

Dr. Róbert Sándor Szűcs¹ – Dr. Kata Földi²

Second-hand Clothes and Sustainability: A Literature Review

SUMMARY

Our literature review explores the growing intersection of second-hand clothing and sustainability, examining how consumer behaviour, market dynamics, and environmental considerations shape the second-hand apparel market. Amid rising concerns about the fashion industry's environmental impact, second-hand clothing has emerged as a sustainable alternative, promoting circular economy principles and extending garment lifecycles. This review synthesizes research on consumer motivations, including cost, unique style acquisition, and ethical considerations that drive the second-hand clothing market. It also discusses the environmental benefits, such as reduced resource consumption and waste, highlighting the role of second-hand clothing in achieving Sustainable Development Goals. Economic analyses reveal a booming market that challenges traditional retail and reshapes global trade flows. At the same time, social and policy dimensions emphasize the need for strategies that foster broader acceptance and integration of second-hand clothing into mainstream consumer behaviour.

Keywords: second-hand clothing, sustainability, consumer behavior, circular economy, fashion industry, environmental impact, sustainable development goals

JEL codes: Q56, Q53

INTRODUCTION

Second-hand clothing has emerged as a significant component of sustainable fashion in recent years, driven by growing consumer interest in circular economy practices and ethical consumption. The second-hand concept indicates a recent growing trend in clothing, leading to growing numbers of second-hand shops and developments of new second-hand retail forms. Results show a high potential for the second-hand market due to consumers' increasing interest in buying second-hand products (Strähle & Klatt, 2017). The global second-hand apparel market is expanding rapidly – one estimate projects it will reach about \$84 billion by 2030 (Cavazos-Arroyo & Zapata-Sánchez, 2025), outpacing the growth of fast fashion in some regions. This trend reflects the appeal of second-hand clothes as a way to extend product lifecycles and reduce waste from the fashion industry. Researchers note that second-hand clothing contributes to Sustainable Development Goal 12 (Responsible Consumption and Production) by keeping garments in use longer and “democratizing” fashion access while reducing environmental and economic costs (Koay et al. 2024). In contrast to linear “take-make-dispose” models, second-hand

clothing markets offer a circular economy alternative to cope with excessive consumption and lessen the environmental impact of fashion (Pereira et al., 2023). This literature review synthesizes findings from studies on second-hand clothes and sustainability. Key themes include consumer behaviour and motivations for buying second-hand apparel, the environmental impacts of second-hand consumption, the economic aspects of the second-hand clothing market, and the policy and social implications of second-hand clothing for sustainability. Together, these studies provide a comprehensive view of how second-hand fashion influences – and is influenced by – sustainable consumption patterns.

CONSUMER BEHAVIOR AND MOTIVATIONS FOR SECOND-HAND CLOTHING

Why do consumers buy second-hand clothes? Research consistently shows a mix of practical, hedonic, and ethical motivations and some persistent barriers. Major drivers that encourage consumers to purchase second-hand fashion include:

Affordability and value for money: The low price of used clothing is a primary attraction across demographics. Buyers often seek financial savings and budget-friendly fashion choices. For example, a study in Japan found that “financial advantages” were the top motivation for second-hand purchases, even above environmental reasons (Chen & Tabata, 2024). Similarly, young consumers (Generation Z) appreciate that second-hand stores offer affordable prices compared to new retail (Cavazos-Arroyo & Zapata-Sánchez, 2025). In a study of Mexican millennials, perceived economic benefits significantly increased the perceived value of second-hand apparel, boosting trust and recommendations to others. Second-hand shopping thus allows fashion consumption at a fraction of the cost, appealing to price-conscious individuals (Pereira et al., 2023; Cavazos-Arroyo & Zapata-Sánchez, 2025).

Unique style and treasure-hunting thrill: Many consumers are motivated by the desire for unique, one-of-a-kind items that second-hand shops provide. Thrifting can be a “treasure hunt” – offering styles or vintage pieces not found in mainstream stores. Laitala and Klepp (2018) identified uniqueness and originality as key motivators for second-hand clothing acquisition (Laitala & Klepp, 2018). In Colombia, Pereira et al. (2023) found a segment of consumers “passionate about design” drawn to second-hand markets for the thrill of finding fashionable pieces and creative self-expression (Pereira et al., 2023). Studies show that younger generations especially value the hedonic enjoyment of thrifting; in China, the cohort born in the 1990s perceived significantly higher hedonic value and enjoyment in second-hand shopping than older cohorts (Liang

¹ Associate Professor, University of Debrecen, szucs.robert.sandor@econ.unideb.hu

² Associate Professor, University of Debrecen, foldi.kata@econ.unideb.hu

& Xu, 2018; Koay et al., 2024). Likewise, an Indonesian study noted that seemingly counterintuitive factors like shopping for fun (hedonism) can positively predict second-hand purchase intentions (Syahrivar et al., 2023). The “fashionable styles” available in thrift stores are a significant draw, often allowing consumers to develop a unique personal style (Koay et al., 2024; Percira et al., 2023).

