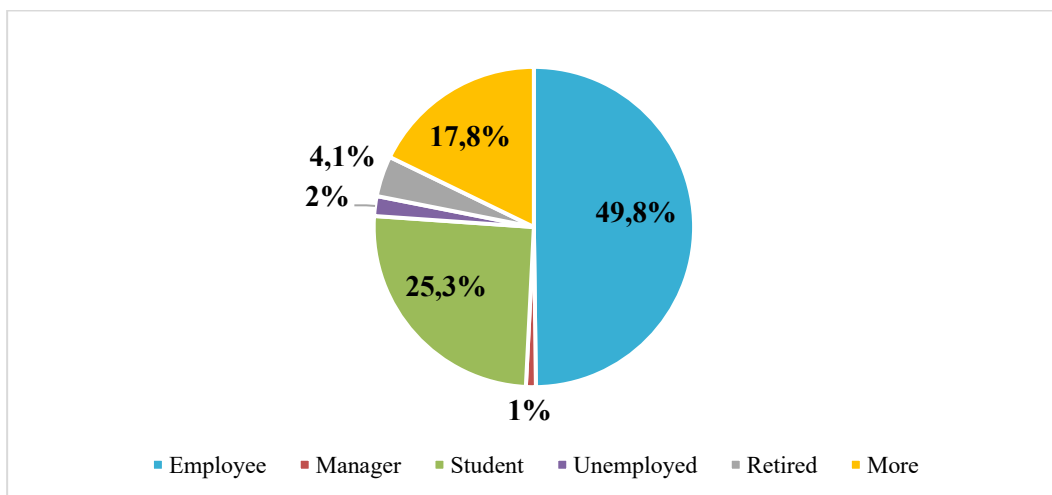
Household income:

Regarding the percentage of the household's income, 30,9% of the respondents have an income greater than 40.000€, 23,6% preferred not to specify, 17,6% have an income between 30.000€ and 40.000€ and 16,4% of the respondents have an income between 20.000€ and 30.000€.

Figure 18, Household income.

6.2. TWO-STEP CLUSTER AND DESCRIPTIVE STATISTIC

To understand how many variables to consider and how many clusters to generate later, a two-step cluster analysis through SPSS was done that produced the following results: nine variables that are rent, age, gender, education, marital status, household, occupation, sustainability production and brand and two clusters. The Silhouette coefficient indicates a sufficient result, so we proceeded first with descriptive statistics and then with the cluster analysis that generated the ideal customer profile.

Figure 19, Two-step cluster analysis.

Model Summary

Algorithm	TwoStep
Input	9
Cluster	2

Cluster Quality
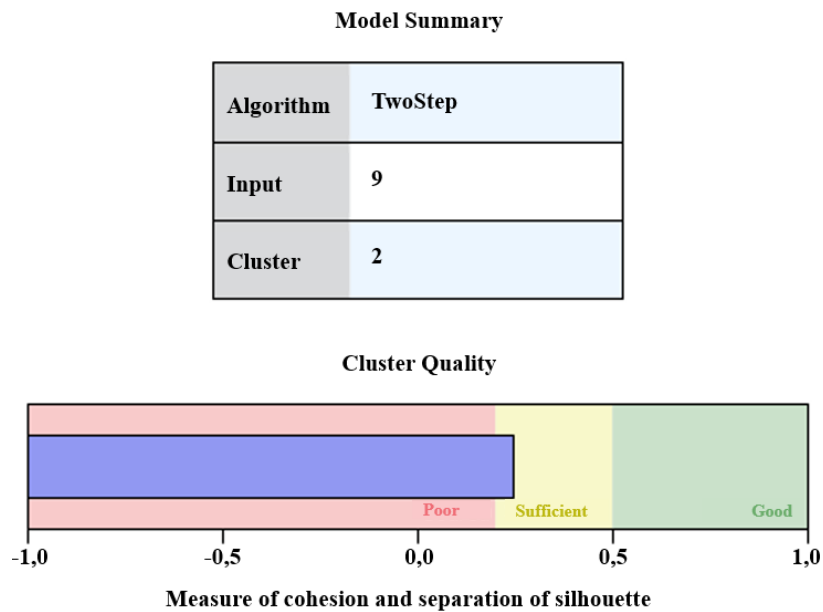
A descriptive statistic was done in order to give a general framework of the context in which the cluster analysis is placed. It was taken into consideration, as said before, only 9 of 31 variables that have been selected as the most relevant.

Figure 20, Descriptive statistic of the selected variables.

Descriptive statistic					
	Number of valid cases	Minimum	Maximum	Mean	Deviation std.
1.RENT	221	1	7	3,43	2,160
2.AGE	221	18	60	35,39	13,275
3.GENDER	221	0	1	0,66	0,476
4.EDUCATION	221	8	22	15,62	2,860
5.MARITAL STATUS	221	0	1	0,46	0,500
6.HOUSEHOLD	220	1	5	2,95	1,069
7.OCCUPATION	221	0	1	0,73	0,446
8.SUSTAINABILITY PRODUCTION	221	1	7	4,53	1,718
9.BRAND	221	0	1	0,18	0,382

The nine variables considered are part of both the first and second part of the questionnaire:

1. The variable "Rent" is referred to the question "How favourable would you be to try alternatives to buying (e.g. Rental, Second Hand, Exchange)?", it was administered based on the Likert Scale, where people were asked to give an answer from 1 to 7.

2. The variable "Age" is linked to the question "How old are you?" and the range considered were between 18 and 60 years old.

3. The variable "Gender" is referred to the question "Sex", so people were asked to respond whether they belonged to the male or female gender. It was assigned a value equal to 0 if male and equal to 1 if female.

4. The variable "Education" is referred to the question "What is your level of education?" and people indicated if they had a diploma or a degree and so on. Subsequently, the level given by the respondents was then transformed into years corresponding to the indicated level, e.g. High school= 13, Bachelor Degree= 16, Master Degree= 18 and so on.

5. The variable "Marital Status" is linked to the question "What is your marital status?", it was administered as a multiple choice. The answers given were then assigned a value equal to 0 if the respondents declared to be single, committed but not cohabiting, divorced or widowers and equal to 1 if married or cohabiting, this to understand whether respondents shared expenses with someone else or not.

6. The variable "Household" is referred to the question "How many people are in your household?" and it was administered as single answer multiple-choice, respondents indicated how many people there are in their household.

7. The variable "Occupation" is referred to the question "What is your occupation?" and the respondents indicated the type of job they do. The answers were then subsequently assigned a value of 0 or 1 respectively for students or unemployed persons and for those in work.

8. The variable "Sustainability Production" is referred to the question "How interested are you in sustainably produced garments?" also in this case it was administered as a Likert scale from 1 to 7.

9. The variable "Brand" is referred to the question "When choosing a garment to

buy, which of these aspects do you consider the most important?", in this case the respondents had the possibility to choose more than one answer, so then subsequently it were 'split' the answers by assigning a value from 0 to 1 indicating whether the aspect in question was chosen or not (0=not chosen, 1=chosen).

In the table of the descriptive statistic there are indicators that helps the interpretation of the data: mean and deviation standard. The mean is the ratio of the sum of the numerical data to the amount of data. Standard deviation is a statistical measurement of the dispersion of a dataset relative to its mean. If data points are further from the mean, there is a higher deviation within the data set.

The mean of the variables already provides us with an initial interpretation of the data: people are quite interested in the alternatives of purchase. The majority of respondents belong to the female gender, have an average age of around 35. Concerning the marital status, the average is around 0.5 and this indicates that half are married or cohabiting and half are single or engaged but do not live with the partner, in addition belong to their household about 3 people on average. Furthermore, the respondents have a relatively high level of education, in fact an education level of 16 means that many of them have a bachelor's degree. Additionally, the results showed that, on average, there are more people working than studying or unemployed. There is a high interest in clothes produced in a sustainable way and people are not very interested in the brand when they purchase clothes or accessories.

