

Sustainability of second-hand fashion as a business model: countervailing influence of contamination concern and cultural orientation

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Abstract

Purpose – The consumption of second-hand clothing (SHC) is an emerging business model aimed at promoting sustainability in the fashion industry. This study examines whether there are cultural differences in contamination concern, attitude, anticipated emotions and purchase intention of SHC amongst consumers from selected southern African countries.

Design/methodology/approach – A multi-cultural comparison of three samples was conducted. Data were collected from 804 SHC consumers recruited from Mozambique, South Africa and Zimbabwe using a questionnaire survey. Structural equation modelling was applied to test the posited hypotheses.

Findings – Across the three samples, health risk, product–body proximity and perceived dirtiness were found to have a significant negative impact on consumers’ attitude towards SHC. Anticipated emotions related to the consumption of SHC varied across the three samples, while thriftiness moderated the relationship between attitude towards SHC and purchase intention.

Research limitations/implications – This study relied on cross-sectional self-reported data collected using a non-probability sampling method. Future studies may consider employing more robust methods of data collection to minimise the potential of bias.

Practical implications – The results of this study implore retailers of SHC to address consumers’ contamination concerns. Instituting robust product handling standards and policies focusing on minimising product contamination at all consumer touch points should be prioritised for the sustenance of SHC as a business model.

Originality/value – This study focuses on granular dimensions of contamination concern, such as health risk, perception of dirtiness and product–body proximity, thereby offering a novel perspective to understand SHC.

Keywords Contamination concern, Consumer attitudes, Second-hand clothing, Multi-cultural comparison, Consumer purchase intention, Southern Africa

Paper type Research article

Introduction

The consumption of second-hand clothing (SHC) is an emerging business model aimed at promoting sustainability in the fashion industry (Niinimäki *et al.*, 2020; Herold and Prokop, 2023). It allows consumers to prolong the useful life of fashion in a manner that reduces waste, greenhouse gas emissions and excessive water consumption (Niinimäki *et al.*, 2020; Persson and Hinton, 2023). The global sales of SHC are projected to reach \$350bn by 2027 (Reinhart, 2023). Poshmark, Depop, Facebook Marketplace and ThredUp are some of the online platforms used to market SHC (Kim and Kim, 2022). The consumption of SHC in southern Africa, the context of this study, is an established practice which has gained momentum following the liberalisation of the textile industry in the 1980s (Brooks and Simon, 2012; Makhitha and Ngobeni, 2021). Due to its informal nature, coupled with the limited availability

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of Internet infrastructure, SHC is commonly traded in flea markets and open spaces in most southern African countries (Chipambwa *et al.*, 2016; Makhitha and Ngobeni, 2021).

Although the global consumption of SHC is projected to grow, fear of contamination and cultural sensitivities are identified as major barriers (e.g. Silva *et al.*, 2021; Kim and Kim, 2022; Calvo-Porrall and Levy-Mangin, 2024). In terms of contamination, consumers are reported to be increasingly concerned about the health risks associated with SHC which were heightened by the global COVID-19 pandemic (Persson and Hinton, 2023; Calvo-Porrall and Levy-Mangin, 2024). As a way of mitigating against the perceived health risks, the African Continental Free Trade Area proposed a ban on SHC trade (AFCFTA, 2023). Attempts to ban SHC trade were also reported in Malawi, Tanzania, Zambia and Zimbabwe with very little success (Chipambwa *et al.*, 2016). In southern Africa, Mozambique and South Africa are identified as the major sources of SHC due to their proximity to the sea ports (Manieson and Ferrero-Regis, 2023). While contamination concern was raised at regional trade platforms such as AFCFTA and the Southern African Development Community (Chipambwa *et al.*, 2016), very little is known about the extent of its perception amongst consumers. Against this background, this study employs the contamination theory to examine the impact of contamination concern on consumers' purchase intention of SHC.

The impact of contamination concern on SHC consumption has attracted significant research interest (e.g. Yan *et al.*, 2015; Parguel *et al.*, 2017; Baek and Oh, 2021; Silva *et al.*, 2021; Kim and Kim, 2022; Calvo-Porrall and Levy-Mangin, 2024). However, prior research has mainly operationalised contamination concern as a unidimensional construct with a narrow focus on hygiene. This study addresses this gap in the literature by operationalising contamination concern as a multi-dimensional construct with a focus on more granular dimensions such as perceived dirtiness, health risks and product–body contact. Moreover, the majority of studies on contamination concerns were conducted in affluent and middle-class markets with a focus on online platforms. Comparatively, very little is known about southern African consumers' perception of contamination despite being major buyers of SHC (Brooks and Simon, 2012; Manieson and Ferrero-Regis, 2023). With the exception of Chipambwa *et al.* (2016), who examined Zimbabwean consumers' SHC contamination perceptions, prior research in southern Africa (e.g. Brooks and Simon, 2012; Norup *et al.*, 2019; Manieson and Ferrero-Regis, 2023) mainly focused on the economic implications of SHC trade. This study addresses this research gap by examining SHC contamination concerns from a southern African perspective with a focus on an offline shopping context. Unlike the online context where consumers perceive a spatial and psychological distance with the product, Kim and Kim (2022) argue that the offline context has the potential to provide a nuanced understanding of the contamination phenomenon as consumers are physically exposed to contamination cues such as odour as well as visible signs of wear and tear.

It is also established in literature that sensitivity to contamination varies by culture (Gupta *et al.*, 2019; Iran *et al.*, 2019; Kim and Kim, 2022). There are major cultural differences between European consumers, where most studies on SHC contamination were conducted, and Southern African cultures. While the purchase of SHC is motivated by nostalgia and vintage-seeking behaviour in developed markets, in southern African culture, the purchase behaviour of SHC is associated with superstitious beliefs and emotional states such as disgust and social embarrassment (Chipambwa *et al.*, 2016). It is for this reason that results from studies conducted in developed countries cannot be generalised to developing countries in Africa. Given that there is a dearth of research on the association between contamination concern and culture from a southern African perspective, this study conducts a multi-cultural comparison of SHC purchase intention of Mozambique, South African and Zimbabwean consumers. The three countries' cultural diversity has the potential to provide valuable insights into the influence of culture on SHC consumption.