Environmental and ethical considerations: Buying second-hand is often considered a pro-environmental choice, part of a “mindful consumption” lifestyle (Zahid et al., 2023). Ethically minded consumers view thrift shopping as a way to reduce waste and resource use by extending the life of garments. Studies using the Theory of Planned Behavior show that personal norms and values matter: one found that a stronger sense of moral obligation (e.g. feeling that not buying second-hand would be “wrong”) correlates with a higher intention to purchase used clothing (Koay et al., 2024). Mindfulness and sustainability consciousness are significant drivers as well – Zahid et al. (2023) observed that “mindful consumption” has a strong positive effect on second-hand purchase intention, meaning consumers who carefully consider the societal and environmental impacts of their shopping are more inclined to buy used goods (Zahid et al., 2023). Moreover, this effect can be indirectly reinforced by ego-involvement and social norms: mindful consumers often become personally invested (ego-involved) in sustainable fashion and influence or take cues from peers, further boosting second-hand buying (Zahid et al., 2023). During the COVID-19 pandemic, environmental awareness became an even stronger motivator for second-hand purchases in Brazil as consumers grew more conscious of sustainability issues (Galante Amaral & Spers, 2022). The COVID-19 pandemic, lockdowns and social distancing have completely changed consumption and shopping habits (Vida – Popovics, 2021), purchasing online food, clothing, and technical items became an almost daily routine (Vida – Popovics, 2020). Overall, many shoppers view second-hand clothing as ethical consumption, aligning their purchases with values like reuse, charity, and lower carbon footprints (Sepe et al., 2025). However, it is worth noting that not all environmentally concerned consumers embrace second-hand – one study in Indonesia unexpectedly found great “ecological concern” individuals were less likely to buy second-hand, possibly due to scepticism about its impact or hygiene (Syahrivar et al., 2023). This suggests that while environmental motives are frequently cited, their influence can depend on context and personal beliefs.

Social influence and norms: The decision to buy second-hand is often social. Normative factors – what friends, family, and society deem acceptable – play a significant role. If second-hand shopping is normalized within one's peer group or culture, individuals are more likely to participate. For instance, Zahid et al. (2023) demonstrated that perceived social norms strongly and positively affect young consumers' intentions to buy used clothes. In their model, social norms had an even larger effect size than some personal factors, indicating that seeing second-hand as a widespread or approved behaviour encourages adoption (Zahid et al., 2023). Koay et al. (2024) similarly found that injunctive norms (perceived approval from others) significantly drive second-hand purchase behaviour (Koay et al.,

2024). These findings align with cross-cultural observations: in countries (or subcultures) where wearing second-hand carries less stigma and is relatively common, consumers feel more comfortable buying used garments (Xu et al., 2014). Social media and influencers have further helped remove the “uncool” image of thrifting by showcasing thrift hauls and vintage fashions, creating positive peer influence. Additionally, ego involvement – how much personal identity is tied to second-hand consumption – can mediate these effects. When consumers take pride in being a “thrifter” or sustainable fashion advocate, that self-concept can reinforce their buying habits (Zahid et al., 2023). Consumers may also face barriers and hesitations about second-hand clothing despite these motivations. Common concerns that discourage some people from buying used apparel include:

Hygiene and quality concerns: The worry that pre-owned clothes are unclean or carry “contamination” from previous users remains a significant barrier, especially in cultures where second-hand goods historically carry a stigma of uncleanness (Koay et al., 2024). Participants in multiple studies express fear of germs, dirt, or odours in used clothes (Laitala & Klepp, 2018; Diddi et al., 2019). Syahrivar et al. (2023) note that “scepticism in the form of hygienic concern” may lead some eco-conscious Indonesian consumers to avoid second-hand purchases (Syahrivar et al., 2023). Similarly, prejudice against used garments as dirty was identified as an influential factor in Brazil (Amaral & Spers, 2022). Even though many second-hand retailers rigorously clean and curate items, this perceived hygiene risk can deter buyers. However, interestingly, a study of Generation Z consumers in Mexico found that while perceived benefits boosted value perceptions, perceived risks (like hygiene) did not significantly reduce perceived value (Cavazos-Arroyo & Zapata-Sánchez, 2025) – suggesting younger consumers may be less swayed by cleanliness concerns, or that the benefits outweighed the risks in their eyes. Practical quality issues (wear and tear, sizing availability) are related concerns. Shoppers might be put off if second-hand items are damaged or sizing is inconsistent. Ensuring a pleasant shopping environment and product quality control can mitigate these worries.

