

# A Review of South African Consumer Awareness of Fast-Fashion and Sustainable Practices in the Textile and Clothing Industry

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## **Abstract**

The global textile and clothing industry is one of the main contributors to socio-environmental harm through fast-fashion practices. Sustainable fashion practices by the textile and clothing industry and consumers can reduce socio-environmental harm. Over the past 12 years, academic research has steadily increased on South African consumers' knowledge regarding fast fashion and sustainability in the textile and clothing industry. The objective of this paper is twofold: first, to synthesize South African consumers' awareness of the socio-environmental impacts of fast-fashion practices, and second, to synthesize their awareness of sustainable fashion practices. This research employed narrative and systematic review methodologies to identify and analyze relevant data. Understanding consumers' knowledge regarding fast and sustainable fashion can guide policymakers and stakeholders in the textile and clothing industry in developing targeted interventions to foster sustainable practices among consumers, thereby promoting sustainable consumption and production patterns. This review paper found partial awareness and misconception among consumers of the socio-environmental harm caused by fast-fashion practices. Furthermore, although consumers know of various sustainable fashion practices, their awareness level is limited. This study recommends that future research use diverse representative participants to capture a broader range of perspectives and provide a more comprehensive understanding of consumer knowledge. The study further recommends research that focuses on consumer misconceptions about fast-fashion and sustainable fashion practices among consumers. Collaboration between the government, the textile and clothing industry, higher education, and marketing agencies to create continuous interactive knowledge dissemination to consumers through various platforms is essential.

**Keywords:** customer knowledge; fast-fashion practices; socio-environmental harm; sustainable fashion practices; textile and clothing industry.

## **1. Introduction**

The ongoing mass production of fast-fashion clothes and relentless customer purchases have come at a significant cost to both society and the environment (Niinimäki et al., 2020). The socio-environmental damage caused by fast fashion includes the exploitation of garment workers (Gardetti & Torres, 2013), excessive water usage (Cimatti et al., 2017), and the generation of enormous textile waste (Rathinamoorthy, 2019). Recent studies highlight a significant shift in customer awareness regarding the environmental impact of fast fashion (Papasolomou et al., 2023; Rathinamoorthy, 2019; Sedej & Toroš, 2023). Research by (Vuong & Nguyen, 2018) and (Stringer et al., 2020) suggests that this growing knowledge of the socio-environmental harm of fast-fashion clothes positively influences customers' decision-making process, giving hope for a more sustainable future.

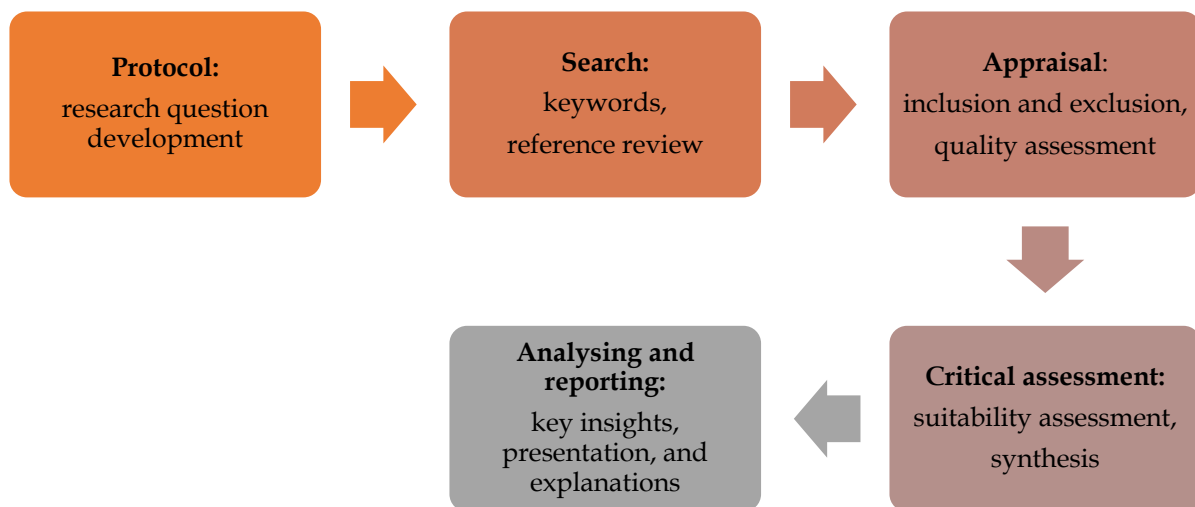
As awareness of the harmful impacts of fast fashion continues to grow, there is a shift toward more sustainable clothing production in the fashion industry (Niinimäki et al., 2020). This has led to an increasing focus on sustainable fashion practices that prioritize ethical production, reduce waste, and minimize environmental impact (Sagapova et al., 2022). The growing number of emerging and established fashion businesses in South Africa that produce and promote sustainable clothes and practices is a testament to this. With their increasing awareness of sustainable clothes, customers are becoming crucial players in advancing sustainability in the fashion industry (Pereira et al., 2021).