Regarding the deviation standard a higher value indicates greater variability or dispersion in the data than the mean, while a lower value indicates greater consistency or concentration of the data around the mean. In our case almost all the result of the standard deviation recorded a low value; in fact, almost all the variables registered a score under the mean indicating that are concentrated.

It can be relevant to highlight some variables such as "Age", "Marital status" and "Brand": referring to the first variable, with a standard deviation of 13,275 compared to a mean of 35,39, we can conclude that there is moderate variability in the data in fact the dispersion is not excessively high, but not negligible either and so the data show a distribution with a significant dispersion around the mean.

Related to the second variable cited, with a standard deviation of 0,5 and a mean of 0,46

the first indicator is slightly above the second one, suggesting that there is significant variability in the data relative to their mean. This may indicate that the data has a fairly wide distribution and that there are values that are considerably away from the average. Concerning the third variable mentioned, with a mean of 0,18 and a deviation standard of 0,382, it can be said that the deviation standard is higher than the mean and this indicates that the data is quite scattered compared to the average.

In summary, the standard deviation provides us with an essential measure of the variability of our data relative to the mean. Understanding the magnitude of this dispersion is crucial for accurately interpreting results and attempting to make informed predictions.

Figure 21, Results of cluster analysis.

Characteristics	Cluster 1. More favourable	Cluster 2. Less favourable
RENT	3,88	2,43
AGE	27	54
GENDER	1	1
EDUCATION	16	14
MARITAL STATUS	0,29	0,84
HOUSEHOLD	3	3
OCCUPATION	63%	96%
SUSTAINABILITY PRODUCTION	4,34	4,94
BRAND	23%	6%

6.3. RESULTS OF CLUSTER ANALYSIS

After describing and giving a general overview of the variables, a non-hierarchical cluster analysis was carried out. I set the programme SPSS to have as an output two final clusters and an ANOVA table which verifies the acceptability of the model from a statistical perspective. A p-value less than 0.05 indicates that the variable is significant.

As a means to achieve the results above, in the first place, when the cluster analysis was created, it was put as an option on SPSS to save the cluster to its membership, this allowed to create a client profile assigning a value of 1 or 2 corresponding to people more

favourable to renting and people less favourable, then it was put a filter on them using Excel and it was taken into consideration the variables interested and already mentioned before, then it was used the arithmetic mean formula obtaining the results showed in the table above.

Always remembering that the research was carried out on an Italian sample, column 1 is referred to ideal customer profile more favourable in alternative to purchase, in particular renting, while column 2 is referred to the customer profile less favourable in trying the alternatives, the variables are always the same explained previously.

In the table it is possible to see the result of the cluster analysis.

Considering the cluster 1, the ideal customer more in favour is a young woman interested in trying alternatives to purchase like renting, with a high level of education, in fact 16 means that she has a bachelor degree, not married, lives in a three-person household, assuming therefore that she probably still lives with her family of origin since she is still very young and she has a job. The customer is interested in sustainability production but also of the brand of garments that she could rent.

Concerning cluster 2, the customer profile not in favour of renting is a mature woman in fact have an age over 50, with a medium level of education, she is married or otherwise lives with her partner and her household consists of 3 people, so this would indicate that she has a child and she has a job. She is very interested in sustainability production, but she is not interested in the brand she could rent.

When doing a cluster analysis, it is also good to create an ANOVA table that allows us to understand whether the variables taken into account are significant or not.
ANOVA (Analysis of Variance) is a statistical tool used to identify significant differences between the averages of several groups.

Figure 22, ANOVA table.

ANOVA						
	Cluster		Error		F	Sign.
	Quadratic mean	gl	Quadratic mean	gl		
RENT	98,437	1	4,236	219	23,241	0,000
AGE	33870,882	1	22,365	219	1514,480	0,000
GENDER	1,259	1	0,222	219	5,671	0,018
EDUCATION	328,055	1	6,722	219	48,806	0,000
MARITAL STATUS	14,414	1	0,185	219	77,922	0,000
HOUSEHOLD	1,435	1	1,141	219	1,258	0,263
OCCUPTION	5,216	1	0,176	219	29,674	0,000
SUSTAINABILITY PRODUCTION	17,080	1	2,886	219	5,919	0,016
BRAND	1,409	1	0,140	219	10,046	0,002

As can be seen, almost all values have a significance of less than 0.05 so they are significant and this implies that all variables discriminate between clusters. It is important to notice that the variable "Household" has a significance of 0,263, this means that it is a non-significant variable, indicating that there is insufficient evidence to conclude that that particular variable has a significant effect on the dependent variable.

In the ANOVA table, the F-column represents the value of the statistical F-test for each of the sources of variation. The F-test is used to compare variances and determine whether there are significant differences between groups; in general an high F value indicates that the variation between groups is much larger than the variation within groups. This suggests that there are significant differences between groups, while a low F-value indicates that the between-group variation is not very different from the within-group variation, suggesting that the observed differences may be due to chance (IBM, 2022). In our case almost all the variables obtained a high F-value and a low p-value, only the variable "Household" obtained low F-value and a high p-value suggesting that there are no significant differences between the groups.

Figure 23, Number of cases in each cluster.

Number of cases in each cluster		
Cluster	1	152,000
	2	69,000
Valid		221,000
Missing		0,000

This table indicates that the number of valid clusters corresponds to the total, so no outliers were identified.

7. DISCUSSION

In the previous chapter it was presented the characteristics of the profile favourable and not favourable of renting. The main findings to highlight are that individuals who favour renting (Cluster 1) tend to be young, highly educated, highly aware of sustainability, and very interested in the brand of clothes they possess. In contrast, those less favourable to renting are typically older, less educated, less interested in the brand and, unexpectedly, more interested in sustainability (if compared to the individuals who favour renting).

To interpret the data, it was made a comparison between the different results and verify if there is a big gap between the two of each variable for understanding the general characteristics of who is willing to try the alternatives.

By comparing the two clusters, it can be said that younger generations are more inclined to try alternatives to purchase than older generations, maybe because they have already tried some of them and they know that they can be satisfied for example by buying second-hand clothes rather than buying new ones. However, it is curious to notice that younger generation are less interested in the sustainable production of clothing compared to the older generations, in fact the first one obtained a score that is a point less than the others and this is in contrast with the scoring relative to the alternatives of purchase. There can be many reasons for this fact, it can be assumed that they are inclined to purchase alternatives because in this way they can get more garments at a lower price and therefore the reason why they try second hand or renting, or other possibilities is not sustainability. Another difference to notice is the interest towards the brand the ideal customer in favour can get, making a comparison with the sustainable production of clothing, they seem to be firstly interested in the brand that they can have the rented clothes, this can be interpreted in many ways like for example that they seem to care more about appearance of showing that they wear or carry a luxury garment or object and the sustainability aspect goes into the second place with respect to the second profile that showed that it does not have a strong interest in the brand that it can get but she is very interested in the sustainability. Previous research showed that despite consumers expressed favourable attitude towards sustainable products in the fashion industry, their actual purchases remain limited (Jaspreet Kaur, 2023). Social desirability bias may influence consumers' perceptions so that they might retrospectively justify their decision by attributing it to sustainability, particularly if they are exposed to information highlighting the product's

environmental benefits (Ahmet Durmaz, 2022). Furthermore, consumers might experience discomfort when their actions are not aligned with their value. To reduce this dissonance, they might rationalise their purchases as being driven by sustainability (Dovetail Editorial Team, 2023).

The results obtained would appear to be partially in line with the assumptions made previously, summarising them briefly it was assumed that the ideal customer was a young woman, with a job, still living with her family of origin, and who wanted to try the renting service to encourage sustainability as a first driver and then to have luxury brand garments. What is not in line with what had been hypothesised is the issue of sustainability and branding, in fact it emerged that the ideal profile seems to be interested first of all in the brand that the rented garment may have and only secondly in the promotion of sustainability through this practice. This interpretation was made by comparing the favourable profile of the practice with the unfavourable one. This result could be interpreted as the new generations, in the scale of their priorities when choosing new clothes to wear, do not have in the first place to stimulate sustainability but to wear a famous brand and with the aim to show off something that elevates their social status.