There is also growing empirical evidence that suggests that the motivating factors for the SHC consumption are evolving (Herjanto and Hendriana, 2020; Wang *et al.*, 2022). Although thriftiness is regarded as a primary driver for the consumption of SHC among low-income

consumers, other factors, such as environmental concern, are also identified as potential drivers (Wang *et al.*, 2022). This study, therefore, examines the potential role of thriftiness and environmental concern on SHC purchase intention. With the primary objective of addressing the limited literature on the impact of contamination concern on consumers' purchase intention of SHC in southern Africa, this study sets out to address the following research questions:

- RQ1. What is the impact of contamination concern dimensions such as perceived dirtiness, health risks and product–body contact on consumers' attitude towards SHC?
- RQ2. To what extent do anticipated emotional states of disgust and social embarrassment influence consumers' attitudes towards SHC?
- RQ3. Do environmental concern and thriftiness moderate the relationship between consumers' attitude towards SHC and purchase intention?
- RQ4. Do Mozambican, Zimbabwean and South African consumers vary in terms of contamination concern, anticipated emotions, attitude towards SHC and purchase intention?

The practice of buying SHC has been characterised as complex and dynamic (Borusiak *et al.*, 2021; Wang *et al.*, 2022). This study contributes to the evolving literature on SHC by examining the impact of granular dimensions of contamination concern, such as health risk, perception of dirtiness and product–body proximity on attitude towards SHC. By conducting a multi-cultural comparison, this study also aims to empower retailers of SHC to develop effective marketing strategies.

Literature review

Contamination concern as an SHC consumption barrier

SHC consumption involves the purchase and utilisation of fashion items that were previously owned but still in a functional state (Niinimäki *et al.*, 2020). It is regarded as a collaborative fashion consumption practice which promotes the optimal utilisation of fashion items (Park and Armstrong, 2017; Fanning *et al.*, 2022). The consumption of SHC is regarded as a sustainability practice as it reduces excessive use of water, fabrics and energy associated with the production of new fashion (Fanning *et al.*, 2022). By promoting the longevity of fashion items, SHC consumption also improves consumer well-being through the process of dematerialisation (Yeganeh, 2021). SHC is also perceived as an affordable alternative for consumers with low disposable income (Kim and Jin, 2020; Baek and Oh, 2021). Corporate-owned (B2C) and consumer-owned (C2C) are the main types of business models that promote SHC (Kim and Kim, 2022). This study focuses on the B2C business model whereby retailers sell SHC to individual consumers. Treasure hunting, nostalgic motives, thriftiness and environmental concern are identified as the main motivating factors for SHC consumption (Shirvanimoghaddam *et al.*, 2020; Kim and Kim, 2022).

The potential of SHC as a business model is, however, threatened by the prevalence of several barriers such as perception of poor quality, concern about unfashionability, social embarrassment, disgust and contamination concern (Baek and Oh, 2021; Koay *et al.*, 2024). Among these barriers, fear of contamination is identified as a major concern to consumers (Kim and Jin, 2020; Hazee and Vaerenbergh, 2021; Kim and Kim, 2022). Previous research (e.g. Kim and Kim, 2022; Calvo-Porräl and Levy-Mangin, 2024; Koay *et al.*, 2024) revealed that consumers perceive SHC as dirty and unhygienic. These perceptions, according to Calvo-Porräl and Levy-Mangin (2024), have the effect of stimulating negative attitudes towards SHC. Consumers' perception of contamination gains theoretical support from the contamination theory, which posits that consumers negatively evaluate a product following its physical contact with previous users or with prospective users at the point of sale (Argo *et al.*, 2006).

The contamination theory posits that consumers evaluate products that have been worn or perceived to be touched by other potential buyers less favourably (Argo *et al.*, 2006). Contamination theory is relevant to this study because SHC is susceptible to contact by former users and prospective buyers (Hazee and Vaerenbergh, 2021; Koay *et al.*, 2024). It is also important to note that consumers' sensitivity to contamination varies depending on the degree of touch on a low-contact and high-contact continuum (Kirk and Rifkin, 2020; Kim and Kim, 2022). This study focuses on both low-body contact and high-body contact SHC. The contamination theory (Argo *et al.*, 2006) also speculates on the likelihood of positive contamination that emanates from the symbolic meaning associated with the source of the product. For example, SHC items associated with celebrities are often assigned a higher value. This study focuses on SHC sourced from anonymous sources; hence, the possibility of positive contamination is not considered in this study. Moreover, consumers' sensitivity to contamination was also found to be influenced by culture (Gupta *et al.*, 2019; Kim and Kim, 2022). Thus, this study also examines whether consumers' perception of contamination and purchase intention of SHC is influenced by culture.

Multi-cultural comparison of SHC consumption

Prior research revealed that the purchase behaviour of SHC is significantly influenced by culture (Iran *et al.*, 2019; Gupta *et al.*, 2019; Kim and Kim, 2022). From a cultural perspective, fashion consumption is regarded as an embodiment of customs, symbols, beliefs and values (Gupta *et al.*, 2019; Iran *et al.*, 2019). Mozambicans, South Africans and Zimbabweans are identified as major consumers of SHC in southern Africa. The consumption of SHC in these three countries has grown rapidly (Manieson and Ferrero-Regis, 2023), yet they also differ significantly in their national culture (Chipambwa *et al.*, 2016). South Africa has a mosaic culture with a conflation of a high contact-avoidant orientation (Duarte *et al.*, 2018; Shimul *et al.*, 2022). In contrast, Mozambique and Zimbabwean cultures are characterised as high contact and sharing of clothes is an established practice (Brooks and Simon, 2012; Chipambwa *et al.*, 2016). Owing to its status as the major source of SHC, the consumption of SHC is more entrenched as a shared culture in Mozambique as compared to other southern African countries (Norup *et al.*, 2019). South Africa is more developed, and it has a standing policy against counterfeit SHC, which is regularly enforced (Shimul *et al.*, 2022). It is also making strides to formalise the marketing of SHC as indicated by the growth of thrift shops (Brand *et al.*, 2023). In contrast, informal channels such as flea markets and open spaces are mainly used as SHC selling points in Mozambique and Zimbabwe (Brooks and Simon, 2012; Chipambwa *et al.*, 2016). Thus, it is of interest to this study to examine whether Mozambican, Zimbabwean and South African consumers vary in terms of contamination concern, anticipated emotions, attitude towards SHC and purchase intention.

Hypotheses development

The primary objective central to this study was whether contamination concern, anticipated emotions, consumer attitude and SHC purchase intention vary by culture. To address this objective, the hypotheses were tested using data drawn from three southern African countries: Mozambique, South Africa and Zimbabwe.