Fast fashion and sustainable fashion are not mutually exclusive; they coexist globally and will continue to do so. However, customers are essential in changing and reducing the socio-environmental impact of fast fashion through sustainable fashion practices. A comprehensive understanding of customers' knowledge and awareness of both fast-fashion and sustainable fashion practices can guide policymakers and textile and clothing industry stakeholders on the exact type of intervention needed to foster a sustainable South African textile and clothing industry.

There is a continuous increase in academic research on South African customers' perceptions of and behavior related to fast fashion and sustainability matters in the textile and clothing industry. It is essential to objectively evaluate and synthesize existing South African clothing customer research findings to improve future research, identify gaps in knowledge, and inform practice and policy. The objective of this paper is twofold: first, to synthesize South African customers' awareness of the socio-environmental impacts of fast-fashion practices, and second, to synthesize their awareness of sustainable fashion practices. Sustainable fashion practices for the second objective include sustainable clothing production, sustainable clothes and their benefits, the slow-fashion movement and voluntary simplicity movement, and eco-labeling.

## 2. Method

This review article employed narrative and systematic review methodologies to identify and analyze relevant data. Characteristics of a narrative review include evaluation of published academic work, current limited knowledge, justification for upcoming studies, and reflections on recent solutions (Ferrari, 2015). Developing a search method for a literature search based on systematic review methods is beneficial for a narrative review search (Ferrari, 2015). This narrative review paper utilized aspects of systematic review methodology highlighted by (Mengist et al., 2020) to develop a protocol, search, and appraisal strategy. A critical assessment strategy as well as an analyzing and reporting strategy were adapted from various systematic and narrative review methods. Figure 1 presents the five-phase strategy employed for the methodology element of this review article.



**Figure 1: Methodology flowchart employed for this review article**

### 2.1 The Protocol Strategy

In the systematic literature review, the protocol phase serves as a time to develop research questions and define research boundaries to determine the appropriate research method (Fernández del Amo et al., 2018). Based on the objectives of the study, the research questions developed for this narrative review article are as follows:

- RQ1. What are the overall findings on South African customers' knowledge of fast-fashion practices' contribution to socio-environmental harm?
- RQ2. What are the general findings on South African customers' awareness of sustainable practices in the fashion industry concerning:
  - sustainable clothing production,
  - sustainable clothes and their benefits,
  - the slow-fashion movement and voluntary simplicity movement, and
  - eco-labeling?
- RQ3. What would be the fast fashion and sustainable fashion practices literacy across different demographic criteria?

## 2.2 The Search Strategy

The search phase involves finding literature for review using search strings from an electronic database. Google Scholar was the chosen primary database source. Google Scholar is a robust database that indexes open-access journals, paid journals, conference proceedings, theses, and reports (Xiao & Watson, 2019). Once articles and theses were identified, backward searches were performed to identify additional articles that could be used. The literature review considered articles from academic peer-reviewed journals, master's dissertations, and PhD theses across South African universities. Google Scholar was used to search works from authors who had published multiple times on fashion, consumer behavior, and clothing sustainability in South Africa.

The search was limited to publications from 2012 to 2023. Selected articles were published in various journals, including the Journal of Consumer Sciences, International Journal of Consumer Studies, Journal of Fashion Marketing and Management: An International Journal, Clothing and Textiles Research Journal, Resources, Conservation & Recycling, Waste Management and the Environment. Academics across diverse South African higher education institutes, such as the University of Pretoria and the Tshwane University of Technology, carried out the reviewed works. A total of 36 publications, including articles and theses, were obtained. Generally, articles that address customer knowledge also address customer purchasing behavior. Although not a focus of this review article, behavior was one of the keywords used to search for articles. Table 1 presents four keyword criteria used during the search phase.

