



## Brazilian consumer perceptions towards second-hand clothes regarding Covid-19



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### ABSTRACT

Second-hand clothes (SHC) emerge as an alternative for responsible consumption, towards sustainability, as a new opportunity for the fashion industry. This study aims to understand the perceptions and attitudes of Brazilian consumers regarding SHC on a comparative basis before and during the occurrence of the Covid-19 pandemic. The empirical investigation was divided into two stages. Firstly, a survey was conducted before Covid-19 (November 2019) with a sample of 513 Brazilian fashion consumers, where exploratory factorial and cluster analysis were performed. Using a structural equation model, five hypotheses were generated based on literature to test the influence of some factors in the intention to buy SHC: socio-environmental awareness, preconception with SHC, need for uniqueness, brand awareness and social prestige. Secondly, another survey was conducted during Covid-19 (August 2020) with a sample of 392 Brazilian fashion consumers. The comparative analysis demonstrated some differences in the intention to buy SHC regarding the pandemic. "Preconception with SHC" remained non-significant, "need for uniqueness" and "social prestige" remained positively correlated. "Socio-environmental awareness" has become positively correlated and "brand awareness" intensified negatively during the pandemic. New research can investigate the current transfiguration of consumer behavior in other countries considering the outbreak of coronavirus, as well as analyze the actions of institutions towards the fashion sector in view of conscious consumption, which is increasingly in vogue among the consumer population. This research contributes to the knowledge about SHC consumer behavior regarding the Covid-19 pandemic. The results assist in marketing strategies for the fashion industry, considering the growing demand for second-hand items during the pandemic, and contribute to a higher level of sustainability in the sector.

### 1. Introduction

In the 1970s, the literature already discussed that consumer behavior has a direct impact on environmental issues, and can help preserve the environment, or contribute to its deterioration (Kinnear et al., 1974). Personal purchasing decisions extend mainly to clothing. Textile and clothing materials are a fundamental part of everyday life and an important sector for the global economy (Ellen MacArthur Foundation, 2013). The fast fashion industry has boosted the volume of apparel production, making consumers buy and discard at a rapid pace (Pookulangara and Shephard, 2013). Over the past 18 years, clothing production has doubled (Ellen MacArthur Foundation, 2013) and the average number of times a garment is worn has decreased by 36% (Ellen MacArthur Foundation, 2017).

An emergency alert arises for the finite nature of the resources on which the linear economy is still based. An ordinary consumer has rarely

reflected on the amount of clothing they buy and discard in their life. The fast fashion phenomenon, a business model that offers modern clothing at affordable prices, contributes to increased consumption and needs to be adequate with a sustainable model of a circular economy. As the garments manufacturing is increasingly fast, individuals are more inclined to purchase even more trendy clothes. However, this overconsumption comes at the cost of the natural environment (Razzaq et al., 2018).

The use of second-hand clothes (SHC), sold especially in thrift stores, resurfaces as an alternative to the circularity of garments, opposing the fast fashion model and contributing to a share of sustainable development in the fashion industry. The thrift stores started in Paris, France, in the 19th century as open-air fairs for the sale of used products in which the garments did not have much hygiene, giving rise to the name "Flea Market" (*Marché aux puces*). In Brazil, the term "thrift store" (*Brechó*) appeared in the state of Rio de Janeiro with the inauguration of Casa do

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Belchior, the first used goods store (Bóas and Lemes, 2012).

“Circular Economy” is a concept which opposes the current linear economic model of extracting, transforming and discarding, generating benefits for society as a whole, and minimizing waste in the production system by maintaining products and materials in use cycles, thus building economic, social, and natural capital (Ellen MacArthur Foundation, 2013).

Regarding SHC, in the case of Brazil, literature and everyday experiences reveal the consumer tendency to a reaction of rejection and prejudice, even if in a subtle way (Raasch, 2014; Castro, 2014; Corrêa and Dubeux, 2015). Studies on SHC spread globally, as in the publications by Farrant et al. (2010) in Denmark; Pipyrou (2014) in Italy; Habinc et al., 2018 in Slovenia; Tarai and Shailaja, 2020 in India; and Santos, 2020 in Portugal. However, Maciel & Cavas (2016) brings a cultural view of the Brazilian consumer as a key factor in academic research in this field. The study brings up taboos, prejudices and fears of the Brazilian consumer that can act as restrictors in the consumption of SHC, a potential implication in the progress of this market share in the country. The authors claim that, even so, it is possible to glimpse the possibility of an increase in the number of consumers of used clothing. Brazil proves to be a territory that has its cultural particularities, due to a historical miscegenation of cultures (Costa, 2001) that affects consumption.

The present study aims to generate theoretical and academic contributions in the issue related to SHC. Further on, no study in the literature has addressed the perceptions of Brazilian consumers in relation to SHC in the extraordinary circumstances of a pandemic scenario, which affected the entire world trade, especially clothing, as health recommendations recommend social isolation.

The economic crisis aggravated by the coronavirus pandemic had a significant impact on clothing consumption practices, due to the decrease in the purchasing power of a large part of the Brazilian population (El Khatib, 2020), resulting in increased demand for products with more affordable prices. In addition, when spending more time at home due to social isolation, people saw reselling clothes they no longer wore as a monetization option, not for voluntary reasons, but caused by a health crisis with economic consequences (El Khatib, 2020). With the growing ecological awareness of the consumer and the growing popularity of sustainable fashion, second-hand retail is growing rapidly (Park et al., 2020).

With a greater awareness of the impacts that a particular purchase choice can have, it is perceived a great importance in rethinking consumption habits. Consolidating this reasoning, this research is proposed as a reflection on the paradigm of sustainable development applied to the fashion industry. This work aims to understand the purchase intention of the Brazilian consumer regarding SHC before and during the pandemic caused by coronavirus. Also, it seeks to analyze the impact of this behavior towards sustainability, contributing to a more conscious and socio-environmentally responsible consumption in contemporary society. The consumer, the industry, and the designer of new products have decisive roles in the consolidation of this new Era. In view of the exposed context, possibilities for new scenarios are identified for the sector in search of the circularity of garments.

In 2017, the second-hand market grew by 47%, while in the same period, retail sales grew by only 2% (ThredUp Report, 2018). In the case of Brazil, the number of thrift stores trading SHC grew 210% between 2010 and 2015 (Sebrae, 2019). Second-hand commerce in online retail channels increased 48.58% during the pandemic, due to sanitary restrictions, between the first semesters of 2020 and 2021 (Sebrae, 2021), based on data from the Internal Revenue Service. For that entity, the pandemic, which increased consumer financial control and concern for the environment, may have been factors that boosted the second-hand market in Brazil (Sebrae, 2021).

The Euromonitor International Report, of February 2021, on Apparel and Footwear in Brazil indicates that before the pandemic, Brazil was already seeing very modest growth in the apparel category due to the weak macroeconomic situation since 2014, and Covid-19 caused this

sector to be prevented from resuming its growth, relating to the economic crisis in the country that led to an increase in the consumption of SHC due to more affordable prices (Mello, 2021). Furthermore, it exposes that the global trend of consumers to demand more sustainable actions from companies is also observed in Brazil (Euromonitor International, 2021), which makes the outcomes of this study even more relevant.

When experimentally testing the validity of five hypotheses elaborated from the literature, in addition to a variable related to Covid-19, the objectives of the present research were contemplated. It is intended to answer the following questions: How do behavioral attributes influence the intention to buy second-hand clothes by Brazilian consumers before and during the pandemic? Have perceptions of second-hand clothing changed between November 2019 and August 2020?

This research offers academic theoretical contributions focusing on the Brazilian consumer in the light of a global event that affected the social daily life of clothing consumption, directly impacting consumer behavior, with a comparative perspective of before and during Covid-19, generating favorable results for the research and for the body of literature.

