

COMPORTAMENTO DE CONSUMO SUSTENTÁVEL: SLOW FASHION NO BRASIL

SUSTAINABLE CONSUMPTION BEHAVIOR: SLOW FASHION IN BRAZIL

COMPORTAMIENTO DE CONSUMO SOSTENIBLE - MODA LENTA EN BRASIL

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ABSTRACT

The interest in social justice and sustainability issues in the fashion industry has grown exponentially in recent years, given the concern for the worldwide preservation of the natural goods that remain on the earth and the valorization of professionals in the production chain. Slow fashion emerges as a relevant movement in this context. It seeks to slow down the mass industrial production of the fashion area that is currently known by overriding the valuing of quality and people who work throughout the production chain to the detriment of quantity and exploitation of natural resources. This paper aims to verify whether the five dimensions (equity, localism, exclusivity, functionality, and authenticity) of the Consumer Orientation to Slow Fashion (COSF) scale fit satisfactorily to Brazil and then draw profiles of slow fashion product consumption in this exact scenario. Thus, we planned and applied a virtual questionnaire using the COSF scale with 414 volunteers from Brazil. We treated the collected data by exploratory and confirmatory factor analysis, k-means, structural equation modelling, and analysis of variance. As a result, we observed that the COSF scale did not thoroughly adjust to the Brazilian context, where the dimension of functionality did not reach a minimum factor loading to be considered in the subsequent analyses. Thus, we identified three orientation profiles for slow fashion consumption: averse to exclusivity, highly, and low orientation.

KEYWORDS

Slow fashion; Consumption; Fair trade; Sustainability; COSF scale

RESUMO

O interesse pelas questões de justiça social e sustentabilidade na indústria da moda tem crescido exponencialmente nos últimos anos, dada a preocupação com a preservação mundial dos bens naturais que permanecem na terra e a valorização dos profissionais da cadeia produtiva. O Slow fashion surge como um movimento relevante neste contexto. Busca desacelerar a produção industrial em massa da área da moda que hoje é conhecida por passar por cima da valorização da qualidade e das pessoas que atuam em toda a cadeia produtiva em detrimento da quantidade e da exploração dos recursos naturais. Este artigo tem como objetivo verificar se as cinco dimensões (equidade, localismo, exclusividade, funcionalidade e autenticidade) da escala de Orientação do Consumidor para Slow fashion (COSF) se ajustam satisfatoriamente ao Brasil e então traçar perfis de consumo de produtos Slow fashion neste exato cenário. Assim, planejamos e aplicamos um questionário virtual utilizando a escala COSF com 414 voluntários do Brasil. Os dados coletados foram tratados por análise fatorial exploratória e confirmatória, k-médias, modelagem de equações estruturais e análise de variância. Como resultado, observamos que a escala COSF não se ajustou completamente ao contexto brasileiro, onde a dimensão funcionalidade



não atingiu uma carga fatorial mínima a ser considerada nas análises subsequentes. Assim, identificamos três perfis de orientação para o consumo Slow fashion: averso à exclusividade, alta e baixa orientação..

PALAVRAS CHAVE

Moda lenta; Consumo; Fair trade; Sustentabilidade; Escala COSF

RESÚMEN

El interés por temas de justicia social y sostenibilidad en la industria de la moda ha crecido exponencialmente en los últimos años, dada la preocupación por la preservación global de los bienes naturales que quedan en la tierra y el reconocimiento de los profesionales de la cadena productiva. El slow fashion surge como un movimiento relevante en este contexto. Se busca frenar la producción industrial masiva en el sector de la moda. Este artículo tiene como objetivo verificar si las cinco dimensiones de la escala Orientación del Consumidor a la Moda Slow (COSF) se ajustan satisfactoriamente a Brasil y luego delinear perfiles de consumo de productos de moda Slow en ese escenario exacto. Por ello, planificamos y aplicamos un cuestionario virtual utilizando la escala COSF con 414 voluntarios de Brasil. Los datos fueron tratados mediante análisis factorial exploratorio y confirmatorio, k-medias, modelado de ecuaciones estructurales y análisis de varianza. Como resultado, observamos que la escala COSF no se ajustó completamente al contexto brasileño. Así, identificamos tres perfiles de orientación para el consumo de moda Slow.

PALABRAS CLAVE

Moda lenta; Consumo; Comercio justo; Sostenibilidad; Escala COSF

1. INTRODUCTION

In an increasingly connected and immediate world, fashion is not left behind when it comes to meeting the desires and needs of consumers, who yearn for products that are delivered quickly and efficiently (Joy et al., 2015). This massive demand is quickly supplied through a business model called fast fashion. Solino et al. (2015, p. 1036, translated by us) explain that fast fashion “can unite the quick-response productive strategy with the use of advanced resources for product design,” in addition, they complement by explaining that it offers “current trends quickly and effectively in the form of products with short life cycle and low cost.” As a result of its quick response to the market, this fashion production system emphasizes mass consumption, encouraging environmental wear and tear and human labor exploitation.

As an alternative to this production model, the slow fashion (SF) movement arises from the slow food movement, acting as a possibility to bring ideas of sustainability, ethics, and respect for human beings to the dynamics of the fashion industry (Fletcher, 2008). Based on Fletcher (2008; 2010), the precursor of slow fashion, it can be defined as a movement that aims to design, produce, consume, and live fashion more healthily, considering environmental, social, ethical, and moral sustainability and the impact of your clothing production on the world.

Considering that slow fashion is a research area with just over ten years of exploration, its studies of practical applications were only enhanced in 2018 (Solino, Teixeira, and Dantas, 2020). Initially, the researchers aimed to understand and conceptualize the phenomenon (Fletcher, 2008); then, there was an increase in empirical research characterizing companies and consumers. With this in mind, we did not find any work discussing the Brazilian consumer’s general orientation towards slow fashion products; therefore, it has not yet been understood scientifically or from a marketing point of view.

