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Second-Hand Fashion and Its Impact on Business Sustainability

Alejandra Torres Jaramillo[1,2], Juan Maldonado-Matute[1,2], Ana Armijos[1,2], María José González-Calle[1,2], María Isabel Arteaga Ortiz[1,2], and Pedro Fernando Guerrero Maxi[1,2]

[1]Universidad del Azuay, Cuenca, 010204, Ecuador
[2]Observatorio Empresarial de la Universidad del Azuay, Cuenca, 010204, Ecuador

ABSTRACT

This study examined the beliefs that influence the predisposition to buy second-hand clothes. The theoretical foundation that models this research is related to sustainability, circular economy, and sustainable business models. The methodology had a quantitative approach that used data collected through a self-applied online survey. The influence of consumer beliefs about the environment, willingness to spend, and beliefs about second-hand clothing on the attitude toward second-hand fashion was empirically evaluated. The relationship between the attitude towards second-hand fashion, subjective norms, social behaviour, and the intention to buy second-hand clothing was also evaluated. The PLS algorithm and the bootstrapping technique for structural equations were used for the analysis of the data, the main findings indicate that the attitude towards second-hand fashion has a mediating effect between beliefs and the intention to buy second-hand clothing, in addition it can be say that the environment and willingness to spend have a positive and significant effect on the attitude towards second-hand fashion.

Keywords: Circular economy, Sustainability, Second-hand fashion, PLS

INTRODUCTION

Climate changes have led to environmentally friendly consumption alternatives being presented in various parts of the world. This article examines the environmental consequences of the current clothing system and how second-hand business models support sustainability. The current business model of the textile industry is highly wasteful and polluting as it maintains a linear production of manufacturing, consumption, and waste, which generates large quantities of solid waste that causes permanent damage to the ecosystem. Furthermore, the mass production of garments generates not only environmental damage, but also accuses violations of the rights of workers who are forced to participate in long working hours with minimum wages. For these reasons, it is established that the fashion industry must look for alternatives that guarantee efficient use of resources, increasing the life cycle of products and seeking a circular production model.

Along these lines, the textile industry and its consumers have recognized the great environmental impact generated by large-scale textile production

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and have become more aware of their environmental and social impacts. Faced with this panorama, second-hand clothing sales markets are presented as an alternative that seeks to reduce the waste of clothing after use by the first owner. Thus, recycling clothes and reusing them creates a circular economic model that promotes changes in the traditional linear economic model; Also, it encourages environmental awareness in consumers, discouraging high levels of consumerism presenting a new lifestyle. The present study examines the underlying ways in which consumers' beliefs influence purchase intentions for second-hand fashion products. The general objectives of the research were two: (1) to examine how consumers' beliefs (CR) shape their attitude towards second-hand fashion (AMSM) and (2) to examine how subjective norms (NS), the social behaviour (SC) and attitude towards second-hand fashion impact the purchase intention of second-hand clothing (IC).

CIRCULAR ECONOMY, SUSTAINABILITY, AND ITS CONFLICT WITH THE FASHION INDUSTRY

According to Georgescu et al. (2021), the circular economy is defined as a model in which production resources are used efficiently, so that they can be recycled and returned to the environment without negative impacts. In this regard, Rosa et al. (2020) agrees when they explain that the circular economy is a global economic model that minimizes the consumption of finite resources and guarantees sustainable growth over time. Thus, they define it as a restorative system that replaces the term 'end of useful life' with 'restoration'. In the same sense, Gandolfo and Lupi (2021) explain that the circular economy is divided into two different ambits; the first, an economic system that achieves sustainable development through the implementation of closed material resource cycles; and the second, a system that encourages economic profit through the reuse of products and resources.

It is possible to establish that the circular economy represents a solution to the negative effects of the traditional linear economic model. According to Stott et al. (2010), if a model based on exploitation-production-waste continues to be applied, by the year 2050, the natural resources of three planets will have been consumed, generating a considerable increase in global carbon emissions and the definitive loss of biodiversity.

Over the years, collaborative economies that have given way to the circular economy begin to form part of the efforts led by governments and companies that seek to create innovative ideas in favour of sustainable development (Shao, Tian, & Fan, 2018). Now, the transition from a traditional model to a circular one carries with it certain implications. To begin, it should be noted that the implementation of the circular economy within a society requires environmental, ecological, and social awareness. According to Bertassini (2021), an organization must consider three questions to obtain a change towards the circular economy: why change? what to change? and how to change? to transform their production model to another with environmental and socially responsible purposes. These changes translate into new

customers and investors who are attracted to more responsible production methods (Amato et al., 2019).