The research is composed of an introduction about second-hand clothes, the problematization of the fashion industry in contemporary society, and the justifications that encourage the resourcefulness of this study relating to the concept of sustainability, in addition to the objectives. The literature review corroborates the Hypotheses tested in this research, on the distinct issues in evidence. Further on, the theoretical analytical model is proposed, as well as the materials and methodology adopted. Afterwards, there is an analysis and discussion of the results obtained and the final considerations of the work. Finally, the conclusions about the approach are presented, contemplating the initially proposed objectives. After all, the study ends with the gathering of all bibliographic references consulted.

## 2. Theoretical background

### 2.1. Social ethics and environmental awareness

Social ethics is defined as the actions of individuals before society when faced with the need to guide their behavior by norms that are considered more appropriate (Vásquez- Parrarraga and Kara, 1995). These rules are accepted intimately and recognized as mandatory, making up human conduct. Whether in ancient times or today, ethics characterizes a type of effective behavior both for individuals and social groups (Vásquez- Parrarraga and Kara, 1995).

The concept of environmental awareness refers to specific psychological factors related to the individual's propensity to engage in pro-environmental behaviors (Stern, 2005). The field of research proposed by Dunlap and Van Liere is the oldest and most widely disseminated on environmentalism or environmental concern (Dunlap, 2002; Van Liere & Dunlap, 1981; Dunlap and Van Liere, 1978). They maintain that environmentalism is a matter of general values or beliefs about the relationship between human beings and the environment. Kinnear, Taylor and Ahmed (1974) claim that preserving or damaging the environment is related to personal consumption decisions. Over time, most consumers became alarmed by the fact that their purchasing behavior has a direct impact on many environmental issues (Bohlen et al., 1993; Laroche et al., 2001).

Noting the emergence of a consumer with more conscious habits and more concerned with environmental issues, academic authors have subsequently sought to understand the factors that influence the behavior of these consumers (Connell and Kozar, 2014). Becker-Leifhold and Iran (2018) asserts that the main sustainable fashion strategy has been to produce more sustainable products, for some years. Currently, considering the huge amount of clothing that is purchased and disposed of, this strategy is not seen as efficient anymore. Reusing fashion items can help reduce the need for new items and decrease wastage (Antanavičiūtė and Dobilaitė, 2015).

Sustainability related to second-hand consumption is discussed in the literature, where product reuse is a good fit to maximize the use of resources as the re-selling of clothing products extends the product's life cycle (Hill and Lee, 2012; Santamaria et al., 2016; Yang et al., 2017).

Socio-environmental awareness is considered a favorable hypothesis for the consumption of SHC, since it is opposed to the fast fashion production chain that generates socio-environmental impacts. SHC are related to sustainable consumption (Sandes and Leandro, 2016; Yang et al., 2017). Becker-Leifhold and Iran (2018) suggests that the fashion industry looking for new sustainable business models could explore collaborative consumption as a promising pathway. Iran and Schrader (2017) defined collaborative fashion consumption as a consumption trend "in which consumers, instead of buying new fashion products, have access to already existing garments" either through alternative opportunities to acquire individual ownership (gifting, swapping, or second-hand) or through usage options for fashion products owned by others (sharing, lending, renting, or leasing).

In this case, the consumption of SHC is evaluated, involving ethical precautions on the environmental and social impact of (over)consumption and a desire for voluntary simplicity, where such purchase is seen as a sign of opposition to consumerism and, specifically, as a response to waste.

**H1.** Socio-environmental Awareness is positively related to the intention to buy SHC.

## 2.2. Preconception with second-hand clothes

Human beings are not born prejudiced, rather, prejudice is learned. Prejudice is an attitude or hostile feeling towards a person, just because he belongs to a group to which he attributed objectionable qualities (Allport et al., 1954). Prejudice is a blind judgment that resists facts and ignores the truth, creating a kind of poison in the individual, being, therefore, the way one thinks or feels about a person or a particular group or objects (Allport et al., 1954).

In the case of the present research, it is realized that the feeling of prejudice is also applicable to used objects. Second-hand clothing (SHC) can be defined as a piece of clothing that once belonged to someone else and may have been manufactured recently or even be very old (Cervellon et al., 2012). The most common concerns that consumers face when buying SHC is the fear of contamination and germs (Belk, 1988; Hansen, 2010), diseases, and misfortunes due to the association of the previous owner who might have died (Groffinan, 1971; Mhango and Niehm, 2005; Xu et al., 2014). The concern with contamination is the greatest impediment in sharing articles used next to the skin, such as clothing, meaning that the fear of germ contamination is an important factor in rejection behaviors for used clothing (O'Reilly et al., 1984; Belk et al., 1988; Ostergaard, Fitchett & Jantzen, 1999). There is also a certain rejection for the concern to incorporate a degraded image of the previous owner (Rozin and Fallon, 1987). Death, illness, or misfortune are often associated with the former owner who is generally unknown, and negative energies are supposed to be transferred through their assets to the new buyer (Banister et al., 2005).

In recent years, there has been an increase in the number of studies in this area, and this product is seen as a new opportunity for a strong market regarding sustainable and responsible clothing consumption (Paras et al., 2018).

This tested hypothesis is considered unfavorable to the consumption of SHC. A feeling of prejudice, rejection, or dislike with used clothes is a negative factor for the purchase. One can see a significant portion of the Brazilian population that refuses to buy SHC, especially due to the concept of contamination and not knowing who the garment initially belonged to. This hypothesis has an immense strength, as it is the initial and primordial factor when thinking about secondhand clothes.

**H2.** Preconception is negatively related to the intention to buy SHC.

## 2.3. Need for Uniqueness

In the field of consumer behavior studies, 'need for uniqueness' means the affirmation of individual identity and products that promise to accentuate the distinctive qualities of each consumer. It is defined as an individual's search for difference in relation to others, achieved through the acquisition and use of consumer goods in order to develop personal and social identity (Tian et al., 2001). The need for uniqueness theory suggests that people have a "need for separate identity" (Fromkin, 1970), and by demonstrating that one is different from the rest signals an individual's freedom to express his or her identity and indicates that one is special (Kim and Drolet, 2003; Kim and Markus, 1999).

According to the consumers' need for uniqueness (CNFU) theory, all individuals crave uniqueness to some extent. At one NFU extreme, some people desire to be "just like everybody else." At the other extreme, people want to be as different and distinct as possible (Tian et al., 2001). Clothing selection is a uniqueness-seeking behavior (Fromkin and Lipshitz, 1976; Snyder, 1992; Snyder and Fromkin, 1980). Consumer manifestations of uniqueness motivation may be perceived when seeking exclusive articles of clothing, to establish a unique personal identity as well as a unique social image (Tepper and Hoyle, 1996), standing out from the rest of the population in a world dominated by trends, which are accessible by fast fashion stores that shape the consumer in fashion standards.

Many consumers can choose SHC precisely because of the need for uniqueness (Sandes and Leandro, 2016). The need to feel unique is something that can attract consumers, and this concept is already considered in literature (Nica and Potcovaru, 2015; Tian et al., 2001), representing a positive incentive for purchasing SHC.

Individuals with a strong need for uniqueness are more likely to make non-traditional choices as a consumer, for example buying clothes on second-hand channels to demonstrate their individuality (Guiot and Roux, 2010). The emotion of a unique purchase opportunity and the uniqueness of the product itself are motivating factors for buying second-hand products (Xu et al., 2014).

Retro fashion items that tend to promote nostalgic images attest to the reappearance of a legendary 'Golden Age' or a shared past culture (Goulding, 2002). The behavior of women who consume SHC was also studied, relating the purchase of vintage clothes with the involvement of fashion and the propensity to nostalgia, as well as the need for singularity (Cervellon et al., 2012). The increase in consumption of clothes used in the last ten years in Western cultures may be a consequence of the vintage trend in contemporary fashion (Cervellon et al., 2012). When consumers choose second-hand products, they opt for a unique product that is not available everywhere, only through unconventional purchasing channels (Guiot and Roux, 2010), thus, it is a relevant factor in the motivations for purchasing second-hand products (Sandes and Leandro, 2016).