In-depth knowledge about the consumer is a crucial element for the success of any business. According to Porter (2015), understanding consumers’ needs, desires, and behaviors is essential for formulating effective market strategies. This understanding allows companies to identify market opportunities, develop products and services that meet consumers’ needs, and create marketing and sales strategies that effectively connect with their target audience. In addition, consumer knowledge can also help companies predict and respond to changes in consumer behavior and market trends.

From a management perspective, consumer knowledge is essential for making informed and strategic decisions. As argued by Drucker (2017), companies that understand their consumers can better manage their resources effectively, adapt to changes in the business environment, and maintain a competitive advantage. In marketing, Kotler and Keller (2018) emphasize that consumer knowledge is the basis for developing effective marketing campaigns that communicate the value of a company’s products and services in a way that resonates with consumers. Finally, in product development, Ulrich and Eppinger (2020) argue that consumer knowledge is crucial for designing products that meet consumers’ needs and expectations, contributing to customer satisfaction and product success in the market.

Research in the area of consumer perception and orientation of slow fashion started in the studies by Jung and Jin (2014), where the authors defined five dimensions that guide their consumption, namely: a) equity, referring to the gaze of consumers on the payment of fair values to everyone involved in the production chain; b) authenticity, about the valorization of artisanal and traditional techniques; c) functionality, dealing with maximizing the practical potential of the product; d) localism, aiming to discover the orientation to the valorization of what is produced on a local scale over imported products; e) exclusivity, about the need to own products that no one else has. The authors developed a scale format method based on these dimensions to measure consumers’ orientation towards slow fashion products (Jung and Jin, 2016a).

Called “Consumer Orientation to Slow Fashion” (or COSF), the scale developed by Jung and Jin (2014) seeks to discover the purchase possibilities of consumers of fashion products from the slow fashion movement and identify the dimensions that guide this consumer in a specific environment. This scale was applied in other countries (Şener, Bişkin, and Kılınc, 2019), where the orientation of consumers in Turkey and Kazakhstan was discussed and in the study by Suhud et al. (2020), in which Indonesia was investigated.

Concerning Brazil, this scale was first applied and validated by Sobreira, Silva, and Romero (2020), but the authors investigated only Ceará, a Brazilian state, not expanding the work focusing on the entire country. The authors (Sobreira, Silva, and Romero, 2020) investigated a total of 461 volunteers; with this, the researchers discovered the existence of three consumption profiles: “high orientation to slow fashion,” “functionality-oriented,” and “averse to exclusivity.”

In Brazil, slow fashion is a response to fast fashion's rapid and unsustainable production, which significantly negatively impacts the environment and working communities. Brazilian slow fashion, therefore, seeks to promote more sustainable and ethical production and consumption practices, valuing quality, durability, and social justice (Fiorin, Sehnem, and Mattei, 2020). This includes, for example, using sustainably sourced materials, promoting fair and safe working conditions, and promoting more conscious and responsible consumption (Fiorin, Sehnem, and Mattei, 2020).

Furthermore, slow fashion in Brazil is also characterized by a strong emphasis on valuing Brazilian culture and identity. Assunção, Martinez, and Jacques (2021) pointed out that Brazilian slow fashion brands incorporate Brazilian culture and aesthetics into their designs to celebrate and preserve the country's cultural diversity. In addition, these brands also seek to promote inclusion and diversity, challenging conventional standards of beauty and promoting a more inclusive and diverse view of fashion. Thus, slow fashion in Brazil is not just a question of sustainability, identity, and inclusion.

However, we argued that there is a possibility to understand which aspects are inherent to slow fashion that these consumers tend to value the most in the Brazilian scenario. This information can be captured by understanding and discussing the perception and orientation of products' practical, aesthetic, and symbolic functions resulting from the slow movement in the local context. The contributions of this paper are threefold:

- Characterize the slow fashion consumption in Brazil based on its dimensions.
- Draw slow fashion consumption profiles in Brazil.
- Indicate demographic characteristics for slow fashion consumption profiles in Brazil.

Based on what we discussed above, this work aims to verify if the scale of orientation to slow fashion consumption satisfactorily adjusts to the context of Brazil and, subsequently, to draw consumption profiles of SF products in this exact scenario.

This paper is organized as follows: in addition to this first section, dedicated to the contextualization and theoretical basis of the research, section 2 focuses on the methodological procedures of the study. In section 3, we present the work results, starting with the statistical adjustment of the scale and variables to the Brazilian scenario and ending with the definition of the profiles. In section 4, we discuss the theoretical implications of the study, while section 5 presents the managerial implications.

Section 6 finally demonstrates the study's conclusions and possible future research.

2. METHODOLOGY

Regarding the instrument for data collection, we used the psychometric scale developed by Jung and Jin (2014), called the Consumer Orientation to Slow Fashion (COSF), as explained above in the introduction topic. In the scale composition, the authors considered fifteen items consisting solely of statements, subdivided among the five dimensions of the SF: equity, authenticity, functionality, localism, and exclusivity (Table 1).

2.1. Research instrument - "Consumer Orientation to Slow Fashion" (COSF) scale

Consumer Orientation to Slow Fashion scale (COSF)	
Equity	
Equi.1	I am concerned about the working conditions of producers when I buy clothes.
Equi.2	I am concerned about fair trade when I buy clothes.
Equi.3	Fair compensation for apparel producers is important to me when I buy clothes.
Authenticity	
Auten.1	Handcrafted clothes are more valuable than mass-produced ones.
Auten.2	Craftsmanship is very important in clothes.
Auten.3	I value clothes made by traditional techniques.
Functionality	
Func.1	I tend to keep clothes as long as possible rather than discarding quickly.
Func.2	I often enjoy wearing the same clothes in multiple ways.
Func.3	I prefer simple and classic designs.
Localism	
Loc.1	I believe clothes made of locally produced materials are more valuable.
Loc.2	I prefer buying clothes made in Brazil to clothes manufactured overseas.
Loc.3	We need to support Brazilian apparel brands.
Exclusivity	
Exclu.1	Limited editions hold special appeal for me.
Exclu.2	I am very attracted to rare apparel items.
Exclu.3	I enjoy having clothes that others do not.