Fast Fashion Industry

The United Nations calls the fashion industry a social and environmental emergency, producing 20% of the world's waste and 10% of global carbon emissions (Bianchi and Gonzalez, 2021). Furthermore, the case of fast fashion is characterized by meeting the strong demands that globalization and its fads bring with it. Zamani et al. (2017) maintain that fast fashion chains seek to respond to new clothing trends and update the clothing available in stores as frequently as possible, to satisfy high and fast demands. In this sense, this industry seeks to keep its prices low so that the consumer is attracted to purchasing more clothing (Rese, Schlee & Baier, 2019).

Hu et al. (2014) comment that stores such as Zara and H&M (most recently Shein), who are participants in the fast fashion industry, present new garments in their stores in periods as short as 3 to 5 weeks. This leads to consumers being tempted to consume new clothes faster, so that "outdated" clothes end up quickly and in larger quantities in landfills, generating waste for the environment. Therefore, it is stated that the existing influences of consumerism affect the textile industry and vice versa, whose impact is magnified through media such as social networks, mainly affecting people with impulsive purchasing behaviours, since fast fashion allows them to spend less and more frequently (Brydges, 2021).

The scenario becomes more discouraging when it is recognised that companies that base their business on fast fashion take advantage of the cheap labour they can find in low-income countries, with very lax controls of their labour laws (Jha and Veeramani, 2021), reaching extreme situations of child exploitation and exploitation of people in vulnerable situations.

Sustainable Fashion

Due to rapid changes in the textile industry, major social and ecological sustainability concerns have been raised (Heinze, 2020). In response, responsible fashion manufacturing and consumption initiatives have emerged. In this regard, Hemantha (2021) explains that, in the fashion industry, sustainable development is the main tool that facilitates the achievement of objectives aimed at reuse, recycling and restoration, thus satisfying the generation of sustainable options to the product, its use and disposal (Jeong and Ko, 2021). In this sense, circular fashion or sustainable fashion are two concepts that seek to make a positive change at an environmental level, generating minimal waste and changes in the purchasing habits of the people who consume it. Also, sustainable fashion encourages the use of recycled raw materials for the manufacture of garments, such as cotton, wool, or polyester (Hemantha, 2021). In this way, pollution is reduced and even the existing working conditions in the textile industry are improved, guaranteeing adequate wages, and working conditions (Guedes, Paillard-Bardey & Schat, 2020). Thus, sustainable materials for the manufacture of clothing allow fewer resources to be

used and a smaller amount of waste to be generated at the time of manufacturing. In addition, it contributes to solving the problem of contamination of textiles in landfills, which produce methane when they decompose, a situation that generates a greater negative impact when it is considered that synthetic materials have such a long life that they do not decompose quickly (Morgan and Birtwistle, 2009). According to Abingdon (2016) "extending the average useful life of clothing by just three months of active use per item would lead to a 5% to 10% reduction in each of the carbon, water and waste footprints".

At this point, it is important to highlight that the adequacy of sustainability in the fashion industry is not limited to the production of garments in natural fabrics, but it is also about the consumer's preference for brands that base their business models on socially responsible practices with ethical conditions for their employees. It is also about consumers using the clothes they buy for as long as possible, repairing them when necessary or transforming them into a new product (Karadayiusta and Kadaifci, 2021).

Second-Hand Fashion Market

Markets for the sale of second-hand products are understood to be those that offer items that have been previously used by someone and are in good condition for remarketing and consumption, thus extending the useful life of the goods. According to Estripeau et al. (2022) with an estimated value between 100 and 120 billion dollars worldwide, the market for second-hand clothing, footwear and accessories has almost tripled in size in recent years. Demand from the second-hand market usually focuses on used clothing, which represents 25% of the average second-hand buyer's wardrobe. While economics used to be the main reason for buying second-hand clothing, this has been displaced and sustainability has become the driving force for consumers to enter the second-hand market.

Product variety also remains important and remains the second driver of second-hand clothing consumption, no doubt driven by the growing popularity of resale apps (including social media), in addition, online platforms such as Vinted or Wallapop have gained popularity and offer a large catalogue of second-hand products. Karadayiusta and Kadaifci (2021) state that generation Z can put an end to the Fast Fashion trend thanks to its current environmental awareness; even this new transactional modality would directly benefit low-income people and university students who want to obtain clothing in good condition at low prices which is sometimes limited by its economy (Seo and Kim, 2019).

Based on the reviewed literature, we seek to understand what factors influence buyers' intention to purchase second-hand clothing. For this, the relationships, variables, and hypotheses presented below have been established: i) belief about second-hand stores, ii) beliefs about the environment, iii) willingness to spend, iv) attitude towards second-hand fashion, v) subjective norms, vi) social behaviour, and vii) purchase intention.