Social stigma and status anxiety: Traditionally, second-hand clothing was associated with poverty or charity, carrying a stigma of “wearing someone's old clothes”. This social discomfort is a well-documented deterrent, especially in societies where status and image are strongly linked to new, branded goods. “One of the major reasons consumers choose not to buy second-hand clothing is social discomfort”, as Laitala and Klepp (2018) observed, stemming from the perception that used clothes signal lower social status or financial hardship (Laitala & Klepp, 2018; Koay et al., 2024). Cultural studies in various countries echo this: in many places, used garments have been considered suitable only for impoverished groups, not for wealthier consumers (Valor et al., 2022). Syahrivar et al. (2023) recount how, in Indonesia, the consumerist norm equated new clothing with upper-class status, while second-hand apparel was seen as something lower-class individuals resort to, leading mainstream shoppers to avoid it (Syahrivar et al., 2023). Such stigma is deeply rooted in some older generations and cultures – Xu et al. (2014) found Chinese consumers held more

negative perceptions of second-hand than Americans, partly due to different cultural attitudes (e.g. concerns about wearing strangers' belongings). Fear of judgment ("What will people think if I wear thrifted clothes?") can thus inhibit potential buyers. However, this stigma is not universal: it tends to be absent in markets where used fashion is reframed as "vintage" or trendy or when the items are luxury/branded second-hand goods (Valor et al., 2022). For example, Valor et al. (2022) note that the stigma does not carry over to vintage boutiques or up-scale resale platforms, which have successfully cultivated an incredible, premium image around pre-owned fashion. This indicates that stigma can be overcome by repositioning and changing social narratives.

Brand attachment and availability: Some consumers remain attached to buying new, branded clothing and are reluctant to switch to second-hand if it means not getting the latest collection or a pristine store experience. In Brazil, Galante Amaral and Spers (2022) found that "brand awareness" was negatively correlated with second-hand purchase intention, and this effect intensified during the pandemic (Xu et al., 2014). Those who prioritize owning current styles from favourite brands might perceive second-hand as undesirable due to limited selection or older stock. There is also a practical concern: the "chances are very low of finding" a specific branded item in one's size/colour in a thrift setting. Thus, highly brand-conscious shoppers often prefer to buy new, and this mindset can be a hurdle for the second-hand market. On the other hand, some studies suggest that fashion-conscious individuals are coming around if second-hand options include popular brands or if being seen as sustainably stylish confers its prestige (Galante Amaral & Spers, 2022).

Given these mixed factors, consumer behaviour toward second-hand apparel can differ widely by segment. Research in Romania by Corbos et al. (2023) underscores that distinct consumer segments exist within the second-hand market, each with its profile of motivations and barriers. Their market segmentation analysis found variations by age, income, purchase frequency, preferred channel, and reasons for choosing second-hand (Corbos et al., 2023). For instance, younger and lower-income consumers are generally more likely to shop second-hand (Corbos et al., 2023), often driven by budget and trendiness. In contrast, older or higher-income groups may require different value propositions (e.g. emphasis on sustainability or vintage quality) to participate. Not all second-hand consumers are motivated solely by bargains and eco-concern – different segments place different weight on factors like uniqueness, nostalgia, and social impact (Corbos et al., 2023). These insights highlight the importance of tailored strategies: what convinces a fashion-savvy Generation Z to thrift (e.g. desire for unique style and sustainability) might differ from what appeals to a middle-aged shopper (e.g. nostalgia or charitable causes). Marketers and advocates of sustainable fashion need to address both the intrinsic motivations (saving money, finding cool clothes, doing good for the planet) and the inhibitions (concerns about cleanliness or image) to broaden the adoption of second-hand clothing across consumer segments.

Notably, studies also show ways to mitigate some barriers. For example, improving the retail experience of second-hand stores can alleviate stigma and hygienic concerns. De Groot et

al. (2022) demonstrated a simple but powerful intervention: introducing a fresh laundry scent in thrift stores. In their field experiment, a store infused with a clean "just washed" smell saw customers spend significantly more money compared to a no-scent condition (de Groot et al., 2022). The fresh laundry odour made second-hand items "smell like non-used clothing", boosting the perceived utilitarian value of the products (de Groot et al., 2022). This finding confirms that atmospherics and presentation can influence second-hand purchase behaviour – by simulating the sensory cues of new clothes (pleasant scent, neat display), stores can reduce the psychological difference between new and used, easing customer apprehension. Likewise, framing and education can combat stigma: when second-hand fashion is portrayed as stylish, chic, and socially responsible (for instance, through media coverage or influencers emphasizing that thrifted outfits can be fashionable and "cool"), it builds what Valor et al. (2022) call "relational legitimacy" for second-hand clothing (Valor et al., 2022). The more second-hand aligns with consumers' desired identity and status – e.g. being seen as eco-conscious or uniquely fashionable – the more it will be embraced. In summary, consumer research paints an encouraging picture: if the motivations are amplified and the barriers are addressed, many more people will consider second-hand clothes. Initiatives highlighting the fun, cost savings, and sustainability of thrifting while assuring cleanliness and pride (not shame) in wearing used items are key to expanding this market.