Workman and Laura (2000) defined that there are fashion consumer groups with different intensities of need for uniqueness. Fashion change agents (i.e., fashion opinion leaders, fashion innovators, and innovative communicators) have a greater need for uniqueness than fashion followers (Workman and Laura, 2000). Based on this, need for uniqueness can be segregated between need for personal uniqueness and need for fashion uniqueness, in which the first characterizes the consumer's perception of their own personal identity, and the second his perception of the clothes sold in stores.

The present hypothesis considers the need for consumer uniqueness to be a positive factor for the purchase of SHC. In view of the identity formation that clothing can allow (Swain, 2002), such as vintage, retro, disco, hipster styles, among many others, and the opportunity to differentiate themselves from the rest of the population in terms of style, with a fashion imposed on society encompassing extremely similar clothing in

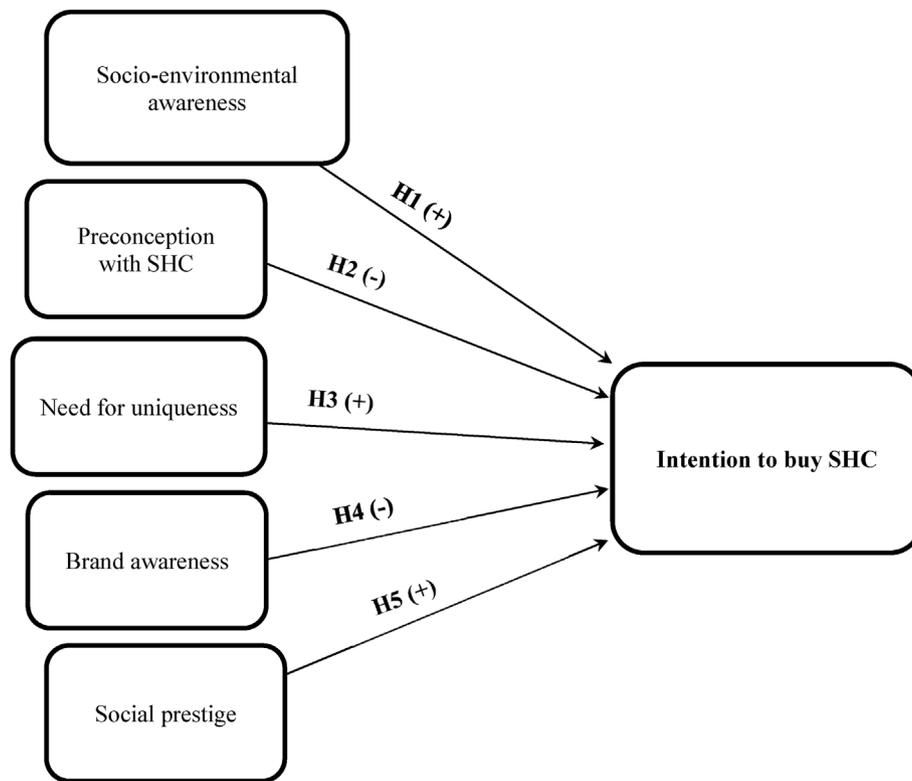


Fig. 1. Hypotheses tested in the research. Note: \* For a better understanding of the proposed theoretical model, the scheme above presents each of the tested hypotheses and their respective descriptions.

all stores, channels such as thrift stores are ideal to feed the individual's sense of exclusivity.

**H3.** Need for Uniqueness is positively related to the intention to buy SHC.

2.4. Brand Awareness

Loyalty to the brand is defined as the consumer's commitment to a particular brand, based on a strong and favorable attitude, manifested in consistent purchase (Sheth et al., 1991). Jacoby and Chestnut (1978) classify the concept as the repetition of purchasing behavior by an individual with decision-making power, of the same brand. Later on, Solomon (2011) proposes that consumer loyalty to a brand describes repeated buying behavior that reflects a conscious decision to continue buying the same brand. From a scientific point of view, several authors have identified factors that influence brand loyalty, such as consumer satisfaction (Oliver, 1993), perceived value (Peterson et al., 1997) and trust (Harris and Goode, 2004).

Individuals see objects, places, and possessions as extensions of their self (Belk et al., 1988). Specifically, attachment to the brand is conceptualized as the construct that analyzes how the emotional connection of consumers to brands happens (Schmitt, 2012). Later, Marchegiani and Phau (2010) tested the effect of consumers' need for exclusivity, status and brand perception related to purchase intentions and found that brand judgments had the strongest and most significant effect. It was found that Brazilian consumers tend to strongly value the brand in their purchasing decisions (Silva and Vasconcelos, 2012).

There is evidence that associate the need for status with the purchase of second-hand products and relate this behavior as a good opportunity to purchase luxury items and well-known brands (Edbring et al., 2016; Turunen and Leipämaa-Leskinen, 2015). However, considering the increased demand for such products, many thrift stores started to sell branded pieces and to charge higher prices, and this movement can be understood as a way to take advantage of the consumer (Machado et al., 2019).

Thus, it is considered in this hypothesis that the attachment to the brand negatively influences the intention to buy SHC, considering that occasionally the consumer gives preference to purchase the garment at the brand's own store, and since the chances are very low of finding clothes to the liking of the specific brand that the consumer is attached, in thrift stores.

**H4.** Brand awareness is negatively related to the intention to buy SHC.

2.5. Social prestige

This hypothesis is considered in view of the contemporary scenario of what is considered fashion and trendy, related to vintage, retro, hipster and 90s styles. As they are styles made up of garments from specific decades, current stores rarely manage to supply this demand from many fashionistas (except for fast fashion stores), and it is then that consumers look for SHC usually sold in thrift stores. In this line of reasoning and considering the current context, for many young people, buying SHC in keeping with vintage trends is considered a social prestige resulting in popularity. It is believed that the social image of an individual depends on the artifacts that he buys and consumes (Galhanone, 2005).

The creation of a personal style of the consumer of SHC by a status consumption (Flynn and Eastman, 1996), which is related to the need for uniqueness, seeks at the same time the originality and acceptance of the social group in which he is immersed (Cervellon et al., 2012), that is, social prestige is obtained by having a style consistent with fashion trends. Machado et al. (2019) identified the social relationships provided by the purchase of SHC, for example during the purchase in thrift stores the interaction between consumers and store owners, salespeople, and other customers.

It is noted that, currently, buying in thrift stores is an act of popularity, estimated by hype and stylish individuals, being a cool practice. The present hypothesis of social prestige is involved with a consumer's need for uniqueness, meaning that if he develops a sense of self with style in order to become exclusive, the individual is recognized in society as

**Table 1**  
Discriminant validity.

	Socio-environmental awareness	Preconception	Uniqueness A	Uniqueness B	Brand awareness	Social prestige	Motivation to buy SHC
Socio-environmental awareness	0.691						
Preconception	0.222	0.816					
Uniqueness A	0.156	0.13	0.696				
Uniqueness B	-0.069	-0.206	-0.138	0.795			
Brand awareness	-0.105	0.042	-0.049	0.164	0.738		
Social prestige	-0.016	-0.054	0.176	0.125	0.305	0.665	
Motivation to buy SHC	-0.158	-0.101	-0.34	0.271	0.19	0.107	0.866
Cronbach's Alpha	0.735	0.883	0.671	0.698	0.788	0.659	0.679
Composite Reliability	0.675	0.909	0.678	0.764	0.856	0.694	0.857
Average Variance Extracted (AVE)	0.241	0.667	0.355	0.633	0.645	0.643	0.750

Note: Diagonals represent the root of the extracted variance.

someone of prestige (in terms of fashion). From the consumer's point of view, the search for status in society is mainly related to involvement with fashion and the purchase of vintage and retro items.

This hypothesis positively influences the purchase of SHC, especially due to fashion trends (for example, to dress vintage is to be in fashion, therefore, you gain popularity) and also by socio-environmental awareness (there is greater acceptance and prestige by friends, for example, for being a conscious consumer).

