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**Sustainable fashion and the role of personality traits  
in determining the Purchase Likelihood and the  
Willingness To Pay for sustainable apparel**

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## ABSTRACT

Sustainability has become a global and important issue, as a consequence of the environmental degradation that can be tracked back to the industrial revolution.

States, firms and individuals must take actions in order to avoid environmental catastrophes, by creating and respecting new laws, changing the production system and adopting different consumption behaviors.

In ensuring sustainable consumption and production patterns, the fashion industry is one of the most important players, since it is sadly known to be characterised by high water usage, pollution, labour issues in developing countries and the difficulty of recycling fashion products which eventually finish in landfills or are incinerated.

The concept of sustainable fashion was introduced for the first time during the sixties when fashion consumers started to reflect on the repercussions of their consumption behaviour on the environment.

This study adds to the topic of sustainable fashion, in particular to the sustainable apparel consumption behavior. The aim is to prove the relationship between the individual's personality traits and the purchase likelihood and willingness to pay for sustainable apparel. The personality traits examined are impulsivity, localism, need for uniqueness and frugality, with the additional purpose to test the moderation effect of anxiety on the relationship between impulsivity and purchase likelihood/ WTP and the influence of cynicism in moderating the relation of frugality with purchase likelihood and WTP for sustainable apparel.

The hypotheses have been tested through a quantitative research model; the answers have been collected by means of a questionnaire involving a sample of 100 people.

The hypothesized relationships have been tested through partial least squares structural equation modeling technique.

The results reveal that cynicism and need for uniqueness have a significant impact on purchase likelihood and willingness to pay.

The findings of this study are a contribution to the analysis of purchasing behavior and willingness to pay for sustainable apparel; they may help Marketing managers in planning targeted strategies and methods to increase sales.

Despite of the increasing interest in sustainable fashion characterizing the last few years, this argument is still new and little known to a large part of the population, as this research demonstrates. This study, compared to others who deal with the purchasing likelihood or willingness to pay for sustainable fashion, analyze empirically some specific personality traits. Impulsivity, localism, need for uniqueness, frugality, anxiety and cynicism have been specifically taken into consideration because it has been scientifically proven that they describe a consumer concerned about the environment and/or a fashion addict buyer. By testing and evaluating the hypotheses it is possible to identify which are (or are not), the characteristics of a typical sustainable fashion consumer and increase the awareness on this important topic.

## INTRODUCTION

The environmental degradation we are witnessing today is the result of a growing demographic and economic development that can be traced back to the industrial revolution. The scientific community is studying the causes and the consequences of this over-population and over-production for the ecosystem. The environmental changes caused by human action have been reflected in catastrophic events over the years and this has led to the need to find a solution that should be taken at a global level.

The concept of sustainable development was presented in 1987 by the World Commission on Environment and Development in the Brundtland Commission Report; it is a set of processes that, in the long-term, should lead to sustainability. Sustainability indicates an improved quality of life obtained through the balance of the environmental, societal and economic situations (UNESCO). When talking about sustainability, however, we are not referring only to safeguarding the planet from an environmental point of view, but also to the future protection of the people and living beings who will inhabit it.

In 2015, the United Nations developed the “2030 Agenda for sustainable development”, which is the most ambitious international program related to sustainable development in which the EU is committed. The aim of the program is to reach, by the end of 2030, the end of poverty and hunger, the absence of inequalities, the guarantee of respect for human rights and the preservation of the planet and its natural resources. To obtain this result, states will have to strive to achieve the “12 Goals For Sustainable Development” (United Nations 2015).

Consumers are becoming more aware of the impact that their purchase decisions have on the environment, thus, when they buy, they consider aspects such as the place of origin of the product, employees’ working safety, child labour, customer health and safety and other details (Shao, Taisch, Ortega Mier, 2017).

During the fifties, the concept of Corporate Social Responsibility (CSR) was developed as a response to the rapid population growth, pollution, resource depletion, social movements with respect to the environment and human and labor rights in order to make companies responsible for the impact of their decisions in the society.

CSR was defined by the European Commission as “the responsibility of enterprises for their impacts on society. Companies should have in place a process to integrate social, environmental, ethical, human rights and consumer concerns into their business operations and core strategy [...]” (European Commission, 2019).

The actions that should be taken in relation to the CSR are being involved in environmental sustainability (waste management, reusable materials, renewable energy, greener supply chains), community involvement, and ethical marketing (be transparent, do not make false advertisements or manipulate potential customers) (Yevdokimova., Zamlynskyi, Minakova, Biriuk, Iliina ,2019).

The commitment that companies put into being sustainable, is found in the purchasing behaviors of customers; the higher is the perception of the value offered by the green products, the higher will be the consumers' purchase intention and willingness to pay (Schmidt, Bijmolt, 2020). In the same way, consumers' purchasing behaviors for sustainable products could be affected by environmental concern, personal attitudes, emotions, moral obligations, the origin of the product, information and personality traits.

The fashion industry, especially after the rise of the so-called "fast fashion" phenomenon, has become one of the most polluting and unethical industries due to the high-water usage, pollution derived from chemicals used in dyeing, labor issues in developing countries and the difficulty of recycling fashion products which eventually finish in landfills or are incinerated. Sustainable fashion is a new concept which does not have a specific definition yet, but that can be deduced from the definition of "Ethical clothing" proposed by Mintel in 2009. The concept of sustainable fashion has been developed as a response to the fast fashion movement, aiming to promote clothes produced locally, with natural fibers, under fair working conditions and transparency with customers.

The sustainable goal for the fashion industry should be the reduction in the production and the recycling of clothes, following the concept of the "circular economy", according to which once it comes to an end, the product should be redesigned, reinvented and never discarded.

The purchase likelihood and WTP for sustainable clothes, as emerged in previous studies, is determined by the concern that consumers have about the environment (Notaro and Paletto 2021), on the other hand, the poor fashionability and the higher prices (for apparently no justified reasons), threaten the sustainable garments consumption.

Personality traits are important factors in determining consumers' purchasing behaviors; indeed, the aim of this study is to demonstrate the influence that some personality traits, namely localism, need for uniqueness, frugality, and impulsivity have on purchase likelihood and WTP for sustainable apparel. I additionally supposed that anxiety and cynicism play the role of moderators; the first one, anxiety, on the relationship between impulsivity and purchase likelihood and WTP for sustainable apparel, while for what concerns cynicism, I supposed it moderates the relationship between frugality and purchase likelihood/ WTP for sustainable

apparel. The hypotheses I made result from reasonings raised considering the personality traits in relation to fashion consumption, ethical consumption and environmental concern.

Perceiving a local identity means being aware of the local environment, traditions, family obligations, something known from a direct experience. The study conducted by Zhang and Khare (2009), demonstrates that individuals who showed a local (global) personality, will prefer local (global) goods. Products that can be defined as “local” are those produced with local resources and materials, by local artisans or factories, reflecting the identity of the place; moreover, a local product implies a much shorter distance to reach the consumer than a global one. For these reasons, and for the fact that people with a higher local identity are less price sensitive and recognize a local product as more valuable (Gao, Zhang, Mittal 2016), I hypothesized that localism is positively related to consumers’ purchase likelihood and WTP for sustainable apparel.

The “need for uniqueness” personality trait is reflected in the acquisition, utilization and disposition of goods that are different from what others have, to enhance one’s self-image and social image” (Tian, Bearden, Hunter, 2001). Being creative in dressing styles is the most immediate way to show uniqueness; the uniqueness of the garment, the peculiarity of the fabrics and the social value associated with the unconventional choice of adopting a sustainable behavior, are assumed to be the reasons that drive customers with a high need for uniqueness to purchase and to increase their WTP for sustainable apparel.

The features that most characterize a frugal behavior are the conservation of resources, the care for possessions, recycling, re-using and repairing products (Bove, Nagpal, Dorsett, 2009), which basically corresponds to the description of a sustainable behavior. Sustainable clothes are usually more expensive than other offers but, at the same time, they guarantee a longer durability that results in a lower cost per wear compared to fast fashion products. Consequently, I hypothesized that frugality is positively related to consumers’ purchase likelihood and WTP for sustainable apparel. When frugal individuals present the personality trait of cynicism, the relationship changes; I assumed that the sentiment of distrust caused by the lack of transparency of the fashion industries, could have a negative impact on consumers’ purchase likelihood and WTP. Cynicism is therefore a moderator variable in the relationship between purchase likelihood and consumers’ WTP for sustainable apparel.

An impulsive individual reacts fast without thinking and conscious judgment. This behavior is reflected in a type of purchase made to satisfy the urge of the moment and it is opposed to the conscious, premeditated and direct purchasing behavior that concerns sustainable clothing. Price is a factor that influences the impulsive shopper; considering that sustainable clothes are more expensive than the others, impulsive consumers might not be willing to pay for them.



Therefore, the hypotheses are that impulsivity is negatively related to consumers' purchase likelihood and WTP for sustainable apparel.

I assumed that anxiety plays a moderator role in the relationship between impulsivity and the dependent variables; in particular, the more an impulsive buyer is anxious, the more he/she will probably purchase or be willing to pay for sustainable apparel. This is likely because the anxiety derived from the latest environmental disasters, the public concern related to climate change and the awareness that the future of the global ecosystem depends on everyone's actions, might lead anxious people to adopt ecological behavior, including sustainable consumption.

The results might be useful for Marketing managers to refine their communications strategies that will be customized in accordance to the different market segments based on the consumers' personalities.

After this first introduction of my work, the thesis continues with the literature review that includes the presentation of the topic of the research, namely the definition of sustainable development and sustainability, CSR, the path of the fashion industry towards sustainability, the consumers' approach to "green" alternatives and the role that personality traits play on buying decisions. In the following section I develop my hypotheses and I present the key research question. Afterwards, I explain the research methodology, how I collected my data and I describe my sample. The fourth chapter regards the analysis of the data collected and the results. In the final chapter I discuss the results obtained, I present the limits of my research and I make suggestions for future studies.

# 1. Literature review

## 1.1 Sustainable development: time for degrowth

Sustainability has become a global and important issue; during history, attitudes towards nature have been different according to times, places and cultures. In the past, nature was considered too large and astonishing to worry about sustaining it; the task of protecting and caring for the environment was entrusted to gods or providence but, in the meantime, the human being started to exploit the available natural resources to satisfy its needs.

The causes of environmental degradation can be tracked back to the Industrial Revolution, the period in which the population began to grow and the production developed. This time was characterized by the increasing demand on scarce resources and by the economic growth that led to the rise of living standards; in order to guarantee their improvement, an increasing number of raw materials, energy, chemicals and synthetics have been used, creating pollution. The environmental changes caused by the human action, have been reflected in catastrophic events over the years like the Eight Major Pollution Incidents in the early 20th century, the Belgian Meuse Valley Fog disaster of 1930, the Donora Smog tragedy in 1948 and the Great Smog of London in 1952; the ecological crisis was becoming more and more concerning. (Shi, Han, Yang, Gao, 2019)

Today the unexpected effects of the economic growth, the lack of development, the world overpopulation and the consequent detrimental behaviours are negatively affecting the ecosystem. If previously the concern was related to the impact of development on the environment, now we should worry about how environmental degradation will impact the economy.

The concept of sustainable development has been presented in 1987 by the World Commission on Environment and Development in the Brundtland Commission Report as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” Sustainable development refers to all the processes that lead to sustainability, which is the long-term goal. “Sustainability is a paradigm for thinking about the future in which environmental, societal and economic considerations are balanced in the pursuit of an improved quality of life. For example, a prosperous society relies on a healthy environment to provide food and resources, safe drinking water and clean air for its citizens.” (UNESCO). The shift to a sustainable development is primarily an ethical shift which involves the respect for nature’s diversity and the responsibility to conserve this

heterogeneity. Nature must be valued and not considered just to provide resources that will enhance economic growth.

Even though the term “sustainable development” has been defined at the end of the 1980s, the same concept might be traced back to the Chinese philosophy according to which natural resources such as mountains, forest and rivers should be used following the laws of nature and not by overexploiting them. In the ancient Egyptian, Roman, Greek and Mesopotamian civilizations, phenomena of environmental degradation like intensive farming, logging and mining have been observed. The United Nations Conference on the Human Environment in 1972 focused on the need for all countries in the world to implement environmental policies while developing their economies. This might be considered the first time in which the concept of sustainable development has been used, even though the official definition has been published just in 1987. (Shi, Han, Yang, Gao, 2019).

During the 1990s, governments and the whole international community began to approach to sustainable development at the global level. In 1990 the European Environment Agency was created; in 1992, the UN summit on the Environment and Development in Rio de Janeiro led to the “Rio Declaration on Environment and Development” and the adoption of “Agenda 21”. The aim of the agreements was to identify the responsibilities of both developing and developed countries and guide them in the future sustainable development; this was the first time in which the theoretical concept of sustainable development was translated into global action. (Shi, Han, Yang, Gao, 2019). In the same summit, the UN promulgated the United Nations Framework Convention on Climate Change (UNFCCC) which is an international environmental treaty against climate change, whose objectives were implemented in 1997 in the Kyoto Protocol. The Kyoto Protocol entered into force in 2005 and committed industrialized countries and economies in transition “to limit and reduce greenhouse gases (GHG) emissions in accordance with agreed individual targets. The Convention itself only asks those countries to adopt policies and measures on mitigation and to report periodically.” (United Nations Climate Change).

In 2000, the representatives of 189 countries were present at the United Nations Millennium Summit where they signed the “United Nations Millennium Declaration” containing the Millennium Development Goals (MDGs); the core focus was the elimination of extreme poverty but they also strived to achieve universal parity education, gender equality and women empowerment. By 2015 in developing areas, the number of people living in poverty dropped from 47% in 1990 to 13% in 2015, the number of children attending primary schools increased from 83% in 2000 to 91% in 2015; other significant results in the health sector were

achieved: the global under-five mortality rate decreased and the majority of the global population had access to improved drinking water source (Shi, Han, Yang, Gao, 2019).

The year 2015 marked another important milestone in the mission of sustainable development: on the 12th of December the Paris Agreement, which entered into force in November 2016, was adopted by 196 countries. The goal of this agreement is to reduce global warming to a pre-industrial level. For the first time, an agreement binds all nations to act for a common cause. All the parties support each other financially and technically. So far, many countries are establishing carbon neutrality targets; in particular, in the power and transport sector, zero-carbon solutions have been adopted (UNCC). Despite these improvements, there is still a lot of work to do and a lot of changes to make in order to achieve the goals of the Paris Agreement.

The United Nations in 2015 presented “The 2030 Agenda for sustainable development” which includes seventeen goals that consider six elements: dignity, human beings, the planet, prosperity, justice and partnership. They should be achieved by 2030 with the purpose of ending poverty and hunger, combatting inequalities, defending human rights and protecting the planet and its natural resources.

They are categorized in four areas on the basis of their objective: economy (goals number 8,9,10,12), society (goals number 1,3,4,5,11,16), environment (goals number 2,6,7,13,14,15) and governance (goal number 17). The goal number twelve is: “Ensure sustainable consumption and production patterns”; to reach this goal all the companies, especially the multinationals, are encouraged to adopt sustainable practices and integrate sustainability information into their reporting cycle (United Nations 2015). Governments, international organizations and individuals must also contribute to the development of technological and innovative capacities that will allow the adoption of more sustainable patterns of production and consumption.

The “2030 Agenda for sustainable development” is the most ambitious international program related to sustainable development in which the EU is committed. In 2017, in response to the 2030 Agenda, the EU together with its member States, defined a common vision and action framework for development cooperation, the new “European Consensus on development”. The Consensus is founded on the “5 Ps” identified in the 2030 Agenda: Planet, People, Prosperity, Peace and Partnership. These “Ps” imply the integration of the economic, social and environmental dimensions (European Commission, 2019).

People are asking for more and more information in relation to the products’ level of sustainability because they are becoming more aware of the impact on the environment

derived from their consumption decisions. The results on the research conducted by Shao, Taisch, Ortega Mier (2017) demonstrated that customers are giving more relevance to the social impact of the product considering attributes such as employees' working safety, child labour, customer health and safety and customer satisfaction and, as a consequence, they require more related details.

### 1.1.2 CSR: definition and outcomes of the Corporate Social Responsibility

The impact that corporations have on the society and on the environment is not a consequence of globalization, the responsibility that businesses have towards society can be dated back to centuries ago. According to Latapí Agudelo, Jóhannsdóttir, Davídsdóttir (2019), the roots of the CSR can be found in the ancient Roman Laws and the notion of corporations as social enterprises can be traced back to the English Law of the Middle Age. During the late nineteenth- early twentieth century, the link with the recent CSR can be attributed to the adoption of measures aiming to increase the welfare by improving the quality of life of the employees inside the companies. This period was also characterized by urbanization, industrialization and large-scale production. This implied new challenges for farmers and small corporations in order to keep up with the changing economy, and the improvement of the working conditions through the institution of unions of workers (Latapí Agudelo, Jóhannsdóttir, Davídsdóttir, 2019).

The notion of CSR as we know it today comes from the early 1950's; at that time large corporations had a great power and their decisions had a relevant impact on the society. As a matter of fact, the academic research regarding CSR were focused on the social level of analysis. During this period there were many factors that affected the society: rapid population growth, pollution, resource depletion, social movements with respect to the environment and human and labor rights. In 1953, Bowen developed the first definition of CSR explaining that the responsibility of business executives was to make decisions according to the values of the society. (Latapí Agudelo, Jóhannsdóttir, Davídsdóttir, 2019).

During the seventies, a growing number of legislations that allocated more responsibilities to corporations in relation to their impact on the society and the environment were introduced. Nonetheless, the role of the government in regulating corporate behavior has decreased during the 1980's, thanks to the Thatcher and Reagan administrations that wanted to maintain a free-market economy with a minimum state intervention.

The eighties were marked by a series of events that concerned sustainable development and consequently corporate responsibility. These episodes were the creation of the European Commission's Environment Directorate-General (1981), the establishment of the World Commission on Environment and Development chaired by the Norwegian Prime Minister Gro Harlem Brundtland (1983), the Chernobyl nuclear disaster (1986), the publication of the report "Our Common Future" presented by the Brundtland Commission which provided a definition of sustainable development (1987) (Latapí Agudelo, Jóhannsdóttir, Davídsdóttir, 2019). All these events highlighted the interest of the international community in the environmental protection and sustainability for which the engagement of corporations is essential. The international approach to CSR was reflected on the international certifications such as ISO 26000 introduced in 2002 and adopted by more than 80 countries, which provides the guidelines for social responsibility aiming to improve the quality and the environmental management standards.

In the 2000's corporations had the task to satisfy social expectations and become more sustainable; this led, in 2011, to the development of the notion of shared value by Porter and Kramer. They defined the shared value as policies and practices that encouraged the competitiveness of a company while advancing the social and economic conditions in the environment in which it operates. The creation of shared value became the new objective for businesses and the first thing to do to realize it, was to identify the social needs and the benefits and harms caused by the production system (Latapí Agudelo, Jóhannsdóttir, Davídsdóttir, 2019).

Nowadays it is important that companies, especially large corporations, are aware of the impact of their actions in the environment and in the society. Public authorities, including the European Union, have an important role in supporting and encouraging companies to act on this vision.