Dimensions of contamination concern and attitude towards SHC

In this study, contamination concern was operationalised as a multi-dimensional construct encompassing more granular dimensions such as perceived dirtiness, health risk and product-body proximity. Traditionally, SHC traded in developing countries is perceived to be soiled, unhygienic and associated with the stigma of dirtiness (Brooks and Simon, 2012; Chipambwa *et al.*, 2016; Manieson and Ferrero-Regis, 2023). The tag of dirtiness attached to SHC was found to trigger negative consumer attitudes towards SHC, which impede purchase

behaviour (Park and Armstrong, 2019; Kim and Kim, 2022). Lack of transparency on handling procedures and hygiene standards instituted by SHC retailers is identified as the key driver of consumers' perception of dirtiness (Chipambwa *et al.*, 2016; Hazee *et al.*, 2019). As noted by Chipambwa *et al.* (2016) as well as Manieson and Ferrero-Regis (2023), the common practice of heaping together all types of second-hand clothes on market stalls in countries such as Zimbabwe and Mozambique increases the perception of dirtiness. SHC trade in South Africa is more organised, as shown by the growth in popularity of thrift shops (Brand *et al.*, 2023). The prevalence of contamination cues such as unpleasant odours, visible marks of tear and untidy shops increases the salience of dirtiness (Mukendi and Henninger, 2020). Previous studies found that when consumers perceive that SHC is dirty, they feel grossed out and develop a negative attitude (Kirk and Rifkin, 2020; Kim and Kim, 2022). Drawing from the foregoing insights, we predict, with the aim of comparing the influence of perceived dirtiness on consumer attitude towards SHC across the three samples, that:

H1. Perceived dirtiness negatively influences consumer attitude towards SHC.

Health risk is also identified as one of the major barriers that constrain SHC purchase behaviour (Edbring *et al.*, 2016; Baek and Oh, 2021). Health risk, which is also known as sanitary risk (Silva *et al.*, 2021), captures the degree to which consumers perceive that the purchase of SHC threatens their health (Kim and Kim, 2022). Prior research (Bloomfield *et al.*, 2011; Rulikova, 2020) notes the ability of SHC to harbour disease-causing viruses and bacteria for a prolonged time. Of great concern is that the use of SHC is associated with the transmission of diseases such as hepatitis and candidiasis (Bloomfield *et al.*, 2011). Recently, the health risk associated with SHC was heightened by the COVID-19 pandemic (Baek and Oh, 2021). In China, companies such as Ycloset discontinued collaborative fashion consumption services after the COVID-19 pandemic due to health risk concerns (Baek and Oh, 2021). Although Wang *et al.* (2022) observe that some retailers seek to reduce the health risk by cleaning SHC using strong detergents, it is not known whether this approach engenders positive attitudes among consumers. Previous research (e.g. Chipambwa *et al.*, 2016; Rulikova, 2020; Kim and Kim, 2022) identified health risk as a major driver of consumers' negative attitude towards SHC. Consistent with prior research, the following hypothesis is posited with the objective of comparing the three samples under study:

H2. Health risk negatively influences consumer attitude towards SHC.

The contamination theory posits that fear of infection is more pronounced for items that have had closer contact with the bodies of former users (Argo *et al.*, 2006). The susceptibility of consumers to contamination is higher in southern Africa, where the sale of used undergarments is a common practice (Chipambwa *et al.*, 2016). The use of second-hand undergarments is linked to the transfer of toxic residue and skin infectious diseases such as ringworm and scabies, among others (Bloomfield *et al.*, 2011; Kim and Jin, 2020). Government efforts to ban the sale of used undergarments were largely unsuccessful in southern African countries such as Zimbabwe due to poor law enforcement (Chipambwa *et al.*, 2016). Previous research (Hazee *et al.*, 2019; Baek and Oh, 2021; Kim and Jin, 2020) reports that consumers evaluate SHC with direct contact to the body more unfavourably as compared to those with less proximity to the body. Consistent with prior research, the following hypothesis is posited with the aim of comparing the influence of product-body contact on consumer attitude towards SHC across the three samples under study:

H3. Product-body proximity negatively influences consumer attitude towards SHC.

Anticipated emotions and attitude towards SHC

The contamination theory posits that the perception of product contamination elicits feelings of disgust among consumers (Argo *et al.*, 2006). In the context of SHC, unpleasant odours and

visible marks of tears are identified as the main cues that evoke feelings of disgust (Clube and Tennant, 2020; Baek and Oh, 2021). Feelings of disgust were found to have a long-term influence on how consumers evaluate products that are perceived to be contaminated (Argo *et al.*, 2006). It is also important to consider insights from another stream of research (e.g. Perry and Chung, 2016) that associate the consumption of SHC with feelings of excitement and fun. Additionally, consumers' emotional responses to SHC were also found to be influenced by the degree of sensitivity to contamination (Murray and Schaller, 2016). Although it is clear that disgust adversely influences consumer attitudes towards products that are perceived to be contaminated, its prevalence in the context of this study is still unclear. In order to compare the prevalence of the feeling of disgust across the three samples, the following hypothesis is therefore proposed:

H4. Disgust negatively influences consumer attitude towards SHC.

When consumers buy SHC in developing economies, they often bear the emotional burden of being associated with the stigma of poverty and low socio-economic status (Chipambwa *et al.*, 2016; Becker-Leifhold and Iran, 2018; Silva *et al.*, 2021). In particular, a study by Becker-Leifhold and Iran (2018) revealed that consumers experience a sense of anxiety as they fear judgment from peers. As a result, "face" consciousness consumers were reported to be reluctant to buy SHC as a way of preserving their self-image, dignity and social status (Tarai and Shailaja, 2020; Silva *et al.*, 2021). However, Wang *et al.* (2022) also note that the consumption behaviour of SHC is evolving. Consumers from affluent backgrounds are now reported to be prioritising the purchase of SHC for hedonic gain or as a way of supporting the environmental sustainability agenda (Herjanto and Hendriana, 2020; Wang *et al.*, 2022). Acknowledging the change in consumer perceptions, Wang *et al.* (2022) found that consumers are perceiving the consumption of SHC as a contemporary fashion consumption culture. In the context of developing economies, it is, however, not clear whether perceptions associated with the consumption of SHC are also evolving. It is therefore hypothesised that:

H5. Social embarrassment negatively influences consumer attitude towards SHC.

Motivations of SHC purchase intention

The global demand for SHC is projected to grow in the aftermath of the COVID-19 pandemic (Kim and Kim, 2022; Reinhart, 2023). This suggests that consumers still exhibit favourable attitudes towards SHC despite the prevalence of contamination concerns. In developing economies, SHC is perceived as embodying attributes of high quality which entice consumers to develop favourable purchase intention (Chipambwa *et al.*, 2016). Consumers' purchase intention of SHC was also found to be influenced by the level of environmental concern (Kim and Kim, 2022). The transition towards circular economies is particularly credited for elevating the importance of SHC as a business model (Kim and Kim, 2022). Prior research (Hazee *et al.*, 2019; Kirk and Rifkin, 2020) found that environmental concern has a positive influence on SHC purchase behaviour. However, in southern Africa, Muposhi and Mugwati (2024) note that poverty, unemployment and inequality remain the major challenges. Thus, the extent to which environmental concern influences the purchase intention of SHC remains unknown.