Surprisingly, it has been found that all the variables associated with income do not contribute meaningfully to the differentiation or formation of the clusters. This means that there is a high degree of homogeneity across clusters in terms of income distribution indicating other variables are more influential in defining the clusters. This finding is aligned with previous research (Dakshina G. De Silva, 2014) confirming that choices related to sustainability are driven by values, beliefs, education, and gender rather than income level. For this reason, all the variables associated with income have been dropped from the analysis.

These results lead us to make a first description on what are the characteristics that a potential renting customer has and so to start orienting companies on who could be their target customers.

In the existing literature there are no specific studies on the practice of renting made specifically on an Italian sample, but as already mentioned above, there are various studies that investigate this practice, as it is widespread in the world and in Italy, the

potential benefits and challenges that this can have. However, a comparison can be made with the survey produced by YouGov.it, in general the results obtained in this thesis are in line with those of the survey produced by the website in particular, it is important to note that even that survey had stressed the importance of the brand when renting. Clearly, there are differences because the topics covered and the purpose of the two studies are different. For example, in this thesis it was taken into consideration demographic aspects while in the YouGov.it survey it was considered what type of clothing to rent e.g. clothes, shoes, bags etc. It is also taken into account how much people would be willing to pay to rent clothes.

This elaborate further helps to understand the phenomenon that is increasingly spreading focusing mainly on Italy which is still a little explored territory.

7.1. BUSINESS IMPLICATIONS

This chapter deals with the business implications that the results of this thesis have, it has been further divided into two sub-chapters one concerning the customer profile and the other for the potential ideas that a business model that has or wants to introduce the renting could have.

7.1.1. CUSTOMER PROFILE

This thesis has as its main objective to answer the research question "Which are the possible characteristics that can define the ideal customer profile for fashion rental business model?"

In the previous chapter we tried to make a description of the characteristics of the possible customers who were interested in the services that renting can offer, briefly repeating them: young women with a high level of education, occupied, still living in the family of origin, interested in sustainability but more in the brand that the garment has.

Companies that have renting already in their business model or want to adopt it, in order to improve it, they should take into consideration the characteristics mentioned above so that they can target these people and improve their activity.

7.1.2. BUSINESS MODEL IMPLICATIONS AND POTENTIAL IDEAS

This chapter refers to the appendix part where two additional clusters with 10 variables have been developed that outline potential ideas that companies, which currently offer or are interested in offering a renting service, could put into practice to improve their business models.

Companies should try to have a renting service that can offer garments for special occasions rather than everyday garments, so that customers have quality garments and can promote sustainability by not buying clothes that they would use very few times and then would be destined to be thrown away. In addition, they should adopt solutions that ensure maximum hygiene measures available, so that customers are more confident in renting items that have already been worn by other people. Another feature that the renting service could have, is to give customers the opportunity to subscribe a monthly subscription that allows them to receive a number of items at home, this would certainly save money. Finally, companies should stress that renting service promotes sustainability by reducing the number of clothes and accessories in circulation, gets high quality garments at the same price as fast fashion and offer high quality garments promotes sustainability.

7.2. LIMITATIONS

The analysis made, as mentioned above, is only preliminary and have explanatory purpose. The results obtained do not take into account important aspects which may have an impact on the results obtained and that future research may include, e.g. the survey administered take into consideration only a small sample compared to the Italian population therefore do not effectively reflect the characteristics of the Italian people, further research could comprehend a large sample thus understanding how keen Italians are on alternatives to purchase.

Furthermore, the research does not consider in the analysis income and monthly expenditure, so future research can investigate whether these variables have and to what extent an impact on customer.

Another limitation was that the majority of the sample analysed came from the region of Lombardy, for several reasons, one of them is that it is known that Milan is one of the main centres of Italian fashion, a turnover of 13.5 billion euro per year is concentrated here, which is equivalent to 15.6% of the national fashion industry turnover, more in

general the fashion industry in Lombardy boasts a turnover of EUR 26 billion, with more than 28 thousand companies employing more than 180 thousand people (Regione Lombardia, 2024). Future researchers can take into consideration also a larger sample comprehending also the other regions of Italy.

Another aspect that was not contemplated in this analysis is that the psychological motivations and potential biases influencing consumers' evolutions including those who expressed reluctance towards the renting business model and the biases prompting individuals to explore alternatives to traditional purchasing methods. Future research can focus on this aspect and provide a different perspective, for example by using attitude-behaviour models or through qualitative interviews.

7.2.1. IS FASHION RENTAL REALLY SUSTAINABLE?

Throughout the development of this thesis, it has been implicitly assumed that fashion rental is more sustainable than purchasing new cloths, but, in reality, determining the sustainability of renting clothes poses a significant challenge.

First of all, fashion industry and in particular fashion rental is composed by many different stakeholders that put in practice different strategies for pursuing sustainability; it is known that in fashion industry there have been many scandals concerning the working conditions of employees, salaries and other topics that have been widely discussed in the previous chapters, and this for sure had consequences on the entire supply chain. Moreover, most of the time, fashion companies rely on chain of suppliers over which they do not have direct control, so it is very difficult to monitor and verify which kind of strategy they put in practice.

In general, it is possible to say that renting clothes has better environmental footprint that purchasing the same number of new fast fashion items, but this really depends on case to case. For example, the colossus "Rent the Runway", in 2023 claimed that their business model displaced the production of new 154.632 garments in 2023 or 306.146 in the last two years saving 67M gallons of water (24% reduction in water usage), 98.6M kWh of energy (6% in kWh of energy usage) and 44.2M pounds of CO_2 emissions (3% reduction in CO_2 emissions). In addition, in order to prolong the longevity of clothes, their experts performed an estimated 1.3 million repairs in the year 2023 for the purpose to maintaining

the garments in a condition suitable for rental, which they believe encourages increased clothing usage. They also incentivized the recollection of the plastic garment covers that protect clothes in their warehouse by encouraging customers to send the covers back when they return the items, in fact in 2023 the company recycled over 250 tons of plastic. "Rent the Runway" also deflected over 195.623 units of clothing and accessories away from landfills through resale, donation or recycling with their partner organizations (Rent the Runway, 2023).

Some rental categories work better from an environmental point of view, in fact it makes more sense to rent a dress for a special occasion or for a particular period of life like pregnancy rather than a pair of jeans or a jacket that a person would buy once and then wear over and over for years.

Moreover, some studies have shown that rental apparel models are more sustainable than traditional ones. The reasons for this improved sustainability encompass the ability to prolong product lifespan through intensified use and repairs, crafting products with increased durability to minimize waste generation, producing fewer items that reach a broader audience, thereby reducing resource, water, electricity and material consumption. It also involves the potential to decrease water and energy consumption by using advanced cleaning services and technologies in clothing rental businesses, as well as assisting consumers in reducing overconsumption. Even though renting apparel companies will achieve all of these environmental benefits, it is not guaranteed that apparel rental companies will achieve all of these sustainable practices or publicly oriented themselves as sustainable (Lindsay McCoy, 2022).

Another factor is that fashion rental can incentivize and improve accessibility among people to sustainable fashion and luxury items. A regular perception of sustainable fashion is that is more expensive than the traditional one, in fact it is mostly true because if a garment is really sustainable, its higher price is justified by and it is a reflection of the sustainable materials used, fair wages and the favourable working conditions. If a fashion rental company on their websites provide more sustainable brand, customers are able to access at a lower price to this kind of items, proactively promoting sustainability (Browne, 2022).