CSR was defined by the European Commission as "the responsibility of enterprises for their impacts on society. Companies should have in place a process to integrate social, environmental, ethical, human rights and consumer concerns into their business operations and core strategy in close collaboration with their stakeholders, with the aim of maximizing the creation of shared value for their owners/ shareholders and civil society at large and identifying, preventing and mitigating possible adverse impacts". (European Commission, 2019). Similarly, the International Labor Organization (ILO) refers to the EU terminology "CSR" as an internal process through which enterprises affirm their values thanks to the cooperation with other actors in advancing responsible and sustainable business through applying the

principles of the Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy “MNE Declaration” (ILO 2020).

The OECD introduced the concept of “Responsible Business Conduct (RBC)” that can be used as an alternative term to CSR. RBC means making a positive contribution to the economic, environmental and social progress with a view to achieving sustainable development, avoiding and addressing adverse impacts related to an enterprise’s direct and indirect operations, products or services. The definition of RBC was developed considering the OECD Guidelines for Multinational Enterprises (OECD MNE) which involve all the major areas of business responsibilities: information disclosure, human rights, employment and industrial relations, environment, combating bribery and corruption, consumer interests, science and technology, competition and taxation (European Commission, 2019).

From the study conducted by Dahlsrud (2008) on the definition of CSR, it emerged that the common points are the importance given to the stakeholders, the voluntary degree of CSR actions by companies, the social, economic and environmental aspect of these actions and their common purpose, that is sustainable development. Nonetheless, it is still not clear how CSR should be socially constructed in a specific context. In the context of globalization, that is a dynamic and challenging setting, the increase of social inequalities, the greater power of multinationals and the environmental degradation have led stakeholders and national legislation to require greater commitment and responsibility from businesses, altering the way in which the environmental, social and economic decisions should be combined in decision making. In this situation the CSR management tools are needed to develop an efficient business strategy.

The EU and its Member States are also engaged in the respect of Business and Human Rights (UNGPs), ratified by the UN Human Rights Council in 2011. They provide that: “States’ existing obligations to respect, protect and fulfil human rights and fundamental freedoms; the role of business enterprises as specialized organs of society performing specialized functions, required to comply with all applicable laws and to respect human rights; the need for rights and obligations to be matched to appropriate and effective remedies when breached.” (European Commission, 2019). The Business and Human Rights are linked to the concept of CSR and RBC and they were actively implemented.

Specific programs are conducted to promote CSR/RBC and Business and Human Rights around the world, in particular in Asia and Southern Mediterranean. According to the studies conducted by Halkos, Nomikos, Tsilika (2021), continents with developed and more industrialized countries perform a higher level of CSR in terms of reporting in all types of

organization. Regarding the environmental scenario, all the continents except from Asia integrate this advantage in a positive way.

The common actions that should be taken in relation to the CSR are: environmental sustainability (waste management, reusable materials, renewable energy, greener supply chains, etc.); this aspect of the CSR is defined as Corporate Environmental Responsibility (CER) and deals with all the issues related to the ecosystem. A company's environmental responsibility implies the adoption of practices and processes aiming to reduce the ecological impact of the firm.

Other measures to adopt in relation to the CSR are community involvement (attracting funds for local charities, financing local events, joining fair trade practices, participating in the local economic development); ethical marketing (be transparent, do not make false advertisements or manipulate potential customers). (Yevdokimova., Zamlynskyi, Minakova, Biriuk, Iliina ,2019). The publication of information regarding the sustainable practices adopted will increase the liability and help to identify and manage risks; about that, CSR goes hand in hand with corporate sustainability. Being concerned about the environmental issues and adopting sustainable measures help companies to achieve a competitive advantage and improve the long-term financial performance thanks to the development of new resources and capabilities together with a deeper stakeholder engagement.

The main barriers in the adoption of CSR programs are the lack of financial resources and of reforms due to the absence or limited support of the government. Another constraint is the lack of top management commitment towards CSR initiatives which is the consequence of the fact that it is considered volunteer activity that should be left to big corporations. These obstacles occur especially in the SME sector in developing countries, where the knowledge of pollution prevention and pollution control is little (Zou, Liu, Ahmad, Sial, Badulescu, Zia-Ud-Din, Badulescu, 2021).

There are many international reporting frameworks that allow firms to present non-financial information: the UNGC framework, the ISO 26,000 and the GRI- Global Reporting Initiative. The UNGC provides a sustainability framework according to which enterprises should follow ten principles regarding human and labor rights, environmental protection and transparency. The ISO 26,000- Guidance on Social Responsibility guides companies on declaring their achievements and improvements to attract all the interested customers. The GRI presents the guidelines for voluntary reporting aiming to be transparent with the stakeholders and create more benefits for the companies (Halkos, Nomikos, Tsilika, 2021).



Beyond the benefits for the society and the environment, CSR leads to numerous positive effects on the business performance. The study conducted by Halkos and Nomikos (2021), demonstrated that being ecological by reducing the quantity of resources used in the production will reduce costs affecting positively the profitability. Also, improvements in the employment, community and product responsibility will lead to higher employee satisfaction and retention that will consequently enhance the financial results. A positive correlation between good environmental performance and positive stock market reaction was proved. The spreading of information and the transparency of the organization will increase the company's trustworthiness encouraging more investments that will eventually result in a more favorable stock price.

Although CSR presents many positive effects for the society and the environment, it is important to take into consideration also the negative-side effects. The analysis conducted by Mishra and Modi (2013), demonstrated that CSR has a significant effect on the idiosyncratic risk of firms, also known as unsystematic risk, which is the inherent risk that is particular to a specific investment.

One of the pillars of CSR are the stakeholders; if the firms fail to meet their expectations, the results might be consumer boycotts, supply chain disruptions, and worker strikes that will consequently lower the shareholder value determining a negative CSR. According to the neoclassical theory, CSR should not be incorporated into the strategic decisions of the company since if it is positive, it will not affect shareholder value but if it is negative, it will worsen the situation. The hypothesis that a negative CSR will cause an idiosyncratic risk due to the disappointment of stakeholders' expectations, implies the assumption that the CSR commitment of the firms is real.

To make stakeholders in the condition of evaluating the company properly, and to increase its trustworthiness, it is important to communicate the CSR to a wide audience. In order to do that, firms should publish the information on the web, in particular in the social media, where everyone can interact with each other. By being more transparent, it is possible to avoid greenwashing perceptions and reduce information asymmetries.

Mishra and Modi (2013) in their study affirmed the importance of considering both positive and negative aspects of CSR since many firms engage in both of them and excluding the negative effects might lead to an incomplete view of the financial implications of CSR.

### 1.1.3 - How much would buyers pay for sustainability? - Purchase likelihood and WTP for green products in a context of sustainable development and CSR

The higher is the perception of the value offered by the green products, the higher will be the consumers' purchase intention and willingness to pay. The willingness to pay denotes the maximum price that an individual would pay for a product with specific characteristics. At that price, the customer is indifferent between buying and not buying, since the monetary value of the product reflects the buyer's perceived utility (Schmidt, Bijmolt, 2020).

In order to quantify the value offered by the sustainable goods, the eco-conscious consumers will at first compare the product performance in relation to the price. Secondly, they will base their purchasing decision on the social behavior of firms; they will consider the satisfaction derived by the purchase, the so-called "social value"; this satisfaction comes from a moral obligation, a sense of social responsibility in doing the right thing for the community and the environment. The consumer choice behavior for the green products is also influenced by the availability of information; for this reason, companies should be as transparent as possible and provide all the facts that are necessary to allow the customers to make informed decisions.

The attitude, which is defined as the favorable or unfavorable evaluation of beliefs about an idea, people, behaviors etc., plays an important role in relation to the sustainable purchase likelihood; an individual who is very concerned about the environment, will be more likely to engage in green purchasing (Kumar A., Prakash, Kumar G. 2021). In the same way, emotions affect the perception of the value attributed to a particular product and the potential purchase. Feelings like happiness and caring when they result from the adoption of an environmental-friendly behavior, will determine higher WTP for the green product too (Ragbir, Rice, Winter, Choy, 2021).

Sanjuán, Sánchez, Gil, Gracia and Soler (2003), conducted research on the consumption and willingness to pay for organic food among Spanish consumers and retailers; results showed that attitudes, such as awareness about health, balanced lifestyle and natural food consumption, determine a higher purchase likelihood and WTP for biological food. The more concerned buyers are willing to pay from 22% to 37% more for organic vegetables, but they represent only a small percentage; from the study, it seems that Spanish consumers are not aware of environmental issues or food security. In this context, the objective should be to increase the demand by intensifying the faith in organic food, providing information about it and by increasing its availability in retailers.

The importance of providing the correct information to increase the awareness among the consumers, is reflected also in the results of a study related to the propensity to buy and pay a price premium for Zero Emission Vehicles (ZEV) (Rosales-Tristancho, Carazo, Brey, 2021). The authors demonstrated that drivers are not willing to buy a ZEV because they are not confident with the technology, even though 50% of the participants would pay, on average, €2500 more for the zero-emission automobile.

The necessary information can be displayed in the labels; the influence of eco-labeled products on the consumers' buying decisions is an important feature that enables us to understand the potential of markets with green products. The eco labels are "labels of environmental excellence", which have been established in 1992 and they are internationally recognized; an eco-labeled product meets high environmental standards, from the material extraction to its disposal (European Commission). In their research, Min, Lim, and Yoo (2017) proved the importance of eco-labels in 43-inch LED TV, for which consumers are willing to spend a price premium 3.9% higher than the price of conventional 43-inch LED TV.

The place of origin of a product is an important factor in determining consumers' WTP. The locally- produced goods result in a higher WTP even though attributes such as the organic production and the sustainable production are more relevant when evaluating a product's level of sustainability (Zander, Feucht, 2018).

Generally, people are aware of the fact that being environmental-friendly is costly and that this will result in higher prices for green products. As evidenced by the research, the purchase likelihood and the willingness to pay for sustainable products are influenced by different factors, such as environmental concern, personal attitudes, emotions, moral obligations, the origin of the product, information and, as it will be presented afterward, personality traits.

## 1.2 The fashion industry from a fast to a sustainable perspective

In ensuring sustainable consumption and production patterns, the fashion industry is one of the most important players. The apparel manufacturing process is composed by different phases, starting from the production and extraction of resources, production of fibers and yarns to obtain the fabric, assembly, packaging, transportation and distribution, consumer use and final disposal. The whole procedure is sadly known to be characterized by high water usage, especially in the areas of the world where fresh water is scarce, pollution derived from

chemicals used in dyeing, labor issues in developing countries and the difficulty of recycling fashion products which eventually finish in landfills or are incinerated. The usage of both renewable and non-renewable resources negatively affects the environment at the local and global level (Connel, Kozar, 2014).

This phenomenon has worsened with the appearance of fast fashion, developed during the Industrial Revolution thanks to the introduction of new textile machinery; the fast fashion goes beyond the idea of tailor-made clothes in favor of packaged garments of different sizes and colors. The fact that it is characterized by short product life-cycles which are sold at low prices, leads to a culture of impulse buying, since anyone can afford to purchase the latest fashion clothes. In this context, the growing and continuing demand for different styles determined the success of fast fashion retailers such as Zara, H&M, Mango which were able to offer reinterpretations of runway clothes in the fastest possible way to keep up with the latest trends. The issue is that most individuals are not aware of the consequences of their purchasing decisions and the damage on the ecosystem caused by the product life cycle and, if they are, they may be uncertain about the actual impact and therefore do not understand the necessity of changing their purchasing behaviors (Connel, Kozar 2014). As a result, it has become necessary to raise awareness among consumers on the consequences on the environment of their buying behaviors.

The concept of sustainable fashion was introduced for the first time during the sixties when fashion consumers started to reflect on the repercussions of their consumption behavior on the environment. This concern was concretely demonstrated in the 1980s/90s with the anti-fur campaigns, with the increasing attention in the material composition of clothes and in the interest in fair working conditions in the fashion industry (Henninger, Alevizou, P.J., Oates, 2016).

It is difficult to state a single definition of sustainable fashion; the terms sustainable, organic, eco, fair trade, green, ethical etc. can be used interchangeably. In order to clarify the concept, Mintel (2009), proposed the definition of "ethical clothing": "Ethical clothing refers to clothing that takes into consideration the impact of production and trade on the environment and on the people behind the clothes we wear. Eco clothing refers to all clothing that has been manufactured using environmentally friendly processes. It includes organic textiles and sustainable materials such as hemp and non-textiles such as bamboo or recycled plastic bottles. It also includes recycled products (clothes made from recycled clothing including vintage, textile and other materials and can also be termed re-used) and is not necessarily made from organic fibers. Organic clothing means clothes that have been made with a minimum use of chemicals and with minimum damage to the environment and fair-trade is

intended to achieve better prices, decent working conditions, local sustainability and fair terms for farmers and workers in the developing world”. (Mintel 2009)

Sustainable fashion is part of the slow fashion movement that emerged as a response to fast fashion through the promotion of local production, long-term relationships with suppliers and transparency with the customers. The particular attributes that differentiate slow fashion are: authenticity, equity, functionality, localism and exclusivity (Jung, Jin, 2016). Since collections only come out twice a year, slow fashion does not contribute to satisfy that sense of “fashion appetite” that characterizes fast fashion which is detrimental for the environment. Talking about the “insatiable” demand for new clothes, the slow fashion movement and so sustainable fashion, is the opposite compared to the phase of consumerism we are going through; the search for organic fabrics, the decrease in the use of pesticides, the promotion of the fair working conditions, recycling and upcycling collection is a good start, but the final goal should be a consistent reduction in the production and this is feasible only if consumers are in favor of changing their shopping habits.

#### 1.2.1 Consumers' purchasing behaviors for ethical apparel

Pro-ecological behaviors actions aiming to protect natural resources through recycling, water conservation, energy-saving behaviors, reading about environmental topics and ecosystem conservation. Sustainable clothes consumption includes the purchase of products made of environmentally preferable fibers such as organic cotton, hemp or recycled materials, characterized by a design that makes them multifunctional and durable and manufactured locally with the aim to avoid the cost of transportation. The research for sustainable materials is an issue that is becoming more and more popular in the fashion industry; to replace the cotton production which is highly water-consuming, a bio-textile made of wood-based fibers has been developed (Notaro S., Paletto A., 2021). The aim is to create less pollution and waste and/or reduce the consumption of natural resources.

The prospect of producing clothes with alternative fabrics is encouraged by the consumers' willingness to pay a price premium for green products; sustainability has an important impact on people when they buy clothes. In particular, in 2017, 56% of American consumers consider sustainability as being important when buying clothes, 22% think that it is very important and 34% somewhat important. For what concerns Italy, 32% of Italian respondents rated sustainability as very important, and 49% somewhat important (Notaro S., Paletto A., 2021).

Ideally, the life of a piece of clothing should be circular; once it comes to an end, the product should be redesigned, reinvented and never discarded. From this concept derives the notion of circular economy, which can be summarized with the motto “reduce, reuse, recycle”. The disposal of clothes may occur through the reutilization (second-hand, clothes rental) or through the recycling of the raw materials as a source to produce new garments. When the recycled product is of lower value in respect to the original, the process is called “down cycling”, on the other hand, if the original material is used for a different purpose, the process is defined as “upcycling”. This term was used for the first time in 1994 to define the approach of adding value to something that is used or old (Vadicherla, Saravanan, Muthu Ram, Suganya, 2017); upcycling aims to create a product that is sustainable, affordable, innovative and creative.

Apparel consumers that engage in pro-ecological behaviors will try to avoid waste by buying second-hand clothes, by recycling them, by adopting clothing rental services and by taking care of clothes (repairing or altering them) so they will last longer; this will interrupt the production of brand-new garments and reduce overconsumption (Park, Lee 2021). Eco-shoppers will prefer classically-styled garments, consider organic fabrics and limit their clothes consumption on the basis of their needs. Many consumers also focus on the product’s country of origin because, together with fiber content is the only information immediately available just by looking at the label. (Hiller Connell, 2011).

On the other hand, there are still too many people today that are not engaged in sustainable fashion consumption because they find ethical apparel unfashionable. According to the study conducted by McNeill and Moore (2015), when asked about the environmental-friendly options in the fashion industry, the majority of respondents focused on the second-hand clothing; among them, the ones that were engaged in this type of shopping affirmed that they did because of their personal interest, to save money and to find something unique, not for ethical reasons. The remaining ones find second-hand clothes more resistant in terms of fabrics but not good in look. The participants that mentioned clothes made of recycled fabrics or organic materials such as hemp, expressed their hesitancy in buying them because they perceive sustainable fabrics as less attractive.

The consumers’ attitudes toward sustainable fashion are determined by their level of concern about the effects of their purchasing behavior on the society and on the environment.

In spite of the fact that many consumers seem to be concerned about the environment, this is not reflected in their consumption attitudes that may be influenced by economic reasons, but also personal features such as personality traits.

### 1.3 The influence of personality traits in consumers' buying decisions

As stated by Souter, Bates and Mottus (2020), the pro-environmental attitudes can be described as a “tendency to exhibit a degree of favor towards the natural environment”, while the pro-environmental behaviors are concrete actions that will have a positive impact on the natural environment.

Everyone's attitudes and behaviors are influenced by personality, which is defined as the “individual differences in characteristic patterns of thinking, feeling and behaving.” (American Psychological Association). The definition of personality corresponds also to the definition of personality traits which are identified as the sequences of thoughts, feelings and behaviors that are relatively enduring, and reflect the tendency to act in a certain way according to the circumstances (Brent, Roberts 2009).

According to the studies conducted since 1890, the personality traits can fall within three categories: instrumental, affective or cognitive which, in turn, are divided in social and non-social traits; this distinction helps to differentiate the private behaviors from those involving an interpersonal relation. The instrumental traits describe those behaviors having an impact on the environment; the affective personality traits involve a sentimental component and the cognitive traits refer to thoughts, imagination, information processing (Buss, Finn, 1987).

The “Big-Five” factor structure is an alternative measure of personality which includes five traits that are able to describe the different facets of personality; The “Big-five” are: agreeableness, conscientiousness, extraversion, neuroticism and openness/intellect. After years of research, in 1985, Costa and McCrae developed a personality inventory (NEO-PI), based on the Big-Five structure and they used it to measure personality (Goldberg, 1990). The Big-Five representation is the most used model in studies that aim to investigate the effects of personality in specific actions or lifestyles.

For example, according to the literature, people who demonstrate to have personality traits of openness and agreeableness are more concerned about the environment. This may be attributed to the fact that agreeableness is related to a higher level of empathy, care for others and cooperation, while openness represents people who are intellectually curious, stimulated to invent, who seek new solutions and with a broad perspective on humanity; as a consequence, they should be more aware than others on the effects of the human's actions on the environment. Likewise, agreeableness is negatively related to consumerism, highlighting the fact that the material self-interest overcomes the communal goals and well-being. People with high levels of conscientiousness and extraversion demonstrated a higher

environmental concern as well; the first due to their goal orientation and morality, the second ones, thanks to their social, active and person-oriented behavior (Hirsh, Dolderman 2007). In relation to this research, assuming what can be concluded from the existing literature, it should be hypothesized that the purchase of sustainable clothes is associated with subjects exhibiting these traits.

For the purpose of this research, it is also important to investigate how personality traits influence the purchasing behavior for the green products. From the study conducted by Gustavsen and Hegnes (2020), on the consumption of organic food, it emerged that people who showed high agreeableness and openness are more willing to buy organic food, while extraversion is negatively correlated, indicating that introverts are more interested than extraverts to purchase and they are also more willing to pay a higher price for sustainable food.