ENVIRONMENTAL IMPACTS OF SECOND-HAND CLOTHING CONSUMPTION

One of the strongest arguments for promoting second-hand clothing is its environmental benefit. Extending the usable life of garments through resale or donation can significantly reduce the fashion industry's resource consumption and pollution. By reusing existing clothes instead of manufacturing new ones, fewer raw materials are needed, and less waste is generated. Several studies in this review quantify or elaborate on these environmental impacts:

Reduction in carbon and resource footprint: Second-hand purchases directly offset some demand for new clothing production, leading to savings in water, energy, and carbon emissions. Chen and Tabata (2024) conducted an environmental impact assessment. They found that, in a Japanese context, buying a second-hand shirt resulted in an emission saving of about 6.7 kg CO₂ compared to buying a new shirt (Chen & Tabata, 2024). Specifically, a new cotton shirt was estimated to produce about 9.23 kg CO₂ in production and distribution. However, obtaining it second-hand avoids most of that, yielding a much lower carbon cost (only the minor emissions from transport or refurbishing the used shirt). This kind of life-cycle carbon reduction underscores how scaling up second-hand consumption can help cut the fashion sector's enormous carbon footprint. On a larger scale, the cumulative resource use per wear drops substantially if garments are reused multiple times. Several authors describe second-hand clothing as a form of "carbon mitigation" strategy for consumers – each thrifted purchase is one less newly manufactured item, meaning savings in water usage, chemical dyes, and textile waste (Laitala & Klepp, 2018; Brooks, 2013). Second-hand trade is often cited in sustainabil-

ity reports as a key means to improve the circularity of fashion and reduce landfill pressure.

Waste diversion and extended lifecycles: Second-hand markets give clothes “second opportunities” (Pereira et al., 2023) and even third or fourth lives, delaying their journey to landfills or incinerators. This is crucial because textile waste is a growing environmental crisis – millions of tons of clothing are discarded yearly. By reselling or donating garments, their useful life is prolonged, directly reducing waste. Pereira et al. (2023) emphasize that the second-hand clothing market is an important “circular economy alternative to deal with excessive consumption” and reduce environmental impact (Pereira et al., 2023). Instead of a linear path from factory to consumer to trash, a circular approach keeps clothing in use through resale, swapping, or recycling. Even if a used garment eventually gets recycled into rags or fibre fill, having served additional owners first means fewer total pieces need to be produced and disposed of in the same period. Lin et al. (2020) address this from a systems perspective: they developed an optimization model for sorting and remanufacturing second-hand clothes to maximize reuse rates and minimize waste (Lin et al., 2020). Their study notes that in current practice, only about 50% of collected second-hand clothes are reused as wearable clothing, with a portion downcycled or discarded (Lin et al., 2020). By improving sorting (e.g. categorizing by material and condition for best reuse outcomes), even more garments could be kept in circulation (Lin et al., 2020). This indicates that beyond consumer behaviour, there are logistical environmental gains to be had by refining how second-hand textiles are processed, ensuring that each item finds its optimal subsequent use. Szentesi et al. (2024) explain that logistics is now a competitiveness factor in corporate processes, so it must keep up with sustainability, reducing the pressure on the environment. Ultimately, every shirt or dress used is one less item requiring new cotton, new dyeing, and eventually adding to the waste. Second-hand consumption thus directly supports waste reduction and resource conservation goals.

Lower pollution and water use: The production of new textiles (mainly cotton and synthetics) is resource-intensive and polluting – involving water-intensive farming, chemical dyeing, and energy-intensive manufacturing. Buying second-hand circumvents these processes. For example, the water footprint of a cotton t-shirt is enormous (hundreds of litres); by choosing a preloved t-shirt, a consumer indirectly saves that water. While the studies here focus more on carbon and waste, they implicitly highlight these ancillary benefits. Chen and Tabata’s work ties into this by also examining consumer laundry habits’ impact on CO₂ emissions during the use phase (Chen & Tabata, 2020). They revealed that how second-hand consumers care for their clothes (e.g. washing in cold water, line-drying) can further affect the overall environmental impact. Although laundering affects both new and used clothes, it’s a reminder that the sustainable impact of clothing is maximized when both production and use-phase impacts are managed. A second-hand garment that is also cared for in an eco-friendly way compounds the sustainability gains.

Overall, research strongly supports that second-hand clothing has a net positive environmental effect by reducing the

need for new production and delaying end-of-life disposal. However, it is also noted that the magnitude of the benefit can depend on consumer behaviour. For instance, Syahrivar et al. (2023) raise an interesting point: if second-hand shopping becomes another form of excess consumption (driven by hedonism), its environmental benefit could be diluted (Syahrivar et al., 2023). In their Indonesian study, they found hedonistic motives increased second-hand buying, which led them to question whether buying more clothes (even used ones) “motivated by hedonism” truly advances the “noble goal” of solving environmental problems (Syahrivar et al., 2023). The implication is that reuse alone is not a panacea if it encourages over-consumption. The ideal scenario is where second-hand replaces primary consumption rather than adding to it. Encouragingly, evidence suggests many consumers use second-hand as a substitute for fast fashion purchases, not merely an addition (mainly when budgets are limited or when one is motivated by waste reduction). Another nuance is the perception of impact – Syahrivar et al. noted that some consumers with high ecological values did not view second-hand as sufficiently impactful, which hints at the need for education that buying used makes a difference in aggregate (Syahrivar et al., 2023).