**Table 1: Keywords used for articles and theses searches**

<b>Population criterion</b>	<b>Clothing criterion</b>	<b>Comprehension and behavior criterion</b>	<b>Other criterion</b>
South African customers/ customers	Sustainable clothes or fashion/ Eco-clothing/ Eco-fashion/ethical fashion	Knowledge/ awareness/ perception/ understanding	Social, environmental harm/negative impact
South African fashion industry/ Textile and clothing industry	Slow fashion/ voluntary simplicity	Behavior/attitude/ habits/consumption	Sustainable clothing practices/methods
Fashion supply chain	Eco-clothing label	Motivation/ Intention	Purchase/ consumption
	Fast-fashion clothes		

## 2.3 The Appraisal Strategy

The appraisal phase consists of two steps. The first step involves including and excluding the identified articles and theses. The inclusion and exclusion step requires assessing the identified articles and theses according to the objectives of the review study (Mengist et al., 2020). The abstracts and conclusions of the selected papers were

assessed to determine their inclusion in or exclusion from the review. Although some of the titles of the articles and theses contained some of the keywords presented in Table 1, after reading the abstracts and conclusions, it was evident that some of the identified materials did not meet the scope of this study. The exclusion reasons were as follows:

- Focused on retailers and fashion industry experts.
- Customer knowledge of sustainable products that are not related to clothes.
- Customer behavior in relation to purchases and disposal.

The inclusion criteria were based on publications that addressed four keywords: knowledge, sustainability, fast-fashion clothes, and customers. After the inclusion and exclusion step, the second appraisal step involved a quality assessment of the selected publications. The quality assessment for this review paper addressed the following questions:

- Is the selected study published between 2012 and 2023?
- Does the article/thesis' title and abstract align with this review paper's objectives?
- Is the selected article published in a scientific peer-reviewed journal?
- Is the selected dissertation or thesis from an accredited higher education institution in South Africa?

Nine resources were deemed helpful for the scope of this article: four master's dissertations and five articles. Some of the abstracts of the included studies were written in Afrikaans, while the rest of the articles/theses were written in English. Table 2 presents a summary of the selected studies and their authors.

**Table 2: Selected studies**

<b>Author/s</b>	<b>Title of research</b>
Momberg, Jacobs, and Sonnenberg (2012)	The role of environmental knowledge in young female customers' evaluation and selection of apparel in South Africa
Mashinini-Langwenya (2013)	Preferences for eco-friendly fashion: A case study of customers in Tshwane University of Technology (Dissertation)
Malepa (2014)	Fashion consumption and disposal practices of South African customers and their environmental implications (Dissertation)
Dreyer, Botha, van der Merwe, le Roux, and Elli (2016)	Customers' understanding and use of textile eco-labels during pre-purchase decision making
Naidoo (2018)	South African millennials' propensity to adopt voluntary simplistic clothing purchasing and consumption choices (Dissertation)
Taljaard, Sonnenberg, and Jacobs (2018)	Factors motivating male customers' eco-friendly apparel acquisition in the South African emerging market
Moolla (2020)	South African customers' consciousness and concern about environmental and social issues in the local fashion industry when purchasing apparel (Dissertation)

Mollet-Matodzi, Mastamet-Mason, and Moodley-Diar (2022)	Influence of clothing attributes and knowledge of sustainable clothing benefits on customers' purchasing behavior South Africa
Moodly, Christie, and Strydom (2023)	Slow-fashion consumption in Johannesburg, South Africa: Perspectives from millennial customers

## 2.4 Critical Assessment Strategy

The critical assessment phase is centered on assessing the suitability of the selected article (Cronin et al., 2008) or thesis. This review study adapted the methods of Derish and Annesley (2011) and Mengist et al. (2020) to extract data, as presented in Table 3. Once the data are extracted from the selected articles, only studies with the most notable contribution should be synthesized, emphasizing the contradictions in the findings (Derish & Annesley, 2011).