The consumption of SHC is also motivated by the desire for affordability and cost savings (Becker-Leifhold and Iran, 2018; Borusiak *et al.*, 2021; Wang *et al.*, 2022). It is for these reasons that thriftiness is identified as one of the motivating factors for SHC (Haines and Lee, 2022). Thriftiness is a personality trait that predisposes consumers to prefer to buy low-priced products or delay consumption as a cost-saving measure (Becker-Leifhold and Iran, 2018). Thriftiness was found to have a positive impact on sustainable fashion consumption practices such as fashion rental and SHC (Haines and Lee, 2022). However, the inferiority tag attached to SHC has the potential to discourage purchase behaviour even from thrift consumers (Jaikumar *et al.*, 2018). A study by Jaikumar *et al.* (2018) revealed that not all consumers from low-income markets are enticed by the desire to save. In fact, cost-saving conscious consumers

were also found to be more inclined to buy expensive apparel as a way of creating a pseudo-social status. Drawing from the foregoing discussion, the following hypotheses are compared across the three samples:

- H6. Attitude towards SHC influences consumer purchase intention.
- H7. Environmental concern moderates the relationship between attitude and SHC purchase intention.
- H8. Thriftiness moderates the relationship between attitude and SHC purchase intention.

Consistent with the posited hypotheses, perceived dirtiness, health risk and product–body proximity are identified as contamination concern dimensions which are predicted to influence consumer attitudes towards SHC. Moreover, disgust and social embarrassment are anticipated emotions expected to have an impact on attitude towards SHC. Lastly, environmental concern and thriftiness are predicted to moderate the relationship between attitude and SHC purchase intention. The conceptual model is shown in [Figure 1](#).

Materials and methods

Research approach

A quantitative approach was utilised to test the relationships between study constructs as hypothesised in the conceptual model. To conduct a multi-cultural comparison, samples from three southern African countries- Mozambique, South Africa and Zimbabwe were selected. These three countries were selected because they differ in terms of cultural orientation and economic development. The three countries were considered for this study because the consumption of SHC is ubiquitous ([Chipambwa et al., 2016](#); [Manieson and Ferrero-Regis, 2023](#); [Brand et al., 2023](#)). Further, the selected countries are also susceptible to climate change-induced droughts and floods. Thus, it was also of interest to this study to examine whether environmental concern influences the consumption of SHC.

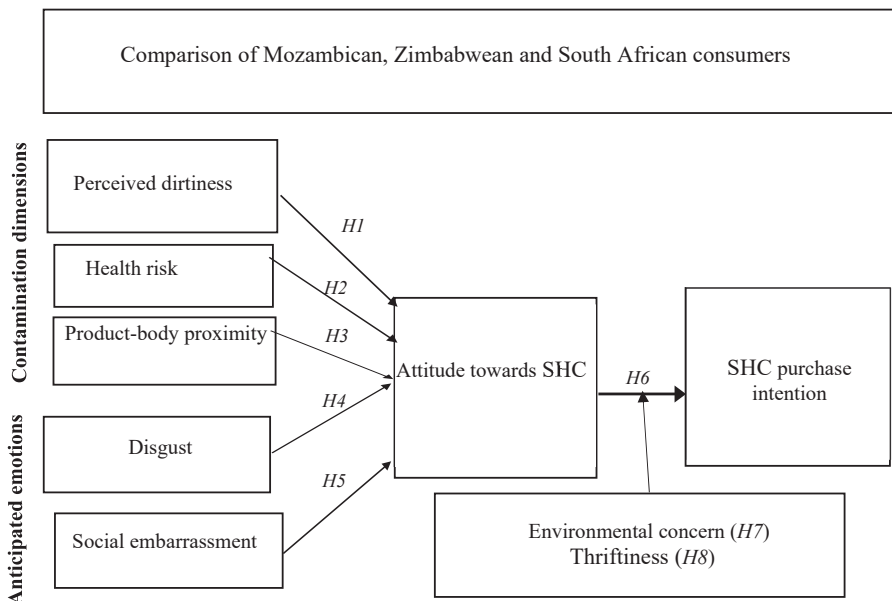


Figure 1. Conceptual model. **Source:** Authors' own work

Measurement scales

A self-administered, structured questionnaire was used to collect survey data. The questionnaire was developed in English using validated scales that were adapted from previous studies on SHC. A 4-item scale developed by [Kim and Kim \(2022\)](#) was used to measure perceived dirtiness. Social embarrassment was measured using a 4-item scale that was adapted from [Wang et al. \(2022\)](#). A 4-item scale developed by [Silva et al. \(2021\)](#) was used to measure health risk. To measure attitude towards SHC, a 5-point semantic differential scale adapted from [Baek and Oh \(2021\)](#) was used. Disgust was operationalised using a 4-item semantic differential scale that was developed by [Wang et al. \(2022\)](#). A 4-item scale developed by [Brand et al. \(2023\)](#) was used to measure environmental concern.

A 4-item scale adapted from [Seo and Kim \(2019\)](#) was used to measure thriftiness. Product-body proximity was measured using a 3-item scale, which was adapted from [Hazee et al. \(2019\)](#). To measure SHC purchase intention, a 4-item scale adapted by [Kim and Jin \(2020\)](#) was utilised. With the exception of attitude and disgust, which were measured using a semantic differential scale, all other variables were measured using a five-point Likert scale anchored by 1 (strongly disagree) and 5 (strongly agree). Prior to the main survey, the questionnaire was pre-tested with 60 respondents, 20 from each country (Mozambique, South Africa and Zimbabwe). The questionnaire items are provided in the [Appendix](#).

Sampling and data collection

To ensure sample equivalence for multi-cultural comparison, quota sampling was used to select respondents. Following this approach, the questionnaire was physically administered to consumers of SHC who were 18 years of age and above. Ethical clearance was granted by the University of the Witwatersrand's School of Business Sciences Ethics Committee (CBUSE2108). Permission to collect data was granted by the owners of retail stalls selling SHC. With the assistance of representatives of retailers of SHC, data was collected for a period of five months from February to June 2024. Participation was voluntary and no incentives were offered. At the end of the data collection period, the data cleaning process resulted in 804 useable responses, which translated to 268 respondents for each country.

Data analyses

The IBM-SPSS and AMOS versions 25 were used to analyse survey data. This study was guided by the proposition that the purchase intention of SHC could be examined using three competing models that show consumer differences in cultural orientation and contamination concern. Consistent with this proposition, data analysis followed a 3-staged process. The first stage involved determining the sample profile, establishing of data normality and common method bias assessment. The second stage involved the validation of the measurement models. The last stage involved testing posited hypotheses.