Data recorded by "Rent the Runway" and the other points explained before are very promising and encourage sustainability and circular economy, however, the article entitled "Innovative recycling or extended use? Comparing the global warming potential of different ownership and end-of-life scenarios for textiles" after studying different scenarios including reuse, resell and recycle, researchers claimed that the renting clothes is not sustainable as people can think, actually is much more polluting and worse than thrown them away. According to this study only the scenario in which the garment (in this case, jeans) is expected to be used 400 times versus 200 times for a garment used by a single person and the consumer's use of environmentally friendly means of transportation to get to the store (e.g., a bicycle), can achieve a Global Warming Potential value comparable to the "Reuse" strategy. In this article the authors also studied the rebound effects of fashion rental and discovered that the emissions generated from constant transportation and dry cleaning between each customer are alarming and they could quickly overweight the savings. Many companies that offer rental service are accused to abuse the word "circular economy" putting in place a sort of greenwashing (Levänen, 2021).

It is important to remark that many sustainable fashion experts have contested this research, highlighting that the study presupposed that customers would drive 2km individually in a private vehicle to pick up their rental items. However, this does not reflect the realty, in fact, in UK for example, rental fashion companies use postal service to deliver or return rented clothes and this practice, in general, could reduce the environmental impact (Browne, 2022).

In addition, this research has many limitations: first of all, it is based on the production on cotton jeans, in fact had the production of clothes made from synthetic material been considered, the result would have been different (for producing synthetic fibres a large amount of oil is required). Another limitation of this research is assuming that people would wear a pair of jeans hundreds time before throwing them away, in our society it is very wrong to imagine that consumers would behave in this way since we are used to purchase new garments very often, including jeans. Finally, researchers do not take into consideration water use, pollution caused by toxic chemicals, waste generation and the impact of human communities, focusing only on carbon emissions. Without doubt if all

the other factors would be taken into account, fashion rental would be more sustainable (Goil, 2022).

Referring to the part above about the rental of luxury items, yes it is true that with renting, people could easily access to them without paying high prices, but the limitations is that for now, luxury brands are not willing to open to this kind of practice since they want to maintain their status of brand accessible only to a niche people and the second point is the majority of clothes found in landfills or incinerated are not luxury, but fast fashion; most of those items tend to be found in vintage or second hand shops, so in a way, we can say that luxury items are sustainable and their disposal do not feed the pollution caused by the fashion industry.

Another critical point is that rental fashion companies, especially those online, are not very transparent about their sustainable practices in the supply chain. Consumers do not know how they get the items, how transportation is done, how the cleaning of garments is done and so on. So even if people would like to reduce their impact on the environment by subscribing a rental service in a conscious way, they are not a hundred percent sure that they are really helping the planet since they have not real prof of so. For example, the company "Rent the Runway" do not have a specific section of the website about how it is done the transportation process, how they try to reduce emissions etc, but they have a very detailed page about the cleaning process. It is very critical because the service it is provided almost entirely online and so potential customers who are really interested in the sustainability issue, they should have the possibility to take a conscious decision.

Concluding, there are researchers, as the ones mentioned above, arguing that the fashion rental practice helps to limit the impact on the environment and thus encourages sustainability, while others argue that this practice is worse than buying clothes, so there is no single current of thought. Consumers through the various company websites, should try to find out as much as possible about the environmental issues they are most interested in and whether the companies meet their needs.

Further research can investigate this issue, understanding how renting can reduce the environmental impact of the fashion industry in the future.

8. CONCLUSIONS

The main objective of this thesis was to explore alternatives to purchasing, particularly on the practice of renting within the fashion industry, with a focus on Italy. An attempt was made to understand how widespread this practice is in our country and to create a profile of ideal customer to try to address companies that are already in this business or want to enter it.

8.1. OVERVIEW

The thesis starts with an understanding of what sustainability is and how it has evolved over time, and then passing on to an outline of what sustainability looks like in the fashion industry. Afterwards the discussion moves on to the heart of the thesis, in a general way investigating the fashion industry from its origins to the present day, with a particular focus on fast fashion. The focus was on the impact of fashion industry on society, the environment and the economy, highlighting the need to find alternatives to counter non-sustainable practice, which is putting a strain on our planet, but also on the people who work in this industry. Directly linked to this, an analysis of the alternatives to purchasing options was performed. First, a general overview is offered of the main alternatives to purchase with a focus on the practice of renting. Since renting falls into the macro area of sharing economy and collaborative consumption, a general overview of these emerging phenomena is provided. Then the thesis moves to renting in the fashion industry, analysing how widespread this is globally, the numbers it produces and how it is actually popular in Italy. The study concludes with the discussion on the benefits, obstacles and opportunities that this practice can bring.

In the second part of this thesis, which it can defined as more analytical: it was explained first of all the method used, in particular it was described how the data were collected and the statistical techniques used. Moving on the various questions administered relative to the variable used were presented, in particular in a first part the demographic questions were presented to make a general overview to better understand the sample considered, 221 to be precise, and then move to the actual analytical part in which the results were explained, produced by the analysis carried out with the SPSS program. These results were useful to answer the research question expressed in the introduction and so explain the implications this practice might have on business: it was produced a positive profile

corresponding to people that are inclined to try renting practice, describing the gender, age, level of education, the occupation, their marital status, the number of people in the household, how much they are interested in garments produced in a sustainable way and if they are interested in the brand when they rent something. In parallel, a second profile was also created, with the same variables, presenting the characteristics of people less favourable of renting.

This part it was also useful to highlight the limitations of this research, thus giving some suggestions for future studies on this subject.

An appendix was also created in which a second cluster analysis is carried out with the aim of giving potential ideas to improve the business model of companies that have or would like to have renting.

8.2. SUMMARY OF THE FINDINGS

The objective of the thesis was to create an ideal profile of those who are interested in the practice of renting and would like to use it, also companies could use this information to better target their potential customers.

We found that the characteristics of customers potentially interested in renting are young women, with a high level of education, occupied, still living in the family of origin, interested in sustainability but more in the brand that the garment has.

There are also some unexpected findings: 1) renting is not totally sustainability driven, in fact some aspects of this practice are still opaque, for example companies are not very clear about their supplier, the transportation and cleaning process and so people are not hundred per cent sure that renting is indeed a business model that can foster sustainability in its entirety, but definitively provides many more advantages than buying new clothes especially from fast fashion companies; 2) after careful analysis, it was found that income do not contribute meaningfully to the differentiation or formation of the clusters.

Finally, companies interested in offering this service should offer garments for special occasions, so that customers have quality garments and can promote sustainability by not buying new clothes that they would use very few times, they should adopt solutions that ensure maximum hygiene measures available. Another aspect is to give customers the

opportunity to subscribe a monthly subscription that allow them to receive a number of items at home. Finally, companies should emphasise that renting service promotes sustainability by reducing the number of clothes and accessories in circulation, gets high quality garments at the same price as fast fashion and offer high quality garments promotes sustainability.

ANNEX

In this part it will be presented the questions and the answers of the survey that were not explained in the previous chapter relative to the variables used for the first cluster analysis and also the second one developed precisely in this chapter.

For what concern the questions of the survey relative to variable of the first cluster analysis are:

1. How much are you interested in in sustainably produced clothes?
Thanks to the answers of this question that was a scale of 1 to 7, it can be understood that people tend to care whether a garment is sustainable, in fact 23,1% have indicated a 4, so they are in some way "neutral", than 19,5% of the respondents have indicated 6 so they are attentive to sustainability, unfortunately 15,8% have put 3 so they have an inverse trend for sustainability compared to those before.