H5. Social Prestige is positively related to the intention to buy SHC.

### 3. Material and methods

This research aims to understand Brazilian consumer perceptions and attitudes towards second-hand clothes before and during the Covid-19 pandemic, thus investigating the impact of this behavior on a sustainability matter. To address this issue, a quantitative approach was used to quantify and analyze the collected data (Malhotra and Malhotra, 2012).

Two surveys were carried out, and the generalization of the Brazilian population was considered based on two samples collected, in order to analyze the behaviors and attitudes of this population (Creswell and Creswell, 2014). The multivariate analysis method was used, considering that this research tests multiple and distinct constructs in a unified theoretical model (Hair et al., 2005). The methodology used was that of

**Table 2**  
Evaluation of the structural model.

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Socio-environmental awareness - > motivation to buy SHC	-0.083	-0.087	0.066	1.261	0.208
Preconception - > motivation to buy SHC	-0.001	-0.003	0.055	0.011	0.991
Uniqueness A - > motivation to buy SHC	-0.314	-0.321	0.039	8.048	0.000***
Uniqueness B - > motivation to buy SHC	0.192	0.19	0.043	4.481	0.000***
Brand awareness - > motivation to buy SHC	0.102	0.11	0.043	2.403	0.017**
Social prestige - > motivation to buy SHC	0.105	0.113	0.048	2.199	0.028**

\*\*p < 0.05 \*\*\*p < 0.01.

structural equation modeling, which is defined by Malhotra and Malhotra (2012) as groups of procedures with the purpose of "estimating the interrelationship and dependence of the constructs incorporated in an integrated model".

The present research is explanatory and correlates different concepts with the intention of developing a theoretical model that clarifies a certain occurrence, in this situation, the consumption of SHC. Developing a theoretical model with the intention of approaching the reality model, it is a study with a post-positivist basis (Lincoln et al., 2011).

The most appropriate data collection instrument for a quantitative approach is a questionnaire, determined by the direct questioning of a group whose behavior is to be investigated (Gil, 2002). The purpose of this instrument is to collect information from a structured script, in which the results obtained will be ideal for analysis (Pinsonneault and Kraemer, 1993). Among the benefits of the survey method, the wide geographical coverage of respondents and the low cost of application are identified, however one limitation is the low rate of return (Cooper & Schindler, 2003).

The survey technique was used for data collection, and the questions were elaborated using the Likert Scale to obtain structured answers. Constructs were measured using the 7-point scale, ranging from (1) strongly disagree and (7) strongly agree, measuring the degree of agreement of the respondents through statements, with ease and reliability. The scales used were adapted from other academic studies.

The two questionnaires used as a data collection instrument were developed through the Google Forms platform, free of charge, and completely structured. The survey started with a filter question explaining the research, its purpose and the Free and Informed Consent Term of the Research Ethics Committee of the University of São Paulo formulated by the author, so that potential respondents could choose between proceeding to the questions, or if they did not feel comfortable with their participation, declaring their willingness to participate in the study. The questionnaires were disseminated through electronic and social media.

Based on the definition of the scales and the questionnaire, the first questionnaire was applied in November 2019, and was available throughout eight days, totaling 513 respondents. The second questionnaire was applied in August 2020, during the Covid-19 pandemic scenario, being also available for eight days and had 392 respondents. In this research, the population of interest to achieve the proposed objectives is the Brazilian population of consumers in general, without age, sex, or specific behavior restrictions, whether they frequent second-hand stores or not, due to the different levels of consumption. As the intention is to evaluate the reaction of acceptance or rejection of the Brazilian consumer regarding SHC, niches were not defined for the research.

The probabilistic sampling technique for convenience was chosen for the development of the survey, since all respondents in the population have a fixed chance of answering the questionnaire, and there are no limiting factors, and because the researchers aim to define their sample based on the respondents considered convenient for obtaining an answer

and contemplating the research objectives (Samara and de Barros, 2002; Malhotra and Malhotra, 2012).

Consolidating the hypotheses formulated about the theme addressed, Fig. 1 outlines the model proposed.

Regarding data analysis, the multivariate data analysis method is applied, since the Hypotheses were evaluated using Structural Equation Modeling (SEM). Concerning the size of the study sample, 513 valid respondents were collected in the questionnaire before the pandemic and 392 respondents in the questionnaire during the pandemic, representing an adequate number in models of structural equations (Hair et al., 2014), considerable for detecting the desired effects of SEM and sufficient to allow a more robust statistical analysis.

The method chosen was the modeling of partial least squares paths, or Partial Least Square (PLS), as it is more applicable to a confirmatory factor analysis and the scales used have been adapted from previously developed scales (Hair et al., 2014). This technique is generally used in samples that do not assume normality, common in marketing studies (Malhotra and Malhotra, 2012; Hair et al., 2014). For the present study,

the bootstrapping tool is used to test the discriminant validity of the Hypotheses, with a descriptive analysis (Bastos et al., 2017).

#### 4. Results

In this section, the results are divided in Before the pandemic caused by Covid-19 and During (Post) pandemic. Hair, Black and Babin (2005) define the discriminant validity as the extent to which the indicators of a model represent a single construct, and the indicators of the construct are distinct from the other constructs in the model, making it necessary to verify the unidimensionality of the constructs.

Regarding a more detailed evaluation of Cronbach's Alpha results, values greater than or equal to 0.7 of this coefficient suggest greater internal consistency, that is, greater mean correlation between the hypotheses tested in this study. If a Cronbach's alpha is below 0.7, the variables do not demonstrate to consistently measure the hypotheses, meaning that, the lower the Alpha is, the lower the reliability of the variable evaluated (Tavakol and Dennick, 2011).