In summary, the environmental case for second-hand clothing is robust. By keeping clothing in use and out of landfills, second-hand consumption curbs the pollution, carbon emissions, and resource depletion associated with the fashion lifecycle. It aligns with broader efforts toward sustainable production and consumption, and many governments and organizations view it as a key strategy to reduce the fashion industry’s environmental footprint. The research here provides tangible evidence (CO₂ savings, reuse rates) to support the intuitive idea that “the greenest garment is one that already exists”. Still, realizing the full environmental benefits depends on broad consumer adoption and integrating second-hand practices into the mainstream fashion system, which ties into the economic and social dimensions discussed next.

ECONOMIC ASPECTS OF THE SECOND-HAND CLOTHING MARKET

The rise of second-hand clothing is not only an environmental or ethical phenomenon but also reshaping the economics of fashion retail. The second-hand market has become a significant industry in its own right, with complex global supply chains and evolving business models. Several key economic aspects emerge from the literature:

Market growth and value: As mentioned, the second-hand apparel market is growing exponentially, projected to reach tens of billions of dollars globally within a few years (Cavazos-Arroyo & Zapata-Sánchez, 2025). Cavazos-Arroyo & Zapata-Sánchez (2025) note that this “growing global industry” is fueled by both consumer demand and entrepreneurial activity (Cavazos-Arroyo & Zapata-Sánchez, 2025). In Latin America, for example, Brazil and Mexico have become leading markets for second-hand clothes, with consumption in Mexico growing five times faster than the overall apparel sector from 2016 to 2021 (Cavazos-Arroyo & Zapata-Sánchez, 2025). Such growth reflects a combination of factors: economic necessity during recessions, increased supply due to fast fashion’s overproduction (creating abundant lightly used clothing), and the digital faciliti-

tation of resale. Indeed, economic downturns tend to boost second-hand sales as consumers look for cheaper alternatives. In Brazil, the prolonged recession of the mid-2010s and the shock of COVID-19 led to an increase in second-hand consumption “due to the economic crisis in the country” as people’s budgets tightened (Galante Amaral & Spers, 2022). Thus, second-hand retail can be somewhat counter-cyclical, providing affordable clothing when consumers have less to spend on new goods. At the same time, during periods of economic prosperity, second-hand might grow for different reasons (e.g. as a trendy or eco-friendly choice rather than pure necessity). Either way, second-hand fashion claims a larger share of the overall clothing market, challenging traditional retail in some segments.

Global trade networks: The second-hand clothing trade operates globally, moving vast volumes of used garments from high-consumption countries to regions with demand for low-cost clothing. Brooks (2013) describes how charities or recyclers collect used clothing from places like the US and UK and then export to markets in Africa, South Asia, and elsewhere, creating “global production networks” that stretch the lifecycle of garments beyond national boundaries (Brooks, 2013). For example, a donated shirt in London might be sold by market traders in Maputo, Mozambique (Brooks, 2013). This international second-hand trade supplies affordable apparel to developing countries, often at prices far below new imports, thereby supporting local micro-businesses and consumers with limited incomes. However, it raises economic and policy questions: Are these imports undermining local textile industries? Brooks (2013) suggests that while second-hand imports can provide cheap clothes and entrepreneurial opportunities in recipient countries, they may also “stretch” and reshape local production networks, sometimes outcompeting domestic manufacturing if not managed (Brooks, 2013). This has led some governments to regulate or ban used clothing imports. For instance, Indonesia has sometimes banned imported second-hand clothing due to concerns about hygiene and protecting local producers (Syahrivar et al., 2023). Similarly, several East African countries debated bans to protect their nascent textile industries. This highlights a tension: second-hand trade is economically beneficial in providing low-cost goods and reducing waste globally, but it can conflict with development goals in the garment sector. From a sustainable development perspective, policies must balance these factors – harnessing the benefits of reuse and thrift commerce while fostering local economic activity.

Business models and retail formats: The second-hand clothing market encompasses diverse business models – from non-profit charity shops and church bazaars to for-profit consignment boutiques, flea markets, pawn shops, and increasingly, online platforms and peer-to-peer apps. Gopalakrishnan and Matthews (2018) analyze second-hand fashion through the lens of collaborative consumption business models, noting that this sector has spawned a variety of approaches to capture value from used goods (Gopalakrishnan & Matthews, 2018). They highlight models like thrift stores (often run by non-profits reselling donated clothes), consignment stores (which split profits with the original owner), and online peer-to-peer marketplaces (e.g. eBay, Vinted, Depop) that directly connect