Table 01: Consumer Orientation to Slow Fashion scale

The COSF scale was previously validated in Brazil, focusing on the Brazilian state of Ceará through Sobreira, Silva, and Romero (2020). Therefore, in this research, the aim is to investigate the consumption orientation profiles of

Brazilians in general from a new perspective.

We created the virtual questionnaire using the Google Forms platform, which is self-administered. The questionnaire consisted of three stages. In the first stage, respondents were asked to read about the research and accept the Informed Consent Form. After this stage, in the second stage, questions regarding the sociodemographic profile were presented to the participants, consisting of nine questions: gender, sexual orientation, marital status, age, ethnicity, Brazilian region, academic-school education, work situation, and monthly income.

The third stage referred to a perception survey containing the Consumer Orientation to Slow Fashion scale (COSF) (Table 1). Each item was presented to the respondents and asked to rate their level of agreement considering a five-point Likert scale, where number one corresponded to “strongly disagree” and five to “strongly agree.”

2.2. Participants

Men and women aged from less than 18 years to more than 60 years participated in the research. Regarding the most apparent sociodemographic profile, it was primarily female (72.3%), aged between 19 and 29 years (41.1%), heterosexually oriented (74.6%), single (69.6%), white (61.6%), mainly from the Brazilian Northeast (65.9%), with higher education (48.1%), active professional in the market (55.8%) and with income of less than BRL 1,000 per month (26.3%). The complete data can be seen in Table 2.

Category	N = 414	Category	N = 414
Gender	72,3% = Female 27,1% = Male 0,7% = Other	Brazilian region	0,7% = North 65,9% = Northeast 5,3% = Midwest 1,9% = South 26,2% = Southeast
Age	8% = Under 18 years old 41.1% = 19 to 29 years old 33.8% = 30 to 39 years 6.3% = 40 to 49 years old 7.5% = 50 to 59 years old 3.4% = Over 60 years old	Academic education	0.7% = Elementary school 17.4% = High School 48.1% = Higher education 19.6% = Specialization 8.2% = Master's 6% = Doctorate Specialization 8.2% = Master's 6% = Doctorate

Sexual orientation	11.6% = Homosexual 12.3% = Bisexual 74.6% = Heterosexual 1.5% = Others	Work situation	55.8% = Active professional 9.9% = Unemployed 30.7% = Student 3.6% = Retired
Marital status	69.6% = Single 25.1% = Married 4.3% = Divorced 1% = Widowed	Race/Color/Ethnicity	61.6% = White 5.3% = Black 31.6% = Brown 1.2% = Yellow 0.2% = Indigenous
Monthly income	26,3% = Less than BRL 1.000 15,2% = BRL 2.000 to BRL 3.000 8,7% = BRL 4.000 to BRL 5.000 4,6% = More than BRL 10.000 ----- 22,7% = BRL 1.000 to BRL 2.000 6,5% = BRL 3.000 to BRL 4.000 15,9% = BRL 5.000 to BRL 10.000		

Table 02: Sociodemographic characterization of the participants

2.3. Analysis and treatment of data

The data were submitted to statistical analysis software, such as Statistical Package for Social Sciences (SPSS) version 20, IBM SPSS Amos, and XLAST. In addition to the basic descriptive analysis, we used four data treatment techniques: exploratory factor analysis (EFA) and confirmatory factor analysis (CFA), clustering by k-means, and analysis of variance (ANOVA), as observed in other published works on the same subject (Jung and Jin, 2014; Jung and Jin, 2016a; Jung and Jin, 2016b; Şener, Bişkin and Kilinç, 2019; Sobreira, Silva and Romero, 2020).

3. FINDINGS

3.1. Consumer Orientation to Slow Fashion scale adjusted to Brazil

Initially, we conducted a confirmatory factor analysis (CFA) on the data referring to the Consumer Orientation to Slow Fashion (COSF) scale to verify the validity of its application in this research, identifying whether its complete model fits the data found. As explained in the introduction, the authors (Jung and Jin, 2014) divided the scale into five latent dimensions/variables: equity, authenticity, functionality, localism, and exclusivity. Each dimension is configured according to three observed variables, forming fifteen items to consider in the factor analysis.

We identified that the standardized factor loadings were more significant than 0.5 for only four of the five variables studied (equity, authenticity, localism,

and exclusivity) of the slow fashion consumption. The functionality dimension did not fit satisfactorily. In this context, we observed that only one of the three items in the functionality dimension had the minimum factor loading to consider. The items in this section of the scale showed a total Cronbach's Alpha of 0.37, which indicates that the slow fashion scale based on a five-dimensional orientation (COSF) proposed by Jung and Jin (2014) does not necessarily fit the Brazilian scenario in its entirety to the data collected in this research.

Chin (1998) and Hair et al. (2019) presented that those variables with factor loadings or Cronbach's Alpha below 0.7 should be discarded, as they can compromise the other research data. Based on this, the functionality dimension was disregarded in the context of this research, forming a reduced version of the COSF scale. After these delimitations, the final structural model of the AFC can be seen in Figure 1, alongside the adjustment metrics.

Source: Prepared by the authors according to research data. Note: adjustment metrics: $\chi^2 = 126,378$ ($p < 0,001$); $Df = 48$; $\chi^2/df = 2.63$; $GFI = 0,95$; $RMSEA = 0,06$; $AGFI = 0,92$; $CFI = 0,95$

Considering the results, we could verify that the structural model satisfied the statistical adjustment of the

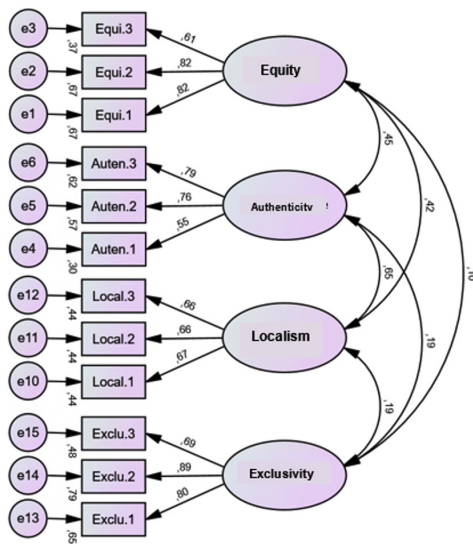


Figure 01: Final model of the confirmatory factor analysis for the Brazilian context digital design, etc. Source: Prepared by the authors according to research data. **Note:** adjustment metrics: $\chi^2 = 126,378$ ($p < 0,001$); $Df = 48$; $\chi^2/df = 2.63$; $GFI = 0,95$; $RMSEA = 0,06$; $AGFI = 0,92$; $CFI = 0,95$

data based on all processed indicators (Hair et al., 2009). Therefore, we observed that the CFA model proved adequate for this study, allowing researchers to proceed to the subsequent analysis steps – confirmatory factor

analysis.