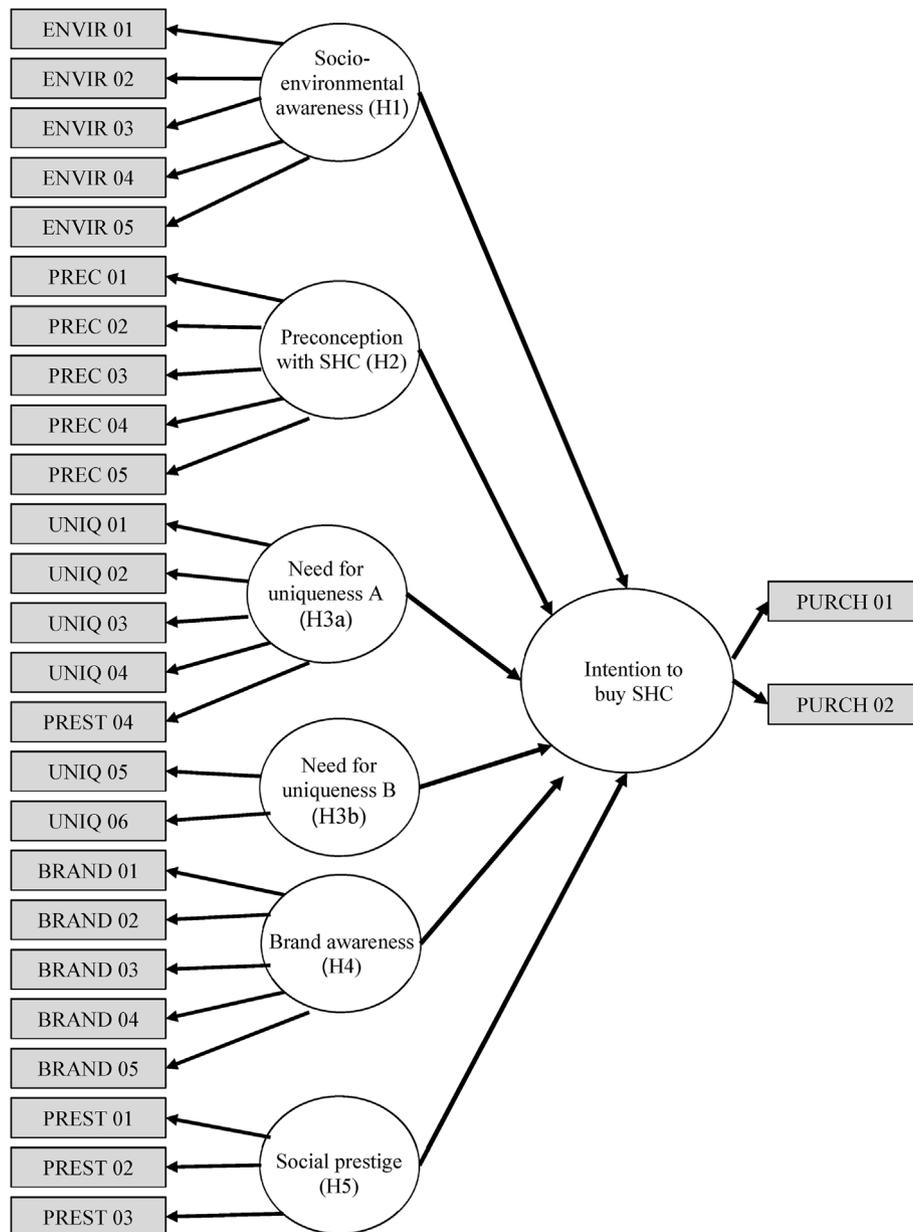


Fig. 2. Structural model formed by second-hand clothing consumption constructs before the Covid-19 pandemic. Source: Developed in the SmartPLS 3.0 software.

**Table 3**  
Discriminant validity.

	Socio-environmental awareness	Preconception	Need for uniqueness	Brand awareness	Social prestige	Motivation to buy SHC
Socio-environmental awareness	0.704					
Preconception	0.627	0.758				
Need for uniqueness	0.665	0.610	0.816			
Brand awareness	-0.272	-0.251	-0.232	0.740		
Social prestige	0.176	0.250	0.207	0.126	0.666	
Motivation to buy SHC	0.602	0.600	0.616	-0.229	0.173	0.843
Cronbach's Alpha	0.806	0.800	0.766	0.819	0.629	0.606
Composite Reliability	0.853	0.865	0.856	0.851	0.739	0.830
Average Variance Extracted (AVE)	0.696	0.675	0.667	0.647	0.643	0.711

Note: Diagonals represent the root of the extracted variance.

The models for this research were designed and developed as individual dimensions for each of the hypotheses. However, in the 2019 model from before Covid-19, Hypothesis 3 showed up as two dimensions according to the answers to the applied questionnaire and evaluated by the Discriminant Validity and Cronbach's Alpha. When H3 is divided into two dimensions, there is significance in the model, and it proves to be more adequate. Therefore, the pre-Covid-19 model was divided between H3a - Need for Personal Uniqueness and H3b - Need for Fashion Uniqueness in order to run the model correctly. The 2020 model from during the pandemic was rethought and restructured and there was no need to be separated into two dimensions, constituting itself as just one variable, therefore only a single hypothesis H3 - Need for Uniqueness. Both in terms of the division of variables and as a single one, the models were significant and generated results for the research.

4.1. Results from before the Covid-19 pandemic

Convergent validity was tested with Cronbach's Alpha metric, and it appears that some constructs present the Alpha slightly lower than

**Table 4**  
Evaluation of the structural model.

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Socio-environmental awareness - > motivation to buy SHC post Covid	0.183	0.190	0.042	4.399	0.000
Preconception - > motivation to buy SHC post Covid	0.196	0.189	0.040	4.949	0.000
Need for uniqueness - > motivation to buy SHC post Covid	0.219	0.213	0.055	3.984	0.000
Brand awareness - > motivation to buy SHC post Covid	-0.087	-0.100	0.043	2.003	0.046**
Social prestige - > motivation to buy SHC post Covid	0.057	0.076	0.051	1.118	0.264

\*\*p < 0.05 \*\*\*p < 0.01.

recommended, but do not indicate a validity problem. Subsequently, discriminant validity is assessed to obtain the degree to which one measure does not correlate with others (Sánchez and Sarabia, 1999). Overall, the tested discriminant validity and reliability are mostly acceptable.

Some hypotheses resulted in Cronbach's Alpha lower than recommended by the literature (a value of 0.7 and higher), they are: Need for Uniqueness A (H3a) with 0.671, Need for Uniqueness B (H3b) with 0.698, and Social Prestige (H5) with Cronbach's Alpha resulting in 0.659. However, the Hypotheses H3a, H3b and H5 will normally be considered as validated, as their Cronbach's Alpha are very close to 0.7. Socio-Environmental Awareness (H1), Preconception with Second-hand Clothes (H2), and Brand Awareness (H4) were also validated and significant hypotheses in the present study.

The discriminant validity for research before the coronavirus is represented in Table 1, and the results presented show that all items corresponding to a specific construct had a greater load with the appropriate construct than with any other construct, that is, each construct shows itself different from the others in a valid way. According to the criteria of Fornell and Larcker (1981), the values of the loads of each of the latent variables within the correlation matrix were analyzed.

The evaluation of the Structural Model is presented through Table 2.

The P Values represent the confidence interval, where all aspects (hypotheses of the study) showed a 99% chance of affirming that they influence the buying behavior of SHC. Statistically, the P Value means that there is stronger evidence in favor of the alternative hypothesis, making Socio-Environmental Awareness (0.208) and Prejudice with SHC (0.991) not significant, therefore not validated in this stage of the study.

Fig. 2 is the design of the structural model formed by the SHC consumption constructs, with attitudes favorable or unfavorable to the purchase intention, before Covid-19.

4.2. Results from during the Covid-19 pandemic

Considering that the model used for Before the Pandemic with the hypotheses was validated, the same variables and model for During the Pandemic are used. In this model, H3 - Need for Uniqueness is used as a single-dimensional variable.

The discriminant validity for the research during the coronavirus pandemic is represented in Table 3, and the results presented show that still all items corresponding to a specific construct had a greater load with the appropriate one than with any other, that is, each construct shows itself different from the others in a valid way.

In this model, only Hypotheses 5 (H5 – Social Prestige) demonstrated a slightly lower Cronbach's Alpha than recommended by the literature, however not presenting any reliability problems for the model. This means that in this second model all hypotheses present reliability.

The evaluation of the Structural Model is presented through Table 4.

The P Values represent the confidence interval, where all aspects (hypotheses of the study) showed a 99% chance of affirming that they