The consumers with different personality traits show different behavioral intentions; emotions and perceptions are also important determinants that can mediate the relationship among the personality trait and the actual conduct. Economists are interested in understanding their impact on decisions according to the preferences, personal constraints and expectations.

Knowing which personality trait guides particular behaviors may help Marketing managers to improve their strategies of communications, adapting and customizing them in accordance to the different market segments based on the consumers' personalities.

In this research personality traits such as impulsivity, anxiety, need for uniqueness, frugality, cynicism and localism are taken into consideration relatively to the purchase likelihood and willingness to pay for sustainable apparel.

**Table 1** reports the studies on which my research is based and which have been found to be fundamental for the formulation of my key research question.



**Table n. 1** The most significant scientific articles related to sustainable fashion, consumers' willingness to pay and purchase likelihood, personality traits

Title and author	Main Topic	Type of analysis	Content and purpose	Results and conclusions	$\Delta P$ In consumer s' WTP
<p>“Leveraging factors for sustained green consumption behavior based on consumption value perceptions: testing the structural model”</p> <p>Biswas A., Roy M. (2015)</p>	<p>Consumers' willingness to pay more for green products</p>	<p>Quantitative research based on a survey administered to 130 students pursuing post-graduation in management studies, 57 research students and 96 faculties at two central universities in India</p>	<p>The study used the theory of consumption values as a way of explaining and predicting the behavioural intention on green product consumption and willingness to pay.</p>	<p>The study suggests that environmental attitude, contextual factors and consumer innovativeness assess the perceived utilities. Consumers who perceive high consumption values, are more inclined to pay the green price premium.</p>	
<p>“Personality predictors of Consumerism and Environmentalism: A preliminary study”</p> <p>Hirsh J.B, Dolderman D. (2007)</p>	<p>Personality traits as determinants for consumerism and environmentalism</p>	<p>Quantitative research based on a survey administered to 106 undergraduate students from The University of Toronto ranging in age from 17 to 45</p>	<p>The aim of the study is to show how personality traits, consumer goals and environmental attitude can be predictors of the opposing notions of consumerism and environmentalism.</p>	<p>The Big Five personality traits emerged as significant predictors of both Consumerism and Environmentalism. Specifically, Agreeableness negatively predicted Consumerism, while both Agreeableness and Openness positively predicted Environmentalism</p>	

<p>“Sustainable Development of Slow Fashion Businesses: Customer Value Approach”.</p> <p>Jung S, Jin B. (2016)</p>	<p>Customers’ purchase intention and willingness to pay a price premium for slow fashion products</p>	<p>Quantitative research based on a survey administered to 221 U.S. consumers</p>	<p>This study empirically attempted to find what attributes in slow fashion can lead customers to perceive superior value and subsequently contribute to an increase in purchase intention and price premium intention</p>	<p>The analysis revealed that delivering exclusive product value is significantly critical in creating customer value for slow fashion, and customer value, in turn, positively affects consumers’ purchase intentions. Further analysis also revealed that different slow fashion attributes distinctively affect customer value.</p>	
<p>“Does environmental ly responsible purchase intention matter for consumers? A predictive sustainable model developed through an empirical study”</p> <p>Kumar A., Prakash G., Kumar G. (2021)</p>	<p>This study tries to analyse the association between factors and purchase intention.</p>	<p>Two quantitative research; the first questionnaire, the pilot study, has been conducted to 40 young Indian people. The second questionnaire has been administered to 255 young Indian people living in two major cities</p>	<p>The study aims to examine the relationships among different factors such as attitude, social norms, perceived behaviour control, environmental consciousness , willingness to pay (WTP) premium and consumer purchase intention for environmental ly-friendly apparel</p>	<p>The results of the current analysis indicate that attitude, willingness to pay, environmental concern, subjective norms and perceived behaviour control significantly affect the purchasing intention of consumers. Among these factors, attitude has most impact in driving consumer purchase</p>	

				intention towards green apparels.	
<p>“Green thinking but thoughtless buying? An empirical extension of the value-attitude-behaviour hierarchy in sustainable clothing”</p> <p>Jacobs K, Petersen L., Hörisch J, Battenfeld D. (2018)</p>	<p>This study examines the attitude-behaviour gap related to sustainable clothing consumption</p>	<p>Quantitative research based on a survey administered to 1085 German women</p>	<p>The aim is to assess the magnitude of the attitude-behaviour gap and the impact of possible enablers of, and barriers to, sustainable clothing purchase behaviour</p>	<p>A considerable attitude-behaviour gap has been identified. However, a positive attitude towards social-ecological clothing standards, biospheric and altruistic values, affinity to online and catalogue shopping, enhance sustainable clothing purchases. Egoistic and hedonic values and a preference for durable clothing hinder sustainable clothing purchase likelihood. Fashion consciousness and price sensitivity do not show significant effects.</p>	
<p>“Linking green skepticism to green purchase behavior”</p> <p>Kwong Goh S., Balaji M.S. (2016)</p>	<p>How skepticism affects green purchase behaviour</p>	<p>Quantitative research based on a survey administered to 303 respondents in Malaysia</p>	<p>The widespread societal concern that firms are disseminating false or ambiguous environmental information</p>	<p>The results suggest that green skepticism has an indirect negative effect on green purchase intentions through</p>	

			has led to a growing number of customers becoming skeptical about the environmental performance and benefits of green products so this study aims to investigate how skepticism affects green purchase behaviour.	environmental concern and environmental knowledge. This shows that when customers have a high level of skepticism towards green products, they are likely to have lower concern and lower knowledge about environmental issues.	
<p>“An Alternative "Description of Personality": The Big-Five Factor Structure”</p> <p>Goldberg L.R. (1990)</p>	<p>Personality traits: The Big-Five structure</p>	<p>Quantitative method. Study 1: Goldberg selected 1710 trait terms and 187 college students described themselves on each of these terms. Study 2: Trait adjectives were classified into clusters of quasi-synonyms. Each of the 133 synonym clusters was treated as a personality scale. Data were collected from the responses</p>	<p>Study 1: Investigate the structure of a nearly comprehensive set of common English trait adjectives. Study 2: Reduce the number of trait term considering objectively (with the help of lexicographers ) which, among them, are synonyms. Study 3: Inclusion of some peripheral terms such as those tapping Religiosity and Non-religiosity.</p>	<p>The aim of this article has been to demonstrate the validity and robustness of the Big-Five structure. Considering the studies, we can conclude that analyses of any reasonably large sample of English trait adjectives in either self- or peer descriptions will elicit a variant of the Big Five factor structure.</p>	

		of 4 samples, all composed by college students Study 3: A new sample of subjects was used to develop a refined set of synonym dusters, and then two of the samples from Study 2 were used to provide independent evidence of their factor structure.			
<p>“The Evolution of Sustainable Development Theory: Types, Goals, and Research Prospects”</p> <p>Shi L, Han L, Yang F, Gao L. (2019)</p>	Evolution of the theory of sustainable development	Literature review	The aim was to clarify the gradual evolution and improvement process of the concept and objective of SD, to strengthen the comprehensive understanding of the SD theory	The results show that the theory of SD has gone through three periods: the embryonic period (before 1972), the molding period (1972–1987), and the developing period (1987–present).	
<p>“Brakes to organic market enlargement in Spain: consumers’ and retailers’ attitudes and willingness to pay”</p> <p>Sanjuán, A.I., Sánchez, M., Gil, J.M., Gracia, A. and</p>	Consumers’ willingness to pay	Quantitative research based on two surveys; the first one to identify the most receptive segment among consumers and retailers to	The goal of this paper is to assess the opportunity to enlarge the domestic market of organic food focusing on two main aspects: consumers’ and retailers’ attitudes and	The results confirm that only a small proportion of consumers and distributors show attitudes that might favour demand expansion. The most sensitized segments are willing to pay	Concerned consumers’ WTP: +22% to 37% for organic vegetables, from +13% to 17% for potatoes. The highest

<p>Soler, F. (2003)</p>		<p>organic products, and the second to estimate the WTP for organic products is for each segment using the contingent valuation (CV) approach. The respondents were 400 buyers and 214 retailers.</p>	<p>willingness to pay for organic products</p>	<p>more for organic products, but this premium is still very far from the prevailing gap between conventional and organic food products.</p>	<p>retailers' WTP was +27–29%</p>
<p>“Consumers’ preferences, attitudes and willingness to pay for bio-textile in wood fibers”</p> <p>Notaro S., Paletto A. (2021)</p>	<p>Consumers’ willingness to pay</p>	<p>Quantitative research based on the Contingent Valuation (CV) method. WTP was determined using a payment card question format in which a list of bid amounts is shown and respondents circle the highest amount they would pay. Data were collected face-to-face to a sample of 696 consumers</p>	<p>The aim was to determine consumers’ willingness to pay for three bio-textile products (socks, T-shirt and shirts) made from certified wood.</p>	<p>The results from the Cameron and Huppert model show a significant premium price, ranging from 64% to 128% depending on the products, and that respondents with a higher environmental concern are more willing to pay for bio-textile products.</p>	<p>Consumers’ WTP for bio-textile product</p> <p>+64% or +128%</p> <p>It depends on the product</p>

<p>“A study of the willingness of Spanish drivers to pay a premium for ZEVs”</p> <p>Rosales-Tristancho A., Carazo A.F., Brey R. (2021)</p>	<p>Consumers' willingness to pay</p>	<p>Quantitative research based on a survey administered to 1474 Spanish drivers</p>	<p>The aim was to assess Spanish drivers WTP for ZEVs (Zero Emission Vehicles).</p>	<p>The results reveal the existence of different subpopulations with different profiles and willingness to pay. Earlier adopters are those with a higher level of education, higher income level, more extensive knowledge of ZEVs, and greater awareness of the negative consequences of the use of fossil fuels in transportation in terms of environmental pollution and economic dependence.</p>	<p>The 50% of the sample is willing to pay, on average, +2500 €</p>
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## 2. Key Research Question

Based on the consideration of sustainable fashion and environmental attitudes literature, I derived the hypotheses for how each of the personality traits affect consumers' purchase likelihood and WTP for sustainable apparel. Below we introduce the personality traits that I assumed to be relevant for the purpose of my study and discuss their impact on buyers' purchasing behaviors and WTP.

The existing literature usually considers the Big-Five model when the aim of the research is to analyze the effects of personality characteristics on people's behaviors. I decided to base my hypotheses on personality traits that are for some reason linked to apparel consumption, environmental concern, and/or sustainable products purchase likelihood and willingness to pay; these are: impulsivity, need for uniqueness, localism and frugality; I have also hypothesized that two of these traits, impulsivity and frugality are affected by the mediator role of anxiety and cynicism respectively, in relation to the purchase likelihood and WTP for sustainable apparel.

**Table 2** reports the studies that I took into consideration in the formulation of my hypotheses thanks to their focus on some of the determinants that are relevant for my research, namely, consumers' point of view, personality traits, sustainable products and environmental concern. Although the first three determinants may seem obvious because they are the cornerstones of my research, I decided to consider also the studies that analyzed the environmental concern because they helped me to hypothesize which personality trait can determine consumers' purchase likelihood or WTP for sustainable apparel, due to the assumption that people with higher environmental concern are more likely to acquire sustainable products.



**Table n. 2** The most relevant scientific articles for my study and how they differ from my key research question

Author and year of publication	Customers' Point of view		Personality traits		Sustainable products		Environmental concern
	WTP	Purchase likelihood	Big 5	Others	Sustainable <i>apparel</i>	Other products categories	
Biswas A., Roy M. (2015)	★	★				Green Products	
Hirsh J.B, Dolderman D. (2007)		★	★				★
Jung S., Jin B. (2016)	★	★		★	★		
Kumar A., Prakash G., Kumar G. (2021)		★			★		★
Ng S., Faraji-Rad A., Batra R. (2021)		★		Local Identity			
Kwong Goh S., Balaji M.S. (2016)		★		Skepticism		Green Products	★
Gustavsen G.W., Hegnes A. W. (2019)	★	★	★			Organic Food	
Grazzini L., Acuti D., Aiello G. (2020)		★		★	★		
Notaro S., Paletto A. (2021)	★				★		★
Milfont T.L., Osborne D., Yogeewaran K., Sibley C.G. (2020)				Local Identity			★
Wang H., Ma B., Bai R., Zhang L. (2021)		★		Frugality		Green Products	★
Legere A., Kang J. (2020)	★	★		Need for uniqueness	★		

## 2.1 Purchase likelihood and WTP for sustainable apparel

As far as the willingness to pay is concerned, people that care about the environment would pay more for sustainable products since they recognize the benefits of the green alternatives (Kumar A., Prakash, Kumar G. 2021).

The study conducted by Lundblad and Davies (2016), demonstrated that for the customers a premium price corresponds to a higher quality which is associated with long lasting products; the duration in time is one of the most important features that customers require from clothing. This assertion is opposed to the logic of fast fashion, which is distinguished by fashionable clothes produced to last for one season. Nowadays, it seems that customers are more willing to buy a product which is durable instead of fashionable; therefore, sustainable clothes producers must focus on the improvement of this feature through new product design approaches and communication strategies, for example by writing the composition of the fabric on the label. Clarity and transparency in relation to the origin and composition of materials, the place and methods of production, allow the consumer to trust the company and, as a consequence, they could be successful drivers in determining a higher WTP.

The solution to be environmental-friendly without paying higher priced sustainable clothes, is offered by second-hand fashion. The consumption of second-hand garments will discourage the production of new clothes and avoid their disposal, giving them a “new life”. In spite of the fact that this could be a green alternative to the fast fashion option, the second-hand market is a huge topic that should be studied and discussed separately.

Another driver affecting sustainable clothing purchase likelihood and willingness to pay is the self-expression; the consumers will prefer clothes with a unique style and materials to enhance their sense of individuality and comfort. This could be interpreted differently when talking about sustainable fashion; on one hand, the uniqueness of a garment could be associated with the use of natural fabrics; in relation to that, eco-buyers would judge eco-friendly apparel as peculiar instead of unfashionable. On the other hand, sustainable clothes usually have a simple design that may compromise the consumer’s need for uniqueness. Depending on the perception that someone has of the product, the purchase likelihood and willingness to pay will increase or decrease.

The research conducted by Notaro and Paletto (2021), showed that consumers are willing to pay a price premium from 64% to 128% higher for clothes made from certified wood fibers. This result depends on the social commitment of the company, on the sustainability of the

packaging and on the consumers' environmental concern. These findings are perfectly coherent with the market projections for sustainable apparel that is expected to grow.

The fashion consumers make choices regarding their desire to look fashionable and good, some of them think that these goals cannot be achieved by wearing sustainable clothes, but at the same time they may want to be ecological; this leads to the creation of a gap between consumers' attitude towards sustainability and their sustainable purchasing behavior. The consumers who are concerned about the environmental degradation, are more likely to buy sustainable apparel and pay a higher price for it, even though, in practice, factors such as price, style, fit and fashion seem to outweigh the intention to be "green". To overcome the issue regarding the poor fashionability of the sustainable clothes, new design strategies such as modularity and customization have been adopted, aiming to create products that follow the fashion trends in a sustainable manner.

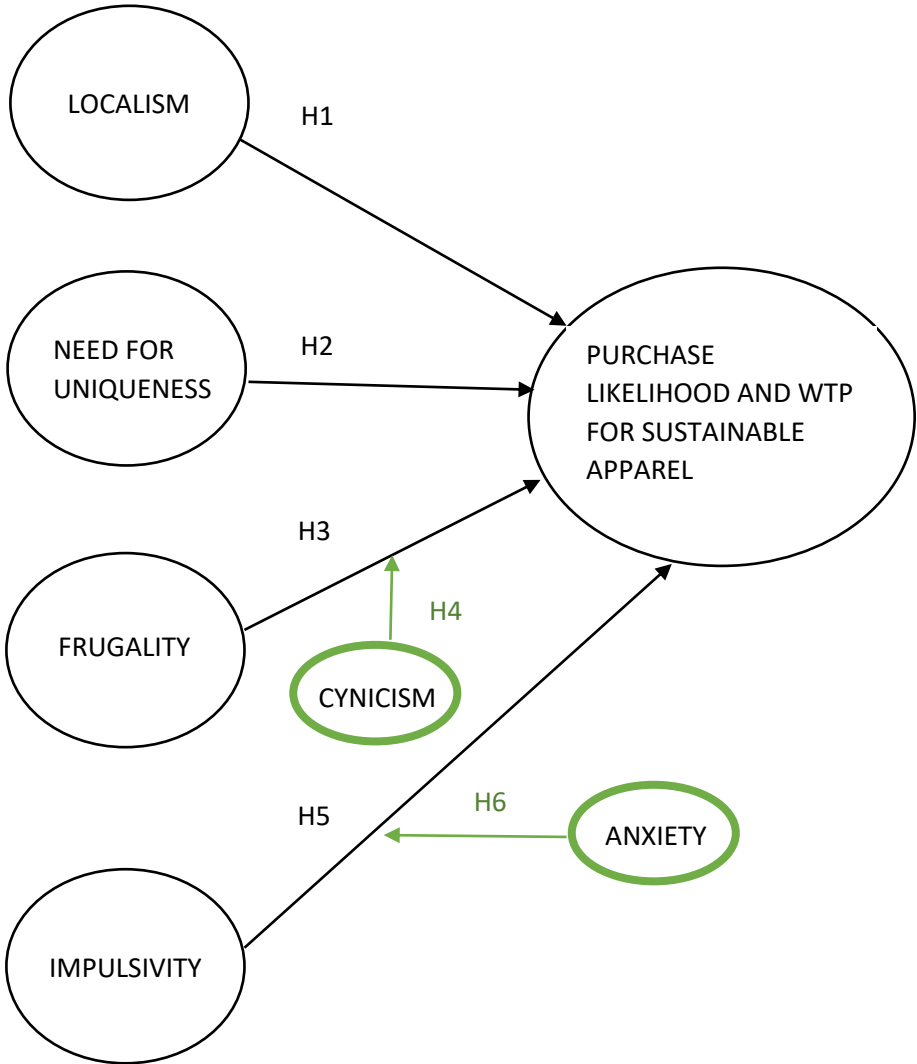
Sometimes the consumers are unaware of the environmentally preferable features when they shop, therefore, they do not even consider the possibility of adopting a sustainable behavior. The knowledge of the production processes, materials, distribution and disposal of the clothes could increase the perceived value offered by the green garments, and so their purchasing likelihood; in addition to that, just a few clothing stores offer green alternatives; the lack of information on where to shop eco-clothes and their scarce availability limit the consumers' acquisitions and lead to the creation of the gap between decision-making and effective behavior.

The environmental-friendly attitudes and behaviors are determined also by the personality traits. The aim of this research is to investigate the link between the consumers' personality traits, the purchase likelihood and the willingness to pay for sustainable apparel.

The personality traits, together with the purchase likelihood and WTP for sustainable apparel are analyzed empirically; the following model (**Exhibit n.1**), presents the personality traits that I have hypothesized to be the determinants of the customers' purchase likelihood and WTP for sustainable apparel.

In this research, the localism, the need for uniqueness, the frugality, the impulsivity, the anxiety and the cynicism personality traits have been taken into consideration because it has been scientifically proven that they describe a consumer concerned about the environment and/or a fashion addict buyer.

Exhibit n.1 Hypothesized research model



## 2.2 Local vs Global identity

Local and global identities are two important aspects characterizing consumers' purchase intentions; being local means identifying with people in one's local community, whereas being global means identifying with people around the world (Zhang and Kahre 2009). According to Arnett 2002, the so called "Gen Z", which is the generation including people born between the end of the nineties and 2012, has grown with a global consciousness and for this reason is more likely to have a global identity which gives to those who belong to it a sense of belonging to a worldwide culture. The sensation of being part of a global community includes an awareness of the events, practices, styles and information that are part of the global culture.