Given the validity of the planned structural model, in a more specific way, Table 3 below shows the estimates of the standardized factor loadings obtained from the CFA, the standardized error, and the statistical significance of the relationship between the items of the latent variable. The values of discriminant validity (DV), Cronbach's alpha (α), and composite reliability coefficient (CR) for each analyzed dimension are also exposed.

	Stan. Est.	Stan. Error	p-value
Equity ($\alpha = 0,785$; CR = 0,795; DV = 0,569)			
Equi.1 – I am concerned about the working conditions of producers when I buy clothes.	0,817	-	-
Equi. 2 – I am concerned about fair trade when I buy clothes.	0,817	0,071	***
Equi. 3 – Fair compensation for apparel producers is important to me when I buy clothes.	0,609	0,047	***
Authenticity ($\alpha = 0,735$; CR = 0,746; DV = 0,501)			
Auten. 1: Handcrafted clothes are more valuable than mass-produced ones.	0,552	-	-
Auten. 2: Craftsmanship is very important in clothes.	0,758	0,164	***
Auten. 3: I value clothes made by traditional techniques.	0,789	0,167	***
Localism ($\alpha = 0,694$; CR = 0,700; DV = 0,438)			
Loc. 1: I believe clothes made of locally produced materials are more valuable.	0,665	-	-
Loc. 2: I prefer buying clothes made in Brazil to clothes manufactured overseas.	0,660	0,105	***
Loc. 3: We need to support Brazilian apparel brands.	0,660	0,083	***
Exclusivity ($\alpha = 0,834$; CR = 0,841; DV = 0,641)			
Exclu. 1: Limited editions hold special appeal for me.	0,804	-	-
Exclu. 2 I am very attracted to rare apparel items.	0,890	0,072	***
Exclu. 3 I enjoy having clothes that others do not.	0,695	0,068	***

Table 03: Confirmatory Factor Analysis on the Consumer Orientation to Slow Fashion Scale for Brazil

Cronbach's alpha (α), when greater than 0.5, indicates the internal reliability of the items that make up the scale (George and Malleri, 2003). Thus, it was found that all

items in this study have a value greater than 0.5, being reliable. Table 4 shows the levels of correlation between the dimensions of the slow fashion scale. According to Table 4, we can observe that equity has a higher correlation with authenticity (0.449) and lower with exclusivity (0.103), this being the only covariance that did not show a significant result at 5% probability ($p > 0.05$). Authenticity correlates more with localism (0.650) and lower for exclusivity (0.188). Localism correlates more with authenticity (0.650) and lower with exclusivity (0.192). Finally, exclusivity correlates more with localism (0.192) and less with equity (0.103).

The scale's discriminant validity results were also accepted, where the square root of the dimension's discriminant validity values must be greater than the correlation estimate between these two constructs in all cases (Fornell and Larcker, 1981; Jung and Jin, 2016b). Considering the results presented so far in this paper, we can conclude that the structural model of the reduced-to-Brazilian version of the Consumer Orientation to Slow Fashion scale, which features 12 items and four dimensions, can be considered reliable, valid and adjustable to the collected data, being able to proceed to the subsequent phases of the analyses.

Dimensions	Equity	Authenticity	Localism	Exclusivity
Equity	0,754			
Authenticity	0,449	0,707		
Localism	0,422	0,650	0,661	
Exclusivity	0,103	0,188	0,192	0,800

Table 04: Confirmatory Factor Analysis on the Consumer Orientation to Slow Fashion scale for Brazil. – Values in bold refer to each dimension's square root of the DV. Red means non-significant value. Green means significant value. ***p-value < 0.01, **p-value < 0.05, *p-value < 0.10.

3.2. Identification of slow fashion consumption profiles in the Brazilian scenario

To delimit consumption profiles aimed at the slow fashion from the collected data, the k-means grouping technique was used, applying the Euclidean distance method (Kuswandi et al., 2018). For constructing these classes, we considered the respondents' interaction relationships with the four dimensions of slow fashion that apply to the context of this research: equity, authenticity, localism, and exclusivity.

One of the k-means technique assumptions is that the analyst must define the number of groups/clusters/profiles to generate. In previous research on the same subject, Jung

and Jin (2016b) defined four groups, while Sobreira, Silva, and Romero (2020) defined three as appropriate. To define the amount that would apply in this work, we decided on a minimum of three and a maximum of four groups using the XLSTAT software.

We observed the characteristics of each grouping possibility. After the preliminary analysis, it was found that both had significant results; however, the definition by three groups represented a segmentation with more significant variance. Thus, we considered the grouping into three profiles of orientation to the consumption of slow fashion products in the context of this research (Table 5).

Dimensions	Averse to exclusivity (Cluster 1)	High orientation (Cluster 2)	Low orientation (Cluster 3)	Anova	
				F	Sig.
Equity	4,456	4,410	3,135	294,730	< 0,0001
Authenticity	3,898	4,447	3,920	19,250	< 0,0001
Localism	3,947	4,241	3,775	4,050	0,018
Exclusivity	1,867	3,789	2,640	250,377	< 0,0001
Orientation	Medium, lower for exclusivity	High	Low	Participants 414	

Table 05: Comparison of averages between slow fashion consumption-oriented profile clusters in Brazil

In the research by Jung and Jin (2016b), the authors identified four consumption profiles, which they called: "high involvement", "conventional", "exclusivity-oriented", and "low involvement". On the other hand, in the research by Sobreira, Silva, and Romero (2020), focusing on the Ceará scenario, the Brazilian state, three groups different from the other authors' proposal were observed configuring: "high orientation," "functionality-oriented" and "averse to exclusivity." In the context of this work, we identified three groups – those that were conceptually correlated at certain levels with those previously found in the literature review – namely: "averse to exclusivity," "high orientation", and "low orientation."