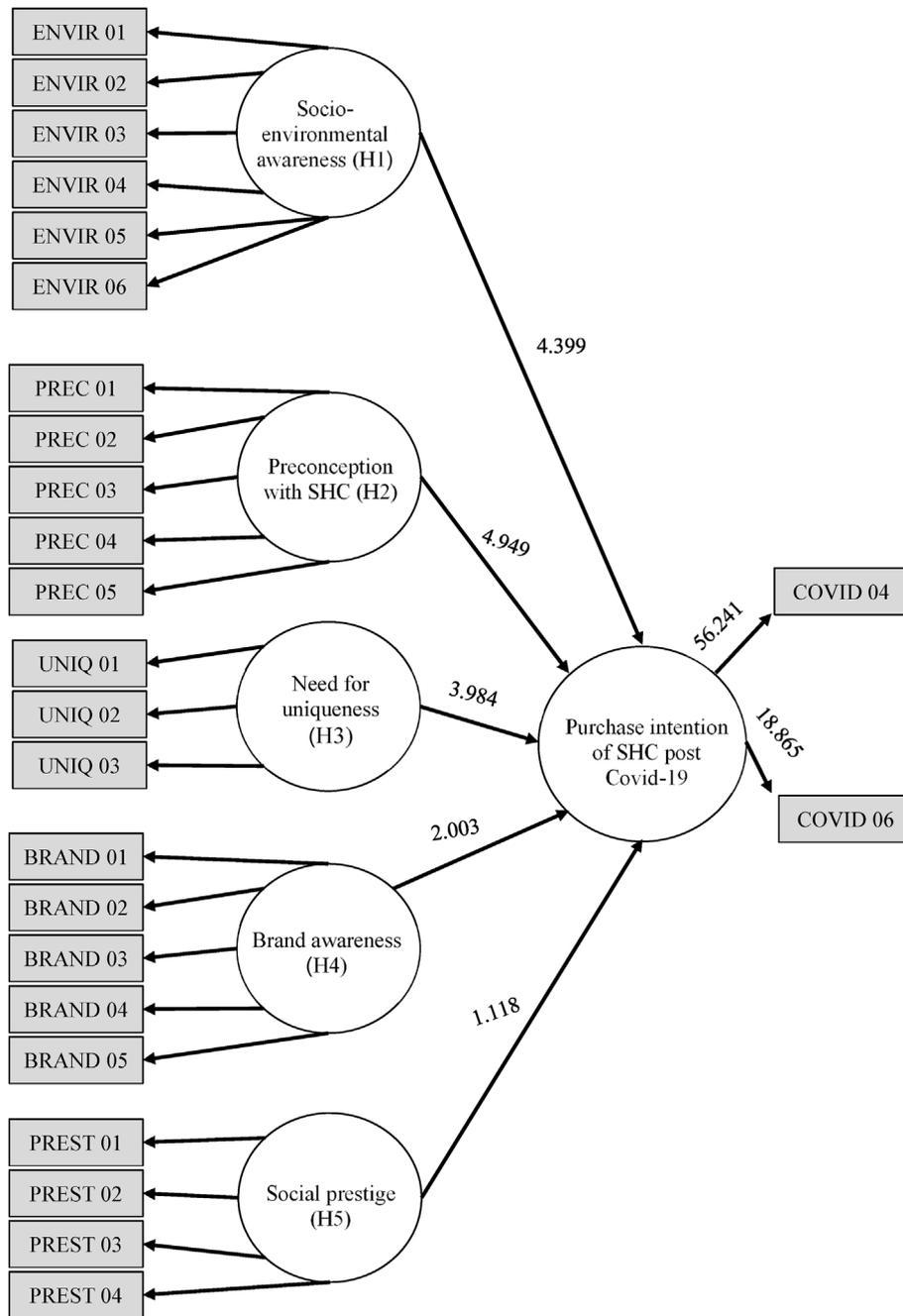


Fig. 3. Structural model formed by second-hand clothing consumption constructs during the Covid-19 pandemic. Source: Developed in the SmartPLS 3.0 software.

influence the buying behavior of SHC. Statistically, the P Value means that there is stronger evidence in favor of the alternative hypothesis, making Social Prestige (0.264) not significant, therefore not validated in this study.

The design of the structural model formed by the SHC consumption constructs, with attitudes favorable or unfavorable to the purchase intention, during the Covid-19 pandemic is shown in Fig. 3.

The comparative analysis demonstrates some differences in the intention to buy second-hand clothes between before and during the Covid-19 pandemic. Socio-environmental Awareness (H1) became an aspect of positive influence on the intention to buy SHC in the circumstance of the pandemic, and Brand Awareness (H4) became an aspect of

negative influence on the purchase of these items. According to the results, a consumer's Preconception with SHC (H2) did not influence their purchase intention before the pandemic and remains not a significant aspect after the pandemic. Consumers' Need for Uniqueness (H3) and their desire to have Social Prestige (H5), after the pandemic, remained a factor of positive influence on the purchase intention of SHC. That is, before Covid-19, the Need for Uniqueness and the desire to have Social Prestige were aspects that consumers already considered when buying SHC, and this has remained even with the pandemic.

To better illustrate the results obtained, the following table demonstrates changes in SHC purchasing behavior before and during the Covid-19 pandemic (see Table 5).

**Table 5**  
Test of hypotheses in the theoretical model in the first and second rounds of data collection.

Hypothesis	Relations between the constructs		Data collection round	Cronbach's Alpha	P Value	AVE	Results
<b>H1</b>	Socio-environmental Awareness	->	Motivation to buy SHC	Before Covid-19 pandemic	0.735	0.208	Has become an aspect of positive influence
				During Covid-19 pandemic	0.806	0.000	
<b>H2</b>	Preconception with SHC	->	Motivation to buy SHC	Before Covid-19 pandemic	0.883	0.991	Remained as a non-significant aspect
				During Covid-19 pandemic	0.800	0.000	
<b>H3a</b>	Need for Personal Uniqueness	->	Motivation to buy SHC	Before Covid-19 pandemic	0.671	0.000	Remained as an aspect of positive influence
<b>H3b</b>	Need for Fashion Uniqueness	->	Motivation to buy SHC	Before Covid-19 pandemic	0.698	0.000	
<b>H3</b>	Need for Uniqueness	->	Motivation to buy SHC	During Covid-19 pandemic	0.766	0.000	0.667
<b>H4</b>	Brand Awareness	->	Motivation to buy SHC	Before Covid-19 pandemic	0.788	0.017	Has become an aspect of negative influence
				During Covid-19 pandemic	0.819	0.046	
<b>H5</b>	Social Prestige	->	Motivation to buy SHC	Before Covid-19 pandemic	0.659	0.028	Remained as an aspect of positive influence
				During Covid-19 pandemic	0.629	0.264	

**5. Discussion**

Socio-Environmental Awareness (Hypothesis 1) has become positively correlated after the Covid-19 pandemic. Meaning that, after the outbreak of the Covid-19 pandemic, people are consuming more second-hand clothing due to developing a more accurate sense of socio-environmental awareness.

The indication that Covid-19 has moved from a wild environment to an urban one, pointing to a serious ecological imbalance, is the beginning of a discussion that leads to the urgent need to control consumption and production levels and the conscious use of natural resources (Bhattacharya et al., 2020). Low human activity, minimal human mobility, and the slowdown in industrial production generated a series of consequences and impacts, and, in terms of the environment, many of the changes were positive. Overall, carbon emissions have dropped, and the Covid-19 lockdown has led to an improvement in air quality and a reduction in water pollution in many cities around the globe (Rupani et al., 2020).

The occurrence of a lethal virus for humanity has generated reflections on society, on the environment and the planet. Many people have started to rethink their consumption, post-consumption, and disposal habits, believing that the way they treat the planet now will have a big impact in the future. Thus, the coronavirus pandemic resulted in a huge change in people's lifestyle and consumer behavior, which became more concerned with the preservation of the environment and the future of the planet (Severo et al., 2021). With Hypothesis 1 confirmed, it appears that, with the circumstances of the pandemic, consumers began to give more importance to their consumption habits, considering the environmental condition in the act of purchasing clothing. Already aware of the environmental benefits that second-hand clothes offer (Farrant et al., 2010), post-pandemic consumers are encouraged to consume them precisely because they have a socio-environmental awareness. Therefore, social and environmental awareness became positively related to the intention to buy second-hand clothes after the occurrence of the coronavirus pandemic.

Preconception with second-hand clothes (Hypothesis 2) remained non-significant both before and during the pandemic. That is, the consumer's feeling of prejudice was not shown to be a determining factor in the purchase of second-hand clothes, neither before the pandemic nor during it. The direct connection between prejudice with second-hand clothes and their purchase intention was not significant for the model of this study, but it does not mean that this relationship does not exist. If

Hypothesis 2 was confirmed, it is disputed that before Covid-19 the feeling of prejudice would be a determining factor for not acquiring SHC, and possibly after Covid-19 it is suggested that an individual would disentangle themselves from his feeling of prejudice and would acquire SHC due to circumstances such as the aggravated economic crisis worldwide (El Khatib, 2020).

Need for Uniqueness (Hypothesis 3) remained positively correlated with the intention to buy SHC. Which means that consumers still buy SHC to create a personal style and personality, both before and during the pandemic, thus a feature of SHC's purchase intention that has remained with the changes. Before the pandemic, the need to differentiate oneself from other individuals using SHC as a form of expression was already very strong (Guiot and Roux, 2010). From the results of this study, it is deduced that, with the pandemic and the restrictions of social isolation, this yearning for individuality through the purchase of SHC remained significant and present in consumer behavior. This variable remained significant, perhaps as a way for consumers to intent to show themselves authentic, through the use of their clothes, to stand out among friends and known people after months of social isolation.