Results*Sample profile*

A total of 804 responses were valid for analysis. Consistent with quota sampling and the objective of conducting a multi-cultural comparison, the sample size was equal for the three participating countries. [Table 1](#) shows the characteristics of respondents for each sample.

Data normality, common method variance and collinearity assessment

Prior to assessment of the measurement models, data normality, common method variance (CMV) and multicollinearity were assessed. The data were split into three samples (Mozambique, South Africa and Zimbabwe). The Kolmogorov-Smirnov (K-S) and Shapiro-Wilk (S-W) tests were conducted to assess the distribution of data. The K-S and

Table 1. Sample profile

Demographic variables		Mozambique Sample (<i>n</i> = 268)		South Africa Sample (<i>n</i> = 268)		Zimbabwe Sample (<i>n</i> = 268)	
		<i>N</i>	%	<i>N</i>	%	<i>n</i>	%
Gender	Male	123	46	102	38	113	42
	Female	145	54	166	62	155	58
Age	18–35 yrs	122	46	138	52	143	53
	36–50 yrs	101	38	86	32	102	38
	51–69 yrs	38	14	44	16	20	8
	70 yrs +	6	2	–	–	3	1
Ethnicity	Black Africans	240	90	233	87	259	97
	Asian	18	7	32	12	9	3
	Other	10	3	3	1	–	–
Education level	High school	164	61	185	69	174	65
	Diploma	66	25	63	24	88	33
	Degree	38	14	20	7	6	2
Household monthly income (US\$)	Less than 999	111	41	101	38	183	68
	1,000–1,999	97	36	81	30	65	24
	2,000–2,999	40	15	54	20	20	8
	More than 3,000	20	8	32	12	–	–

Source(s): Authors' own work

S–W results for the three samples were all statistically insignificant ($p > 0.05$), which is an indication that the data were normally distributed (Hair *et al.*, 2019). The Harman’s single-factor test was computed to check the possible effect of CMV. The un-rotated exploratory factor analyses resulted in total explained variances of 36.3% (Mozambique), 38.1% (South Africa) and 40.3% (Zimbabwe), which were below the acceptable cut-off point of 50% (Podsakoff *et al.*, 2012). This shows that CMV was not a problem in this study. Multicollinearity was assessed by inspecting the tolerance value and variance inflation factor. The three samples returned tolerance values above 0.1 and variance inflation factors below 5, which shows that multicollinearity was not an issue in this study (Hair *et al.*, 2019).

Assessment of measurement models

Confirmatory factor analysis was employed to test the measurement models representing the three samples (Mozambique, South Africa and Zimbabwe). One item from the thriftiness scale and two items from the product–body proximity scale were dropped for low standardised factor loadings. The fitness of the measurement models was confirmed with all goodness-of-fit indices above the recommended thresholds. Table 2 provides the goodness-of-fit indices.

Next, the reliability and convergent validity of measurement scales were assessed. As shown in Table 3, reliability of the measurement scales was evident as Cronbach’s alpha and composite reliability values were all above the acceptable threshold of 0.7 (Hair *et al.*, 2019). Convergent validity was also confirmed as all factor loadings for scale items surpassed the approved threshold of 0.5 (Fornell and Larcker, 1981). Table 3 provides the reliability and convergent validity indicators.

Additionally, as shown in Table 4, discriminant validity was confirmed as the square root of the AVE values (in italic) exceeded the highest correlation coefficient (Fornell and Larcker, 1981). Table 4 provides the inter-construct correlation matrix and the square root of the AVE values.

Hypotheses testing results

Consistent with the objective of conducting a multi-country comparison, three structural models representing the Mozambican, South African and Zimbabwean samples were tested. Posited hypotheses were tested using covariance-based structural equation modelling employing the maximum likelihood estimation method. Prior to hypotheses testing, the fitness of the structural models was confirmed as all indices surpassed the recommended thresholds. Table 5 provides the results of structural model fit assessment and hypotheses testing.

Moderation analyses results

The regression-based method proposed by Hayes (2018) was applied to test whether environmental concern and thriftiness moderate the relationship between attitude towards

Table 2. Goodness-of-fit indices

Goodness-of-fit statistics	Acceptable threshold	Mozambique sample	South African sample	Zimbabwe sample
CMIN/df	≤3	2.603	2.660	2.582
GFI	≥0.800	0.863	0.824	0.854
TLI	≥0.900	0.951	0.956	0.966
CFI	≥0.900	0.950	0.957	0.963
IFI	≥0.900	0.930	0.923	0.943
NFI	≥0.900	0.928	0.934	0.936
RMSEA	≤0.080	0.059	0.068	0.050

Source(s): Authors’ own work

Table 3. Reliability and convergent validity indicators

Constructs	Mozambique sample				South African sample				Zimbabwe sample			
	λ	CA	CR	AVE	λ	CA	CR	AVE	λ	CA	CR	AVE
Perceived dirtiness	0.901	0.950	0.952	0.82	0.899	0.938	0.940	0.81	0.897	0.942	0.941	0.81
	0.903				0.900				0.896			
	0.905				0.898				0.899			
	0.904				0.902				0.898			
Social embarrassment	0.812	0.852	0.850	0.59	0.818	0.889	0.890	0.66	0.816	0.888	0.890	0.67
	0.815				0.812				0.814			
	0.725				0.820				0.818			
	0.720				0.800				0.820			
Health risk	0.860	0.922	0.920	0.74	0.890	0.941	0.940	0.79	0.870	0.928	0.930	0.77
	0.863				0.892				0.876			
	0.861				0.880				0.880			
	0.865				0.886				0.882			
Attitude towards second-hand fashion	0.839	0.918	0.922	0.71	0.838	0.919	0.920	0.71	0.850	0.932	0.930	0.72
	0.840				0.842				0.853			
	0.841				0.843				0.848			
	0.836				0.846				0.849			
Disgust	0.843	0.938	0.932	0.76	0.845	0.940	0.940	0.80	0.853	0.948	0.950	0.79
	0.894				0.901				0.890			
	0.872				0.890				0.892			
	0.866				0.900				0.903			
Environmental concern	0.855	0.873	0.860	0.61	0.888	0.868	0.870	0.62	0.905	0.882	0.880	0.65
	0.783				0.800				0.800			
	0.786				0.803				0.803			
	0.789				0.805				0.805			
	0.771				0.806				0.806			
	0.804				0.815				0.815			
	0.805				0.820				0.820			
	0.807				0.808				0.808			
	0.806				0.810				0.809			
					0.809				0.812			