Regarding the configurations of each cluster, the first group was called "averse to exclusivity" (n = 141; 34%). This group has a medium orientation average in all other three dimensions, with a lesser focus on authenticity; however, it presents an exceptional refusal when consumption involves rare, limited-edition pieces that few people have (exclusivity). It is also worth noticing a slightly lesser tendency towards authenticity, demonstrating that this group does not care much about handcrafted or traditional sewing techniques. This group opposes the "exclusivity-oriented" profile identified in the work of Jung and Jin

(2016b). However, this same group was found in Sobreira, Silva, and Romeiro's (2020) research, demonstrating a tendency in Brazil to have a group that refuses the context of exclusivity in slow fashion products.

In the case of the second cluster, we called "high orientation" (n = 160; 39%), the group with the highest number of respondents. This group comprises people with a higher orientation towards consuming slow fashion products, with a high average in all dimensions studied. There is also a greater focus on authenticity; however, unlike the previous one, there is a positive attitude towards handmade clothes and handcrafted products. Therefore, they present a lesser orientation towards exclusivity, although this was the only cluster with a positive average for this dimension. This same group was found in Jung and Jin (2016) and Sobreira, Silva, and Romeiro (2020), with the same characteristics.

Finally, the third cluster was called "low orientation" (n = 113; 27%), comprising the group with the smallest number of individuals. It comprises people with little orientation to all slow fashion product consumption dimensions. The authenticity dimension is highlighted as having a more positive relationship with this group, demonstrating that, despite the resistance to consumption, its components tend to be more interested when there is a context of traditional techniques and crafts. On the other hand, like the other clusters, the dimension of exclusivity was the one with the lowest level of orientation. This group was also identified in the research by Jung and Jin (2016b), named "low involvement", but not in the research by Silveira, Silva, and Romeiro (2020).

As shown in Table 3, there is statistical significance for all dimensions of slow fashion orientation, which indicates the validity of the results for the context of this research. After ANOVA, to identify where the differences between the groups and their respective dimensions were located, the post hoc test of Turkey HSD was conducted, comparing two generated clusters (Table 6).

Groups		Equity		Authenticity		Localism		Exclusivity	
(A)	(B)	(A-B)	Sig.	(A-B)	Sig.	(A-B)	Sig.	(A-B)	Sig.
1	2	0,458	0,653	-0,549	0,000	-0,293	0,000	-1,922	0,000
1	3	1,320	0,000	0,022	0,938	0,172	0,030	-0,592	0,000
2	3	1,274	0,000	0,527	0,000	0,465	0,000	1,329	0,000

Table 06 Comparison of averages between slow fashion consumption-oriented profile clusters in Brazil

According to the results presented in Table 6, we observed that the first cluster (averse to exclusivity) demonstrates a statistically significant difference (p<0.001)

in all dimensions, except equity, compared to the second cluster (high orientation). Regarding the third cluster (low orientation), compared to the first (averse to exclusivity), a statistically significant difference was identified (p<0.05) in all dimensions except for authenticity. Comparing the second (high orientation) and third (low orientation) clusters, we found a statistically significant difference (p<0.001) among all dimensions of orientation to the consumption of SF.

3.3. Comparison of slow fashion groups for sociodemographic variables in the Brazilian context

To formalize a comparison between demographic variables and consumption profiles aimed at slow fashion, we sought to conduct an analysis of variance (ANOVA) for each of the sociodemographic categories requested in the initial phase of the research, such as gender, age, sexual orientation, marital status, ethnicity, academic background, work status, and monthly income. Using a cross-reference table, we compare the categories that did not show a statistically significant difference. We intended to trace the sociodemographic characteristics within the three groups, allowing for a more in-depth discussion of the particularities and patterns within each cluster.

Concerning gender, no statistically significant differences were identified (F = 0.670, df = 2, p > 0.05) between this variable and the orientation groups to slow fashion consumption, indicating no guided orientation profile based on the genre. However, for the "high orientation" group, we observed a more significant quantitative presence of binary genders (male, n = 44, and female, n = 116, respectively). In contrast, individuals categorized as 'others' (n = 2), who did not identify with gender binarity, were more quantitatively related to the "averse to exclusivity" group (Figure 2).

Regarding sexual orientation, no statistically significant differences were identified (F = 0.270, df = 2, p > 0.05) between groups with an orientation towards slow fashion

consumption. We also observed that respondents with heterosexual orientation were mainly related to the “high orientation” group (n = 119) and homosexuals (n = 19). Bisexuals were more related to the “averse to exclusivity” group (n = 22).

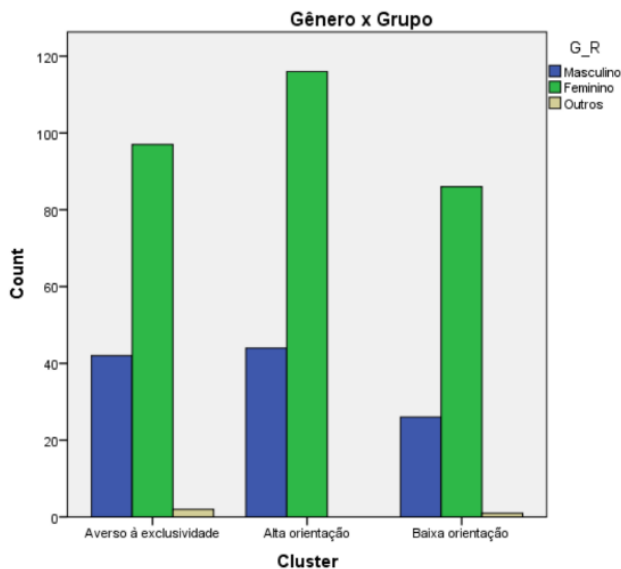


Figure 02: Slow fashion consumption clusters by gender in Brazil. **Source:** Prepared by the authors according to research data

Identifying any statistically significant difference ($F = 2.147$, $df = 2$, $p > 0.05$) between this variable and the orientation profiles towards slow fashion consumption regarding the respondents’ marital status was impossible. Despite this result, we identified that single respondents (n = 113) and married (n = 42) were more related to the “high orientation” group. Divorced people were positively related to both “averse to exclusivity” (n = 7) and “low orientation” (n = 7). Widowers (n = 2) were more related to “low orientation”.