**Table 3: Criteria used to extract information from selected articles**

Criterion	Justification
Type of data source	Documents with only primary sources of information from questionnaires or interviews
Aim of the study	Studies investigating customer comprehension of sustainability and fast-fashion activities in the textile and clothing industry
Key findings of the study	Description of customer comprehension to sustainability and fast-fashion activities
Conclusion	Studies providing an overall view of customer knowledge of sustainability and fast-fashion activities in the textile and clothing industry
Recommendations	Study suggestions on further advancements of customer sustainability and fast-fashion knowledge of the textile and clothing industry practices

## 2.5 Analyzing and Reporting Strategy

A narrative review report employs a nonlinear model where the findings and discussions are written before the introduction (O'Connor & Holmquist, 2009). The nonlinear model allows for the exclusion of irrelevant areas from the discussion (O'Connor & Holmquist, 2009). Analyzing and reporting on the findings require an evaluation and explanation of the critical assessment phase to accentuate the significance of the conclusion (Gasparyan et al., 2011). A narrative literature review was conducted on customers' knowledge of the socio-environmental implications of fast-fashion practices combined with customers' knowledge of sustainable fashion practices. The analysis for this article was guided by the key themes: customers' knowledge of socio-environmental impacts of fast-fashion practices, knowledge of sustainable clothing production, sustainable clothes and their benefits, the slow-fashion movement and voluntary simplicity movement, and eco-labeling. Finally, the analysis involved reviewing findings related to participants' demographic information.

### 3. Discussions

Various studies in South Africa have tended to combine customer knowledge and purchasing behavior in relation to fast fashion and sustainable fashion. Given that this is a review article, research and discussions were limited to South African customers' knowledge of fast-fashion and sustainable-clothing practices between 2012 and 2023. It was essential to synthesize South African customers' fast-fashion and sustainable fashion knowledge before synthesizing current data on customers' sustainable purchasing behavior because, for the majority of consumers, their knowledge informs their purchasing behavior (Mollet-Matodzi et al., 2022). The section below first presents findings that reported customers' knowledge of the socio-environmental harm of fast-fashion practices. Second, findings are presented based on customers' knowledge of sustainable fashion practices under four themes. Third, a discussion based on demographic information of the included studies is presented.

#### 3.1 Customers' Knowledge of the Fashion Industry's Contribution to Environmental Harm

Knowledge of the fashion industry's contribution to environmental harm may assist in knowledgeable and modified purchasing behavior among customers (Byrd & Su, 2021). This section presents the significant findings from six comprehensive studies conducted between 2012 and 2023. Although these studies focused on sustainable clothing-related matters, they also assessed aspects of customers' knowledge of fast-fashion practices and the broader fashion industry's effect on the environment, providing valuable insights for our understanding.

The first study was conducted by (Momberg et al., 2012). The study explored the impact of environmental knowledge on the evaluation and selection of apparel by young female customers in South Africa. The second study was conducted by (Mashinini-Langwenya, 2013), who explored customer awareness of what constitutes eco-fashion. The study also assessed if customers' knowledge could, in future, influence them toward sustainable buying behavior relating to the source of information for eco-fashion and knowledge about the negative effects of clothing production processes. The third study was carried out by (Malepa, 2014); it examined customers' understanding of sustainable clothing and whether their knowledge could positively influence the frequency of purchase and disposal of clothing. The fourth study was conducted by (Taljaard et al., 2018), exploring male customers' "*underlying motivation and intent to acquire apparel in an eco-friendly manner*". The fifth study (Moolla, 2020) explored South African customers' awareness of sustainable clothing production. The sixth and most recent study explored customers' awareness, perceptions, and attitudes toward slow fashion, focusing on the principles of the voluntary simplicity movement (Moodly et al., 2023).

Research by (Malepa, 2014) and (Mashinini-Langwenya, 2013) discovered that about 50% of customers are aware of several environmental issues associated with the clothing and textile industry and the adverse effects of clothing production on the environment. (Moolla, 2020) discovered that a third of customers are knowledgeable about the detrimental impact of fast-fashion clothing production and purchases on the

environment. (Momberg et al., 2012) revealed that customers are aware of environmental challenges and their consequences on society and the environment. (Taljaard et al., 2018) found that male customers possess knowledge of the negative impact of their clothing purchases. (Moodly et al., 2023) also found that customers recognize the harmful socio-environmental impact of fast-fashion manufacturing. Customers pointed out that fast-fashion production is wasteful and that its fast-paced purchases by customers are harmful (Moodly et al., 2023). The six studies have shown that South African customers are increasingly aware of the environmental harm caused by unsustainable practices in the fashion industry. Although customers are aware and their knowledge of the effects of clothing production on the environment is increasing, there are varying degrees of their knowledge.