Brand Awareness (Hypothesis 4) intensified after the pandemic, but it was negatively correlated with the intention to buy SHC. Which means that, after the pandemic occurred, brand-aware consumers prefer not to buy second-hand clothes, preferring to purchase garments from their favorite brands in their respective stores.

Before the pandemic, brand awareness was not a relevant factor in the intention to buy SHC, perhaps because of the vast offer of items from different brands in second-hand purchase channels such as thrift stores and online reseller channels. After the pandemic hit, the supply and marketing of SHC at physical thrift stores was shaken due to fears of contamination and hygiene, but online thrift stores expanded (Mello, 2021). Online second-hand clothing marketing channels offer the smart shopping experience by purchasing quality garments at below-market prices, in a quick and convenient way (Roux, 2006). However, it was expected that the result of this Hypothesis would be the opposite of what was acquired, that the stronger the Brand Awareness, the more the consumer would have the intention to buy SHC considering the efficiency of finding items of specific brands in the post-pandemic digital format. Yet, the result obtained is that the more attached to the brand the consumer is, the less he or she will consume SHC.

Social Prestige (Hypothesis 5) remained positively correlated with the intention to buy SHC. Meaning that consumers buy SHC for obtaining some sort of social prestige among friends and family, both before and

during the pandemic. Before the pandemic, consumers were already acquiring SHC to demonstrate to their social circle of friends that they support a cause (Cervellon et al., 2012) that contributes to the preservation of natural resources and prevents the deterioration of the environment, with this, acquiring prestige and social recognition. After the occurrence of the pandemic, this motivation for intent to purchase SHC remained intense, especially considering the current valuation of the environmental aspect in the purchase process. In this sense, the drive to achieve social prestige through the purchase of SHC goes beyond popularity for fashion style and it is paired with a more valued environmental cause with Covid-19.

It is possible to infer that consumer behavior towards SHC was impacted and changed by the occurrence of Covid-19. These results are similar with Miao et al. (2017), Coronado Robles and Darke (2020) and Vătămănescu et al. (2021), which indicates that consumers are interested in sustainability when deciding to purchase products. Sustainable consumption of goods has become of great importance since the beginning of the pandemic and is expected to develop as a strategic sector for investment (Coronado Robles and Darke, 2020; Majumdar et al., 2021). The empirical evidence of this study has real implications for scholars, professionals, and companies, emphasizing that sustainability attributes are relevant to consumer behavior and, consequently, essential for the survival of the business (Vătămănescu et al., 2021).

This paper was designed to contribute in three ways to the limited body of research on SHC. Firstly, it explores the notion that consumer behavior intentions towards buying second-hand clothes have changed with the Covid-19 outbreak through a comparative analysis with original data. Secondly, this paper contemplates the second-hand market which is a growing and expanding sector, also due to the increased consumer financial control, concern for environmental issues (Connell and Kozar, 2014; Sebrae, 2021) and for the popularization of concepts such as Circular Economy and Sustainability. Finally, previous empirical research on SHC has been conducted in countries like Denmark, Italy, Slovenia, India, Portugal, among others, however this study is the first to have Brazil as an object of study in a pandemic scenario, with a different methodology, and in a country where there was a growth of 48.58% in the remarketing of second-hand products between 2020 and 2021 (Sebrae, 2021).

This research extends the body of knowledge about second-hand and sustainable clothing, a subject that has not been much explored in academia but has been arousing the interests of researchers and industry, in addition to being a research that deals with the social and consumer behavior effects that the Covid-19 pandemic caused in the Brazilian society, a marked period in the history of the world. It adds considerable contributions to the literature in this new period, in addition to contributions both for companies, which can identify more efficient strategies regarding the growing second-hand clothing market, and for consumers, who today consider the socio-environmental sphere as a decisive factor in their shopping experience.

The growing need to transition from a linear economy, as seen today, to a circular one raises questions of extreme importance both for the fashion industry and academia, a matter of interest to consumers, market players, stakeholders and shareholders, governments, retailers, and researchers. Thus, the results of the present study can offer important academic contributions to various links in the fashion industry and other interested agents, considering the peculiar scenario after the worldwide impacts of Covid-19.

## 6. Academic and practical implications

Several previous studies on SHC examined the consumer's motivations and purchase intention for this type of product (Roux, 2006; Corrêa and Dubeux, 2015; Laitala and Klepp, 2018; Zaman et al., 2019; Bandeira, 2020; Gouveia, 2020). Others focused on their trade (Baden and Barber, 2005; Norris, 2012; Brooks, 2013; Khurana and Tadesse, 2019). And even analysis of purchase intention based on the sustainability issue

(De Paula, 2018; James and Kent, 2019; Machado et al., 2019; E Silva et al., 2021).

Today's consumer behavior was affected by the uncertainty caused by the global pandemic, and the response to the crisis was a change and an interruption of the normal behavior of consumers around the world (Valaskova et al., 2021; Donthu and Gustafsson, 2020; Pantano et al., 2020). Mason, Narcum and Mason (2020) identified changes in consumer decision-making behavior patterns with the pandemic outbreak, Mehta et al. (2020) argued that materialism was impacted by causing individuals, during the pandemic, to consume only what was necessary to them and to avoid superfluous purchases, and Eger et al. (2021) investigated the changes in the purchase, pointing to a greater implementation of channels of online shopping, modifying existing habits. However, few studies of the academic research agenda address the purchase intention of second-hand clothing after the impact of the pandemic (Koch et al., 2020; Brydges et al., 2020) and using a different methodology from this study, which provides a comparative basis for the same population sample before and during the event.

The present study was concluded with some limitations and possible investigations that emerge from the results presented. A limitation identified was the validity of the hypotheses, as some dimensions result in Cronbach's Alpha (Construct Reliability and Validity) below 0.7, presenting a slight measurement problem. In addition, although the model was mostly validated, the scales used were adapted from the literature, and may not have accurately represented the variables that were intended to be studied in the context of the Brazilian consumer market. Furthermore, another limitation is the notion that the Likert scale is self-scored, which could lead to a discrepancy between what consumers affirm and what they actually will do.

Using the results of this study, agents participating in the fashion sector can academically and demonstrably infer that the social and environmental perception of the consumer has increased as a determining factor in the process of buying SHC after the pandemic, and that today Brazilian consumers are increasingly looking for more social and environmentally responsible clothing items. This study has managerial relevance for the business environment, in which major players in the fashion industry could use the results to refine the buy/wear/sell model methodology, perfecting the monetization model, and turbocharging the trend. With this information, tools are offered for entrepreneurs, managers, decision makers, and fashion industry players to rethink, restructure and remodel the post-pandemic market according to the change in consumer behavior and the new possibilities of commerce represented by second-hand items. The data presented shows the relevance of the results of this research, which extends not only to the Brazilian market but also to other countries.

## 7. Conclusions

The understanding of Brazilian consumers' perceptions of second-hand clothes before and during the pandemic caused by Covid-19 was contemplated through the five hypotheses developed in this study. Socio-Environmental awareness has become a factor of importance and positiveness after the occurrence of the coronavirus for the consumption of SHC, and Brand Awareness intensified with the pandemic, proving to be negatively correlated, therefore, a consumer being attached to the brand is a demotivating factor to the intention to buy SHC. This analysis answers the first question proposed in the research, and it is possible to infer that the social isolation measures proposed by governments have made digital thrift stores more common among consumers and to become a growing portion of the market, being able to overcome the current model of unsustainable consumption in fast fashion stores. In addition, the other question proposed in the initial objectives is answered by the perceptions before and after (during) the Covid-19 pandemic changed in two ways: consumers' socio-environmental awareness increased positively, and brand attachment intensified negatively after the pandemic.