Together with the global identity, people continue to perceive a local identity, which is the one related to local environment, traditions, family obligations, something they know from their direct experience; eventually, one of the two identities will prevail.

People with a stronger local identity are usually those who identify themselves as part of a group with a particular social identity; when environmentalism is an important value of the social identity of the group, the pro-environmental identity will lead to pro-environmental norms and will encourage environmental-friendly tendencies. As a consequence, in this context, the likelihood to adopt ecological behaviours may be higher among people with a strong local identity in respect to those with a global one. (Milfont, Osborne, Yogeewaran, Sibley, 2020).

Thanks to globalization, consumers have access to both local and global products and they can choose the ones that better reflect their identity. In particular, the study conducted by Zhang and Khare (2009) demonstrates that individuals who showed a local (global) personality, will prefer local (global) goods. This preference for identity-congruent brands does not always occur; according to Ng, Faraji-Rad, Batra (2021), under circumstances of uncertainty, the relationship is the opposite and this could be the situation we are experiencing today due to the Coronavirus pandemic.

The source (region of production) of the product is also an important determinant of customers' willingness to pay; according to the study conducted by Sakagami, Sato and Ueta (2006) on the consumption of organic food in Japan, Japanese people identify the local identity of the product as the main feature together with freshness and they would be ready to pay more for domestic vegetables. Local brands are closer to their customers, they know their preferences and behaviors and they share the same values while global brands try to satisfy the largest portion of consumers.

As far as the clothing industry is concerned, locally produced apparel is for definition more sustainable than the global one, thanks to the saved distance in transportation, even though global brands have become more concerned about the environmental impact of their production system. Zara and H&M, just to cite two of the most globally known fast-fashion industries, released their eco-friendly collections which are called “Join life” and “Conscious” respectively; the aim is to approach the issue of sustainability which is increasingly relevant for many consumers. The growing attention to the environment, together with the affordable prices that distinguishes these businesses, might be appealing for eco-conscious customers. However, it has been demonstrated that people with a local identity are less price sensitive and can tolerate higher prices for products that present the local characteristics (Gao, Zhang, Mittal 2016).

Therefore, it could be hypothesized that localism is positively related to sustainable clothing WTP.

Products that can be defined as “local” are those produced with local resources and materials, by local artisans or factories, reflecting the identity of the place. On the other hand, goods that are considered to be “global” will be identical across regions.

Localism is a feature of the so-called “Slow fashion” which is a way to enhance sustainability in the fashion sector, opposed to the “Fast fashion” system. Localism determines the reduction of the distance and the intermediation between the producers and the consumers resulting in a more transparent production system. Local production is also favorable from an environmental point of view since it reduces the carbon footprint, avoiding the long-distance transportation that characterizes the global production system (Jung and Jin 2016).

Considering these aspects, it can be hypothesized that individuals with a local identity will buy sustainable clothes; summing up, the first hypothesis is that

*H1: Localism is positively related to sustainable clothing purchase likelihood and WTP.*

## 2.3 The need for uniqueness trait reflected on the need for unique products

From a theoretical point of view, the concept of “need for uniqueness” derives from the “theory of uniqueness” described by Snyder and Fromkin according to which an individual feels the need to be different from others and at the same time feels threatened in situations where he/she sees himself similar to others in their social environment. To overcome this issue and satisfy their needs, individuals will reclaim their self-esteem and adopt self-distinguishing behaviors. Conceptually, the need for uniqueness is defined as “the trait of pursuing differentness relative to others through the acquisition, utilization, and disposition of consumer goods for the purpose of developing and enhancing one’s self-image and social image” (Tian, Bearden, Hunter, 2001).

The “need for uniqueness” personality trait reflects the “openness” personality trait belonging to the “Big Five” model, since it involves proactive seeking and exploration of the unfamiliar.

Being creative in dressing styles is the most immediate way to show uniqueness. Clothes are part of a category of products that help people to express themselves and to show their personality; for this reason, need for uniqueness is usually associated with excess consumption, when the consumption of new clothes is not always based on the need for them but rather on the construction and enhancement of a self-image. The need for novelty may lead to an increase in apparel purchase, due to the fact that it implies the necessity of constantly having something that differentiates you from others, but in the case of sustainable fashion consumption this statement may be counterintuitive. The fact that, to be sustainable, people have to change their consumption habits, can favor a greater search for a personal style through the rejection of fashion trends.

Legere and Kang (2020) in their study hypothesized that customers with higher levels of self-esteem will be more likely to buy slow-fashion products since they will appreciate more the uniqueness of the garment and the social value associated with it rather than the originality of the design and/or the pattern. Since sustainable clothes usually have simple shapes and are made of organic material, the value that consumers perceive from them is the factor that determines the actual purchase likelihood. If the value that they perceive from the product is higher than the actual price, they will also be willing to pay it more.

People with a high need for uniqueness tend to make unconventional choices, in particular when they have to explain the reasons for their decisions and when they are not concerned about others’ opinions (Simonson, Nowlis, 2000). Nowadays people are starting to develop an environmental sensitivity due to the effects of the environmental disasters occurred in the last

recent years, but having an eco-friendly behavior is not yet common enough. In this context, adopting an environmental-friendly lifestyle and wearing sustainable clothes can be assumed to be non-conventional actions that will satisfy the need to be different from the majority of the population.

Non-traditional outlets such as second-hand stores, antique stores and swap meets are places where consumers in search of unique products can satisfy their needs while adopting a sustainable behavior; nonetheless, the second-hand market is a situation that should be studied separately.

On the contrary, fashion clothes at affordable prices distributed by fast fashion chains cannot satisfy the need for uniqueness of this consumer's category since the same products are sold all over the world.

The role of marketing managers is to convince consumers that feel the need to be unique, that adopting a sustainable behavior will distinguish them from others as well as making a good action for the planet. Conceptual marketing models demonstrate that people that look for alternatives to temporary trends constitute an important consumer phenomenon (Tian, Bearden, Hunter 2001).

Given these considerations, the hypothesis is that people that show the need for uniqueness trait are more likely to purchase and willing to pay more for sustainable apparel; therefore, we will test:

*H2: The need for uniqueness is positively related to sustainable clothing purchase likelihood and WTP*

## 2.4 The influence of frugality and the role of cynicism

Frugality is a personality trait that characterizes both a consumer who wants to save money but at the same time, a consumer who is willing to use its financial resources to achieve longer-term goals. The features that most characterize a frugal behavior are the conservation of resources, the care for possessions, recycling, re-using and repairing products (Bove, Nagpal, Dorsett, 2009), all aspects that are opposed to consumerism and that describe a sustainable behavior.



A pro-environmental consumption behavior implies a reduction of the purchasing frequency; hence, considering this aspect of sustainable consumption we can assume that frugal shoppers adopt a sustainable behavior. This statement is demonstrated in the study conducted by Awais, Samin, Gulzar, Hwang, Zubair in 2020.

Sustainable fashion emphasizes the quality and durability of a product in order to avoid over-production and over-consumption. These features, together with the intrinsic characteristics of eco-clothing that were presented beforehand (environmentally friendly processes, sustainable materials, organic textiles, fair working conditions, fair trade...), are reflected in a price which is higher compared to what fast fashion offers. However, value consciousness and price consciousness are positively related to frugality; the high pricing-strategies and the purchase are justified if the product is perceived as valuable. In the case of sustainable apparel, when the quality of the product is perceived as high, consumers are encouraged to keep the clothes longer, prolonging the time of their disposal.

An important aspect that should be considered to convince even the most skeptical frugal consumers on the benefits of buying sustainable clothes, is the so-called “cost per wear”. The CPW (cost per wear) helps to compute how much a garment costs every time it is worn, that is the total cost of a piece of clothing divided for the times it will be put on. There are many variables that may influence the durability of a garment, but taking for granted that fast fashion clothes are made to last for one season, we can easily demonstrate that a sustainable piece of clothing will cost less. Imagine a pair of jeans bought in a fast fashion store; it costs you, on average, 40€ but after 10 times you wear them, they become loose and discolored; as a consequence, we can state that those jeans have cost you 4€ per wear. On the contrary, a pair of jeans made of high-quality cotton that cost four times the fast fashion reproduction, will last for years without changing the fit. Hence, assuming that you will spend 160€ for a pair of jeans that you will wear 100 times, your CPW will correspond to 1.60€.

If this principle is taken into consideration, a frugal shopper is more likely to purchase sustainable apparel and if the CPW is considered to be valid, consumers will be willing to pay more for sustainable clothes; this will consequently lead us to hypothesize that:

*H3: Frugality is positively related to sustainable clothing purchase likelihood and WTP*

Economic recession and unemployment have led to a time of frugality; for this reason, it has become even more important to consider this personality trait when studying consumer decision making patterns. Innovative measures should be adopted in order to attract frugal shoppers; as Bove, Nagpal, Dorsett (2009) suggest, retailers should recycle and convert their

unsold products, propose the unsold products for more than one season and assist customers in their shopping which is usually goal-oriented. With the adoption of these simple solutions, over-production could be slowed down and, at the same time, convince a portion of customers that are usually reluctant to buy.

The positive effect of frugality on consumers' purchase likelihood and WTP is not so obvious, particularly when considering that an individual's personality has multiple facets and cannot be entirely defined with one single trait. For example, if we suppose that the relationship of frugality on consumers' purchase likelihood and WTP is moderated by cynicism, the result may be counterintuitive; the positive effect of frugality on consumers' purchase likelihood and WTP could be overturned and become negative.

Over the last 30 years, consumers' trust in businesses is declining; the logic of profit growth at the expense of workers, of the environment and of consumers is a social issue that is negatively perceived globally.

This sentiment of distrust can be defined as cynicism and can be applied in different contexts, also in relation to consumerism. In the aforementioned background, cynicism is the result of a sense of disappointment, caused by the failure to fulfil what was promised. Consumers' reaction towards the defaulting firms is of "anti-brand loyalty", they avoid any contact with those companies, they show a lower purchase intention, they spread a negative word of mouth and communicate to everyone the reasons of their reaction, in order to make other consumers more aware.

In the study conducted by Helm, Moulard and Richins (2015), cynics perceived companies as dishonest, as if they use to manipulate consumers and they defined cynicism as: "An individual consumer's stable, learned attitude towards the marketplace characterized by the perception that pervasive opportunism among firms exists and that this opportunism creates a harmful consumer marketplace."

It is hardly possible to check if all the features described in a product are actually true and/or if any information has been omitted. The attribute of "fairness" in trade is not something that customers can simply check; to justify the payment of a premium price resulting from particular characteristics, buyers need to trust the retailer. At a later time, this trust is expected to become an intention to buy, and eventually create the so-called "brand loyalty".

Due to the power that cynical shoppers have to harm companies, marketing managers should take this trait carefully into consideration by giving proof that the company will fulfil what promised. Consumers' satisfaction is determined by the perception of being treated correctly

and this fair-treatment should also be a pivotal point in the relationship among consumers and firms (Balaji, Jha, Sengupta, Krishnan, 2018).

The cynical behavior in consumption is particularly relevant in relation to environmental-friendly products. Despite the offerings, consumers are skeptical about the reliability of firms when they claim to be green and when they expose the benefits of green products. This disbelief is justified by the irresponsible environmental behaviors adopted by many companies and the always more recurring marketing strategy of “greenwashing”, so when companies declare themselves respectful of the environment and promote the environmental benefits of their products or services when in reality it is not real. This phenomenon is common in the fashion industry; many companies abuse of terms such as “green”, “ethical”, “eco” when describing their products and this leads to a sense of mistrust on the buyers who would like to engage in an eco-friendly behavior, since they cannot verify the credibility of the information. The guarantee of transparency and the traceability of production processes and raw materials, together with environmental knowledge and the spread of information on the benefits derived from green products, could be the solution to alleviate consumers’ cynicism. The limited availability of information about a product or production processes may not result in further research by cynical consumers that will base their purchasing behaviors on the data they have. Reducing green cynicism may enhance consumers’ environmental concern and knowledge and eventually lead to an increase in green products consumption (Kwong Goh, Balaji, 2016).

Given these considerations, it can be assumed that the more a frugal shopper is cynical, the more it will not likely to purchase nor willing to buy sustainable apparel, therefore:

*H4: Cynicism negatively moderates the effect of frugality on sustainable clothing purchase likelihood and WTP*

## 2.5 Impulsivity, impulsive buying tendencies and the moderation of anxiety

Impulsivity is an odd personality trait that includes different facets of personality and which is usually used inappropriately. In their study, Whiteside S., Lynam D. (2001), give a definition of impulsivity that presents four distinct personality facets associated with impulsive behaviors, namely urgency, lack of premeditation, lack of perseverance and sensation seeking. An impulsive individual reacts fast without thinking and conscious judgement. In this study the focus will be on the impulsivity trait in relation to buying behaviors; people that are more

impulsive, will experience more impulsive buying. Impulsive buying occurs when a consumer feels the urge to buy something immediately, it is an unplanned action resulting from the response to a stimulus.

Taking for granted that an impulsive individual will buy impulsively, I would like to study the effect of impulsivity on a specific product category, namely sustainable apparel. Before making any assumptions, it is important to analyze the purchasing behaviors of an impulsive buyer. An individual with a high impulsivity trait will prefer hedonic products to utilitarian ones, as they arise positive emotions; for hedonic products, consumers will focus on feelings, inner stimuli, while for utilitarian products they will focus on information. According to this statement, since sustainable consumption is a conscious behavior based on the knowledge of the causes and consequences of human action on the environment, it may not concern impulsive individuals that will concentrate more on the emotions provoked by the vision of the product. Indeed, as reported in the first chapter, sustainable clothes are most of the times simple in the design and there are very few retailers that sell and /or expose them to make them visible to people that pass by.

Price is another factor that affects a buyer's purchase decision, in particular price reductions encourage an impulsive buying behavior (Chen and Wang, 2016) while financial constraints suppress impulsivity. Consumers' impulsivity is stimulated by promotions, times sales, strategic product placement and in-store advertising.

As a result, given the higher price for sustainable clothing, an impulsive shopper may not be willing to buy it, unless a discount is applied; however, if we consider an everyday situation the hypothesis is that:

*H5: Impulsivity is negatively related to sustainable clothing purchase likelihood and WTP*

Physical proximity is essential to satisfy an impulsive urge and whenever this is not possible, online shopping works as a lure for the impulsive shopper; indeed, online buyers are more likely to be impulsive. Impulsive shopping is determined by irrational attraction based on the images and description that display the product; it is not only the result of the impulsivity personality trait, but it is also determined by the external environment. The result is immediate satisfaction, thanks to the possibility of purchasing simply by clicking on the desired product.

The sales derived from impulsive consumers purchasing, constitute a large portion of the annual sales; hence, it is important to take this trait into consideration and to develop marketing strategies that are able to attract them. The identification of this segment of

consumers is necessary also for retailers that will design the shopping environment in order to encourage impulsive buying (Iyer, Blut, Hong Xiao, Grewal, 2020).

The relationship between personality traits and the actual behavior could be affected by situational factors, emotions and by the co-existence with other traits; in this particular case it can be affirmed that impulsive buying is moderated by other factors that affect the intensity of the impulsivity. In my study, I assumed that anxiety is one of them and that moderates positively the relationship among impulsivity and consumers' purchase intention and WTP for sustainable apparel. Chen and Wang (2016), affirmed that: "When consumers believe that impulse purchasing is socially acceptable, they act on their impulsive tendencies, but when it is socially unacceptable, these tendencies may be stopped". This statement may be ambiguous in relation to the fashion industry because the consideration of impulsive shopping as socially acceptable or not, depends on the qualities of the product acquired. On the one hand, impulsive buying tendencies are associated with excessive consumption and seen as negative from an ethical point of view, but, on the other hand, when the consumption refers to sustainable clothing, it is viewed positively and consequently impulsive tendencies are socially accepted. The concern of being socially accepted is a trait that characterizes the anxious individual who usually adopts prosocial behaviors.

The recent study on the effect of terrorism on consumption conducted by Herzenstein, Horsky, and Posavac (2015) and reported by Rahimah, Khalil, Cheng, Tran, Panwar (2018), demonstrates that the fear of death and the anxiety associated with it, affects negatively consumption intention. Analogously, as Rahimah, Khalil, Cheng, Tran, Panwar (2018) suggest, the anxiety derived from the latest environmental disasters, the public concern related to the climate change and the awareness that the future of the global ecosystem depends on everyone's actions, cause a sense of uncertainty about the prospect of people's life and demonstrate the vulnerability of the planet earth; consequently, these feelings may lead to an increasing concern for the environment and to the adoption of sustainable behavior. Anxiety is therefore positively correlated to social responsibility and indirectly towards green consumption; so, as far as fashion is concerned, it may be assumed that anxious individuals will be more likely to purchase sustainable apparel. If the benefits of their actions are perceived, they may also be willing to pay more for eco-clothes; therefore:

*H6: Anxiety positively moderates the effect of impulsivity on sustainable clothing purchase likelihood and WTP*

If these hypotheses are confirmed, marketing managers should underline the negative consequences of overconsumption and environmental degradation together with the benefits derived from the adoption of eco-conscious behaviors and green consumption.

### 3. Methodology and Data collection

The hypotheses formulated in this study are based on scientific research related to the attitudes of eco-conscious consumers with an eye towards the consumption of sustainable apparel, as well as psychological studies based on specific personality traits attributable to sustainable buying behaviors, in particular the purchase likelihood and the willingness to pay for green products.

These assumptions are, therefore, not based on existing theories but are the results of reasonings raised considering the topic from different perspectives.

The personality traits that I assumed to be pertinent for my research are localism, need for uniqueness, frugality and impulsivity. Moreover, I additionally supposed that anxiety and cynicism play the role of moderators; the first one, anxiety, on the relationship between the independent variable impulsivity and the dependent variables purchase likelihood and WTP for sustainable apparel, while for what concerns cynicism, I supposed it moderates the relationship between frugality and purchase likelihood/ WTP for sustainable apparel.

Variables are tested using the correspondent measurement scale, employing a seven-point type Likert scale ranging from 1 “Strongly disagree” to 7 “Strongly agree”.

The construct with the relative items and indication of the scale are reported in **table n. 3**. Measures and scales will be properly analyzed in the homonymous paragraph.

**Table n. 3.** Variables and measurement scales.

MEASURES	ITEMS	SOURCES
PL and WTP	1. I am willing to pay a higher price for sustainable apparel than non-sustainable apparel.  2. I would like to keep buying sustainable apparel even if non-sustainable apparel were cheaper.  3. For the advantages obtained from sustainable apparel, I would be willing to pay a higher price.	Willingness to pay more scale:  3 items. 7-points Likert-type scale.  (Habel et al. 2016)  (Legere A., Kang J. 2020)
Localism	1. My heart mostly belongs to my local community.  2. I respect my local	Local self-identity scale:  4 items. 7-points Likert-type scale.