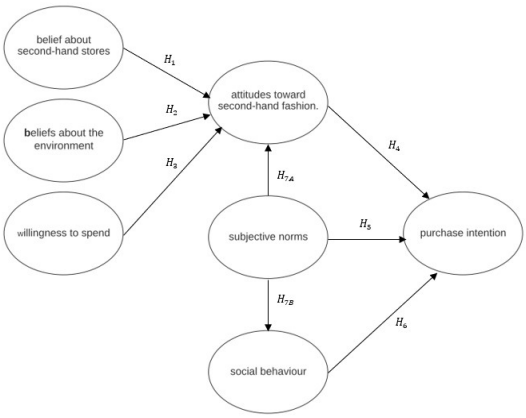

Figure 1: Constructs made for the assessment of the proposed hypothesis.

H1: Consumer beliefs about second-hand stores positively influence consumer attitudes toward second-hand fashion. H2: Consumer beliefs about the environment positively influence the consumer's attitude toward second-hand clothing items. H3: Consumer willingness to spend positively influences consumer attitude toward second-hand fashion items. H4: Consumer attitude towards purchasing second-hand fashion items positively influences consumer intention to purchase second-hand fashion items. H5: The consumer's subjective norms positively influence their intention to purchase second-hand fashion items. H6: Social behaviour positively influences consumer intention to purchase second-hand fashion items. H7a: Subjective norms positively influence consumer attitude toward second-hand fashion items. H7b: Subjective norms positively influence consumer social behaviour.

Study Description

To carry out the study, non-probabilistic convenience sampling was used, with a quantitative approach, beginning the collection of data through a digital survey where all participation was voluntary and without incentives. The questions used in this research were taken and adapted from previous studies with high levels of reliability and validity. The article by Seo & Kim (2019) was the basis for the main questions and hypotheses on attitude towards second-hand fashion, social behaviour towards purchases, the environment, willingness to spend, beliefs about second-hand stores hand, purchase intention and demographic data. From the article by Cervellon et al. (2012), questions related to motivation and purchase intention were used; Finally, self-authored questions were added to measure the perception of second-hand fashion in the city of Cuenca-Ecuador. This instrument used a 7-point Likert-type scale ranging from (1) totally disagree to (7) totally agree.

To evaluate the measurement model, the following criteria were used: i) indicator reliability, ii) internal consistency, iii) convergent validity and iv) Discriminant Validitydiscriminant validity (Hair et al., 2014). According to Hair et al. (2011), the reliability of the indicator shows the capacity

and suitability of the items (indicators) generated for a construct to measure the main concept in each investigation. The reliability of the indicator is estimated through the external loadings, which show estimates of the relationships between the reflective latent variables and their indicators (Hair, Hult, Ringle & Sarstedt, 2017). An item that has a loading greater than 0.5 is considered to have sufficient levels of indicator reliability (Hair et al., 2014). After eliminating items with factor loadings less than 0.5 (DG2, NS2, CS1, CR3), all items considered in the model were statistically significant, suggesting sufficient levels of indicator reliability. Table 1 and Figure 2 represent the individual indicator reliability estimate.

Table 1. Indicator reliability, internal consistency, and convergent validity.

Construct	AMSM	CS	CR	DG	IC	MA	NS
AMSM	0.876						
CS	0.492	1.000					
CR	0.419	0.378	0.813				
DG	0.231	0.091	0.172	0.891			
IC	0.821	0.485	0.400	0.220	0.941		
MA	0.447	0.250	0.550	0.226	0.409	0.730	
NS	-0.073	-0.228	-0.109	-0.003	-0.046	0.007	1.000

In addition, Table 1 shows the internal consistency estimate, which is used to judge the consistency of the results between the items of the same test. It helps determine whether the items measuring a construct are similar in their scores; that is, if the correlations between the items are high. To verify internal consistency, the composite reliability (CR) value and Cronbach's alpha value (α) should be examined; the composite reliability must be greater than 0.70 (Hair et al., 2017), and according to Hair (2007) the minimum threshold for Cronbach's alpha value is set at 0.6.

Table 2. Discriminant validity.

Construct	Items	Externals Loads	AVE	CR	α
AMSM	AC1	0.941	0.768	0.907	0.843
	AC2	0.952			
	AC3	0.716			
CR	CR1	0.942	0.660	0.790	0.538
	CR2	0.658			
CS	CS2	1.000	1.000	1.000	1.000
DG	DG1	0.925	0.793	0.885	0.745
	DG3	0.855			
IC	IC1	0.946	0.885	0.939	0.871
	IC2	0.936			
MA	MA1	0.644	0.533	0.818	0.719
	MA2	0.646			
	MA3	0.775			
	MA4	0.837			
NS	NS1	1.000	1.000	1.000	1.000

The results in Table 2 indicate that all the constructs of the study have high levels of internal consistency, since the composite reliability and Cronbach's alpha values of all the constructs are above the recommended threshold values.