Regarding the comparison between groups with an orientation towards the consumption of slow fashion and the ethnicity of respondents, no statistically significant difference was found ($F = 0.774$, $df = 2$, $p > 0.05$). In a quantitative sense, all respondents, when observed by their ethnicity, showed a tendency towards the “high orientation” group (n = 95 (white), n = 55 (brown), n = 2 (yellow), and n = 1 (indigenous)), except for the black category, which was mainly related to the “averse to exclusivity” group (n = 10).

Concerning academic-school training compared to the profiles of consumption orientation in a slow fashion, it was identified that there is no statistically significant difference ($F = 0.109$, $df = 2$, $p > 0.05$). It was possible to observe a trend in most categories for the “high orientation” group (n = 2 (primary education), n = 31 (high school), n = 35

(specialization), and n = 12 (doctorate)), except for the category of people from higher education and master’s, who showed a quantitative predisposition to the group “averse to exclusivity” (n = 82 and n = 15, respectively).

Regarding the work situation, it was impossible to identify any statistically significant difference ($F = 0.013$, $df = 2$, $p > 0.05$) for the orientation profiles to consumption of slow fashion. It was observed that the categories of professionals active in the market, unemployed, and students had a quantitative relationship to the “high orientation” group (n = 88, n = 16, and n = 51, respectively). While the retired category they were more positively related to the “low orientation” group (n = 6).

Regarding the different age groups compared to the slow fashion consumption-oriented profiles, it was identified that there is no statistically significant difference ($F = 0.779$, $df = 2$, $p > 0.05$). It was observed that the categories under 18 years old, from 30 to 39 and over 60, found themselves focused on “high orientation” (n = 20, n = 56, and n = 7, respectively). Volunteers aged 19 to 29 years tended to be “averse to exclusivity” (n = 67), while people aged 40 to 49 and 50 to 59 turned to “low orientation” (n = 12 and n = 11, respectively) (Figure 3).

Finally, regarding the monthly income of respondents, it was impossible to identify any statistically significant difference ($F = 0.207$, $df = 2$, $p > 0.05$) to the profiles of consumption orientation of slow fashion products. The respondents in the categories with a monthly income of less than BRL 1,000.00 (n = 47), from BRL 2,000.00 to BRL 3,000.00 (n = 25), from BRL 4,000.00 to BRL 5,000.00 (n = 14) and from BRL 5,000.00 to BRL 10,000.00 (n = 26) were focused on “high orientation” group. Volunteers with monthly income of BRL

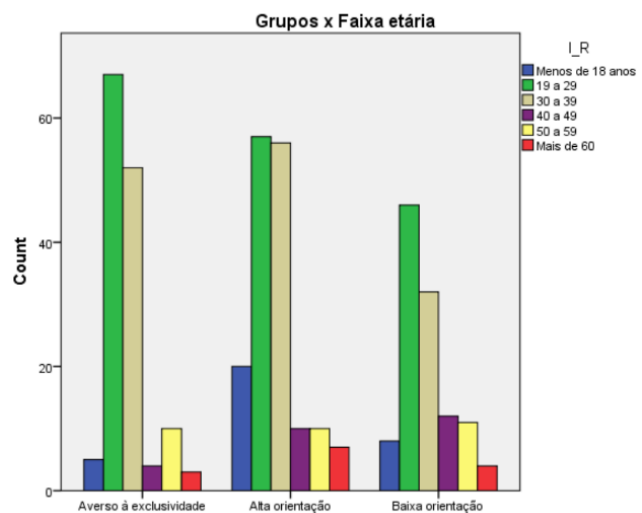


Figure 03: Slow fashion consumption clusters by age in Brazil. **Source:** Prepared by the authors according to research data.

1,000.00 to BRL 2,000.00 and BRL 3,000.00 to BRL 4,000.00 were more positively related to the “averse to exclusivity” group (n = 35 and n = 10, respectively), as well as those with monthly income above R\$10,000.00 (n = 8).

According to the data presented above, it can be concluded that, in the context of this research, none of the demographic variables tested had a statistically significant influence on the profiles of consumption orientation of slow fashion products. Those results indicate that drawing a unique sociodemographic profile for each delimited SF orientation group was impossible.

4. THEORETICAL IMPLICATIONS

The findings of this study have several theoretical implications. Firstly, the study highlights the importance of understanding consumer profiles in the context of slow fashion (SF) consumption. The Identification of three distinct consumer profiles – “averse to exclusivity”, “high orientation”, and “low orientation” – suggests that consumers’ attitudes towards SF are not homogenous. This aligns with the consumer behavior theory, which posits that consumers’ attitudes and behaviors are influenced by various factors, including personal values, beliefs, and social influences (Solomon, 2014).

Secondly, the study’s findings challenge the assumption that all dimensions of SF consumption are equally relevant across different cultural contexts. The functionality dimension, for instance, did not statistically adjust satisfactorily to the Brazilian scenario. This suggests that the relevance of different dimensions of SF consumption may vary across different cultural contexts, consistent with the cultural theory of consumption (Arnould & Thompson, 2005).

Thirdly, the study’s findings suggest that equity, localism, and authenticity are essential for the “averse to exclusivity” group. This supports the notion that consumers’ attitudes towards SF are influenced by their perceptions of fairness, localism, and authenticity (Niinimäki & Hassi, 2011). This group’s positive relationship with these dimensions suggests that they value fair trade, locally produced goods, and authentic products.