(continued)

Table 3. Continued

Constructs	Mozambique sample				South African sample				Zimbabwe sample			
	λ	CA	CR	AVE	λ	CA	CR	AVE	λ	CA	CR	AVE
Thriftiness	0.902	0.928	0.930	0.81	0.896	0.922	0.920	0.801	0.890	0.932	0.930	0.76
	0.899				0.888				0.892			
	0.903				0.900				0.893			
Product-body proximity	0.780	0.888	0.890	0.62	0.800	0.900	0.901	0.640	0.802	0.898	0.901	0.65
	0.786				0.801				0.803			
	0.788				0.803				0.801			
	0.800				0.798				0.805			
	0.789				0.799				0.806			
Consumer purchase intention	0.840	0.928	0.910	0.71	0.842	0.908	0.910	0.721	0.843	0.909	0.910	0.72
	0.847				0.850				0.845			
	0.836				0.848				0.850			
	0.851				0.847				0.846			

Source(s): Authors' own work

Table 4. Correlation matrix and discriminant validity

Construct	PD	HR	PBP	DG	SE	FG	EC	NC	AT	CPI
<i>Mozambique sample</i>										
PD	0.906									
HC	0.409**	0.768								
PBP	0.406**	0.388**	0.860							
DG	0.301**	0.255**	0.402**	0.843						
SE	0.348**	0.247**	0.302**	0.667**	0.872					
TH	0.202*	0.088	0.036	0.040	0.021	0.781				
EC	0.080	0.075	0.060	0.197**	0.084	0.122*	0.806			
AT	-0.432**	-0.310**	0.112*	0.475**	0.416**	0.516**	0.124**	0.485**	0.787	
CPI	0.232**	0.205**	-0.300**	0.462**	0.403**	0.504**	0.267**	0.469**	0.461**	0.843
<i>South African sample</i>										
PD	0.900									
HC	0.508**	0.812								
PBP	0.512**	0.486**	0.889							
DG	0.402**	0.346**	0.413**	0.843						
SE	0.418**	0.346**	0.504**	0.688**	0.894					
TH	0.303*	0.084	0.048	0.060	0.033	0.787				
EC	0.080	0.086	0.080	0.206**	0.094	0.104*	0.806			
AT	-0.383**	-0.482**	-0.673	-0.506**	0.506**	0.603**	0.334**	0.285**	0.800	
CPI	-0.536**	-0.504**	-0.480**	-0.662**	0.313**	0.104*	0.568**	0.118*	0.562**	0.849
<i>Zimbabwe sample</i>										
PD	0.900									
HC	0.412**	0.819								
PBP	0.403**	0.409**	0.875							
DG	0.504**	0.283**	0.503**	0.849						
SE	0.444**	0.348**	0.288**	0.560**	0.889					
TH	0.303*	0.076	0.058	0.083	0.039	0.806				
EC	0.040	0.084	0.043	0.206**	0.095	0.131*	0.812			
AT	0.301**	0.382**	0.252**	0.573**	0.517**	0.616**	0.102**	0.503**	0.806	
CPI	0.138*	0.304**	0.368**	0.568**	0.560**	0.601**	0.463**	0.504**	0.663**	0.849

Note(s): **Correlation is significant at the 0.01 level (2-tailed)

*Correlation is significant at the 0.05 level (2-tailed). PD = perceived dirtiness; HR = health risk; PBP = product body proximity; DG = disgust; SE = social embarrassment; EC = environmental concern; TH = Thriftiness; AT = attitude towards second-hand fashion; CPI = consumer purchase intention

Source(s): Authors' own work

Table 5. Hypotheses testing results

Hypothesis	Path	Estimate	C.R.	P	Decision
<i>Model 1: Mozambique sample</i>					
H1	Perceived dirtiness → attitude towards second-hand clothing	-0.283	-6.232	***	Supported
H2	Health risk → attitude towards second-hand clothing	-0.401	-8.530	***	Supported
H3	Product body proximity → attitude towards second-hand clothing	-0.393	-8.431	***	Supported
H4	Disgust → attitude towards second-hand clothing	0.294	4.964	***	Not supported
H5	Social embarrassment → attitude towards second-hand clothing	0.223	3.210	***	Not supported
H6	Attitude towards second-hand clothing → consumer purchase intention	0.362	3.540	***	Supported
X2/df = 2.63; CFI = 0.943; TLI = 0.938; GFI = 0.880; RMSEA = 0.503; ***p < 0.001					
<i>Model 2: South African sample</i>					
H1	Perceived dirtiness → attitude towards second-hand clothing	-0.283	-6.232	***	Supported
H2	Health risk → attitude towards second-hand clothing	-0.401	-8.530	***	Supported
H3	Product body proximity → attitude towards second-hand clothing	-0.369	-7.774	***	Supported
H4	Disgust → attitude towards second-hand clothing	-0.428	-7.823	***	Supported
H5	Social embarrassment → attitude towards second-hand clothing	-0.209	-4.064	***	Supported
H6	Attitude towards second-hand clothing → consumer purchase intention	0.069	2.774	***	Supported
X2/df = 2.54; CFI = 0.950; TLI = 0.948; GFI = 0.896; RMSEA = 0.523; ***p < 0.001					
<i>Model 3: Zimbabwe sample</i>					
H1	Perceived dirtiness → attitude towards second-hand clothing	-0.380	-6.330	***	Supported
H2	Health risk → attitude towards second-hand clothing	-0.502	-8.660	***	Supported
H3	Product body proximity → attitude towards second-hand clothing	-0.490	-8.530	***	Supported
H4	Disgust → attitude towards second-hand clothing	0.378	8.696	***	Not supported
H5	Social embarrassment → attitude towards second-hand clothing	0.448	10.290	***	Not supported
H6	Attitude towards second-hand clothing → consumer purchase intention	0.344	8.348	***	Supported
X2/df = 2.542; CFI = 0.922; TLI = 0.926; GFI = 0.897; RMSEA = 0.583; ***p < 0.001					
Source(s): Authors' own work					

SHC and purchase intention. Moderation was tested using the regression equation: $Y = \alpha + \beta_1X + \beta_2M + \beta_3XM + e_1$ Where α = intercept; β (1, 2, 3) = regression coefficients; X = Independent variable (Attitude towards SHC); M = moderators (environmental concern, thriftiness); Y = Dependent variable (purchase intention); e_1 = standard error. Table 6 provides results of the moderation analyses.

As shown in Table 6, an inspection of the p-values shows that, across the three samples, thriftiness was found to have a moderating effect on the relationship between attitude towards SHC and purchase intention. The moderating effect of environmental concern on SHC purchase intention was only confirmed for the South African sample.