	<p>traditions.</p> <p>3. I identify that I am a local citizen.</p> <p>4. I care about knowing local events.</p>	(Lin and Wang 2016)
Need for uniqueness	<p>1. I am very attracted to rare objects.</p> <p>2. I tend to be a fashion leader rather than a fashion follower.</p> <p>3. I am more likely to buy a product if it is scarce.</p> <p>4. I would prefer to have things custom-made than to have them ready-made.</p> <p>5. I enjoy having things that others do not.</p> <p>6. I rarely pass up the opportunity to order custom features on the products I buy.</p> <p>7. I like to try new goods and services before others do.</p> <p>8. I enjoy shopping at stores that carry merchandise which is different and unusual.</p>	<p>Need for Unique Products scale:</p> <p>8 items. 7-point Likert-type scale</p> <p>(Lynn and Harris 1997)</p>
Frugality	<p>1. If you take good care of your possessions, you will definitely save money in the long run</p> <p>2. There are many things that are normally thrown away that are still quite useful</p> <p>3. Making better use of my resources makes me feel good</p> <p>4. If you can reuse an item you already have, there is no sense in buying something new</p> <p>5. I believe in being careful in how I spend money</p>	<p>Frugality scale:</p> <p>8 items. 7-points Likert-type scale.</p> <p>(Lastovicka et al. 1999)</p>



	<p>6. I discipline myself to get the most out of my money</p> <p>7. I am willing to wait on a purchase I want so that I can save money</p> <p>8. There are things I resist buying today so I can save for tomorrow</p>	
Cynicism	<p>1. Salespeople are only interested in making a sale, not customer service.</p> <p>2. Big companies make their profits by taking advantage of working people.</p> <p>3. Outside of my immediate family, I don't really trust anyone.</p> <p>4. When someone does me a favor, I know they will expect one in return.</p> <p>5. People only work when they are rewarded for it.</p> <p>6. To a greater extent than most people realize, our lives are governed by plots hatched in secret by politicians and big businesses.</p> <p>7. Familiarity breeds contempt.</p> <p>8. Reports of atrocities in war are generally exaggerated for propaganda purposes.</p> <p>9. No matter what they say, men are interested in women for only one reason.</p> <p>10. When you come right down to it, it's human nature never to do anything without an eye to one's own profit.</p> <p>11. Businesses profit at the expense of their customers</p>	<p>Cynicism scale: 11 items. 7-points Likert-type scale.</p> <p>(Turner, J.H., Valentine, S.R. 2001)</p>
Impulsivity	<p>1. I often buy things spontaneously.</p> <p>2. "Just do it" describes the</p>	<p>Impulse buying scale: 9 items. 7-point Likert-type scale</p>

	<p>way I buy things.</p> <p>3. I often buy things without thinking.</p> <p>4. "I see it, I buy it" describes me.</p> <p>5. "Buy now, think about it later" describes me.</p> <p>6. Sometimes I feel like buying things on the spur of the moment.</p> <p>7. I buy things according to how I feel at the moment.</p> <p>8. I carefully plan most of my purchases.</p> <p>9. Sometimes I am a bit reckless about what I buy.</p>	(Rook and Fisher, 1995)
Anxiety	<p>1. I am often aware of the action of my heart in the absence of physical exertion (e.g, heart racing, skipping a beat).</p> <p>2. I often experience dryness in my mouth.</p> <p>3. I often experience difficulty breathing (e.g. excessively rapid breathing, breathlessness in the absence of physical exertion).</p> <p>4. I often experience trembling (e.g. in the hands).</p> <p>5. I worry about situations in which I might panic and make a fool of myself.</p> <p>6. I often feel close to panic.</p> <p>7. I often feel scared without any good reason.</p>	<p>Anxiety scale:</p> <p>7 items. 7-points Likert-type scale.</p> <p>(Burroughs and Rindfleisch 2002)</p>

### 3.1 Population and data collection

Data have been collected through the compilation of a survey, distributed by means of the Qualtrics software, an online tool used to create, distribute surveys and to analyze the responses obtained from them.

The test is both in English and Italian in order to reduce the misunderstandings derived from the interpretation of the questions, as I expect most of the participants to be Italian-native speakers.

The survey is composed by four different blocks. The first block contains the presentation of my research and its objectives; it includes also a filter question aiming to exclude the respondents who do not have the appropriate characteristics to be part of my sample. About that, I wanted my sample to include all those people that are informed or at least slightly informed but interested in learning more about sustainable fashion, excluding the participants who are not at all informed, nor interested in it. The reason is that knowledge and environmental concern are the factors that mostly affect sustainable purchasing behavior; the total absence of them will not lead to the purchase or willingness to pay for sustainable apparel; therefore, I decided to limit my sample to the respondents who are at least interested in sustainable fashion or concerned about the environment and probably willing to engage in sustainable apparel consumption.

The second block presents the questions related to the dependent variables, namely purchase likelihood and WTP for sustainable apparel measured according to a 7-point type Likert scale. The third block is the one related to personality traits and it includes the constructs and the relative items measuring impulsivity, need for uniqueness, frugality, localism, anxiety and cynicism (see **table 3**). The fourth and last block contains demographic questions, namely age, sex, country of origin and income.

Before publishing the questionnaire and making it accessible to everyone, I administered a pre-test to eight of my friends and relatives, which was basically a hard copy of my survey with an additional question asking if there were any difficulties in completing the questionnaire and if they had any suggestions for me; the aim of this pre-test was to make the actual survey as clear as possible for the participants. It came out from the test that the questionnaire was clear for most of the participants, who therefore found no difficulty in answering. Just one participant pointed out that, in the questions related to the local identity, it was not easy to understand if they alluded to the country or to the city/ village of residence. Lin and Wang (2016), the authors of the scale refer to the local community, a social construct describing a group of people living in a defined territory where all of the aspects of associated life are present and

active. To solve this lack of understanding and avoid any ambiguity, I changed the header of the “Local self-identity scale” from “Regarding the country where I live”, to “Regarding the place where I live”.

After this correction, on Monday the 25<sup>th</sup> of October, the survey was published and distributed thanks to an anonymous link created by the platform “Qualtrics” which has been posted in my Instagram and Facebook profiles and forwarded to friends and relatives via Whatsapp starting a chain diffusion online. This data collection method is called “snowball sampling” or “chain-referral sampling”, the researcher contacts a group of people that will, in turn, recruit other participants. The snowball sampling is mostly used to reach a particular category of people and to increase the sample size in a faster and cost-effective manner. The disadvantage of using such a type of data collecting technique, is that not everyone has the same opportunity of being recruited and this may lead to an under or over- representation of the sample (Marcus, Weigelt, Hergert, Gurt, Gelléri, 2017) (Wheeler, Shanine, Leon, Whitman MV., 2014). The recruitment of participants through social media could be a starting point for the snowball sampling. As Murphy et al. (2013) stated and was reported by Dusek, Yurova, Ruppel (2015), the success of a research is determined also by reaching possible respondents using the same tools they currently employ to carry on conversations, such as social networks.

Another sampling technique, is a random selection of participants using crowdsourcing marketplace such as Amazon Mechanical Turk (MTurk) or Qualtrics itself, where respondents are paid to fill out the questionnaire. The benefits of using this technique, include a large and diverse participant pool and an easy and fast collection of data. On the other hand, respondents could be careless and pay little attention to questions and instructions to be faster and maximize monetary returns; moreover, if the participants are not native English speaker, it has been demonstrated that there could be difficulties in the interpretation of the study (Aguinis, Villamor, Ramani R.S, 2021).

A risk shared by direct and indirect sampling is that responses could be provided more than once by the same person. In the case of snowball sampling, the participants contacted by the researcher could fill out the survey many times instead of distributing it, or by one single person using different fake profiles in case of crowdsourcing platforms (especially if monetary compensation is included).

In my research, the risk of having an under or over- represented sample is very limited since it is not necessary that the participants of my study present particular characteristics; moreover, the group of people I have directly contacted was mostly composed by friends and family which I trust and who were happy to help me out to ensure the success of my study. As a consequence, I concluded that the risks of adopting a snowball sampling method were really

limited and the probabilities of obtaining positive-side effects were higher compared to the results I would have obtained by using a crowdsourcing platform.

On Saturday, the 6<sup>th</sup> of November, the questionnaire was closed after reaching 166 responses.

### 3.1.1 Measures and scales

In this study, 50 measurement items make up the scales whose reliability has been proven by existing research; just little modifications have been made in the wording of the items to make sure they were aligned with the topic of the study.

The dependent variable “purchase likelihood” was measured through the purchase intention scale which is a combination of items used by Fuchs, Prandelli, Schreier (2010) and (Juster, Thomas 1966) (Kirmani, Amna, Sanjay, Sheri 1999); the adoption of this measurement scale, however, proved useless and repetitive for research purposes because the “Willingness to pay more” scale (Habel et al. 2016) (Legere A., Kang J. 2020), measured both the intention to purchase and the WTP. Nowadays, researchers have not yet found a scale that is capable of measuring WTP; usually, they opt for a single-item scale in which respondents are asked how much they would pay for a product. The “Willingness to pay more scale” (Habel et al. 2016) (Legere A., Kang J. 2020) used in this research has been developed considering that consumers who perceive higher emotional, quality, price and social values have a higher intention to purchase and are more willing to pay that product (Legere A., Kang J. 2020). This scale therefore, indirectly measures the purchase likelihood; the items that compose the scale, as a matter of fact, imply that the buyer is willing to purchase the product.

The items have been adapted in the wording to the context of the research, specifying the fact that they refer to sustainable clothing.

As far as the personality traits are concerned, localism is measured through the “Local self-identity scale (Lin and Wang 2016) which helps to demonstrate the degree to which a person identifies with the people, traditions and events of the place where he/she lives.

The Need for uniqueness trait is measured through the DUCP (Desire for unique products) scale, which has a strong correlation with the CNFU (Consumer need for uniqueness) scale (Tian, Bearden, and Hunter 2001) (Cheema and Kaikati 2010).

The frugality scale aims to capture this customer lifestyle trait considering both the tendency to preserve the state of the goods owned by taking care of them, as well as by reducing their consumption. The moderation of cynicism is measured with the cynicism scale which aims to assess the trust that respondents have towards people, salespeople, big companies and media.

Impulsivity is evaluated through the "Buying impulsiveness scale" which is the impulsive consumer's tendency to buy spontaneously, immediately and without planning the action. Impulsive buying is the action I decided to take into consideration for the purpose of my study to measure the impulsivity personality trait. The moderation of anxiety is proved by the results obtained from the anxiety scale which measures the degree to which the respondent indicates to experience negative feelings such as panic attack, difficulty in breathing, fear.

The responses have been collected using a seven-point Likert scale ranging from "1" meaning "Strongly disagree" to "7", "Strongly agree". The advantage of adopting a seven-point Likert scale is that respondents have more answer options so it is easier to capture their true evaluation; moreover, a good Likert scale presents a symmetry of Likert items about a middle option (Neither likely nor unlikely).

The reliability of the answers is verified through attention checks between the items in the survey and through a redundant question which, in this case, is the one asking the age. If the attention checks are not passed and/or the redundant question has a different answer than the original, the survey will not be considered valid and the responses will be excluded from the analysis.

### 3.2 Sample

The survey was composed by four blocks of questions; the first one contained the presentation of my study and the filter question, the second one the scale that measures the dependent variable, the third block aims to measure the personality traits, and the last one regards the demographic characteristics of my sample.

At first, the questionnaire obtained 166 interactions. Among them, 21 were excluded from the analysis after the filter question because the response given by the participants was not in line with the characteristic I wanted for my sample. The filter question asked the level of knowledge and interest towards sustainable fashion, by directly removing from the analysis those who answered who were neither informed nor interested at all (**table 4**).

**Table n. 4.** Filter question: “Regarding sustainable fashion, you think you are:”

<b>Option</b>	<b>N.</b>	<b>%</b>
<i>Not at all informed, nor interested</i>	<b>21</b>	<b>13%</b>
<i>Slightly informed but interested in learning more</i>	108	65%
<i>Moderately informed</i>	35	21%
<i>Informed</i>	2	1%
	<b>166</b>	<b>100%</b>

After this first selection, the number of interactions that we take into considerations drops to 145, the majority of which belongs to respondents who are slightly informed about sustainable fashion but interested in learning more. Among these 145 interactions, 32 do not include the responses to each question and consequently are considered irrelevant to research purposes, reducing the number of valid interactions to 113.

The validity and reliability of responses is tested through two attention checks and a redundant question; the percentage of respondents that failed the test is the 11.3%.

The analysis is eventually based on the remaining 100 interactions.

The demographic characteristics of the sample are revealed by the answers collected in the last block of questions. The sample is composed mostly by Italian people, probably as a result of the snowball sampling technique. The percentage of women is just over double that of men; this result reflects the trend of many other studies in fashion, where women are usually the majority due to their interest and involvement in the topic. As far as the age is concerned, the 63% of the sample belongs to the age group between 19 and 25 years old; regarding the other groups, the number of respondents is more or less equally distributed, except for the last one (people who are more than 66 years old) which counts just one participant. This distribution of participants' age and income, represents a sample composed mainly by university students and young girls and boys who are taking their first steps in the world of work. The distribution of the subjects with respect to income seems to be more heterogeneous than the other classifications but no firm conclusions can be drawn due to the high rate of "Prefer not to say responses".

The composition of my sample is in line with the trend of the sustainable fashion market, according to which Millennials (people born between the end of the nineties and the early 2000s), are more concerned, compared to other generations, to environmental issues.

**Table n. 5.** Demographic data

	<b>N.</b>	<b>%</b>
<b>Place of origin</b>		
<i>Italy</i>	89	89%
<i>Other countries</i>	11	11%
<b>Gender</b>		
<i>Male</i>	31	31%
<i>Female</i>	67	67%
<i>Prefer not to say</i>	2	2%
<b>Age</b>		
<i>&lt;18</i>	7	7%
<i>19-25</i>	63	63%
<i>26-35</i>	17	17%
<i>36-45</i>	2	2%



46-55	6	6%
55-65	4	4%
>66	1	1%
<b>Income</b>		
€ 0-5000	28	28%
€ 5001-10000	7	7%
€ 10001-20000	20	20%
€ 20001-30000	13	13%
€ 30001-50000	1	1%
>€ 50000	3	3%
<i>Prefer not to say</i>	28	28%

## 4. Data analysis and results

After collecting the data via questionnaire through the Qualtrics platform, it is necessary to elaborate and test the validity of the hypothesized model in a more specific way. This study is quantitative in nature and a modeling tool of the structural equation based on variance, named Smart-PLS has been used. Smart-PLS employs methods called Structural Equation Modeling (SEM) to enable researchers to incorporate unobservable variables measured indirectly by indicator variables and to facilitate the accounting for measurement error in observed variables. There are two types of SEM; the first one is the covariance-based SEM (CB-SEM) which is used to confirm or reject theories by determining how well the proposed theoretical model can estimate the covariance matrix for a sample data set. The second type of SEM is the partial least squares SEM (PLS-SEM) which is used to develop theories in exploratory research by explaining the variance in the dependent variables when examining the model. This model is preferred if the objective is the prediction and explanation of target constructs.

More specifically, CB-SEM estimates the model parameters so that the difference between the estimated and the actual sample covariance matrices is minimized, following a common factor model logic; it considers the constructs as common factors that explain the covariation among its associated indicators. On the other hand, PLS-SEM calculates composites of indicators used as proxies to represent the construct of interest; proxies are approximations, they are not assumed to be identical to the construct. PLS-SEM is considered the variance-based approach to SEM because it maximizes the variance of the endogenous latent variable by estimating partial model relationships in an iterative sequence of OLS regressions.

The PLS path model is a diagram generated to visually display the hypotheses and to show the relationship among constructs (variables that are not directly measured) and their indicators (manifest variables that contain the raw data). The PLS path model of this study is presented in **Exhibit 2**.

The PLS path model is composed by structural models and measurement models. The structural model represents the constructs and tests the relationship among them, while the measurement model displays the relationships between the constructs and their indicators (the items that are directly measured, the observed variables), and it helps to evaluate the reliability and validity of the construct. A path model may have different types of measurement model; one for the exogenous latent variables, so constructs that explain other constructs in the model, and one for the endogenous latent variables, that is constructs that are being explained in the model.

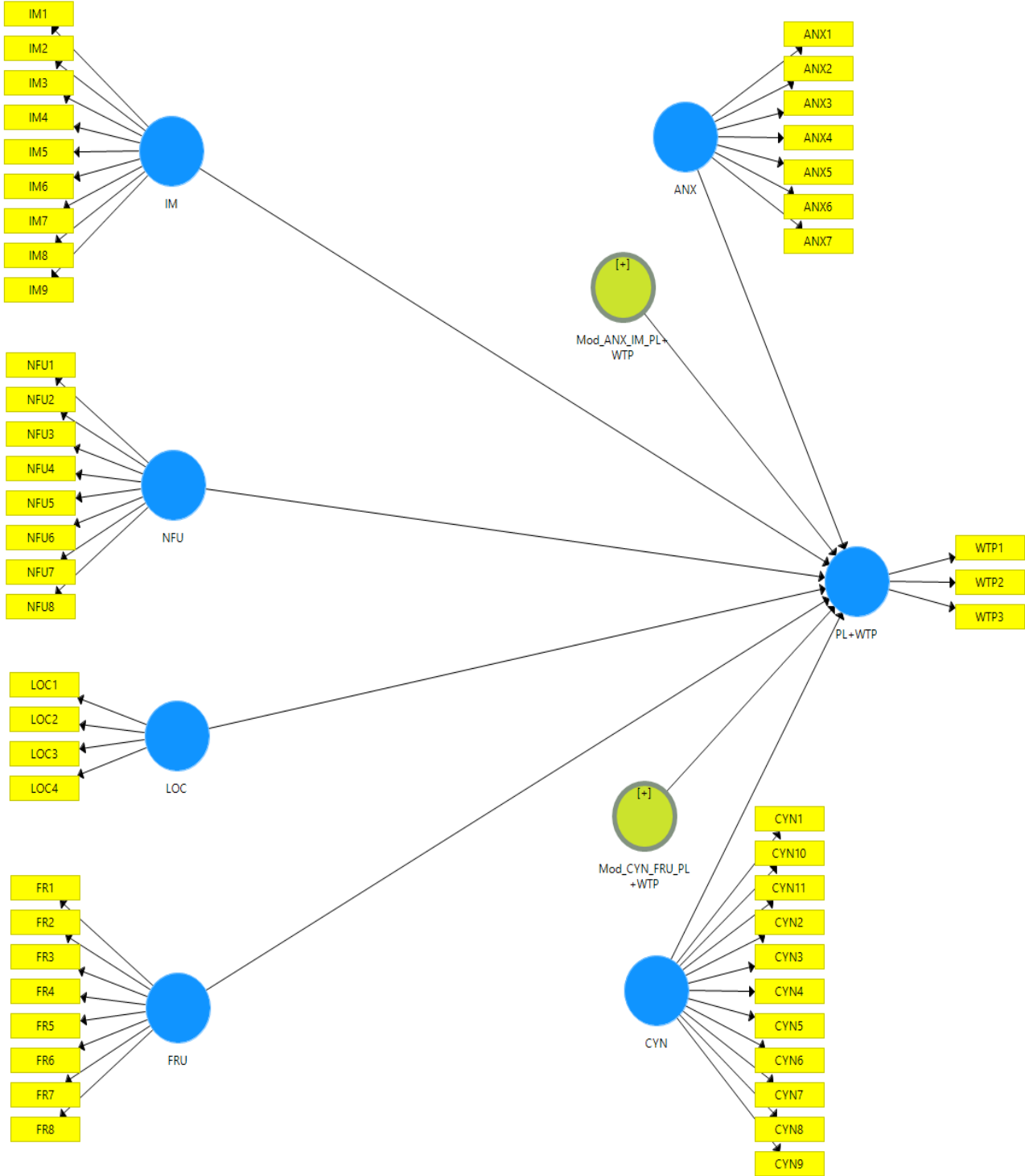
Path models are developed according to the hypotheses formulated on the basis of scientific studies, aiming to predict and explain specific outcomes.