Fourthly, the “high orientation” group’s positive orientation to all dimensions of SF consumption, with a higher level for the authenticity dimension, and less for exclusivity, suggests that this group values authenticity more than exclusivity. This aligns with the authenticity theory of consumption, which posits that consumers increasingly

seek authentic experiences and products (Gilmore & Pine, 2007).

Fifthly, the “low orientation” group’s average below the general average in all dimensions of SF suggests that this group may be less engaged with SF. However, their better relation to the dimensions of authenticity and localism suggests that they may be potential traditionalists. This aligns with the traditionalist theory of consumption, which posits that some consumers prefer traditional products and practices (Sheth, Newman & Gross, 1991).

Sixthly, the study’s inability to statistically relate demographic variables to these groups suggests that demographic factors may not be significant predictors of consumers’ attitudes towards SF. This challenges the demographic theory of consumption, which posits that demographic factors significantly influence consumer behaviors (Wells and Tigert, 1971).

The study’s implications for the national apparel industry suggest that understanding consumers’ attitudes towards SF can inform product development strategies. This aligns with the market orientation theory, which posits that understanding consumers’ needs and preferences can enhance firms’ competitiveness (Kohli & Jaworski, 1990).

Finally, the study’s limitation regarding the distribution of volunteers across all Brazilian states suggests that its findings may not be generalizable to the entire

Brazilian population. This highlights the importance of representative sampling in consumer research, as posited by the sampling theory (Sudman, 1976).

5. MANAGERIAL IMPLICATIONS

The managerial implications of this study are manifold and can provide valuable insights for businesses operating in the slow fashion (SF) industry, particularly in Brazil.

Firstly, the Identification of three distinct consumer profiles - “averse to exclusivity”, “high orientation”, and “low orientation” – can help businesses segment their market and tailor their marketing strategies accordingly. For instance, businesses can target the “averse to exclusivity” group with marketing messages emphasizing equity, localism, and authenticity. For the “high orientation” group, businesses can highlight all dimensions of SF consumption, emphasizing authenticity. For the “low orientation” group, businesses can focus on promoting the authenticity and localism of their products.

Nevertheless, understanding that today the creation process increasingly seeks to develop a production

model centred on the user/target audience, knowing the desires, perceptions, and what adds value to future consumers is essential to obtain satisfactory results (Löbach, 2001). Thus, if designers had access to safer data about users' aesthetic, symbolic and practical needs, product designs would have fewer launch risks, as they would be based on rationally taken decisions based on statistical data (Löbach, 2001).

Secondly, the finding that the functionality dimension did not adjust satisfactorily to the Brazilian scenario suggests that businesses should not overly focus on this dimension in their marketing efforts. Instead, they should prioritize other more relevant dimensions to the Brazilian context, such as equity, localism, and authenticity.

Thirdly, the inability to statistically relate demographic variables to these groups suggests businesses should not rely solely on demographic factors when segmenting their market and developing their marketing strategies. Instead, they should consider other factors, such as consumers' attitudes towards SF and their orientation to different dimensions of SF consumption.

Fourthly, the study's implications for the national apparel industry suggest that businesses can leverage these insights to develop SF products that cater to the preferences of different consumer groups. This can enhance their competitiveness and help them meet the growing demand for SF products.

Finally, the study's limitation regarding the distribution of volunteers across all Brazilian states suggests that businesses should be cautious when generalizing these findings to the entire Brazilian population. They should consider conducting their own market research to better understand their target market's attitudes towards SF.

In conclusion, this study provides valuable insights that can help businesses in the SF industry better understand their consumers, tailor their marketing strategies, and develop products that meet their consumers' needs and preferences.

6. FINAL CONSIDERATIONS

It was concluded that the functionality dimension did not statistically adjust satisfactorily to the Brazilian scenario, so a reduced scale was applied in the analyses, disregarding the use of this dimension. Three were observed regarding the profiles of orientation to the consumption of SF. We found averse to exclusivity, high orientation, and low orientation.

In summary, the group "averse to exclusivity" was

positively related to equity, localism, and authenticity, the latter being at a lower level. In contrast, the "high orientation" group was found to be positively orientated to all dimensions of SF consumption, with a higher level of authenticity and less for exclusivity. The "low orientation" group has an individual average below the general average in all dimensions of slow fashion. In comparison, it was better related to the dimensions of authenticity and localism, which makes them be read as potential traditionalists. It was impossible to statistically relate the demographic variables to these groups, so drawing a profile based on this information was impossible.

The results of this research imply social developments, where trends in how consumption has been developing can be observed and correlated with consumer preferences; with that, the national apparel industry can appropriate this information and plan slow fashion products that have their configurations oriented to these groups of consumers. It ends by saying that one of the limitations of this research was that there was not a normal distribution of volunteers among all Brazilian states. Based on this, it is concluded that its results cannot be generalized, as they do not represent the perception of a probabilistic sample of the Brazilian population.

For future work, it is possible to go deeper into questions referring only to the value perceived by the customer, appropriating the PERVAL scale and measuring the influence of the dimensions of quality, emotion, price, behavior, and reputation on the purchase intention. In addition, one can also investigate the visual attributes, and aesthetic aspects, used in the visual language of slow fashion products, tracing which elements are most used to refer to the ecologically oriented and if this has a significant relationship in the purchase of products. From this, one can also focus on the visual quality perceived by customers, comparing the intention with the interpretation.

REFERENCES

- Arnould, E. J., & Thompson, C. J. (2005). **Consumer Culture Theory (CCT): Twenty Years of Research.** *Journal of Consumer Research*, 31(4), 868-882.
- Assunção, L. F., Martinez, A. K., & Jacques, J. J. de. (2021). **Discursos éticos e estéticos: uma análise semiótica de editoriais fotográficos de marcas de fast fashion e slow fashion.** *Modapalavra E-periódico*, 14(32), 73-97.

Drucker, P. (2017). **The Practice of Management**. Harper & Row.