Two studies have indicated that there is partial awareness of the environmental harm caused by the fashion industry in South Africa. The first study was conducted by (Dreyer et al., 2016), with one of the objectives being to investigate customers' environmental consciousness. The study findings indicate that South African customers have limited environmental knowledge, which does not diminish their concern about environmental well-being. The second study was conducted by (Mashinini-Langwenya, 2013). The findings point out limited environmental knowledge and a misunderstanding among customers surrounding natural fibers, with customers believing that they are entirely socio-environmentally sustainable and overlooking their potential negative impacts. This points to a broader lack of knowledge about the environmental effects of clothing and textile production, especially regarding the various types of fibers used. According to (Fletcher, 2014), there is a mistaken belief that only man-made fibers harm the environment. However, every fabric has its socio-environmental threats (Fletcher, 2014). The two studies emphasize the importance of addressing customers' misconceptions about fast-fashion practices. It is crucial to ensure that customers have the correct knowledge of the environmental effects of the fashion industry, as this can guide them toward more sustainable clothing practices.

(Mashinini-Langwenya, 2013) strongly advocates for educating customers about the harmful impact of fast-fashion clothes on the environment. This paper echoes the need for continual, in-depth education of customers on the environmental harm caused by fast-fashion clothes, from fabric manufacturing to end-of-life, to increase knowledge and rectify misconceptions. Customers must be empowered with more knowledge, as this can lead to a reduction in their fast-fashion clothing purchases, maintenance, and end-of-life practices. Furthermore, it is crucial to identify and address customers' misconceptions associated with fast-fashion practices.

### **3.2 Customers' Knowledge of Sustainable Fashion Practices**

In this section, sustainable clothing practices will be discussed by looking at sustainable clothing production, awareness of the benefits of sustainable clothes, awareness of the slow-fashion movement and voluntary simplicity movement, and eco-labeling.

### 3.2.1 Sustainable clothing production

Sustainable clothing production requires conscious socio-environmental planning and execution from fabric choice, design, and manufacturing. Three studies were reviewed related to customers' knowledge of sustainable clothing production. (Moolla, 2020) found that South African customers have a limited understanding of sustainable production and practices in the textile and clothing industry. However, customers showed a higher sense of the social aspects of sustainable production and practices than the environmental aspects (Moolla, 2020). Similarly, customers in two other studies (Momberg et al., 2012) demonstrated a lack of environmental knowledge about manufacturing methods. These findings resemble those of the study by (Papasolomou et al., 2023) conducted in Cyprus, which concluded that while customers claim to be knowledgeable about sustainability issues, they often lack a precise understanding of sustainable practices. According to (Moolla, 2020), leading retailers actively educate customers on sustainable matters in the fashion industry. The authors of this review paper recommend that the fashion industry and its stakeholders collaborate with researchers and higher education to further educate customers based on specific sustainable clothing production areas that customers have limited knowledge of and their misconceptions surrounding sustainable clothing production. Educating customers enables them to make informed decisions with their purchases.

### 3.2.2 Sustainable clothes and their benefits

Sustainable clothes are made from fabrics that minimize the use of harmful chemicals during crop cultivation and the fabric dyeing stage. They are made from recycled materials such as fabric off-cuts, reused old clothes, and recycled plastic bottles. Furthermore, their cultivation and production stages involve fair treatment and remuneration of their employees (Mollel-Matodzi et al., 2022). Three studies were reviewed in connection with customers' knowledge of sustainable clothes. Two of the studies (Dreyer et al., 2016) revealed that most customers partially comprehend sustainable clothes. (Dreyer et al., 2016) advised the fashion industry to educate customers on the environmental benefits of purchasing sustainable products. A study by (Mollel-Matodzi et al., 2022) explored how clothing knowledge about the benefits of sustainable clothes can influence the selection of these garments. The study revealed that the majority of customers' knowledge about the socio-environmental benefits of sustainable clothes is one of the factors that influenced their purchases. Between 2016 and 2021, customers have become more aware of sustainable clothes and their benefits. The acquired knowledge has positively influenced their purchasing decisions. Therefore, persistent customer education in various formats can positively impact customers' knowledge, attitudes, and purchases. However, knowledge is not the sole motivator for customer purchases (Mollel-Matodzi et al., 2022). For South African customers, sustainable clothing attributes and knowledge of their benefits were motivating factors for their purchases (Mollel-Matodzi et al., 2022). Therefore, South African fashion designers and retailers should combine increasing customers' awareness of sustainable clothes and their production with clothing design and production that aligns with customers' desired clothing attributes.