individual sellers and buyers of used apparel. These models exemplify the principles of the sharing economy in fashion, where consumers act as both suppliers and buyers of goods (Valor et al., 2022). Expanding these models transforms retail: consumers are not just passive buyers but also “offerers”, donating or selling their unwanted garments to circulate them back into the market (Valor et al., 2022). This two-sided nature of the market is a defining economic feature – supply relies on consumer willingness to part with clothes, and demand relies on others’ willingness to purchase second-hand. According to Gopalakrishnan & Matthews, many second-hand ventures also innovate in creating and delivering value (e.g., some up-scale resale stores curate high-quality designer second-hand pieces, essentially creating a new luxury segment of pre-owned goods). The proliferation of online resale platforms in the last decade has mainly fueled market growth by widening the reach of second-hand transactions beyond local communities. Kiriş (2024) points out that as second-hand sales move online, the quality of digital platforms (website user experience, trust features, payment security) becomes crucial. Using multi-criteria decision methods, Kiriş evaluated second-hand clothing e-commerce sites, reflecting the need for robust online infrastructure to support this industry. The finding was that website quality and reliability can significantly impact consumer trust and participation in the second-hand market (Kiriş, 2024). In short, the second-hand clothing market is professionalizing and diversifying, now encompassing everything from giant international wholesale brokers shipping bales of clothing to sleek mobile apps where teenagers resell clothes from their closets.

Consumer segmentation and marketing strategies: Economically, understanding who the second-hand customer is has implications for market strategy. As noted earlier, Corbos et al. (2023) identified distinct market segments among second-hand consumers and suggested that customized strategies are needed to target each segment effectively (Corbos et al., 2023). For example, one segment might consist of young students drawn by low prices – they could be reached with marketing emphasizing thrift and fabulous finds. Another segment might be environmentally conscious professionals – communication for them might highlight sustainability and quality. There may also be a segment seeking luxury bargains (willing to buy second-hand to afford premium brands) who would respond to curation and authenticity guarantees. Recognizing these differences is key for second-hand businesses to thrive. The research indicates that “good value for money” and the desire to support the circular economy are common denominators across many segments, but not all consumers prioritize these equally (Corbos et al., 2023). For instance, some thrift shoppers are motivated almost purely by economics (needing cheap clothing), while others primarily by ethics (reducing fashion waste), and others by style (hunting unique vintage pieces). Market players are adjusting by catering to various niches: some shops focus on curated vintage fashion for style enthusiasts, and some on bulk low-cost apparel for cost-driven buyers. This segmentation also influences pricing strategies in the second-hand market. Some goods can fetch high prices (e.g. collectable vintage or luxury resale items), while others are sold by the bundle or per kilo in bulk charity shops.

Integration with mainstream retail: Interestingly, the booming second-hand market is prompting mainstream fashion retailers to integrate resale into their business models. Big brands and retailers have started exploring take-back programs and reselling used items as part of their offerings. Valor et al. (2022) observe that major Western fashion companies have begun including second-hand clothing in their strategy, signalling a potential transformation of the industry (Valor et al., 2022). For example, some brands encourage customers to return used garments (sometimes for store credit), which are resold as “pre-loved” collections or recycled. This blending of new and used sales channels suggests that second-hand is no longer just a fringe or alternative market but a strategic component of the fashion ecosystem. It presents business opportunities (new revenue streams, customer engagement on sustainability) and challenges (logistics of processing used items, brand image concerns). Nonetheless, the momentum is clear: resale is being viewed as both a sustainability initiative and a profitable venture. The fact that the second-hand apparel market is projected to be larger than fast fashion within a decade (according to some industry reports) has caught the attention of investors and established companies alike. In sum, from an economic standpoint, second-hand clothing is transitioning from niche to mainstream, carving out a significant segment of the fashion market and prompting evolution in retail practices and global trade patterns.

POLICY AND SOCIAL IMPLICATIONS FOR SUSTAINABILITY

The growth of second-hand clothing carries important policy and social implications as it intersects with sustainable development goals, cultural norms, and government regulations. Several insights from the literature highlight how second-hand fashion is influencing – and is influenced by – broader social and policy contexts:

Shifting social norms and overcoming stigma: A recurring theme is changing public perceptions of second-hand clothing to broaden its acceptance. Historically, negative stereotypes (as discussed, associating used clothes with poverty or lack of hygiene) have been a barrier. However, the literature shows that these perceptions can and are being changed through collective shifts in norms. Valor et al. (2022) introduce the concept of “building relational legitimacy” for second-hand markets – meaning making the practice of buying used goods socially legitimate and accepted within communities (Valor et al., 2022). They argue that efforts by various actors (entrepreneurs, media, influencers, and even government campaigns) can re-frame second-hand clothing as a positive, desirable behaviour rather than a shameful one. For example, emphasizing the trendiness of vintage fashion or the ethical pride in sustainable choices helps elevate the status of second-hand apparel. When celebrities and fashion magazines showcase thrifted outfits as chic, it “affirms the social identity” of second-hand consumers favourably (Valor et al., 2022). The research by Valor et al. across multiple countries found that the stigma is context-dependent and that in social groups where environmental and frugal values are strong (or where retro fashion is valued), second-hand clothing attains legitimacy (Valor et al., 2022). Policy can also play a role here: public

awareness campaigns or educational programs about sustainable fashion can normalize buying second-hand. For instance, municipal governments have organized swishing (clothing swap) events and promoted charity shop challenges to encourage residents to try used clothing. As more people proudly wear second-hand items, a tipping point in social norms may be reached where it is no longer seen as second-best or embarrassing. Indeed, some of the studies reviewed (e.g. in Indonesia and China) suggest younger generations already have far fewer qualms about second-hand than their elders (Liang & Xu, 2018). Over time, this generational shift will likely erode stigma naturally. The implication is that fostering a culture that views second-hand clothes as usual or even admirable is crucial for sustainability because it can amplify adoption. When second-hand shopping is as routine as buying new, the sustainability benefits multiply.