Fiorin, M. M. B., Sehnem, A., & Mattei, L. F. (2020). **Vestuário sustentável: análise das características do modo de produção Slow Fashion em empresas brasileiras**. *Organizações e Sustentabilidade*, 8(1), 75–91.

Fletcher, K. (2008). **Sustainable Fashion and Textiles: Design Journeys**. Milton Park, Abingdon, Oxon: Routledge.

Fletcher, K. (2010). **Slow fashion: An Invitation for Systems Change**. *Fashion Practice*, 2(2), 259-265.

Fowler, F. J. (2014). **Survey research methods**. 5. ed. Los Angeles: Sage.

Gilmore, J. H., & Pine, B. J. (2007). **Authenticity: What Consumers Really Want**. Harvard Business School Press.

Hair, J. F. et al. (2009). **Multivariate Data Analysis**. 7. ed. New York: Pearson.

Hooper, D., Coughlan, J., & Mullen, M. (2008). **Structural Equation Modelling: Guidelines for Determining Model Fit**. *Electronic Journal of Business Research Methods*, 6(1), 53-60.

Joy, A., Sherry Jr., J. F., Venkatesh, A., Wang, J., Chan, R. (2015). **Fast Fashion, Sustainability, and the Ethical Appeal of Luxury Brands**. *Fashion Theory*, 16(3), 273-295.

Jung, S., & Jin, B. (2014). **A theoretical investigation of slow fashion: sustainable future of the apparel industry**. *International Journal of Consumer Studies*, 38(5), 510-519.

Jung, S., & Jin, B. (2016a). **Sustainable Development of Slow fashion Businesses: Customer Value Approach**. *Sustainability*, 8(6), 540.

Jung, S., & Jin, B. (2016b). **From quantity to quality: understanding slow fashion consumers for sustainability and consumer education**. *International*

Journal of Consumer Studies, 40(4), 410-421.

Kohli, A. K., & Jaworski, B. J. (1990). **Market Orientation: The Construct, Research Propositions, and Managerial Implications**. *Journal of Marketing*, 54(2), 1-18.

Kotler, P., & Keller, K. L. (2018). **Marketing Management**. Pearson.

Kuswandi, D. et al. (2018). **Means Clustering of Student Perceptions on Project-Based Learning Model Application**. *Proceedings of the International Conference on Education and Technology*, 4(2018), 9-12.

Löbach, B. (2001) **Design industrial: bases para a configuração dos produtos industriais**. São Paulo: Edgard Blucher.

Magrani, E. (2019). **Entre dados e robôs: ética e privacidade na era da hiperconectividade**. Porto Alegre: Arquipélago.

Niinimäki, K., & Hassi, L. (2011). **Emerging Design Strategies in Sustainable Production and Consumption of Textiles and Clothing**. *Journal of Cleaner Production*, 19(16), 1876-1883.

Porter, M. (2015). **Competitive Strategy: Techniques for Analyzing Industries and Competitors**. Simon and Schuster.

Şener, T., Bişkin, S. F., & Kiliç, N. (2019). **Sustainable dressing: Consumers' value perceptions towards slow fashion**. *Business Strategy and the Environment*, 28(8), 1548-1557.

Sheth, J. N., Newman, B. I., & Gross, B. L. (1991). **Why We Buy What We Buy: A Theory of Consumption Values**. *Journal of Business Research*, 22(2), 159-170.

Sobreira, E. M. C., Silva, C. R. M., & Romero, C. B. A. (2020). **Slow profile: estudo das orientações ao consumo de slow fashion**. *Internext - Revista Eletrônica de Negócios Internacionais*, 153, 103-127.

Solino, L. J. S. et al. (2015). **Fast-Fashion: uma revisão**

bibliográfica sistemática e agenda de pesquisa. Revista Produção Online, 15(3), 1021–1048.

Solino, L. J. S., Teixeira, B. M. L., & Dantas, Í. J. M. (2020). **The sustainability in fashion: a systematic literature review on slow fashion.** International Journal for Innovation Education and Research, Dhaka, Bangladesh, 8(10), 164–202.

Solomon, M. R. (2014). **Consumer Behavior: Buying, Having, and Being.** Pearson.

Sudman, S. (1976). **Applied Sampling.** Academic Press.

Suhud, U. et al. (2020). **Slow fashion in Indonesia: Drivers and Outcomes of Slow Fashion Orientations.** Research in World Economy, 11(6), 27-37.

Ulrich, K., & Eppinger, S. (2020). **Product Design and Development.** McGraw-Hill Education.

Wells, W. D., & Tigert, D. J. (1971). **Activities, Interests and Opinions.** Journal of Advertising Research, 11(4), 27-35.

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COMO CITAR ESTE ARTIGO

FREIRE, Aline Gabriel; DANTAS, Ítalo José de Medeiros; SOLINO, Lívia Juliana Silva; CURTH, Marcelo. MIX Sustentável, v. 10, n. 2, p. 55-67, 2024. ISSN 2447-3073. Disponível em: <<http://www.nexos.ufsc.br/index.php/mixsustentavel>>. Acesso em: __/__/doi: <<https://doi.org/10.29183/2447-3073.MIX2024.v10.n1.53-66>>.

SUBMETIDO EM: 11/08/2023

ACEITO EM: 11/09/2023

PUBLICADO EM: 08/01/2024

EDITORES RESPONSÁVEIS: Lisiane Ilha Librelotto e Paulo Cesar Machado Feroli

Record of authorship contribution:

CRedit Taxonomy (<http://credit.niso.org/>)

IJMD: Conceituação, investigação, metodologia, curadoria dos dados, análise formal, visualização, escrita - rascunho original, escrita - revisão e edição.

LJSS: Conceituação, investigação, metodologia, curadoria dos dados, supervisão, escrita - revisão e edição.

AGF: Conceituação, investigação, metodologia curadoria dos dados, escrita - revisão e edição.

MC: Conceituação, investigação, metodologia, curadoria dos dados, supervisão, validação, escrita - revisão e edição.

Conflict of interest: nothing has been declared.