Constructs are measured following a formative or reflective measurement model depending on the relation they have with the items. In a formative measurement model, the directional arrows will point from the items to the construct meaning that the indicator variables cause the construct, while in the reflective measurement model, directional arrows will point to the items, indicating that the construct causes the measurement of the indicator variables. The path model of this study (**Exhibit 2**), presents only reflective measurement models.

The relationships among constructs are explained by the structural theory. In this case, the constructs on the left are the independent variables, the variables that predict those on the right-side, while the construct on the right is the dependent variable.

**Exhibit n. 2.** Path model presentation representing the relationship among variables using Smart-PLS

Source: Smart-PLS



## 4.1 Measurement model analysis

The first step in the analysis is to assess the reliability and the validity of the constructs, which actually corresponds to making an evaluation of the measurement model.

Before starting with the analysis, it is important to deal with the missing values. The data set of this research reports three missing values; since none of the indicators in the simple model has more than 5% missing values, I use the mean value replacement option.

To evaluate the measurement model, we have to distinguish among constructs measured formatively and reflectively; reflective measurement models are assessed on their internal consistency, reliability and validity. Since the constructs of this study are all measured reflectively, we will use Cronbach's Alpha and Composite Reliability values to assess their reliability.

### 4.1.1 Constructs' reliability

Cronbach's alpha is the coefficient that expresses the reliability of the constructs; it represents the consistency of the variable, demonstrating how good the items measure a construct. In order to be reliable, the variables should present a value that is greater than 0.700; the values of the Cronbach's alphas in this study stand between 0.746 and 0.893, which demonstrate a good level of reliability.

The Composite Reliability is a more modern measure that estimates the internal consistency of the constructs too, but, unlike Cronbach's alpha that weights all of the items equally without considering their load factors, Composite Reliability takes into account the different outer loadings of the indicator variables (Hair J., Hult G. Tomas M., Ringle C., Sarstedt, M. 2017). Composite Reliability values are considered acceptable when they fall between 0.600 and 0.700; values higher than 0.700 are excellent but when they are higher than 0.900 are not desirable because it indicates that the indicators are measuring the same phenomenon. Regarding this study, as shown in **table 6**, all the results except for the frugality one, are higher than 0.700. The frugality Composite Reliability value corresponds to 0.689 which is, however, really high; therefore, we can conclude that our constructs are reliable.

**Table n. 6.** Descriptive coefficients of the measurement model developed in Smart-PLS

	<b>Cronbach's alpha</b>	<b>Composite Reliability (CR)</b>	<b>Average Variance Extracted (AVE)</b>
ANXIETY	0.855	0.720	0.314
CYNICISM	0.825	0.831	0.328
FRUGALITY	0.746	0.689	0.235
IMPULSIVITY	0.764	0.822	0.397
LOCALISM	0.826	0.884	0.659
NEED FOR UNIQUENESS	0.779	0.808	0.362
PL+WTP	0.893	0.934	0.825

#### 4.1.2 Constructs' validity

Convergent validity is another important aspect to take into consideration when analyzing the measurement model. It indicates the extent to which a measure is positively correlated to all the other measures of the same construct.

Convergent validity is assessed through outer loadings and Average Variance Extracted (AVE). The level of the outer loadings should be higher than 0.708 to be significant; since 0.700 is really close to that figure, it is considered to be acceptable. Researchers frequently obtain levels that are lower than 0.700 when they conduct social studies and/or they adopt new developed scales. In this case, the decision to delete or not the indicators depend on the effect that the removal has on the composite reliability and on the content validity. Outer loadings between 0.400 and 0.700 should be removed when, by deleting the indicators, an increase in the composite reliability above the suggested threshold is obtained. In any case, if the outer loading is lower than 0.400, the indicator has to be deleted.

After the deletion of the indicators ANX5, ANX6, ANX7, CYN1, CYN2, CYN3, FRU5, FRU6, FRU7, FRU8, IM8, IM9 and NF3 that have values lower than 0.400, I removed the variables with outer loadings between 0.400 and 0.700, namely ANX4, CYN4, CYN5, CYN10, CYN11, FRU2, FRU3, FRU4, IM1, IM3, IM5, IM6, IM7, LOC4, NF1, NF2, NF6, NF7, NF8 because I verified that, without them, the data of composite reliability are higher, as shown in **table 7**.

**Table n. 7.** Descriptive coefficients of the measurement model developed in Smart-PLS after the removal of indicators with outer loading values lower than 0.700

	<b>Cronbach's alpha</b>	<b>Composite Reliability (CR)</b>	<b>Average Variance Extracted (AVE)</b>
ANXIETY	0.754	0.858	0.668
CYNICISM	0.751	0.842	0.571
IMPULSIVITY	0.722	0.873	0.775
LOCALISM	0.843	0.902	0.755
NEED FOR UNIQUENESS	0.550	0.811	0.683
PL+WTP	0.893	0.934	0.825

I decided to remove completely from the analysis, and consequently as a variable of my study the frugality construct, since, after the deletion of the indicators which values were not acceptable, it became a single-item scale. Single-item scales are valid whenever the item is the only one able to represent the construct; this raises a problem of credibility since an observable measure cannot fully explain the complexity of a construct. Instead, if we consider the single-item a representative of all the items that can exhaust what it is meant by the construct, the problem would be to determine how to choose that particular item. By using a multiple-item scale, we will avoid all of the issues that may arise as a consequence to the wrong choice of the single item; moreover, multiple-item scales help to average errors and peculiarities of single-items by increasing the construct's reliability and validity. The study conducted by Diamantopoulos, Sarstedt, Fuchs *et al.* (2012), demonstrates that using single-items scale might be risky, due to the fact that many of the circumstances that would favor their use are unlikely to occur and when a single-item scale is performing as good as the multiple one in one context does not mean that it would do the same in another one because predictive validity performance is variable across constructs, product categories and stimuli. As a consequence, the hypothesis H3 cannot be demonstrated, as well as the moderation effect of cynicism on the relationship between frugality and consumer's purchase likelihood and WTP for sustainable clothes (H4).

However, it is possible to replace H3 and H4 by evaluating the effect of cynicism on consumer's purchase likelihood and WTP for sustainable clothes. As reported in the previous chapter, cynicism is a personality trait that usually negatively affects consumers' purchase behavior, specifically when the product is promised to have certain characteristics. In the case

of sustainable apparel, some shoppers may have difficulties in believing that the product is composed by sustainable materials, produced ethically and respecting the environment, also due to the always more frequent episodes of greenwashing. Therefore, we can change H3 H3a by hypothesizing that:

H3a: Cynicism is negatively related to sustainable clothing purchase likelihood and WTP

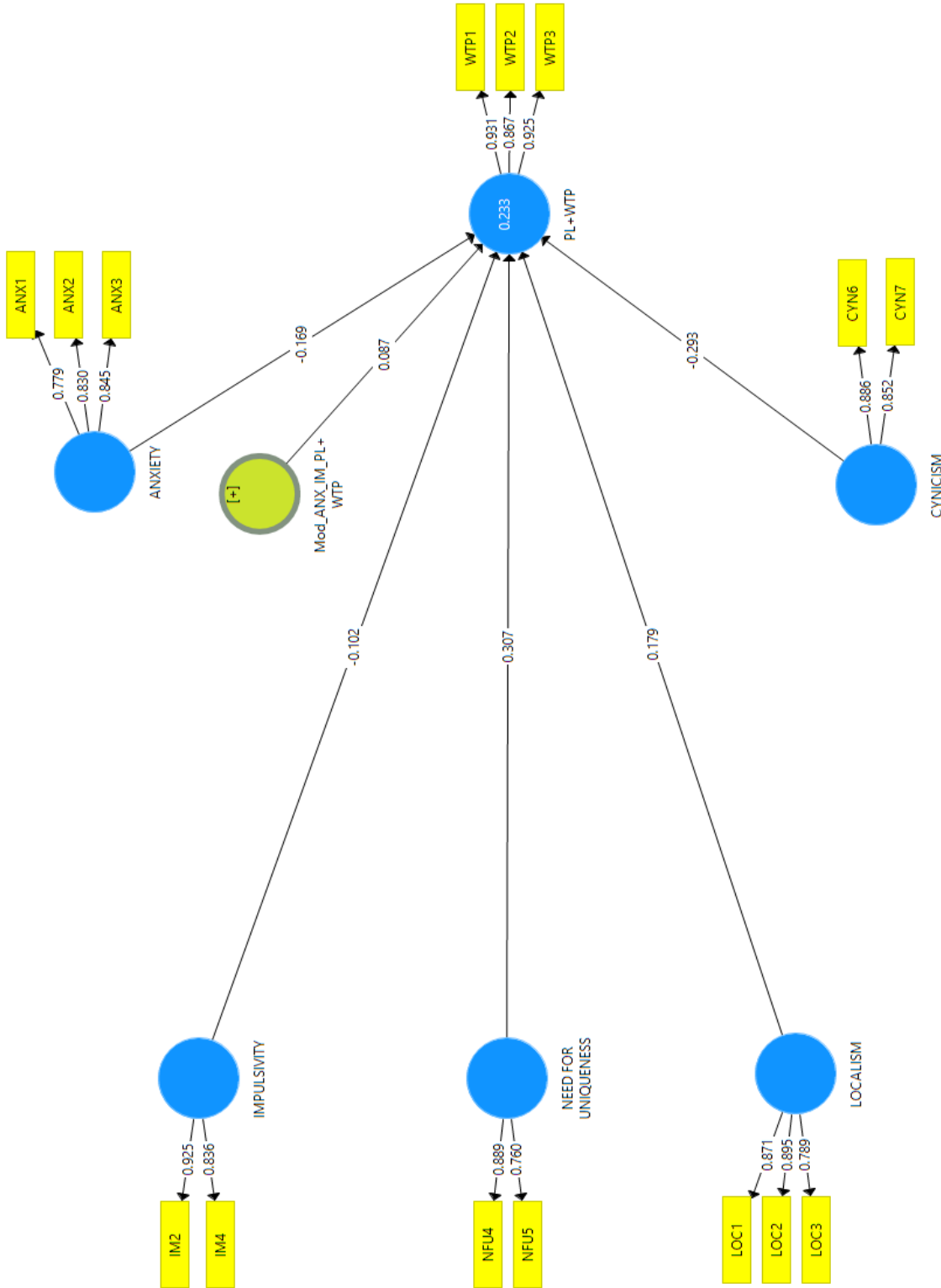
The current path model is displayed in **Exhibit 3**.

Another measure to establish convergent validity is the Average Variance Extracted (AVE); it is defined as the grand mean value of the squared loadings of the indicators associated with the construct (the sum of the squared loadings divided by the number of indicators). An AVE with a value higher than 0.500 means that the construct explains more than half of the variance of its indicators, while an AVE with values lower than 0.500 indicates that more variance remains in the errors of the items than in the variance explained by the construct. After removing the indicators with outer loadings lower than 0.700 all the values of the AVE are higher than 0.500 (**table 7**); since frugality is a single-item indicator, AVE is not a good measure because the indicator's outer loading is set at 1.00.



**Exhibit n. 3.** Path model after the deletion of the non-reliable indicators and the “Frugality” Variable

Source: Smart-PLS



After having measured the convergent validity, we will take into consideration the discriminant validity. Discriminant validity indicates the extent to which a latent variable is different from another latent variable in the same model; it implies that a construct is unique and captures some features that are not considered by other constructs in the model.

There are three different options to evaluate discriminant validity:

- The cross-loadings
- The Fornell-Larcker criterion
- The heterotrait-monotrait ratio (HTMT)

The cross loadings are the first approaches to assess discriminant validity; in order to do that, we have to verify that an indicator's outer loading on the correspondent construct, is greater than any of its cross-loadings on other constructs.

As **table 8** displays, each indicator represents efficiently the construct it has to describe, because the outer loading related to the corresponding variable is higher than the values describing the other variables, demonstrating that the variables are statistically different from one another.

For example, the highest outer loading for ANX1 is 0.816 which describes the correspondent construct ANX (anxiety) confirming the cross-loadings approach. Seeing that the same occurs for all the indicators, we can conclude that the model reports a correct discriminant validity.

The second approach to assess discriminant validity is the Fornell-Larcker criterion; it takes into consideration the square root of the AVE and the latent variables' correlations; specifically, the square root of each construct's AVE should be greater than its highest correlation with any other construct in order to demonstrate that a construct shares more variance with the correspondent indicators than with the others.

**Table 9** gives a visual exemplification of the Fornell-Larcker approach. The values in the diagonal indicate, for each variable, the square root of their AVE. The values below the diagonal represent the correlation among the latent variables; these values should be lower than the one in the diagonal.

For example, the correlation between cynicism and anxiety (0.358), has to be lower than the Anxiety's AVE square root which is 0.817.

As can be concluded by looking at table 9, the discriminant validity of our model is demonstrated also through the Fornell- Larcker criterion.

**Table n. 8.** Cross Loadings of the items of the variables in the proposed model

	ANX	CYN	IMP	LOC	NFU	PL+WTP
ANX1	0.819	0.296	0.048	0.135	0.064	-0.171
ANX2	0.777	0.250	0.205	-0.043	-0.155	-0.204
ANX3	0.854	0.323	0.185	0.131	0.147	-0.211
CYN6	0.290	0.745	0.253	-0.017	0.199	-0.284
CYN7	0.381	0.783	0.167	0.124	0.108	-0.252
CYN8	0.216	0.744	0.204	-0.153	0.203	-0.193
CYN9	0.193	0.750	0.391	-0.048	0.167	-0.234
IM2	0.114	0.310	0.933	0.070	-0.005	-0.183
IM4	0.217	0.297	0.824	0.140	-0.037	-0.127
LOC1	0.162	-0.089	0.116	0.876	-0.078	0.083
LOC2	0.031	-0.069	-0.040	0.812	-0.180	0.091
LOC3	0.060	0.072	0.152	0.916	-0.126	0.006
NFU4	0.005	0.140	-0.103	-0.174	0.895	0.214
NFU5	0.088	0.251	0.112	-0.025	0.752	0.151
WTP1	-0.154	-0.325	-0.156	0.022	0.232	0.934
WTP2	-0.273	-0.229	-0.203	0.125	0.146	0.861
WTP3	-0.227	-0.311	-0.141	0.031	0.228	0.928

**Table n. 9.** Fornell-Larcker coefficients

	<b>ANX</b>	<b>CYN</b>	<b>IM</b>	<b>LOC</b>	<b>NFU</b>	<b>PL+WTP</b>
<b>ANX</b>	0.817					
<b>CYN</b>	0.358	0.756				
<b>IM</b>	0.173	0.342	0.880			
<b>LOC</b>	0.106	-0.024	0.109	0.869		
<b>NFU</b>	0.046	0.221	-0.019	-0.136	0.827	
<b>PL+WTP</b>	-0.237	-0.320	-0.181	0.062	0.225	0.908

The last approach is the heterotrait-monotrait ratio (HTMT); it is the ratio of the between-trait correlations to the within-trait correlations, which aims to estimate what the true correlation between two constructs would be, if they were perfectly measured.

**Table 10** reports the heterotrait-monotrait ratio coefficients. The discriminant validity can be assessed if all the values are lower than 0.850, otherwise the model would include constructs that are too similar.

**Table n. 10.** HTMT Coefficients

	<b>ANX</b>	<b>CYN</b>	<b>IM</b>	<b>LOC</b>	<b>NFU</b>	<b>PL+WTP</b>
<b>ANX</b>	1					
<b>CYN</b>	0.469	1				
<b>IM</b>	0.261	0.458	1			
<b>LOC</b>	0.186	0.195	0.163	1		
<b>NFU</b>	0.233	0.371	0.223	0.218	1	
<b>PL+WTP</b>	0.294	0.385	0.221	0.099	0.310	1

To test whether the HTMT values are significantly different from 1, we will compute the bootstrapping confidence intervals. The bootstrapping function allow us to create casual sub-samples starting from the actual sample and verify the validity of the relationships among the existing constructs; if the bootstrap confidence intervals do not present a value of 1.00, the discriminant validity of the constructs is supported.

## 4.2 Structural model analysis

After having ascertained the reliability and the validity of the constructs through the analysis of the measurement model, we continue with the analysis of the structural model, in order to understand the relationship, the intensity of the constructs and the model's predictive capabilities.

The first step is to determine the structural model's collinearity, while the following steps aim to assess how well the model predicts the endogenous variables and to do that, we will consider the significance of the path coefficients, the  $R^2$  values, the  $f^2$  effect size, the predictive relevance  $Q^2$  and the  $q^2$  effect size.

### 4.2.1 Collinearity assessment

As far as collinearity is concerned, the estimation of the path coefficients in the structural model is determined by the OLS regressions of each dependent variable on its corresponding construct. In regression analysis the presence of collinearity between two variables, for example, means that strong correlation exists between them, making it difficult to estimate their regression coefficients. If there are significant levels of collinearity among the predictor constructs, the path coefficients might be biased.

The first thing to do is to evaluate the VIF values of all sets of predictor constructs in the structural model; VIF estimates above 5 indicate collinearity issues, if such a case is present the construct should be removed.

The results displayed in **table 11** show the VIF values of the combinations of the dependent variables and the corresponding predictor variables. Since the values are all below the threshold level of 5, we can conclude that the structural model has no critical collinearity issues.

**Table n. 11.** Inner VIF values to assess the presence of collinearity issues

	<b>ANX</b>	<b>CYN</b>	<b>IM</b>	<b>LOC</b>	<b>NFU</b>	<b>PL+WTP</b>
<b>ANX</b>						1.167
<b>CYN</b>						1.347
<b>IM</b>						1.161
<b>LOC</b>						1.045
<b>NFU</b>						1.079
<b>PL+WTP</b>						

#### 4.2.2 Coefficient of determination, the $R^2$ value

The coefficient of determination, the  $R^2$  value, measures the model's predictive power; it represents the amount of variance in the dependent variable explained by all of the constructs connected to it. The  $R^2$  value range from 0 to 1; it is difficult to state a value for which the  $R^2$  can be considered acceptable because it depends on the field of research and on the model complexity. According to Hair, Hult G. Tomas M., Ringle, Sarstedt (2017), in studies concerning consumer's behavior, an  $R^2$  value of 0.20 is considered high.

Regarding this study, the  $R^2$  value obtained from the computation on Smart-PLS correspond to 0.224 for the variable "Purchase likelihood and Willingness to pay". Since this study aims to investigate consumers' behaviors, we can affirm that the  $R^2$  value for the variable that measures PL and WTP is high, demonstrating an efficient predictive power. Regardless of the results obtained, the  $R^2$  value should not be the only coefficient that explains the model's predictive power, since by adding non-significant constructs to a structural model that are slightly correlated to the dependent variable the  $R^2$  value will increase.

#### 4.2.3 The effect size $f^2$

The  $f^2$  effect size measures the possible impact of an omitted construct on the endogenous latent variable. The effect size takes into consideration the  $R^2$  values when a construct is included or excluded from the model; an  $f^2$  value that is lower than 0.02 indicates that there is no effect.