These findings agree with other global studies confirming the worldwide impact of the pandemic on consumer behavior (Goldsmith

and Lee, 2021; Valaskova et al., 2021; Cox et al., 2020; Oana, 2020; Sheth, 2020; Stanciu et al., 2020) and the importance of national studies on consumer purchase intention for players in the fashion industry to be able to take necessary measures considering the valuation of the environmental variable in their garment purchases.

The approach of this study is recent due to the circumstances of the new coronavirus and has not yet been addressed in academic literature with the methodology used and the results presented, being of importance for the academy, and of managerial relevance for players in the fashion retail chain in the resumption of the post-pandemic market. It is investigated whether consumption patterns before the pandemic, under usual circumstances, were maintained with all the changes in the world scenario, and the results attest that they are not the same. There were changes in the pattern of SHC consumption, possibly due to the global economic crisis and certainly due to the growing vogue for sustainability, in which consumers are increasingly demanding for socio-environmental responsibility of fashion brands as well as of their own consumption habits.

Since the conceptual model of the study expands the body of knowledge about SHC, it is suggested that it is incorporated in other countries or in intercultural assessments, testing the structural model presented with larger samples. Another proposal for future research derived from this would be to analyze actions developed by companies and how the private sector deals with the process of conscious consumption, subsequently, also being able to investigate the attitudes of public and governmental institutions. In this way, they will be able to have a broader understanding of the current consumption situation in view of the coronavirus scenario, and what can be carried out so that sustainable attitudes practices become habitual.

The second-hand market was worth USD 24 billion in 2018, in the United States alone, versus USD 35 billion in fast fashion (ThredUp Report, 2020). The second-hand market is projected to double in the next five years, reaching USD 77 billion (ThredUp Report, 2021). Other data reveal that 33 million consumers bought second-hand apparel for the first-time in 2020 during the Covid-19 pandemic, and 76% of those first-time buyers plan to increase their spend on second-hand in the next five years (ThredUp Report, 2021).

Nowadays, consumers are more demanding and responsible about the fashion industry, going beyond the shows of major brands and the pressure of fast fashion marketing. The greater adhesion of SHC is seen as an alternative that protects the pleasure of buying without the guilt of becoming an active subject in an industry with so many negative impacts on the world. The second-hand market segment has become a million-dollar market. From an industry perspective, retail giants such as Nordstrom, Macy's, JCPenney, and Patagonia have been investing in second-hand market share, giving new purpose to second-hand luxury items (Forbes Magazine, 2019).

According to a survey released by Euromonitor International in January 2021, Apparel and Footwear is one of the industries most heavily impacted by the Covid-19 pandemic, resulting in a loss of USD 300 billion in the sector. The study states that the forecast is that post Covid-19 consumers will purchase with purpose to sustainability, which is the same result obtained in this research.

Furthermore, the results of this study complement the existing literature with new insights into the influence of the Covid-19 pandemic on consumption patterns related to SHC, highlighting a continued orientation of young Brazilians towards sustainability attributes in their

purchase choice, which goes beyond context-centric dynamics. It confirms that the Covid-19 pandemic has changed ordinary consumer behavior, created new shopping habits, and changed the intentions to consume SHC in particular. This represents market relevance in the new commercial challenge of bringing strategic changes to sustainability and rethinking existing consumer behavior models and their usefulness for business and marketing strategies to remain viable in all consumer segments.

Finally, it is concluded that the transition to more conscious and responsible consumption attitudes will bring benefits to the environmental, social, and economic spheres, being linked to the concept of a Circular Economy (Ellen MacArthur Foundation, 2017).

#### **Ethics approval and consent to participate**

Research approved by the ETHICS COMMITTEE ON RESEARCH WITH HUMAN BEINGS AT ESALQ/USP (CEP).

#### **Consent for publication**

Not applicable.

#### **Availability of data and materials**

The data supporting our findings can be found at academic studies disseminated through online academic platforms, such as Google Scholar. As well as documentary research of company sustainability reports, also through online media.

#### **Competing interests**

Non-financial competing interest.

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#### **Author's contributions**

The authors' contributions were based on a basic research development by the bachelor student (J. Amaral), and guidance from the specialized Professor (E. Spers).

#### **Declaration of competing interest**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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J. Amaral is a bachelor in Environmental Management, at the University of São Paulo. E. Spers holds a post-doctorate in Wageningen University (WUR) and a doctorate degree in business administration at the University of São Paulo (USP), and is a full Professor at University of São Paulo, campus ESALQ.

Appendix

Rate the following statements, where 1 means strongly disagree and 7 strongly agree (1–7)			Cronbach's Alpha	
			Model 1	Model 2
<b>H 1</b>	ENVIRO1 Before buying a product, I check if it had a conscious production	(Weigel and Weigel; 1978)	0.735	0.806
<b>Socio-environmental Awareness</b>	ENVIRO2 The fast fashion industry impacts the environment and society			
	ENVIRO3 Fast fashion always has slave labor			
	ENVIRO4 Fast fashion causes pollution of the atmosphere, soils and water resources			
	ENVIRO5 I would buy in thrift stores for the socio-environmental issue			
	ENVIRO6 Fast fashion depletes terrestrial natural resources			
	<b>H 2</b>	PREC01 I don't see any problems (discomfort) with the clothes being second-hand	(Baker and Churchill; 1977)	0.883
<b>Preconceptions with Second-hand Clothes</b>	PREC02 second-hand clothes are good alternatives for price and sustainability			
	PREC03 If the clothes were branded and had a low price, but were used, I would buy it			
	PREC04 I would buy second-hand clothes from thrift stores			
<b>H 3a</b>	UNI001 I would buy in thrift stores for creating identity (vintage and retro style, for example) * **	(Lynn and Harris; 1997) (Tian et al., 2001)	0.671	0.766
<b>Need for Personal Uniqueness</b>	UNI002 I buy unusual clothes as a way to tell people I'm different * **			
	UNI003 I actively seek to develop my personal exclusivity by buying clothes from thrift stores * **			
	UNI004 Fast fashion stores have the modern fashion *			
	UNI005 If I buy fast fashion clothes, I'll be wearing what everyone else wears *	Tian et al. (2001)	0.512	
<b>H 3b</b>	UNI006 I believe it is easier to wear fast fashion clothes, because I know I will be fashion without needing much effort *			
	<b>Need for Fashion Uniqueness</b>			
<b>H 4</b>	BRAND01 I usually buy clothes from a well-known brand	(Peracchio and Meyers-Levy, 1994)	0.788	0.819
	BRAND02 I take pleasure in buying clothes from well-known brands			
	BRAND03 I feel good about telling my friends that my clothes are from a well-known brand			
	BRAND04 I usually wear branded clothing recommended by digital influencers			
	BRAND05 I prefer to buy clothes from a well-known brand for the confidence it has			
<b>H 5</b>	PREST01 I have a socially active life	(Reynolds and Beatty; 1999)	0.49	0.629
	PREST02 I usually tell my friends where I bought my clothes			
	PREST03 If I buy clothes that are new and fashionable, I have the feeling of belonging socially			
	PREST04 My friends always pay compliments about my clothes and style **			
<b>Motivation for buying SHC</b>	PURCH01 I would buy in fast fashion stores for convenience and practicality *	(Dodds, Monroe, and Grewal; 1991)	0.679	
	PURCH02 I would buy in fast fashion stores because the price is lower than regular stores *			
<b>Motivation for buying second-hand clothes during the Covid-19 pandemic</b>	COVID01 I've been buying less clothes, due to the pandemic and the fact of staying at home **			0.606
	COVID02 I've been buying more clothes for when the quarantine is over and I can go out again **			
	COVID03 The ease of making purchases on the Internet made me consume more **			
	COVID04 Considering the current situation, I have given preference to second-hand clothes because the price is lower **			
	COVID05 During my time at home, I let go of many of my clothes **			
	COVID06 During the pandemic, I am having more contact with online sales channels that sell second-hand clothes **			

\* Model 1: before Covid-19.  
\*\* Model 2: during Covid-19.

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