Figure 24, Interest in garments produced in a sustainable way.
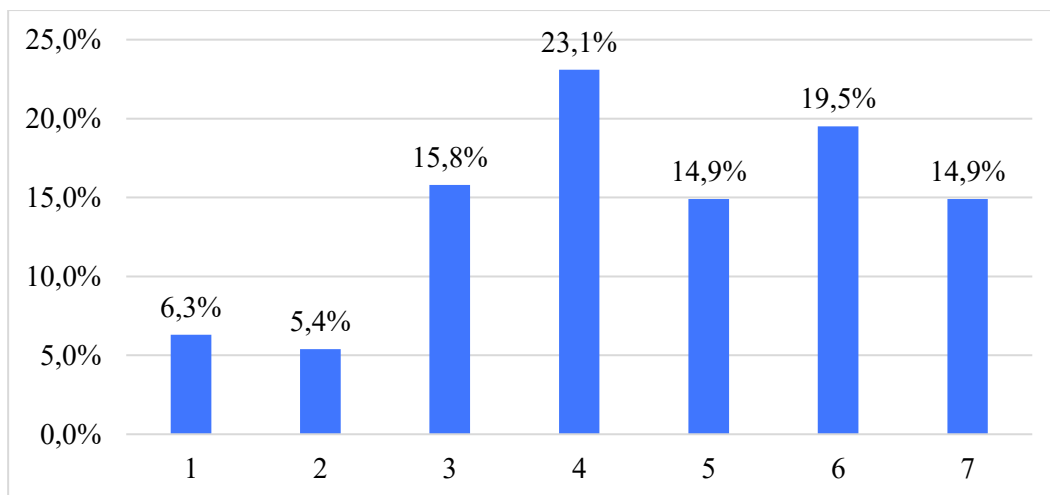
2. When choosing a garment to buy, which of these aspects do you consider the most important?
In this question there was the possibility to choose more than one alternative, in fact many people responded either price either product composition and quality. Furthermore, there was the possibility to write other characteristics (in the section "More") that people consider important when buying something, just to mention two: "mix between price, quality and sustainability" and "wearability".
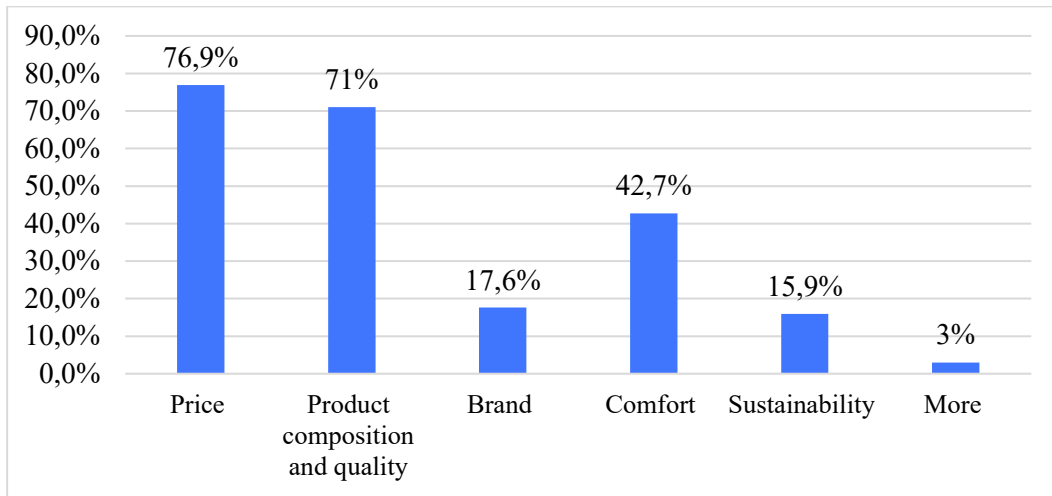
3. How favourable would you be to try alternatives to buying (e.g. Rental, Second Hand, Exchange)?

26,7% rated the number 1 and 18,6% rated the number 2 so a very low score this indicate that most of the respondents are not very interested in trying alternatives like the ones mentioned above. Although 15,4% of people put a score of 7, even this is not a very high percentage, it is nevertheless promising because it means that people are starting to approach these new practices.

Figure 26, Favourability in trying alternatives to purchase.
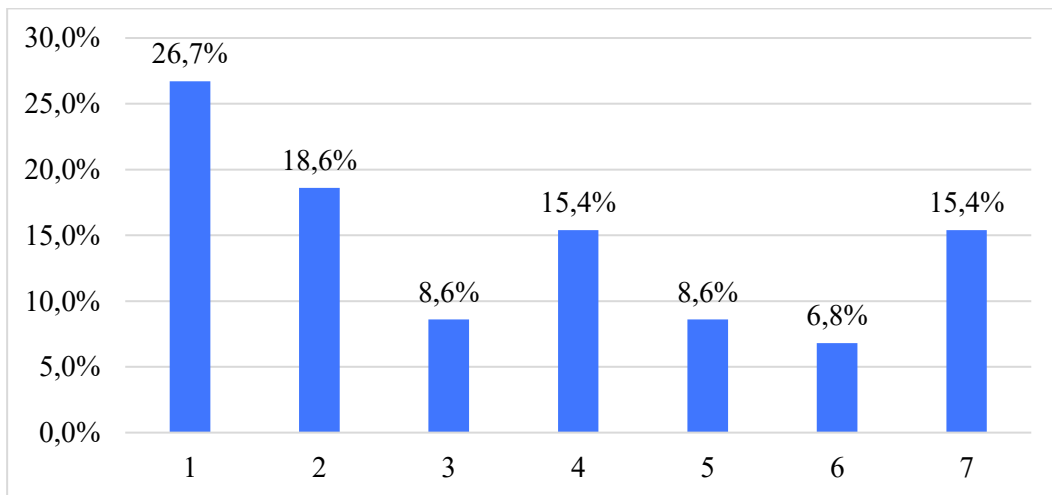
4. How favourable are you to having the possibility of hiring clothes for special occasions (e.g. wedding dress, bridesmaid, etc.)?

The answers that scored greater than or equal to 5 are summed up, it was obtain that

51.6% of respondents would be in favour of hiring a dress for a special occasion. This is a very promising results because it means that people are aware that it does not make much sense to buy a dress that it is only wear just for few times, if not once and this solution could be the first step towards considering more sustainable solutions. Also, perhaps people, by trying this new solution, might become more aware of the advantages this service can offer, in fact among the various answers that were given for questions about the advantages that could bring renting instead of purchasing clothes, the majority answered that they would like to be more sustainable, having the possibility to change look more often and the possibility to pay a lower price.

Figure 27, Favourability of hiring clothes for special occasions.
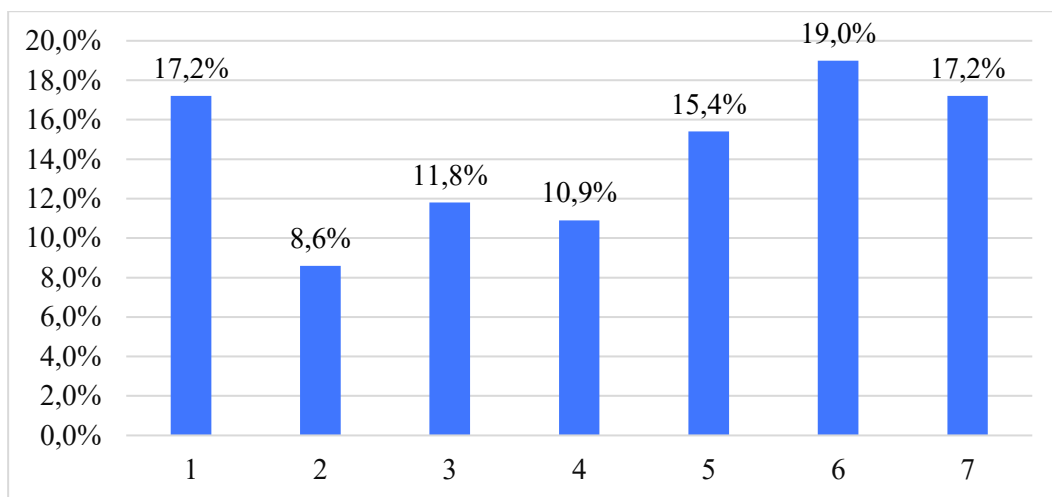
5. How favourable are you to have the possibility of renting clothes that you can wear every day (e.g. t-shirts, jeans, jumpers, etc.)?