### 3.2.3 *Slow-fashion movement and voluntary simplicity movement*

The slow-fashion movement is conscious of and employs sustainable methods in producing fashionable clothes. To minimize harm, the potential socio-environmental implications of a slow-fashion garment are evaluated before production (Fletcher, 2010). The movement consists of the slow speed of the cultivation, harvesting, production, and retailing processes of the garment (Moodly et al., 2023). Therefore, slow fashion is viewed as a sustainable fashion practice.

Similar to slow fashion, voluntary simplicity is considered a sustainable fashion practice. A voluntary simplicity lifestyle concerns moderate spending, local purchasing, and pursuing sustainable lifestyle options (Taljaard & Sonnenberg, 2019). The two aspects of voluntary simplicity that relate to sustainability are material simplicity, associated with moderate spending, and socio-environmental awareness, connected with concerns for environmental well-being (Leonard-Barton, 1981). Voluntary simplicity customers do not purchase clothes that have a damaging impact on the environment but rather purchase garments made from organic fabrics and recycled fabrics, and locally manufactured garments (Shen et al., 2012). Customers who have adopted a voluntary simplicity lifestyle may buy fewer clothing items, repair or repurpose, donate, resell their clothes, and purchase sustainable clothes (Connell, 2010). Voluntary simplicity and slow fashion have similar characteristics and are, therefore, presented under one section.

There are limited studies on voluntary simplicity in South Africa. Developed countries such as United States of America and European countries have more literature on voluntary simplicity (Taljaard & Sonnenberg, 2019). Likewise, research on customers' slow-fashion knowledge and consumption is limited in South Africa. The only slow-fashion and customer knowledge-related study is that by (Moodly et al., 2023). The study investigated South African millennial customers' awareness, perception, and attitudes toward slow fashion. Other studies on slow fashion in South Africa focused on fashion designers and stakeholders.

(Moodly et al., 2023) reported that customers were increasingly aware of the detrimental effects of fast-fashion consumption on the environment and were adopting mindful consumption practices. The slow acceptance of the slow-fashion movement is attributed to two facets of knowledge. First, customers are yet to be fully informed about the impact of fast-fashion-clothing consumption which contributes to the slow adoption of slow fashion (Moodly et al., 2023). Second, there is limited knowledge of the slow-fashion movement and its associated concepts (Moodly et al., 2023). Customers view slow fashion as the inverse of fast fashion and have further indicated that slow fashion is a specialized market due to its high price and limited accessibility (Moodly et al., 2023). Given the limited knowledge of slow fashion, (Moodly et al., 2023) emphasized that educating customers about the slow-fashion movement is crucial. According to (Cavender & Lee, 2018), knowledge about sustainability positively affects customers' adoption of slow fashion.

Regarding voluntary simplicity, two studies (Naidoo, 2018) that focused on customer behavior were identified. (Naidoo, 2018) study purposed to “*identify Millennials’ propensity towards Voluntary Simplistic clothing behavioural practices*”. The study discovered that millennials had a more significant commitment to voluntary simplicity. However, the same customers had limited environmental knowledge of the consequences of their clothing purchases. (Taljaard & Sonnenberg, 2019) work investigated the influence of basic psychological needs and self-determined motivation on female customers’ voluntary simplistic clothing practices. This study did not report on customers’ knowledge about their purchasing motivation and was therefore excluded from discussions.

### 3.2.4 Eco-labeling

Clothing care labels offer complete and precise information for maintaining clothing items (Appiah & Dzramedo, 2023). Clothing care labels are a mode of communication between the manufacturer and the customer (Petrescu & Krishen, 2018). Likewise, an eco-label on a garment conveys environmentally sustainable information, empowering customers with the necessary knowledge of the product (Bratt et al., 2011). Similar to the slow-fashion movement and voluntary simplicity, research on eco-labeling sustainable clothes is limited in South Africa. One study (Dreyer et al., 2016) found that customers’ lack of understanding of eco-labeling is attributed to inadequate environmental information in the marketplace. Educating customers on the meanings of various eco-labeled symbols benefits the textile and clothing industry and consumers. First, eco-labeling education is one way of improving customers’ knowledge and care of the garment, thereby preserving the garment’s intrinsic attributes and prolonging its lifecycle. Second, an eco-label on clothing affects the customer purchasing decision (Dreyer et al., 2016).