Table 6. Moderation analyses results

Constant	Coefficient effect	T	P	LLCI	ULCI	
<i>Model 1: Mozambique sample</i>						
Environmental concern	6.2350	139.984	0.0000	4.4322	3.8340	
Thriftiness	0.1823	2.350	0.0553	0.0312	0.1680	
Purchase intention	0.2840	3.8240	0.0020	0.0438	0.5670	
Environmental concern (Interaction effect)	0.8910	12.8302	0.0000	0.6733	0.6820	
Thriftiness (Interaction effect)	0.0048	0.2522	0.0610	0.0318	0.0483	No moderating effect
Thriftiness (Interaction effect)	0.0198	0.3532	0.0010	0.0450	0.0680	Moderating effect
<i>Model 2: South African sample</i>						
Environmental concern	6.2021	140.984	0.0000	3.5300	4.9350	
Thriftiness	0.3228	3.640	0.0022	0.0453	0.4612	
Purchase intention	0.3890	4.6242	0.0012	0.0563	0.6861	
Environmental concern (Interaction effect)	0.9930	12.8304	0.0000	0.8832	0.8900	
Thriftiness (Interaction effect)	0.1348	0.3432	0.0110	0.0590	0.0593	Moderating effect
Thriftiness (Interaction effect)	0.1296	0.4532	0.0012	0.0486	0.0580	Moderating effect
<i>Model 3: Zimbabwe sample</i>						
Environmental concern	5.2042	138.984	0.0000	3.2100	3.4250	
Thriftiness	0.2228	2.640	0.0622	0.0356	0.2603	
Purchase intention	0.6853	4.6242	0.0002	0.0568	0.5140	
Environmental concern (Interaction effect)	0.8926	11.6230	0.0000	0.8638	0.8820	
Thriftiness (Interaction effect)	0.0052	0.2420	0.0632	0.0406	0.366	No moderating effect
Thriftiness (Interaction effect)	0.1394	0.4630	0.0002	0.0449	0.0543	Moderating effect

Source(s): Authors' own work

Discussion of results

In support of [H1](#), [H2](#) and [H3](#), the results revealed the prevalence of contamination concerns among SHC consumers across the three samples. Health risk emerged as the major factor that negatively influenced consumers' towards SHC, followed by product–body proximity and perceived dirtiness. These results are consistent with previous research ([Chipambwa et al., 2016](#); [Manieson and Ferrero-Regis, 2023](#)) that found that health risks and poor hygienic standards are the major barriers that inhibit SHC consumption. [Manieson and Ferrero-Regis \(2023\)](#) attribute the perceived health risks to the informal conditions in which SHC is traded. [Chipambwa et al. \(2016\)](#) note that the illicit sourcing and trading of SHC in southern Africa complicates efforts to track the hygienic standards implemented in the supply chain. The negative influence of product–body proximity on consumers' attitude towards SHC is not surprising, given that [AfCFTA \(2023\)](#) recently warned about the health risks associated with the sale of second-hand undergarments. [Chipambwa et al. \(2016\)](#) also report that the trading of second-hand undergarments is regarded as a taboo in African culture. Overall, these results suggest that contamination concern threatens the sustainability of SHC as a business model.

Contrary to our expectations, disgust and social embarrassment were found to positively influence attitude towards SHC for the Mozambican and Zimbabwean consumers, while their influence on South African consumers was negative. The results for the Mozambican and Zimbabwean samples find support from previous research ([Murray and Schaller, 2016](#); [Becker-Leifhold and Iran, 2018](#); [Lang and Zhang, 2019](#)), where the consumption of SHC was found to elicit favourable emotions. For example, [Becker-Leifhold and Iran's \(2018\)](#) study revealed that consumers regard SHC shopping as a treasure-hunting activity in which the excitement of getting the best bargain dampens any potential feelings of disgust. This result

suggests the market acceptance of SHC amongst Mozambican and Zimbabwean consumers. The normalisation of SHC has the potential to stimulate the mainstream cultural shift in the consumption of SHC across other southern African countries. Conversely, consistent with prior research (Rulikova, 2020; Silva *et al.*, 2021), South Africa's status as one of the major economies in Africa may explain why consumers perceive social stigma when buying SHC.

In support of H6, for the three samples, consumers' attitude towards SHC was found to have a positive impact on purchase intention. This result suggests that, despite the prevalence of contamination concerns, consumers still evaluate SHC favourably. This finding aligns with prior research (White *et al.*, 2016; Laitala and Klepp, 2018; Lang and Joyner-Armstrong, 2018) that reveals that perceptions of quality and durability drive positive attitudes towards SHC. In the context of southern Africa, this finding implies that the fear of contamination is not strong enough to stimulate unfavourable attitudes towards SHC. The prevalence of favourable attitudes is encouraging for SHC retailers and proponents of the collaborative fashion consumption because it points to the potential of second-hand fashion as a business model.

With the exception of the South African sample, there was no evidence to support the proposition that environmental concern moderates the relationship between attitude towards SHC and purchase intention. This result is not consistent with prior research, which identifies environmental concern as one of the moderating factors of SHC purchase behaviour (Hazeel *et al.*, 2019; Kirk and Rifkin, 2020). A recent study in southern Africa by Muposhi and Mugwati (2024) may provide a possible explanation to this result. The study particularly notes that poverty, unemployment and inequality remain the grand challenges confronting African economies. Thus, the goal of attaining environmental sustainability in the fashion industry may not be regarded as a priority. In support of H8, across the three samples, thriftiness was found to moderate the relationship between attitude towards SHC and purchase intention. This result, which aligns with prior research (Chipambwa *et al.*, 2016; Becker-Leifhold and Iran, 2018), confirms that the purchase intention of SHC is driven by cost savings.

Theoretical contributions

This study offers three significant contributions to SHC literature. First, in contrast to prior research that focused on generic contamination concerns such as hygiene and familiarity with former users (Baek and Oh, 2021; Kim and Kim, 2022), this study focuses on more granular constructs such as perceived dirtiness, health risk and product–body proximity. This study enriches literature by identifying perceived dirtiness, health risk and product–body proximity as additional antecedents of contamination concern. Moreover, by examining the role of product–body proximity, this study contributes to the literature by highlighting that the degree of contamination concern is also significantly influenced by the product category.

Second, the study revealed important emotional factors that may be used to mitigate contamination concerns and advance the consumption of SHC as a circular economy practice. Specifically, this study established that emotional states such as disgust and social embarrassment are not linked to negative attitudes towards SHC. This study, therefore, contributes to the literature by underscoring the salience of emotional states in influencing favourable attitudes towards SHC consumption in southern Africa. Drawing from this finding, marketers may leverage this valuable insight by utilising emotional states such as pride, contentment among others, to promote a circular economy and combat contamination perceptions.