In contrast to the previous question, here the majority of people (72.4%) answered 1 and 2 meaning that they completely disagreed with renting everyday clothes. The most shared reasons that emerged in one of the subsequent questions were that it is an impractical solution, for the hygiene factor and having the perception that those particular clothes have been worn by other people before.
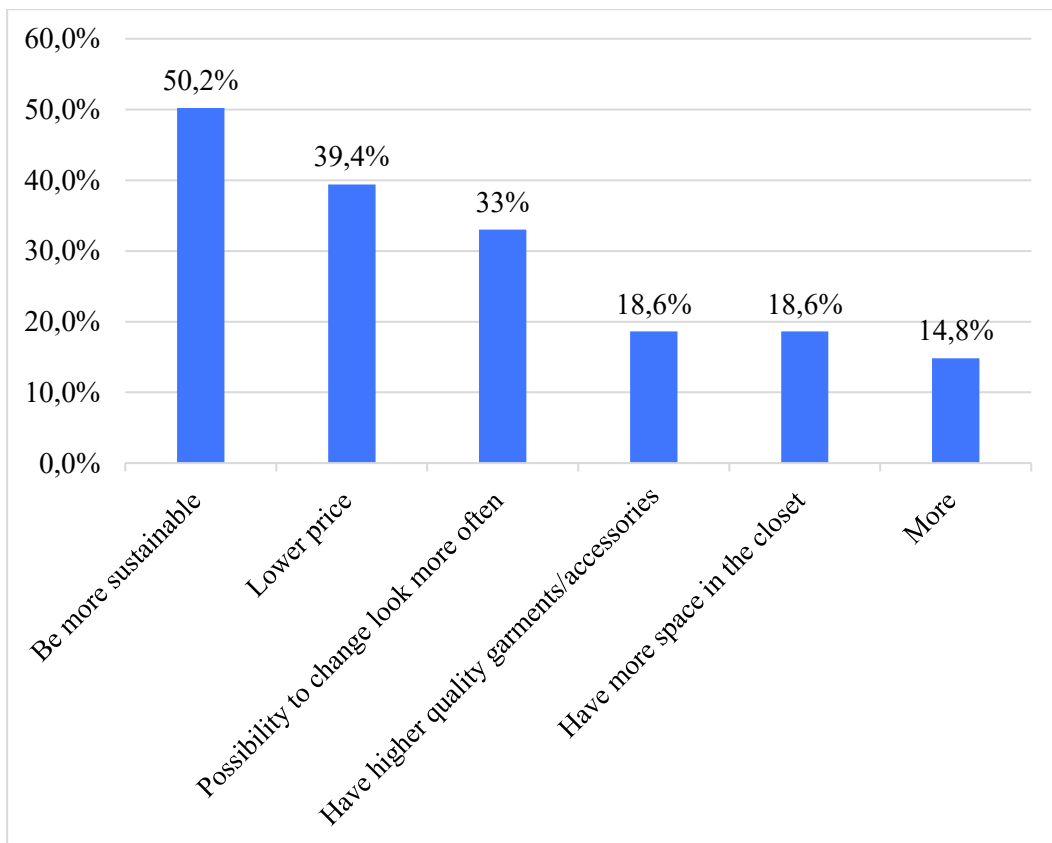
Figure 28, Favourability in renting everyday clothes.
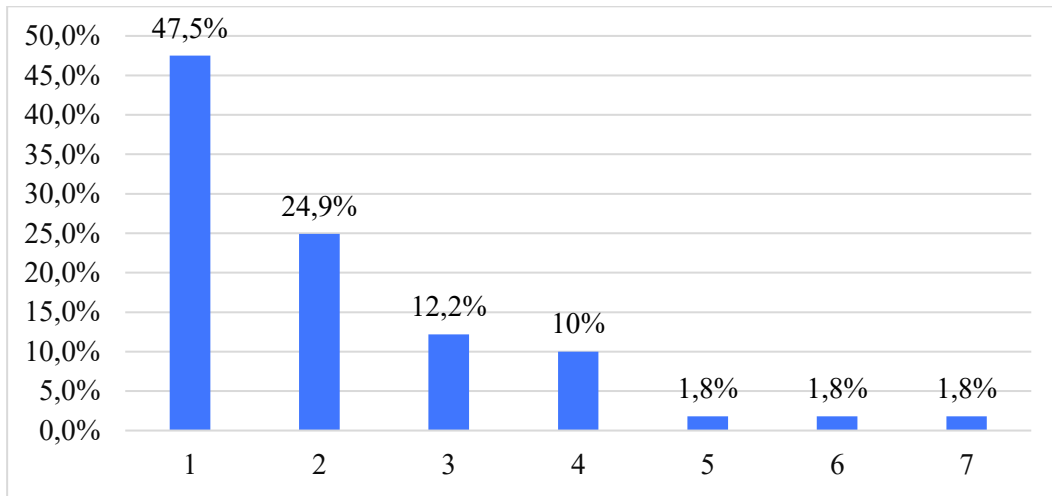
6. What are the advantages of renting clothes rather than buying them?

In this question there was the possibility to choose more than one option, the ones that obtained a higher result were: be more sustainable (50,2%), lower price (39,4%) and possibility to change look more frequently (33%).

Figure 29, Advantages of renting clothes.

7. What are the disadvantages of renting clothes rather than buying them?

Also in this case there was the possibility to choose more than one option, the ones that obtained the higher score are "hygiene", "I don't like the idea of having clothes worn by other people" and "it is an impractical solution" meaning that they consider this characteristics as something that might prevent him from trying the rental service.

Figure 30, Disadvantages of renting clothes.
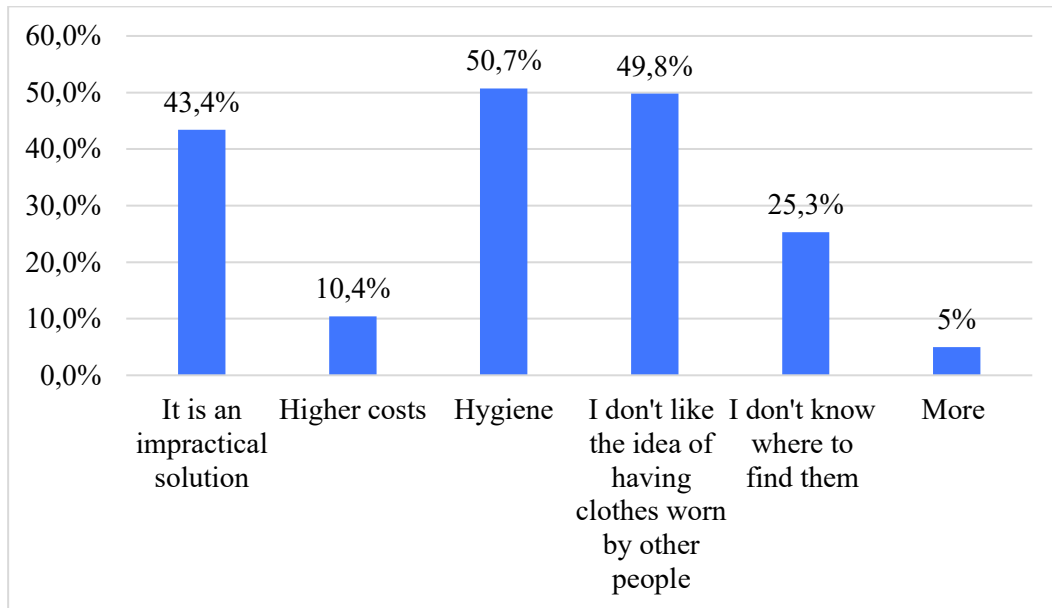
8. How interested would you be in paying a monthly subscription and being able to rent a certain number of items?

Concerning this question, most of the respondents (64,7%) answered 1 and 2 meaning that they are not willing to pay a subscription for renting a certain amount of clothes.