**Table 12** represents the effect size and how constructs impact on endogenous latent variables. According to the results, impulsivity and localism have no effect on consumer's willingness to pay and purchase likelihood.

**Table n. 12.**  $f^2$  effect size

	<b>ANX</b>	<b>CYN</b>	<b>IM</b>	<b>LOC</b>	<b>NFU</b>	<b>PL+WTP</b>
<b>ANX</b>						0.022
<b>CYN</b>						0.097
<b>IM</b>						0.003
<b>LOC</b>						0.017
<b>NFU</b>						0.120
<b>PL+WTP</b>						

#### 4.2.4 Structural model path coefficients

After running the regression, the path model also reports the path coefficients which represent the hypothesized relationships among the constructs. Path coefficients fall between values -1 and +1; the closer the value is to +1, the stronger is the positive relationship, while when values are close to -1, there will be a strong negative relationship. Estimated coefficients close to 0 represent weaker relationships. **Table 13** shows the values of the path coefficients demonstrating the relationships among the constructs; the rows represent the antecedents, while the columns the target constructs. According to the results, if we consider the variable purchase likelihood and WTP for sustainable apparel, the predecessor traits anxiety, cynicism and impulsivity have a negative relationship while the traits that most affect PL and WTP for sustainable apparel in a positive manner are Need for uniqueness followed by localism. The larger is the effect of a path coefficient as compared to another one, the stronger is its effect on the endogenous latent variable.

The significance or not of a coefficient is determined by the standard error, obtained by means of bootstrapping. With the bootstrap function we can determine the empirical  $t$  and  $p$  values for all structural path coefficients; if the  $t$  value is larger than the critical one, we can state that the coefficient is statistically significant at a certain error probability. The same approach is

adopted with the  $p$  value, which aims to state the probability of erroneously rejecting a true null hypothesis; if, for example, we assume a significance level of 5%, the  $p$  value must be smaller than 0.05 to affirm that the statement under consideration is significant at 5% level.

**Table n. 13.** Path coefficients

	<b>ANX</b>	<b>CYN</b>	<b>IM</b>	<b>LOC</b>	<b>NFU</b>	<b>PL+WTP</b>
<b>ANX</b>						-0.136
<b>CYN</b>						-0.295
<b>IM</b>						-0.085
<b>LOC</b>						0.164
<b>NFU</b>						0.303
<b>PL+WTP</b>						

In order to evaluate the results of a path model, we have to verify the significance of the structural model relationships considering  $p$  values,  $t$  values and the bootstrap confidence intervals. Once analyzed the significance of the relationships, it is time to assess the relevance of significant relationships.

The bootstrapping results for the total effects of the exogenous latent variables on the endogenous constructs (purchase likelihood and WTP) are presented in **table 14**, together with the  $p$  values,  $t$  values and the Original sample, or Beta value, which indicates the weight that an independent variable has on a dependent variable; the relationship between two variables is significant when the Beta value is higher than 0.20.

If we consider a 5% significance level, we will see that the only significant relationships in the structural model are CYNICISM  $\rightarrow$  PL+WTP with a  $p$  value of 0.002 and NEED FOR UNIQUENESS  $\rightarrow$  PL+WTP (0.004); the other  $p$  values have levels higher than 0.05 and therefore are not significant.



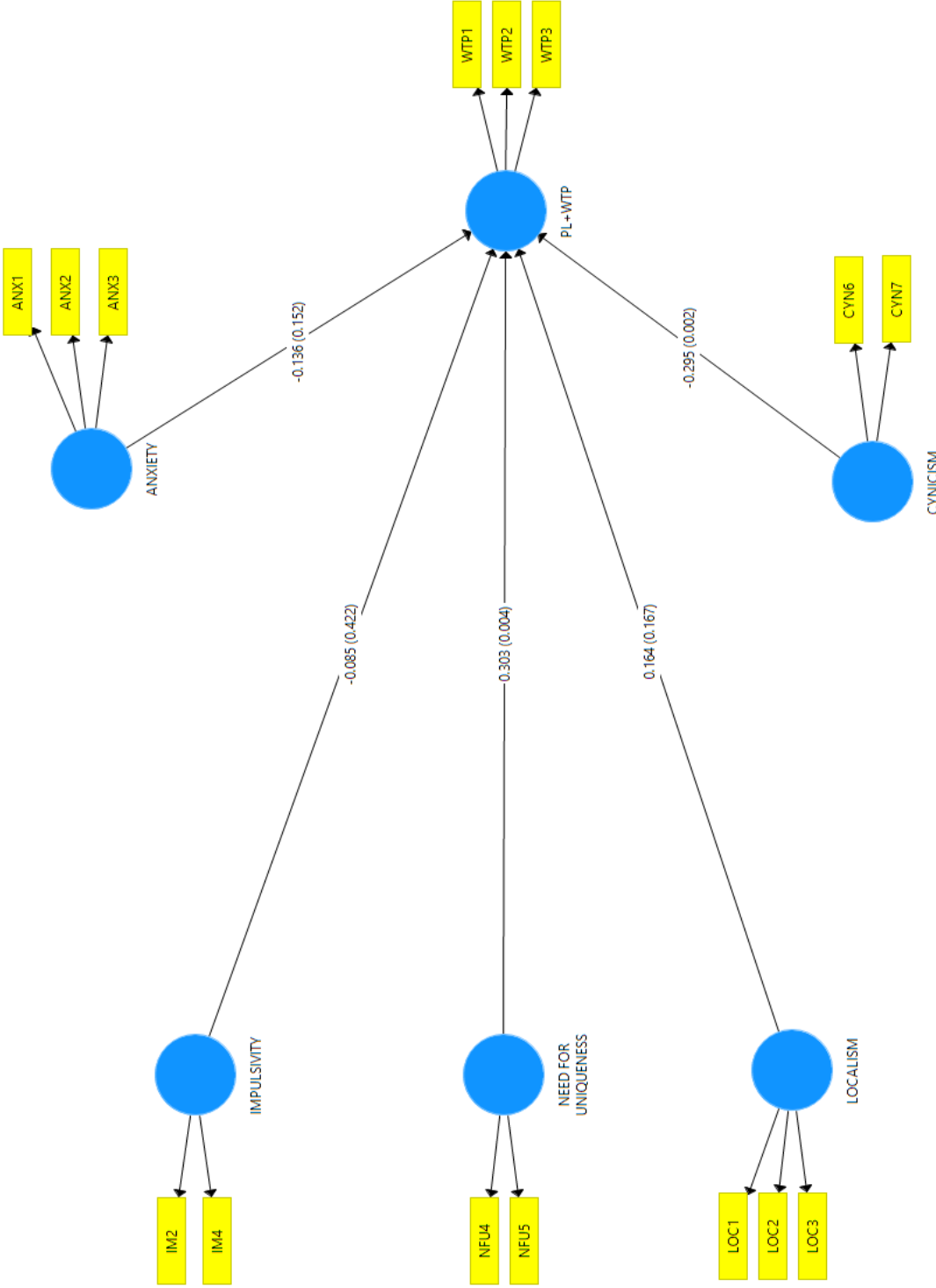
**Exhibit 4** displays the p-values for the measurement and structural model relationships that the bootstrapping procedure produces.

**Table n. 13.** Results of the hypothesis testing

	Direction	Original Sample (O)	t Statistics ( O/STDEV )	p values	Significance (p<0.005)
ANXIETY→PURCHASE LIKELIHOOD+WTP	+	-0.136	1.433	0.152	NO
CYNICISM→ PURCHASE LIKELIHOOD+WTP	-	-0.295	3.112	0.002	YES
IMPULSIVITY→ PURCHASE LIKELIHOOD+WTP	-	-0.085	0.804	0.422	NO
LOCALISM→ PURCHASE LIKELIHOOD+WTP	+	0.164	1.382	0.167	NO
NEED FOR UNIQUENESS→ PURCHASE LIKELIHOOD+WTP	+	0.303	2.861	0.004	YES

**Exhibit n. 4.** Path coefficients and *p* values for the structural model relationships as resulting from the bootstrapping procedure.

Source: Smart-PLS



#### 4.2.5 Blindfolding and predictive relevance $Q^2$

To examine the predictive relevance of the model, in addition to the  $R^2$  value, it is important to consider the Stone-Geisser's  $Q^2$  value, which aims to measure the out-of-sample predictive power or predictive relevance of the model.  $Q^2$  values larger than zero for a specific reflective construct, indicates the path model's predictive relevance for the dependent variable; when values are below 0, there is a lack of predictive relevance.

The blindfolding process is usually applied to constructs that have a formative measurement model and it predicts the scores of the dependent variable by considering the scores of the independent variables and the relative structural model coefficients. The predicted scores of the endogenous latent variables are used to estimate omitted or eliminated data points of the indicators in the measurement model.

The prediction errors, calculated as the difference between the true values and the predicted ones, together with a trivial prediction error which is computed as the mean of the remaining data, are used to assess the  $Q^2$  value.

The approach used to compute the  $Q^2$  value is defined as "cross-validated redundancy" and it is based on the path model estimated of both the structural model and the measurement model.

In order to predict our model and run the blindfolding procedure, the points of the omission distance (D) must be chosen. If we take an omission distance of 7, it means that every seventh indicator's data point is eliminated in a single blindfolding round. The number of blindfolding rounds always equals the omission distance because the blindfolding procedure has to omit and predict every data point of the indicators used in the measurement model. After running the model, considering a D of 7, we have to focus on the Construct Cross-validated Redundancy estimates, in particular on the values of the  $Q^2$  which is the result of  $1 - SSE/SSO$ , where SSE is the sum of the squared prediction errors and SSO is the sum of the squared observations.  $Q^2$  indicates the model's predictive relevance with regard to each endogenous variable; since the values in our model are below zero, precisely 0.149, we can state that the model's predictive relevance is supported.

#### 4.2.6 Effect size $q^2$

The final step is to assess the effect size  $q^2$  which aims to define the exogenous construct's contribution to an endogenous latent variable's  $Q^2$  value similarly to the  $f^2$  effect size approach to assess  $R^2$ .  $q^2$  results from the difference between  $Q^2$  included and  $Q^2$  excluded from the blindfolding procedure divided by  $1-Q^2$  included. So, for example, to determine the effect size of impulsivity on the endogenous latent variable we will compute the results of the model with impulsivity construct ( $Q^2$  included), with the results of the path model without the impulsivity construct ( $Q^2$  excluded).  $q^2$  values of 0.02, 0.15, 0.35 indicate, respectively, a small, medium or large predictive relevance for the exogenous latent variable. **Table 15** indicates the effect size  $q^2$  for each exogenous latent variable; the results demonstrate a small predictive relevance.

**Table n. 15.**  $q^2$  Effect sizes

	<b>ANX</b>	<b>CYN</b>	<b>IM</b>	<b>LOC</b>	<b>NFU</b>	<b>PL+WTP</b>
<b>ANX</b>						0.004
<b>CYN</b>						0.069
<b>IM</b>						-0.001
<b>LOC</b>						0.007
<b>NFU</b>						0.083
<b>PL+WTP</b>						

#### 4.3 Moderation

Moderation is the effect caused by a third variable, the so-called moderator variable, that changes the strength or even the direction between two constructs. In other words, the higher is the effect (positive or negative) of the moderator variable, the weaker or stronger will be the relationship among the two other constructs.

There are multiple types of moderation variables; the one used in this study is defined as "continuous moderator variable", meaning that it can affect the strength of the relationships between two constructs. In case this effect does not occur, so when the correlation does not change, we can conclude that the relationship is constant.

In this research we will evaluate the moderator effect of anxiety in the relationship between impulsivity and PL+ WTP for sustainable apparel. We will use product indicator approach because our constructs are reflective and the objective is to evaluate the significance of the moderation effect of the moderator on the relationship with the endogenous latent constructs.

A particular attention should be paid when analyzing the  $f^2$  effect size of the interaction effect because it expresses the impact of the moderation in the explanation of the endogenous latent variable. The  $f^2$  effect size of the interaction effect on purchase likelihood and WTP corresponds to a value of 0.012, so there is no effect.

The moderation effect of anxiety on the relationship between impulsivity and purchase likelihood and WTP for sustainable apparel is not significant, as shown in **table 16**.

**Table n. 16.** Results of hypothesis testing with the moderation effect

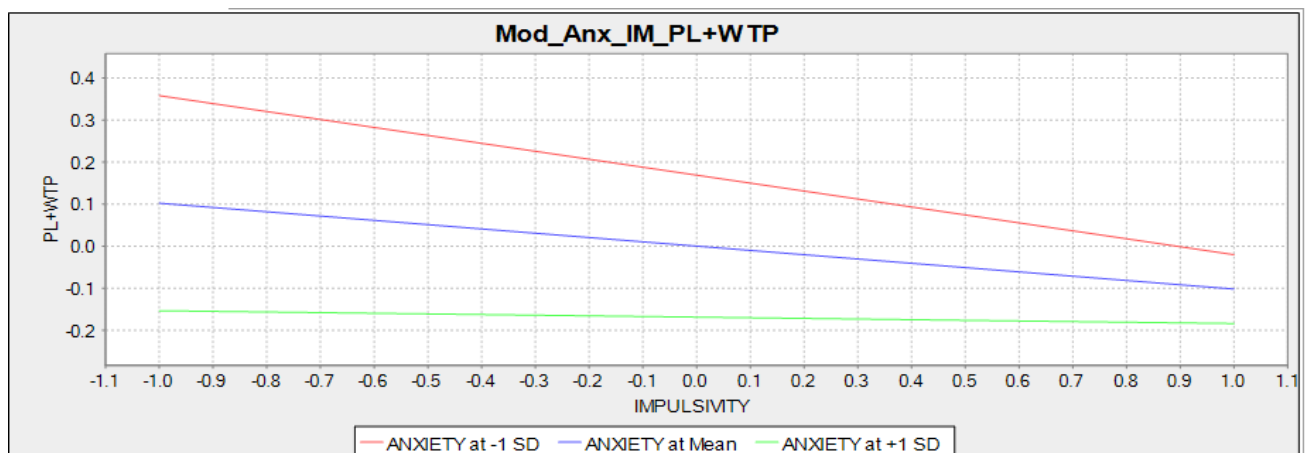
	Direction	Original Sample (O)	t Statistics ( O/STDEV )	p values	Significance ( $p < 0.005$ )
ANXIETY→PURCHASE LIKELIHOOD+WTP	+	-0.169	1.576	0.115	NO
CYNICISM→ PURCHASE LIKELIHOOD+WTP	-	-0.293	3.046	0.002	YES
IMPULSIVITY→ PURCHASE LIKELIHOOD+WTP	-	-0.102	0.996	0.319	NO
LOCALISM→ PURCHASE LIKELIHOOD+WTP	+	0.179	1.508	0.132	NO
Mod. Anxiety→ (IMPULSIVITY→PL+WTP)		-0.087	0.894	0.372	NO
NEED FOR UNIQUENESS→ PURCHASE LIKELIHOOD+WTP	+	0.307	2.845	0.004	YES

The results obtained from the moderator analysis are graphically represented through the slope plots in **exhibit 5**. The y axis regards the dependent variable, namely purchase likelihood and WTP while the x axis indicates the independent variable which is impulsivity. The three colored lines represent the relationship between the variable in the x axis and the one in the y axis; the blue line in the middle indicates the relationship for an average level of the moderator variable anxiety, the red and the green lines represent, respectively, the relationship between the independent variable and impulsivity in cases of lower (mean value

of ANX -1 Standard Deviation unit) and higher (mean value of ANX + 1 Standard Deviation unit) levels of anxiety.

As we can see from **exhibit 5**, the relationship between Impulsivity and the dependent variable is negative when the level of anxiety is lower than the average and also when it is higher, rejecting the hypothesis that anxiety influences the relationship between the two variables. Eventually, we can conclude that the fact that an impulsive buyer is also anxious, will not affect his/her likelihood to purchase sustainable apparel.

**Exhibit n. 5.** Simple Slope Analysis for moderator effect. Source: Smart-PLS.



#### 4.4 Hypotheses testing

The confirmation of the hypothesized relationships is inferred from the results obtained through the partial least squares structural equation modeling technique and based on the interpretation of the path coefficients reported in **table 16**; the hypotheses will be checked and evaluated one by one looking at the Beta values, the p-values and t-values.

The first assumption (H1) estimates that:

*H1: Localism is positively related to sustainable clothing purchase likelihood and WTP*

As far as localism is concerned, for WTP and purchase likelihood, results demonstrate that the p-value equals to 0.319 the t-value is lower than 1.96 and the Beta value is lower than 0.20.

As a consequence, the outcomes demonstrate the non-significance of the relationship allowing us to affirm that hypothesis **H1** is **not confirmed**.

Hypothesis number 2 assumes a positive relationship between need for uniqueness and sustainable apparel purchase likelihood and WTP. In particular,

*H2: The need for uniqueness is positively related to sustainable clothing purchase likelihood and WTP*

The hypothesis **H2** is **confirmed**, showing a significant p-value, t-value and Beta value, which are respectively 0.004, 2.845 and 0.307, demonstrating that need for uniqueness is a significant predictor of the consumer's purchase likelihood and WTP for sustainable apparel.

Assumption 3 hypothesizes that frugality influences positively the purchase likelihood and the WTP for sustainable clothes. This hypothesis has been removed, together with the one hypothesizing a moderator effect of cynicism in the purchase likelihood and the WTP for sustainable clothes (H4), and substitute with H3a, affirming that:

*H3a: Cynicism is negatively related to sustainable clothing purchase likelihood and WTP*

**H3a** is **confirmed**, presenting a Beta value of -0.293, a t-value of 3.046 and a p-value of 0.002, confirming that cynicism affects negatively the consumer's WTP for sustainable apparel.

The fifth hypothesis (H5), assumes that the independent variable impulsivity negatively influences the dependent variable purchase likelihood and WTP for sustainable fashion. **H5** is **not confirmed** by the analysis of the results because it presents a Beta value of -0.102, a t-value of 0.996 and a p-value of 0.319.

The last hypothesis, H6, considers the moderation effect of anxiety in the relationships between impulsivity and the purchase likelihood / WTP for sustainable apparel. More specifically:

*H6: Anxiety positively moderates the effect of impulsivity on sustainable clothing purchase likelihood and WTP*

**H6** is **not confirmed** considering the Beta value, t-value and p-value, we can affirm that anxiety does not moderate the relationship under analysis.

**Exhibit 6** graphically represents all the confirmed hypotheses with the relative *p* values.

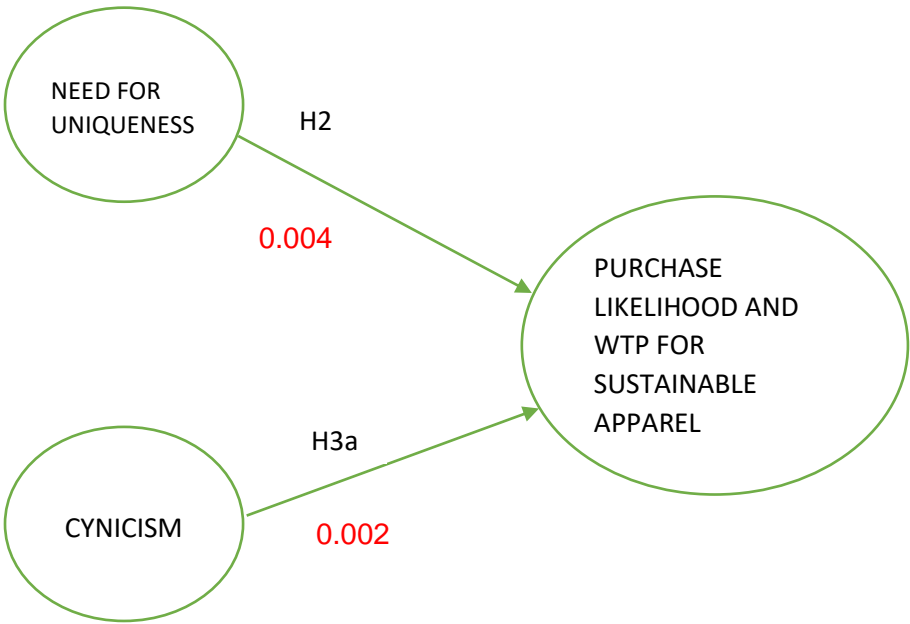
As confirmed by the values of the coefficients, the moderator effect of anxiety on the relationship between impulsivity and PL/WTP is not statistically significant (see **Exhibit 5**).