Lastly, as a multi-cultural study, this study contributes to the understanding of contamination concerns in multi-cultural contexts. The results of this study show how consumers from different countries (e.g. Mozambique, South Africa and Zimbabwe) respond to the threat of SHC contamination. Until now, there has been a dearth of multi-cultural research on SHC in southern Africa. Thus, this study further contributes to the literature by offering a nuanced understanding of the interplay of contamination concern, anticipated emotions, culture and SHC purchase intention.

Managerial implications

This study provides four important implications for retailers of SHC and policymakers in southern Africa. Firstly, the results of this study revealed that fear of contamination is a major concern for consumers of SHC. Health risk, product-body proximity and perceived dirtiness emerged as factors that influence consumers' negative attitudes towards SHC across all three samples. These challenges are mainly attributed to the unregulated nature of SHC trade (Chipambwa *et al.*, 2016). While it is difficult to ban SHC trade because it is now an entrenched practice in southern Africa (AfCFTA, 2023), this study underscores the need for policymakers to improve the monitoring of the health standards of retailers of SHC. To address the perception of dirtiness, policymakers may formalise SHC trade by building formal markets similar to thrift shops that are used in developed markets. To address health risks associated with SHC that comes to the skin, a targeted ban may be instituted as opposed to an outright ban of all product categories. Policymakers may also utilise the rich African traditional culture that associates the use of second-hand undergarments with superstitious beliefs to develop messages that discourage the purchase of such products.

Secondly, the results of this study challenge retailers of SHC to develop marketing strategies to address the perception of contamination. Possible strategies for retailers of SHC may include the development of a clear policy that outlines the health standards and guidelines on how incidents of contamination are managed. A commitment to hygiene standards and guarantees that SHC items are thoroughly cleaned and disinfected has the potential to engender trust and allay contamination concerns.

Thirdly, by revealing that the consumption of SHC is not associated with feelings of disgust and is not perceived as a form of social embarrassment, this study confirmed the market potential of SHC as a business model in developing economies. This result capacitates retailers of SHC to use positive emotional states such as pride, contentment and the virtue of sharing to promote the mainstream consumption of SHC. This may be done by positioning the consumption of SHC as a communal and normative practice premised on promoting a sharing economy and environmental sustainability.

Lastly, environmental concern was found to have an insignificant impact on the SHC purchase intention of Mozambican and Zimbabwean consumers. This result points to the prevalence of the attitude-behaviour gap in SHC consumption. This result suggests the need for SHC retailers to continuously search for strategies to promote SHC consumption. To achieve this, Kim and Kim (2022) recommend the use of sustainability-oriented messages that emphasise the benefits of SHC consumption and nudges to incentivise purchase behaviour.

Limitations and further research

This study utilised quantitative data to address the research objectives. Whilst this approach is regarded as more objective, future studies may employ a mixed-method approach in order to gain qualitative insights that may influence the consumption of SHC. Moreover, this study focused on SHC consumption as one form of sustainable fashion consumption. In order to have a detailed understanding of the contamination concern, future studies may focus on other forms of sustainable fashion consumption, such as fashion rental services. For example, a study on fashion rental services on digital platforms is more likely to yield more valuable insights. Lastly, this study relied on cross-sectional self-reported data collected using a non-probability sampling method, which is prone to the possibility of over-reporting or under-reporting. Thus, future studies may consider employing more robust methods of data collection to minimise the potential of bias.

Conclusion

This study examined the sustainability of SHC as a business model with a focus on understanding the influence of contamination, environmental concern, cultural sensitivity,

consumer attitude to purchase intention. Fear of contamination emerged as a major concern for consumers of SHC. Health risk, product–body proximity and perceived dirtiness were reported across all the samples. Disgust and social embarrassment were found to positively influence attitude towards SHC for the Mozambican and Zimbabwean consumers, while their influence on South African consumers was negative. Across the three samples, thriftiness moderated the relationship between attitude towards SHC and purchase intention. Instituting robust product handling standards focusing on minimising product contamination at all consumer touch points is critical. Classifying fashion products based on their degree of sensitivity to contamination, profiling consumers based on their income level and culture is recommended. Improvement of hygienic standards and engendering consumer trust should be prioritised for the sustenance of SHC as a business model.

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Appendix

Table A1. Measurement scales and sources

Construct	Scale items	Sources
Perceived dirtiness	I think wearing second-hand clothes would make me sick I think second-hand clothes are dirty I think second-hand clothes are filthy Second-hand clothes are soiled	Kim and Kim (2022)
Social embarrassment	I associate poverty with the purchase of second-hand fashion Purchasing second-hand fashion is only for lower-income persons I am worried about what other people will think of me if I purchase second-hand fashion I will not feel comfortable wearing second-hand fashion in public	Wang <i>et al.</i> (2022)
Disgust	Pleasing/annoying Pleasant/unpleasant Delightful/disturbing Comforting/unsettling	Brand <i>et al.</i> (2023)
Health risk	I have concerns about health risks when I purchase second-hand fashion I will not feel comfortable using products that have been previously used by others There is a possibility of getting skin diseases through second-hand fashion Second-hand fashion is more likely to carry germs	Sliva <i>et al.</i> (2021)
Attitude towards second-hand fashion	I found second-hand fashion: unfavourable/favourable I found second-hand fashion: bad – good I found second-hand fashion: unattractive – attractive I found second-hand fashion: dislikeable – likable I found second-hand fashion: negative – positive	Baek and Oh (2021)
Environmental concern	Second-hand fashion is an environmentally-friendly way of consuming clothing Second-hand fashion helps to save the earth’s natural resources Second-hand fashion is an environmentally sustainable way of living To protect the environment, I choose to purchase second-hand clothes	Brand <i>et al.</i> (2023)

(continued)

Table A1. Continued

Construct	Scale items	Sources
Consumer purchase intention	I have the intention to increase second-hand clothing consumption in the near future I expect to purchase second-hand products online in the future It is likely that I will purchase second-hand fashion in the future I will buy a second-hand fashion item the next time	Kim and Jin (2020)
Thriftness	The low price of SHC motivates me to buy I prefer to buy SHC because they are cheaper than new ones Paying less is the main purpose I buy SHC Even at a lower price, I would not buy SHC instead of new ones	Seo and Kim (2019)
Product–body proximity	The degree of body contact does not affect my SHC purchase decision I avoid buying SHC with direct skin contact I prefer to buy SHC with a minimum level of skin contact	Hazee <i>et al.</i> (2019)

Source(s): Authors' own work

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