Figure 31, Favourability in paying a monthly subscription for renting clothes.
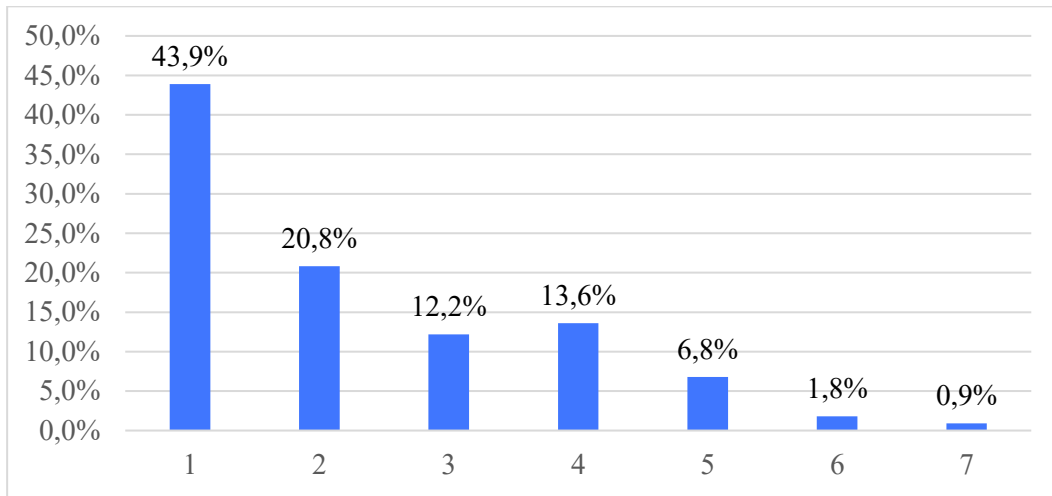
9. How much do you think renting clothes is a way to encourage sustainability?

18,6% rated 4, 25,3% rated this question as a 5, 16,7% rated as a 6 and 10,4% rated as a 7, so the respondents are aware that renting clothes is a way to incentivise sustainability.

Figure 32, Impression on how renting can encourage sustainability.
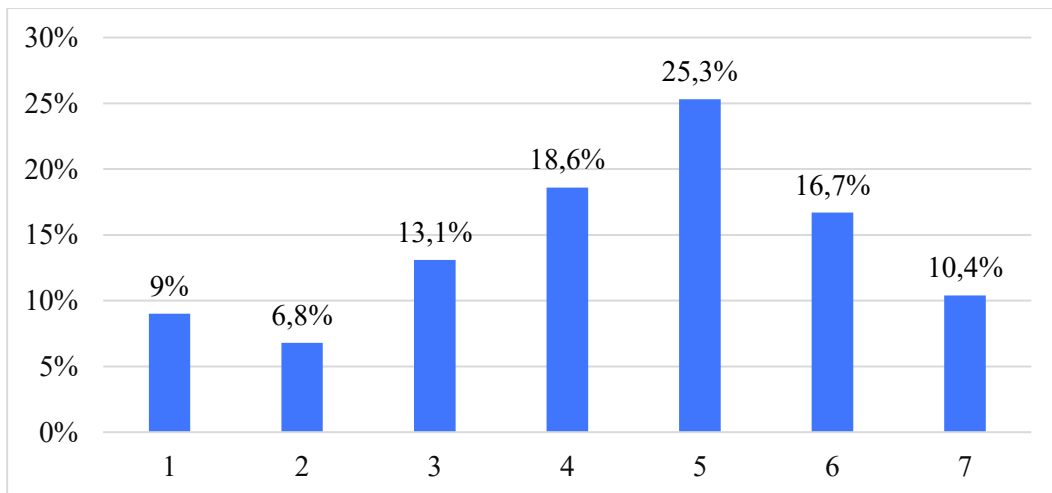
10. How much do you agree with this statement: rental allows me to have high quality garments at the same price compared to fast fashion garments.

In this question, it was asked to respondents their opinion on how much renting gave them the opportunity to have high quality garments at the same price compared to fast fashion garments, 26,7% have responded with a score of 4, this means that they neither completely disagreed nor fully agreed, but the results show that 21,7% agreed with this statement assigning a value of 5.

Figure 33, Favourability with renting of having high quality clothes at the same price of fast fashion clothes.
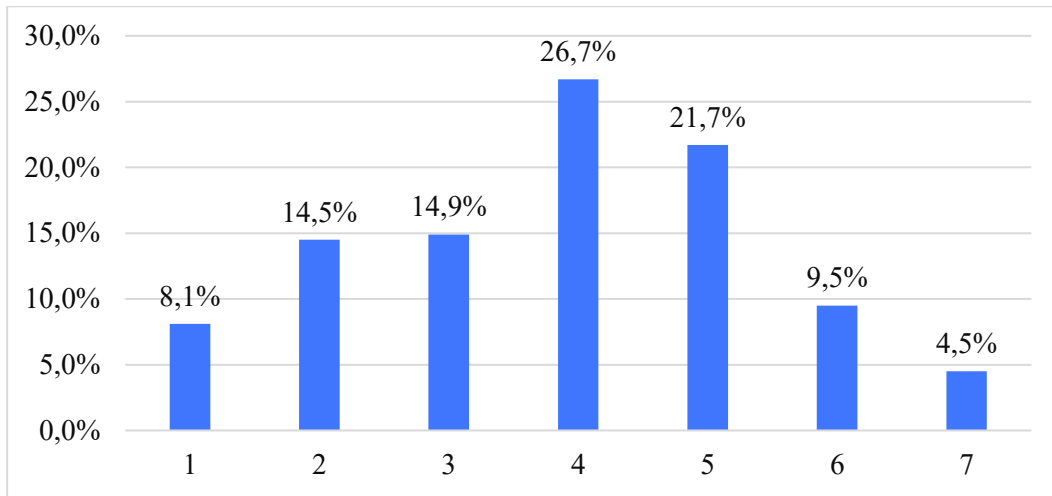
11. How much do you agree with this statement: renting high quality garments allows me to be more sustainable.

Also in this case, the question was posed to get an opinion of the respondents about how sustainable the renting of high-quality clothes is; most of the respondents are aware that by buying high quality garments can incentivize sustainability. The majority of the respondents answered with a score from 5 to 7, so based on this question, respondents are aware that renting high quality clothes they can be more sustainable.

Figure 34, Impression how renting high-quality clothes can incentivize sustainability.
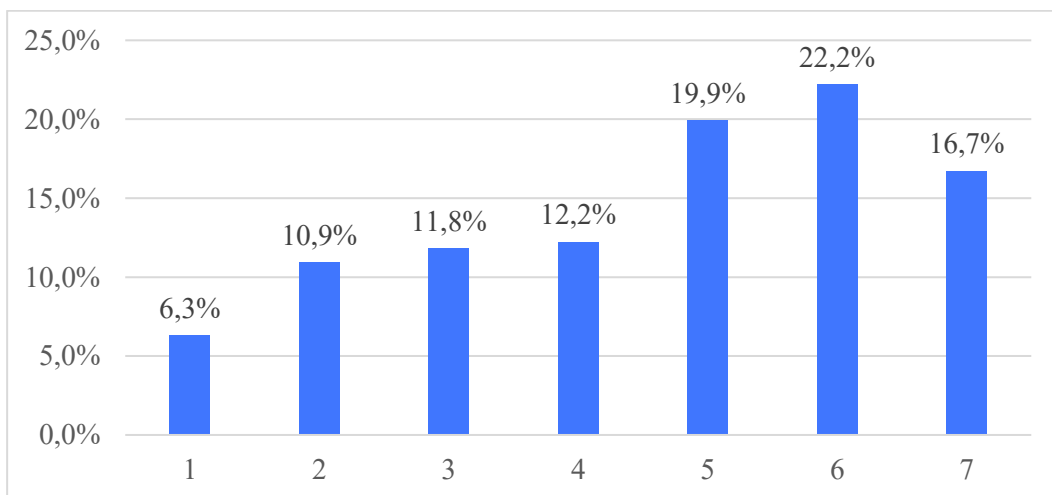
Moving on, now will be presented the second cluster analysis produced.