Statistical significance allows us to determine the existence or not of a relationship between two variables but the result of the test might be influenced by the size of the sample; considering this study, and particularly the outcome of this hypothesis, the small sample size (100 respondents), may have affected the significance of the test.

The effect size is a quantitative measure that expresses the actual magnitude of the effect that occurs between variables and it is independent from the sample size and the statistical significance; the larger the effect size, the stronger is the relationship between the two variables (Nakagawa, Cuthill, 2007). The effect size for the relationship under consideration is however very low, presenting a value of 0.012

In spite of that, I assume that if I had more data, I would probably have obtained a different  $p$  value that would have allowed me to confirm the hypothesis.

**Exhibit n. 6.** Structural model of confirmed hypothesis with their  $p$  values





## 5. Conclusions and limitations

The current study aims to examine the personality traits that affect the purchase likelihood and the willingness to pay for sustainable apparel.

Recently, sustainability has become one of the most discussed topics globally, due to the always more frequent phenomena of environmental degradation caused primarily by overpopulation and overproduction that can be tracked back to the industrial revolution. As a response, companies should change their production systems, and individuals should learn how to purchase in a more ethical way.

The 3R principle (reduce, reuse, recycle) is becoming more and more popular in a context of circular economy. This concept, however, is contained in an even broader vision which is that of responsibility: corporate responsibility but also community responsibility; companies, in fact, should think about a more sustainable design in order to be able to reuse the product or at least the raw materials without starting a new production cycle, while adopting a cleaner production process. The community, on the other hand, must commit itself to recycling as much as possible, repairing products and avoiding waste.

The fashion industry is one of the most polluting manufacturing due to the production processes and the large use of chemicals, it is one of the most unsustainable sectors due to the high-water usage and overproduction and it is unethical due to the unfair working condition of the employees in the factories; the latter are almost always located in places where labor is cheap and workers are exploited.

In order to be sustainable, the fashion industry should be able to limit the production of new clothes by recycling existing ones, thanks to a modular design and the search for sustainable materials.

Consumers will be willing to buy and to pay for sustainable apparel as long as they perceive the value offered by this alternative. The communication of the value is really important, especially when it refers to a new product; companies have to be as transparent as possible describing all the phases that make up the realization of the piece of clothing, from the origin of the material to the disposal phase.

The factor that influences the purchase likelihood and WTP for sustainable clothes the most, is of course the concern that consumers have about the environment (Notaro, Paletto 2021); indeed, consumers are becoming more aware of the impact that their purchase decisions have on the environment, but they are also affected by emotions, moral obligations, the origin of the product, information and personality traits.

In this study it has been hypothesized that some personality traits, namely impulsivity, localism, need for uniqueness and frugality affect positively or negatively the purchase likelihood and WTP for sustainable apparel. I additionally supposed that anxiety and cynicism play the role of moderators; the first one, anxiety, on the relationship between impulsivity and purchase likelihood and WTP for sustainable apparel, while for what concerns cynicism, I supposed it moderates the relationship between frugality and purchase likelihood/ WTP for sustainable apparel.

The study is based on a quantitative research model, therefore, data have been collected through the compilation of a survey. Before publishing the questionnaire and making it accessible to everyone, I administered a pre-test to eight of my friends and relatives in order to make sure that everything was clear. One of the participants found it difficult to understand the sense of the questions related to localism because it was not clear if they alluded to the country or to the city/ village of residence so, after considering the research of the authors of the scale, I changed the wording in “Regarding the place where I live” to avoid misunderstandings.

Initially the questionnaire obtained 166 interactions, the participants were recruited through a “snowball sampling technique”, according to which the group of people contacted at first, would have forwarded the survey to other individuals, starting a chain diffusion. I decided to exclude from the analysis with a filter question the respondents that were not at all informed, nor interested in knowing more about sustainable fashion; by doing so, the number of respondents fell to 145. Among them, 32 did not answer to all of the questions and 13 did not pass the attention checks, so the analysis is based on the remaining 100 interactions. The composition of my sample is in line with the trend of the sustainable fashion market, according to which Millennials (people born between the end of the nineties and the early 2000s), are more concerned, compared to other generations, to environmental issues.

## 5.1 Discussion

Data are analyzed through the Smart-PLS program, which employs methods called Structural Equation Modeling (SEM) to enable researchers to incorporate unobservable variables measured indirectly by indicator variables and to facilitate the accounting for measurement error in observed variables. The type of SEM adopted in this research is the partial least squares SEM (PLS-SEM) which is used to develop theories in exploratory research by explaining the variance in the dependent variables when examining the model.

Findings in this study give a contribution to the literature since they take into consideration specific personality traits and the relevance they have in influencing consumer's purchase likelihood and WTP for sustainable apparel. The Big-Five representation is the most used model in the literature, especially when the objective of the study is to determine the effect of personality traits in consumers' behaviors. I decided to go a step further by selecting personality traits that are linked to apparel consumption, environmental concern, and/or sustainable products purchase likelihood and willingness to pay them, namely impulsivity, need for uniqueness, localism and frugality; I have also hypothesized that two of these traits, impulsivity and frugality could be affected by the mediator role of anxiety and cynicism respectively, in relation to the purchase likelihood and WTP for sustainable apparel.

As a consequence of the results obtained from the analysis concerning the convergent validity of the constructs, I removed the "frugality" independent variable and the hypothesis of moderation associated with it. Then, I replaced that hypothesis by assuming that the variable cynicism (which previously was the moderator variable), negatively affects consumers' purchase likelihood and WTP.

The results confirm the hypotheses that Need for Uniqueness has a positive effect on consumer's purchase likelihood and WTP for sustainable apparel (H2) and that cynicism has a negative effect on consumer's purchase likelihood and WTP for sustainable apparel (H3a). As far as the moderation of anxiety is concerned, the moderator effect of anxiety on the relationship between impulsivity and PL/WTP is not statistically significant. The lack of statistical significance could be determined by the size of the sample.

The findings related to the "need for uniqueness" personality trait, confirm the theories according to which an individual who feels the urge to differentiate himself/herself from others in the social environment, with the purpose of developing and enhancing his/her self and social image, will be more willing to adopt sustainable behaviors (Tian, Bearden, Hunter, 2001). This aspect is added to the fact that people usually express their uniqueness by

showing a personal style, rejecting fashion trends; it follows that the value perceived from ecological garments is high for people with a higher need for uniqueness, who will therefore be willing to buy and pay for sustainable apparel. This finding is supported also by the research conducted by Jung S, Jin B. (2016), according to which exclusivity determines a higher customer value for slow fashion products and consequently increases their purchase likelihood and WTP. The limited availability of sustainable clothes makes them exclusive, generating a superior value for the customer who seeks for uniqueness.

Marketing managers and the fashion industry should consider these aspects when implementing their sales strategies, for example by underlining the uniqueness of the textile on the label and by emphasizing the social and environmental importance of the purchase. Moreover, since findings demonstrate that the WTP is related to the perceived value, the customization of sustainable apparel could increase that perception, convincing consumers with higher need for uniqueness to pay more.

The second finding demonstrates that cynicism is negatively related to consumer's PL and WTP for sustainable apparel. This is in line with the studies that report a decline in the buyers' trust in business due to the logic of profit growth at the expense of workers, of the environment and of the quality of the products they sell (Helm, Moulard and Richins, 2015). This aspect is defined as cynicism and it is a trait that is very likely to arise when it comes to sustainable fashion, also due to the recent marketing phenomenon of "greenwashing", according to which companies declare to be respectful of the environment and promote the environmental benefits of their products or services when in reality they are environmentally irresponsible. Cynical customers are therefore not willing to pay for a product that they think is falsely claimed to be sustainable.

In order to break down this barrier and convince cynical consumers, companies have to be as transparent as possible, communicating the origin of the materials, all the processes of production and the benefits derived from that particular purchase. This information has to be easy to find and to interpret, and it should be able to change the customers' purchase decision.

Some industries have already moved in this direction through the introduction of eco-labels, which are "labels of environmental excellence", that have been established in 1992 and they are internationally recognized; an eco-labeled product meets high environmental standards, from the material extraction to its disposal (European Commission).

Prior studies demonstrate that environmental knowledge and environmental concern positively affect green purchase intentions and that they mediate the negative relationship between green skepticism and purchase likelihood; however, skeptical consumers are not concerned and have little knowledge about the environment (Kwong Goh, Balaji, 2016). Again, information on this issue appears to be a fundamental solution to resolve these limitations.

According to these findings, when marketing strategies are not sufficient to reduce green cynicism, greater information on sustainability and environmental issues will help to reduce cynicism and will indirectly increase sales related to sustainable products.

A possible reason to explain why the positive relationship between localism and consumers' PL and WTP for sustainable apparel (H1) is not supported could be that consumers are used to living in a globalized world and have difficulty in recognizing the differences between a local and foreign piece of clothing, since they are not as easy to notice as in food, for example. People with a strong local identity are more likely to manifest it through the participation in local events rather than through purchasing behavior, due to the fact that there is the same ease in finding garments manufactured in the homeland than in another country. This limit could be overcome through information; knowing the production processes and the working condition of one's own country could lead to a more conscious decision. On the other hand, the awareness of the workers' welfare, might not increase the products' perceived value since it is not an aspect which impacts directly on the consumer's purchase (Jung, Jin, 2016), therefore, if this option is taken into consideration, it would be advisable to carry out studies that allow us to evaluate how the local identity influences purchasing decisions.

Another reason that justifies the lack of support for H1 is that people with a strong local identity might express it through the affection to a particular local brand, which does not necessarily manufacture in an ethical way and in the country where the company has its registered office. If this is true, the sustainable characteristics of a product are not relevant in determining consumers' purchase likelihood and WTP. However, it would be an interesting starting point to find the aspects that influence the purchase likelihood of a customer with a strong local identity.

The hypothesis stating that the impulsivity personality trait negatively affects consumers' purchase likelihood and WTP for sustainable apparel (H5) is not supported. The cause could be that sustainable clothes are not easy to find in retail shops, and brands that produce garments ethically are not sufficiently advertised, making them difficult to be recognized by the impulsive buyer for whom the first impression, the glance, is essential because it is basically the reason of the purchase. Impulsive individuals react fast, without a conscious judgment

(Whiteside, Lynam, 2001), the purpose of their purchase is an immediate response to a stimulus and this could be another reason that explains the lack of support of my hypothesis; the relationship between impulsive buying tendencies and the purchase likelihood for sustainable apparel does not exist simply because sustainability is something that impulsive shoppers do not consider.

Consumers' impulsivity trait is stimulated by promotions, time sales, strategic product placement and in-store advertising (Chen and Wang, 2016); this confirms the importance of knowing how to advertise and display sustainable products in a strategic way in order to make them easily accessible to impulsive buyers who will, however, be attracted by their design and the "need" they arise, not by their quality and "green" characteristics.

Impulsive buying tendencies, if frequent, are behaviors that are opposite to the ethics of sustainability; it would be interesting then, to investigate whether sustainable fashion brands are interested in attracting this particular type of customer.

The existing literature describes the impulsivity personality trait and impulsive buying behaviors in relation to their determinants without studying directly how they influence consumers' purchase likelihood and WTP.

The relationship with the anxiety personality trait and its moderation were not supported because anxiety might influence an impulsive behavior, but the relationship with consumers' PL and WTP for sustainable apparel would have been indirect. Indeed, anxiety in relation to purchase behaviors could arise as a consequence to phenomena that stand above human control (Rahimah, Kahlil, Cheng, Tran, Panwar, 2018). Today, climate change, global warming and all the environmental disasters have caused a sense of uncertainty about the future of the planet; this feeling can push anxious individuals to adopt more responsible behaviors. This, however, is not directly related to the adoption of sustainable buying behaviors.

It would be interesting to study if environmental degradation is something that is negatively perceived by anxious individuals and if it affects their daily choices.

To conclude, from this study it was found that the personality traits "need for uniqueness" and "cynicism" affect consumers' PL and WTP for sustainable apparel. In particular, people who present the "need for uniqueness" trait are willing to pay for eco-clothes because they recognize the value, the uniqueness of the product especially in terms of fabric composition. Moreover, they are positively affected by the social value associated with the unconventional choice of buying sustainable clothes instead of following the fashion trends proposed by the fast fashion industry. Companies should offer high quality clothes with a unique design that

are made to last in order to encourage consumers to buy less, reducing resource consumption and waste.

Cynicism, on the other hand, constitutes an obstacle to the consumers' PL and WTP for sustainable apparel. The distrust caused by the greenwashing and the false information spread by the fashion companies do not encourage consumers' interest and willingness to pay for eco-clothes.

In addition to the contribution to the literature which has implications both in the economic field but also in the psychological one, these findings have practical implication that marketing managers might follow in order to develop strategies that will be able to please customers with different personality traits and that might lead to a higher purchase likelihood and willingness to pay for sustainable apparel.

Implications for practice are presented in the following section.

## 5.2 Implications for practice

For the purpose of the research, it is necessary to interpret the results obtained from the analysis carried out through the Smart-PLS software. The study was conducted with the aim to investigate the role of personality traits in determining consumers' purchase likelihood and WTP for sustainable apparel, in order to make a scientific contribution to the sustainable fashion sector and an interesting point of view to the psychology of personality. Furthermore, the study could be a practical aid to the development of marketing strategies focused on attracting consumers with different personality characteristics.

The findings demonstrate that people with a high "need for uniqueness" will purchase and will be willing to pay for sustainable apparel, while, on the contrary, cynical individuals will not be willing to purchase, nor pay for sustainable apparel.

In this section, I will discuss the implications that these findings might have in practice.

The first thing to take into consideration is that a high perceived value is expected to lead to purchase intention; therefore, regardless of the personal characteristics of the customer, a good marketing manager must be able to create and communicate the value of the product that will be perceived as more or less valuable according to the personality traits of the buyer.

For individuals that feel the need to be unique, the value of a piece of clothing is determined by the exclusivity, the uniqueness of the garment and the social value associated to it (Legere and Kang, 2020). The rejection of fashion trends and the propensity for making unconventional choices are typical actions of the customer that has a high need for uniqueness.

The role of marketing in this context, is to communicate the “identity” of the product, the peculiarity of the textile and the modularity of the design that allows the product to be modified into something else, something new, without being thrown away. Moreover, since the decision to buy sustainable apparel is not yet a common behavior, the challenge is to convince consumers that adopting a sustainable behavior will distinguish them from the crowd. To show the social implication of this decision, it is important to highlight the benefits of this choice for the environment, making today’s consumers the pioneers of a behavior that everyone will benefit from.

To enhance the uniqueness of the product, companies could describe the process of production and the benefits derived from the purchase on their website and highlight the peculiarity of the textile on the product’s label.

The customization and/or a limited availability of sustainable pieces of clothing could increase the value perceived by customers with a high need for uniqueness that will consequently be willing to purchase and also pay more for sustainable apparel.

The perceived value and the trust in the brand are fundamental aspects to attract the cynical consumer, who, contrary to the one who seeks uniqueness, is not likely to purchase, nor willing to pay for sustainable apparel. In the context of sustainable fashion, where the phenomenon of greenwashing is spreading, the credibility of companies that claim to be “green” and ethical is severely tested.

It is important to consider cynical shoppers when implementing marketing strategies because if they perceive the company as dishonest, they can damage its reputation by spreading negative comments; their satisfaction is determined by the perception of being treated correctly (Balaji, Jha, Sengupta, Krishnan, 2018).

The role of marketing managers is to gain the trust of consumers in their company and the solution is to be as transparent as possible, communicating and guaranteeing the traceability of the product from the raw material through the whole production process. About that, eco-labels constitute a good and efficient example (Min, Lim and Yoo, 2017); otherwise, companies could develop labels that, through a QR code, direct the user to a web page in which all the production phases that lead to the creation of that product are explained,



reporting all the necessary information with the aim to reduce the skepticism of many consumers.

Existing studies demonstrated that individuals who are cynical about the sustainability of a product, have usually little knowledge about the causes of environmental degradation and are not concerned about the environment; by providing them the right information will reduce green cynicism and enhance environmental concern (Kwong Goh, Balaji, 2016) that will lead to a higher purchase likelihood and WTP for sustainable products. Therefore, not only marketing but also environmental education is important in determining sustainable purchasing behaviors.

In the future, ethics and aesthetics will go hand in hand, consumers will want to wear clothes that are beautiful and “green”; thus, it is the duty of fashion companies to start moving in this direction, keeping in mind the logic of the circular economy, designing clothes that, at the end of their “life”, can be dismantled to produce new ones.

A sustainable piece of clothing does not look different from one that is not sustainable, so the objective is to create a narrative that helps to understand its value.

### 5.3 Limitations and future research directions

Besides the contribution to the present literature, this study presents some limitations that should be improved with future research.

First, the sample size is too small considering that no particular characteristics were required to answer the questionnaire; I had to recruit a limited number of participants for issues in the utilization of the software Smart-PLS. The snowball sampling technique led to a rather homogeneous sample which includes mostly Italian girls in their twenties. This is not a problem, since personality traits do not depend on demographic characteristics, but it would be interesting to obtain more responses from people of different age, gender, origin and income classes to examine their purchase likelihood and WTP for sustainable apparel.

Second, the role of personality traits in relation to purchase behaviors is a topic that is not frequently considered in marketing studies. In particular, it would be interesting to examine how specific personality traits might influence consumers' purchase likelihood or WTP. The existing literature use to consider the “Big Five” model since it includes different personality traits into five categories; this might lead to results that are too general to plan specially-made

strategies in accordance to the buyer's personality. The study on purchasing behaviors based on specific personality traits could also be a useful contribution to psychology.

As much as it may seem like a discussed topic, there are not many scientific findings related to sustainable fashion consumption. One of the causes, (in addition to being a reason to continue with future research), is the scarce knowledge about sustainable fashion. Consumers might not be able to assess their willingness to buy and to pay for sustainable apparel due to the fact that they do not know what a sustainable piece of clothing is, nor the advantages/benefits of such an ecological purchase.

Once the likelihood to purchase and the WTP are determined, it would be interesting, in future research, to investigate how much a customer with a particular personality trait would pay for a specific sustainable piece of clothing.

Considering the findings of this research, people with a high need for uniqueness will be willing to pay for sustainable clothes; the search could then continue by investigating how much they would pay for a locally produced bag or for a white t-shirt made of hemp fibers.

All of these suggestions for future research should be taken into consideration when the literature regarding sustainable fashion will be more precise and when the knowledge and information will be accurately acquired by consumers.

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