## 3.3 Demographic-Related Discussions

The selected studies used both qualitative and quantitative methodologies. Two studies used a qualitative methodology, while seven used a quantitative methodology. The demographic criteria varied and included gender, ethnicity, and age. Table 4 presents the methodology and demographic criteria of the selected studies. The discussions below focus on prominent demographic-related findings from the nine selected studies.

### 3.3.1 Findings based on customers’ ethnicity

The Black population is the largest in South Africa (81.4%), followed by the Colored population (8.2%), the White population (7.3%), and the Asian population (2.7%). Fast-fashion and sustainable fashion studies must have a representative sample based on ethnicity population statistics (Statssa, 2023). The quantitative studies by (Dreyer et al., 2016), Mashinini-Langwenya (2013), (Naidoo, 2018), and (Taljaard et al., 2018) consisted of a diverse ethnicity representation, as seen in Table 4. Dreyer and Naidoo’s studies reported notable findings in relation to ethnicity. Dreyer’s findings in 2016 indicate that White customers were more knowledgeable about sustainable production methods than Black customers. However, Naidoo’s findings in 2018 indicate that Black customers displayed higher socio-environmental knowledge than

those of other ethnicities. Although information spread over two years can be significantly different, it should be noted that the difference in the findings between the two studies might be due to the skewed representation of Black and White participants (Table 4) in Dreyer's study. Further studies with a representative sample of Black and White customers measuring various ethnicities' knowledge of fast fashion and sustainable fashion are necessary to provide a deeper understanding of different ethnicities' knowledge of fast fashion and sustainable fashion.

**Table 4: Demographic and methodology information of selected studies**

Author/s	Methodology (sampling and data collection)	Demographic				
		Age	Gender	Ethnicity	Income	Total
Momberg, Jacobs, and Sonnenberg (2012)	Qualitative: purposive sampling, focus group	19-22 years	Female	NA	NA	29
Mashinini-Langwenya (2013)	Quantitative: systematic sampling, questionnaire	<24 (47%) 25-35 (38%) ≥36 (15%)	Female (61%) Male (39%)	Black (77%) White (12%) Other (11%)	NA	528
Malepa (2014)	Quantitative: systematic random sampling, questionnaire	<30 (84%) ≥31 (16%)	Female (62%) Male (38%)	NA	NA	318
Dreyer, Botha, van der Merwe, le Roux, and Elli (2016)	Quantitative: snowball sampling, online questionnaire	25-34 (42%) 35-44 (18%) ≥45 (32%)	Female (71%) Male (29%)	White (92%) Black (8%)	Low (38%) Middle (36%) High (29%)	232
Naidoo (2018)	Quantitative: convenience and snowball sampling, questionnaire	18-29 (56%) 30-39 (44%)	Female (56%) Male (44%)	White (46%) Black (42%) Other (12%)	Low (20%) Middle (32%) High (29%)	545
Taljaard, Sonnenberg, and Jacobs (2018)	Quantitative: purposive sampling, online questionnaires	18-24 (70%) 25-30 (17%) ≥31 (13%)	Male	White (73%) Black and other (27%)	NA	305
Moolla (2020)	Quantitative: convenience sampling, questionnaire	18-29 (30%) 30-39 (41%) ≥40 (29%)	Female (74%) Male (25%) Other (1%)	NA	Low (18%) Middle (37%) High (45%)	325
Mollel-Matodzi, Mastamet-Mason, and Moodley-Diar (2022)	Quantitative: purposive sampling, online survey	18-31 (47%) 32-44 (42%) ≥45 (11%)	Female (85%) Male (15%)	NA	NA	305

Moodly, Christie, and Strydom (2023)	Qualitative: purposive and snowball sampling, interview	Born between 1981 and 1996	Female	NA	NA	11
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### 3.3.2 Findings based on customers' gender

In South Africa, 51.5% of the population is female and 48.5% is male. Six of the selected studies included female and male participants. In five studies (as seen in Table 4), female participants outnumbered male participants by a large margin. Males are often underrepresented in social science research (Taljaard et al., 2018). Notable findings were reported by (Naidoo, 2018), who found that female customers had more knowledge of socio-environmental matters related to the voluntary simplicity movement than male customers. Other studies that included male and female customers did not focus on the statistical correlation between gender and knowledge. (Mollel-Matodzi et al., 2022) recommended recruiting male data collectors to improve the number of male participants in studies focusing on both genders. All the studies suggested a representative sample for future studies to enhance insight into customers' knowledge and behavior concerning fast-fashion and sustainable fashion practices in the textile industry. The difference between the male and female populations in South Africa highlights the importance of exploring the statistical correlation between gender and fast-fashion and sustainable fashion knowledge. Factors such as shopping psychology, attitude, and desires influence male and female customers' clothing consumption habits (Guo, 2024). Understanding knowledge levels and misconceptions in male and female consumers can guide the educational and promotional efforts of the government and the textile and clothing industry.