Firstly, it was done the same Two-step Cluster Analysis as the one done for the first cluster analysis and therefore the procedure will not be explained again. The analysis indicated that there should be 10 variables to be considered and 2 clusters to be produced.

Figure 35, Results of the Two-step analysis.

Model Summary

Algorithm	TwoStep
Input	10
Cluster	2

Cluster Quality
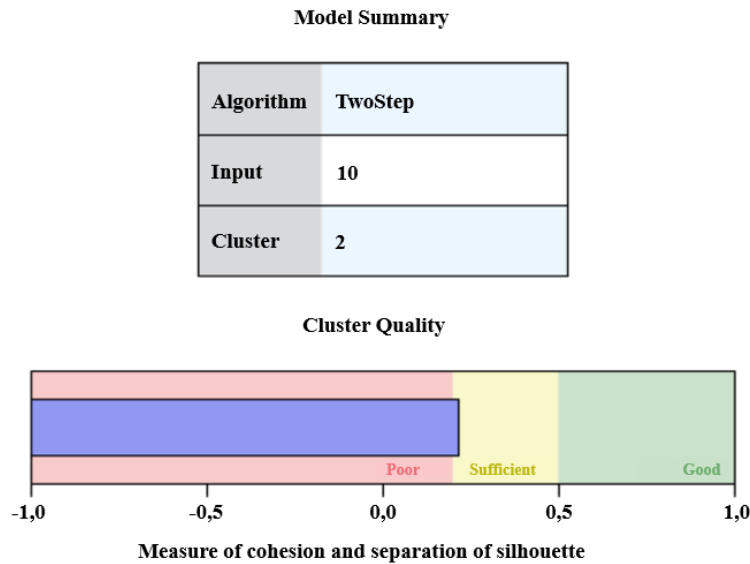
After the first analysis was carried out, the second cluster analysis was created, again using SPSS software.

Figure 36, Results of the cluster analysis.

	Cluster 1.	Cluster 2.
	More favourable	**Less favourable**
RENT	4,76	1,59
SPECIAL OCCASIONS	5,52	2,49
EVERY DAY	2,60	1,32
ADVANTAGE QUALITY	29%	3%
ADVANTAGE SUSTAINABILITY	63%	33%
DISADVANTAGE HYGIENE	41%	65%
SUBSCRIPTION	2,97	1,32
RENT FOR SUSTAINABILITY	5,20	3,20
RENT FOR SAME	4,55	2,90
RENT FOR QUALITY	5,63	3,24

For this cluster it was taken into consideration more variables compared to the first one, 10 to be precise. In this case the variables are:

1. The variable "Rent" is referred to the question "How favourable would you be to try alternatives to buying (e.g. Rental, Second Hand, Exchange)?", it was administered based on the Likert Scale, where people were asked to give an answer from 1 to 7.

2. The variable "Special occasion" is linked to the question "How favourable are you to having the possibility of hiring clothes for special occasions (e.g. wedding dress, bridesmaid, etc.)?". It was administered as a Likert Scale, where people had to choose between 1 and 7.

3. The variable "Every day" is referred to the question "How favourable are you to having the possibility of renting clothes that you can wear every day (e.g. t-shirts, jeans, jumpers, etc.)?", also in this case it was used a Likert scale from 1 to 7.

4. The variable "Advantage quality" is linked to the question "What are the advantages of renting clothes rather than buying them?". In this case there were the possibility to choose more than one option proposed and also the possibility to choose "more" in order to give a personal opinion. For this reason, it was taken into account whether the respondent chose or not the option in question, in this case, quality, assigning a value equal to 0 if the respondent did not choose it or a value equal to 1 if the respondent did choose the option.

5. The variable "Advantage sustainability" was analysed as above and it refers to "be more sustainable".

6. The variable "Disadvantage hygiene" is referred to the question "What are the disadvantages of renting clothes rather than buying them?". Also in this one there were given the possibility to respondents to choose more than one option and also to express their opinion with "more". For this reason, it was taken into account whether the respondent chose or not the option in question, in this case, hygiene, assigning a value equal to 0 if the respondent did not choose it or a value equal to 1 if the respondent did choose the option.

7. The variable "Subscription" is linked to the question "How interested would you be in paying a monthly subscription and being able to rent a certain number of items?". It was administered as a Likert Scale from 1 to 7 where respondents could

express their sentiment regarding this argument.

8. The variable "Rent for sustainability" refers to the question "How much do you think renting clothes is a way to encourage sustainability?". It was administered as a Likert Scale from 1 to 7.

9. The variable "Rent for same" is linked to the question "How much do you agree with this statement: renting allows me to have high quality garments at the same price compared to fast fashion garments". Also in this case it was created a Likert scale from 1 to 7.

10. The variable "Rent for quality" refers to the question "How much do you agree with this statement: renting high quality garments allows me to be more sustainable". It was administered as a Likert scale.

Having done this explanation of the variables considered, it is now possible to proceed with the explanation of the clusters.

In cluster one people are more likely to try renting, in particular for special occasion, in fact the variable "Every day" obtained a lower score meaning that the respondents are not interested in rent clothes that they could wear every day. Then the advantage between the two cited, it resulted the most relevant sustainability, people are interested in alternative to purchase that can have a positive impact on the planet but also on the people and only secondly are interested in the quality of the offered clothes. Concerning the disadvantage, it was found that is not such an important issue even if it requires proper attention. About the subscription, cluster one is more willing to pay a monthly fee to receive the service compared to cluster two. The last three variables considered obtained a high value meaning that people think that with rent they can incentivize sustainability, they can have high quality clothes at the same price of the one of fast fashion companies and having high quality clothes allow people to be more sustainable.

For what concern cluster 2, the score obtained are almost all very low, we can say that in people are not interested in the renting practice even for special occasions or for everyday clothes. They do not find any advantages in renting, but they state that there are disadvantages for this kind of practice like the question of hygiene considering rented clothes not very hygienic according to their expectations.

They are less in favour than cluster 1 of paying a monthly subscription to receive a certain

number of garments and they do not think that renting can incentivize sustainability and having high quality garments allows them to be more sustainable and to have garments at the same price as those of fast fashion companies.

Those results can help companies to improve their business model by paying attention to the most important features according to the possible customers.

As already mentioned at the previous chapter, a variable must have a p-value less than 0.05 to be significant. In our case all the variables considered are significant and this signifies that all variables discriminate between clusters.

Figure 37, ANOVA table.

ANOVA						
	Cluster		Error		F	Sign.
	Quadratic mean	gl	Quadratic mean	gl		
RENT	547,553	1	2,185	219	250,623	<,001
SPECIAL OCCASIONS	485,647	1	2,234	219	217,428	<,001
EVERY DAY	90,593	1	1,500	219	60,392	<,001
ADVANTAGE QUALITY	3,635	1	,133	219	27,336	<,001
ADVANTAGE SUSTAINABILITY	4,866	1	,230	219	21,151	<,001
DISADVANTAGE HYGIENE	3,305	1	,237	219	13,938	<,001
SUBSCRIPTION	143,182	1	1,520	219	94,171	<,001
RENT FOR SUSTAINABILITY	212,055	1	2,005	219	105,789	<,001
RENT FOR SAME	146,025	1	1,802	219	81,038	<,001
RENT FOR QUALITY	309,361	1	1,948	219	158,773	<,001

Figure 38, Number of cases in each cluster.

Number of cases in each cluster		
Cluster	1	127,000
	2	94,000
Valid		221,000
Missing		,000

The last table is a frequency table and shows us how many observations were included in cluster 1 and how many in cluster 2: 127 were included in cluster 1 and 94 in cluster 2.

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