Encouraging sustainable consumption behaviour: Second-hand clothing aligns with sustainable consumption and production goals, so policymakers interested in waste reduction and climate action may want to encourage it. Some governments have incorporated textile reuse into their waste management and sustainability plans. For example, cities are expanding textile collection programs (where citizens can drop off unwanted clothes for reuse/recycling), and some have partnered with nonprofits to support thrift outlets. In the context of climate and waste policy, promoting second-hand purchases is a demand-side strategy to reduce fashion’s environmental impact. Rather than solely regulating manufacturers (supply side) to produce more sustainably, authorities can also influence consumer demand to shift toward reused goods. This might involve incentives like tax breaks on second-hand items, grants or support for social enterprises running thrift stores, or public procurement policies that include purchasing recycled textiles. While the literature reviewed does not detail specific policies in place, it strongly implies such measures. Koay et al. (2024) explicitly link second-hand consumption to SDG12 and call on product and brand managers to foster “responsible consumption” (Koay et al., 2024). Brands or governments can do that by making second-hand options convenient and attractive. For instance, integrating resale sections in malls or through official brand channels gives consumers confidence (reducing the trust barrier) and signals institutional support for reuse. Some European countries are contemplating Extended Producer Responsibility (EPR) regulations for textiles, which would require fashion companies to take responsibility for the end-of-life of garments. If implemented, EPR could push companies to facilitate second-hand markets (as an avenue to collect and resell their products) as part of compliance. In short, policy frameworks that treat used clothing not as waste but as a resource can significantly boost the circular economy. The studies in this review collectively suggest that supporting second-hand consumption yields environmental and social dividends, aligning with policy objectives on waste reduction, climate change, and even social inclusion (as thrift stores often serve low-income communities).

Equity and social inclusion: Second-hand clothing has social implications regarding equity. On one hand, it increases access to

affordable clothing, which is socially beneficial. Families with limited means can clothe themselves for pennies on the dollar by buying used, contributing to poverty reduction and equality. The robust second-hand markets in developing countries often provide the primary source of apparel for lower-income populations (Brooks, 2013). On the other hand, some countries have resisted being destinations for rich countries' cast-off clothes, viewing it as undermining dignity or local culture (the phrase "Mitimba" in East Africa, for example, carries mixed connotations for the bale clothing imported there). These dynamics mean policymakers sometimes face decisions about trade-offs between providing affordable goods versus fostering local industry and pride. The ban on imported second-hand clothes in Indonesia that Syahrivar et al. (2023) mention (Syahrivar et al. (2023) was justified on public health and industrial grounds. However, it also had the effect of stigmatizing second-hand consumption domestically (making it seem illicit or undesirable). Conversely, countries that openly embrace second-hand trading (like many Western nations where charity shops are part of the high street) integrate it into their social fabric as a positive institution (charitable fundraising, volunteerism). Another social aspect is that second-hand retail often has a community or nonprofit element – e.g. Goodwill stores or Oxfam shops use proceeds to fund social programs. So, buying second-hand can be framed as an eco-act and a socially responsible act supporting charities or local entrepreneurs. This synergy between sustainability and social good strengthens the case for second-hand promotion.

Corporate social responsibility (CSR) and industry initiatives: From the business perspective, engaging in second-hand clothing can be seen as part of CSR and sustainability strategy. Sepe et al. (2025), writing in a CSR context, provide evidence that consumers increasingly view second-hand fashion as an “ethical” or responsible choice, and they discuss implications for companies. If consumers value sustainability, companies may gain

goodwill by facilitating resale or highlighting durable designs that have resale value. Some fashion retailers now partner with resale platforms (for instance, a brand might offer its certified pre-owned section) as a CSR initiative to reduce waste (Sepe et al., 2025). This can improve brand image and meet the expectations of ethically minded customers. However, for traditional retailers, there is also a concern about cannibalization – will promoting second-hand reduce new sales? A few studies in the review imply that the two can be complementary. By participating in the second-hand space, brands keep customer engagement and can even attract new customer segments. Also, corporate involvement can help address some issues in second-hand markets, like quality control, authentication of luxury items, or scalability. The policy implication here is that the public and private sectors can collaborate. For example, governments could support pilot programs where brands run take-back schemes or provide recognition (awards, certifications) to companies that successfully integrate circular business models. From a sustainability policy standpoint, the ultimate goal is to move towards a circular fashion system where clothing is designed to last, reused or recycled at end-of-life, and waste is minimized. Expanding second-hand clothing is a critical piece of that puzzle, as it directly engages consumers in circular practices.