The two qualitative studies (Momberg et al., 2012) (Moodly et al., 2023) focused on female customers only. Results from these studies reflect female perspectives; future studies focusing on similar objectives would aid in providing a male perspective. In contrast, the study by (Taljaard et al., 2018) was the only one focusing on the male perspective, providing a much-needed perspective. There is a gender imbalance in the existing research, with a greater focus on female perspectives. The inclusion of male and female participants in six studies provides a more balanced view, but the overall representation of male perspectives remains limited. Future research should address this gap by conducting more studies focusing specifically on male customers to ensure a comprehensive understanding of both male and female perspectives.

### 3.3.3 Findings based on customers' age

A study by the Oeko-Tex Association (Europe and Japan) revealed that millennials are more informed than the older generation about the socio-environmental harm caused by the textile and clothing industry (Hahn-Petersen, 2018). In South Africa, studies by (Mashinini-Langwenya, 2013) and (Dreyer et al., 2016) reported that older consumers were more informed about the environmental harm of the fashion industry than younger consumers. However, (Mollel-Matodzi et al., 2022) discovered no significant relationship between age and knowledge of the socio-environmental benefits of sustainable clothes. This suggests that awareness of the sustainable benefits of

sustainable clothes does not follow a clear age-based trend. Therefore, the textile and clothing industry and government need broader and more inclusive approaches to target all age groups on awareness of both fast-fashion socio-environmental harm and the benefits of sustainable fashion practices.

### 3.3.4 Findings based on customers' income group

Internationally, research shows that higher income groups are more knowledgeable about eco-labeled clothing than lower income groups (Han & Han, 2017). In South Africa, a study by (Dreyer et al., 2016) revealed that the higher income group is less knowledgeable about eco-labeled clothing than the lowest income group. The contradicting findings suggest that the relationship between income and eco-labeled clothing knowledge is context-dependent and can vary significantly between countries. Following the unexpected findings between income groups and knowledge, (Naidoo, 2018) found that higher income customers have lower socio-environmental knowledge about the impact of their clothing consumption than the lower income groups. The South African findings suggest that income is not the only predictor of knowledge about sustainable clothing. Other underlying factors, such as cultural behavior, social values, and directed education, may have influenced socio-environmental knowledge among the lower income groups.

## 4. Conclusions

The findings from the reviewed studies on South African customers' understanding of fast-fashion and sustainable fashion practices in the textile and clothing industry should not be generalized, as they offer only a glimpse into customer knowledge. However, they reveal that South Africans do care about environmental well-being, though their knowledge of the socio-environmental harm caused by fast fashion is partial and often misunderstood. The studies suggest that increased customer education about these harms could foster more sustainable practices. While awareness of sustainable fashion exists in South Africa, it is limited. Researchers such as Malepa (2014) and Moodly et al. (2023) recommended efforts to raise awareness to boost consumer engagement with sustainable practices, which would support the development of a more sustainable textile and clothing industry. Further research is necessary to explore consumer misconceptions about sustainability and to use that knowledge to guide more effective educational efforts. Regarding research demographics, the studies point to challenges in representing diverse age and ethnic groups, often influenced by the researcher's location and background. Diversifying research teams and expanding data collection across South Africa's various provinces and populations, rather than focusing mainly on the Gauteng province, could offer more representative insights into the country's diverse population. This includes using electronic data collection to broaden perspectives and comprehensively understand consumer knowledge and attitudes toward fast fashion and sustainability. Empowering consumers with knowledge about the environmental and social impacts of fast fashion is critical for encouraging behavioral change. Such knowledge could influence consumers' choices regarding the garments they buy, how they maintain them, and how they dispose of them. Ongoing education should be paired with assessments of how this knowledge impacts consumption behaviors.

Lastly, the studies highlight the potential for collaboration between the government, higher education institutions, and the textile industry to support researchers through funding and manpower. This could facilitate the alignment of the textile and clothing industry with sustainable development goals and strengthen educational initiatives to promote sustainability in the sector.

## 5. References

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