Regarding the evaluation of convergent validity, this refers to the degree to which a measure is positively correlated with other alternatives of the same construct (Hair et al., 2017). The evaluation of convergent validity is based on the values of the average variance extracted (AVE), which must be equal to or greater than 0.5 (Hair et al., 2011). The AVE values of the study constructs were all higher than the threshold value, suggesting that all study constructs have high levels of convergent validity. Finally, discriminant validity denotes the degree to which a construct is truly distinct from others according to empirical standards. To evaluate discriminant validity, Fornell's (1981) criteria were used, verifying that the square root of the AVE values of each construct is higher than any correlation between constructs. The logic of the Fornell-Larcker method is based on the idea that a construct shares more variance with its associated indicators than with any other construct (Hair et al., 2017). Table 2 shows that all constructs discriminate against each other, suggesting the existence of discriminant validity between them.According to Sohn and Groß (2020), the heterotrait-monotrait relationship (HTMT), which measures the similarity between latent variables, provides additional support to evaluate the discriminant validity of the constructs. If the HTMT is clearly less than 1, discriminant validity can be considered established. In many practical situations, a threshold of 0.9 reliably distinguishes those pairs of latent variables that are discriminately valid and those that are not (Henseler et al., 2015). Table 3 shows that all HTMT values are below 0.9, which supports the existence of discriminant validity between the constructs.

Table 3. Heterotrait-monotrait (HTMT).

Construct	AMSM	CS	CR	DG	IC	MA	NS
AMSM							
CS	0.525						
CR	0.557	0.484					
DG	0.278	0.107	0.265				
IC	0.948	0.519	0.573	0.274			
MA	0.522	0.271	0.786	0.309	0.474		
NS	0.102	0.228	0.142	0.047	0.050	0.034	

Structural Model

The estimation of the structural model is shown in Figure 2 and Table 4, the PLS algorithm was run to generate the path coefficients, and bootstrapping sampling with 5000 iterations and 255 cases was run to examine the significance of the path coefficients (Henseler et al., 2009; Hair et al., 2011; Hair et al., 2014). The purpose of running the model with all the variables was to establish the results of the direct effect of the dimensions on the intention to purchase second-hand clothing.

Table 4. Hypothesis testing (direct effects).

Hypothesis	Beta	StDev	t-Statistical	p-Value	Decision
AMSM -> IC	0.767	0.034	22.773	0.000	H4 accepted
CS -> IC	0.115	0.043	2.687	0.007	H6 accepted
CR -> AMSM	0.232	0.088	2.635	0.008	H1 accepted
DG -> AMSM	0.125	0.060	2.075	0.038	H3 accepted
MA -> AMSM	0.292	0.083	3.522	0.000	H2 accepted
NS -> AMSM	−0.050	0.054	0.924	0.355	H7A rejected
NS -> CS	−0.228	0.063	3.644	0.000	H7B accepted
NS -> IC	0.036	0.034	1.049	0.294	H5 rejected

Figure 2: Model measurement.

Accordin to results of Table 4 it can be stated that the attitude towards second-hand fashion (AMSM) and social behavior (SC) positively affect the intention to purchase second-hand clothing (IC). Furthermore, the relationship Beliefs (CR) –> Attitude towards second-hand fashion (AMSM) is positive and significant, also the relationship willingness to spend (DG) –> Attitude towards second-hand fashion (AMSM) and environment (MA) –> Attitude towards second-hand fashion (AMSM) are positive and significant. The results also indicate a negative impact of subjective norms (NS) on social behavior, the relationship Subjective norms –> Attitude towards second-hand fashion (AMSM) and Subjective norms (NS) –> Purchase intention (CI) is not significant.

A deeper analysis shows that the effect of beliefs (CR) on purchase intention (CR) can be mediated by attitude towards second-hand fashion (AMSM) and that, in turn, the attitude towards second-hand fashion (AMSM) can mediate between the relationships willingness to spend (DG) –> purchase

intention (IC), and environment (MA) −> purchase intention (CI). There is no mediation between subjective norms (NS) and purchase intention.

CONCLUSION

The results obtained in this research indicate that beliefs about second-hand fashion have a positive and significant effect on the attitude towards second-hand fashion, thus H1 is accepted; the environment also has a positive and significant influence on the attitude towards second-hand fashion. The willingness to spend positively and significantly influences the attitude towards second-hand fashion, which corroborates the acceptance of H3. The results also indicate that the attitude towards second-hand fashion positively and significantly influences purchase intention, accepting H4. It should be noted that subjective norms do not significantly affect purchase intention, which is why H5 is rejected, in contrast, social behaviour does have a significant and positive impact on purchase intention, which is accepted H6, with respect to H7a and H7b it can be said that subjective norms do not significantly influence the attitude towards second-hand fashion and that subjective norms do influence in a significant and negative way in social behaviour.

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