In conclusion, the social and policy landscape around second-hand clothing is evolving. Societal attitudes are gradually shifting to view second-hand apparel more favorably, driven by increased environmental awareness, economic pragmatism, and changing fashion sensibilities. Removing the remaining stigma through continued public dialogue and positive exemplars will further integrate second-hand clothing into everyday life. Policymakers and industry leaders recognize that achieving sustainability in fashion requires changes in consumption habits, and encouraging reuse is a powerful lever. Society can reap environmental benefits by supporting second-hand markets through campaigns, infrastructure, and integration into

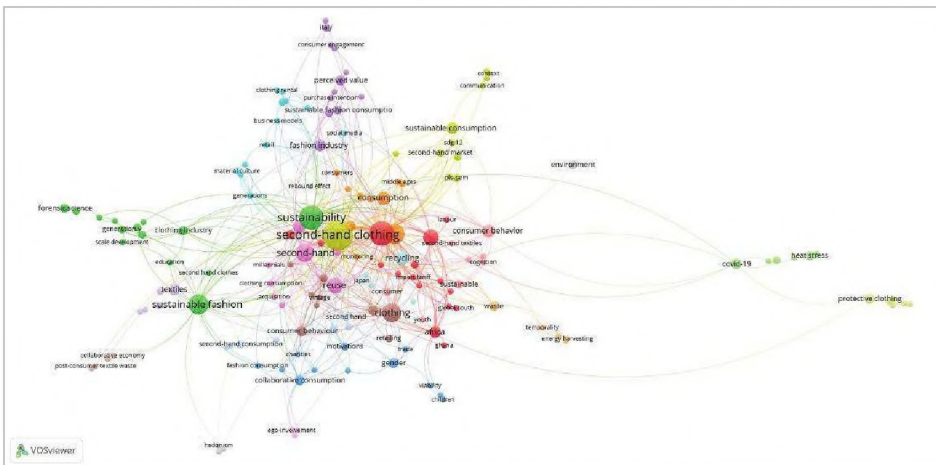


Figure 1. Co-occurrence map of keywords related to the phrase “second hand clothing”
Source: Own research, 2025

formal sustainability policies while making fashion more inclusive and resilient. The research reviewed consistently highlights that when second-hand clothing consumption increases, waste decreases, and consumer welfare often increases, creating a strong case for fostering this sector as part of a sustainable future.

METHODOLOGY

We would like to conduct a large-scale consumer survey involving thousands of people. Before conducting the planned consumer survey in the future (we consider it essential to explore how internationally relevant literature views the relationship between second-hand clothes and sustainability. For the literature review and analysis, we used the Web of Science database. The investigation took place in March 2025. During the survey, we conducted a search on the Web of Science platform using the term "second hand clothing". This search yielded 477 results/papers on the Web of Science platform. I used VOSViewer version 1.6.18 to explore the interconnections among the scientific articles listed, through the exportation of bibliographic data from the results list (Visualisation of Similarities – VOS). VOSViewer is a data mining application capable of visually displaying various citation statistics and their relationships based on publication and citation structures of specific journals, leading authors, institutions, countries, and even keywords. Essentially, the methodology is a bibliometric analysis, which examines bibliographic sources using quantitative methods (Martínez-López et al., 2018). In addition to text mining, the software is also suitable for clustering tasks.

RESULTS

During the processing, the first step involved bibliographic preprocessing, followed by clustering and merging contents using metrics applied to matrices describing the contents/documents. The analysis parameters were co-occurrence – full-counting – author keywords, and I requested at least 2 oc-

currences of a given expression in the corpus. This setting only considered those keywords that appeared at least twice about the term "second hand clothing". This setting created a good harmony between striving for completeness and finding the most critical keywords. The setting resulted in 178 keywords. The co-occurrence map reveals the total number of keyword occurrences across all documents. It identifies the "hot spots" in the specialities, in our case, in writings concerning second-hand clothes. *Figure 1* shows the relationships between the keywords of the publications examined in the paper. Each keyword is color-coded by group, with larger circles representing the most occurrences of a keyword. Shorter distances between clusters indicate stronger relationships, while greater distances between clusters symbolize weaker relationships.

The VOSViewer network figure illustrates a complex interplay of themes centered around "second-hand clothing" and its integration into sustainable fashion practices. These diagrams reveal a detailed mapping of the academic and consumer discourse, highlighting key areas such as "sustainability", "consumer behavior", and "sustainable fashion consumption". We also consider it important to examine which keywords are most closely related to the term "second hand clothing". Results can be found in *Figure 2*.

In examining the diagrams, "second-hand clothing" emerges as a critical node, directly connected to "sustainability". This connection underscores the environmental benefits of reusing clothing, which aligns with global sustainability goals, particularly "SDG 12" which promotes responsible consumption and production patterns. The linkage to "sustainable fashion" further suggests that second-hand clothing is increasingly seen as a viable alternative to fast fashion, contributing to a more sustainable fashion industry.

Consumer behavior is intricately mapped in the network, with terms like "consumer engagement", "perceived value", and "purchase intention" highlighting the psychological and economic factors that influence consumers' decisions to buy sec-

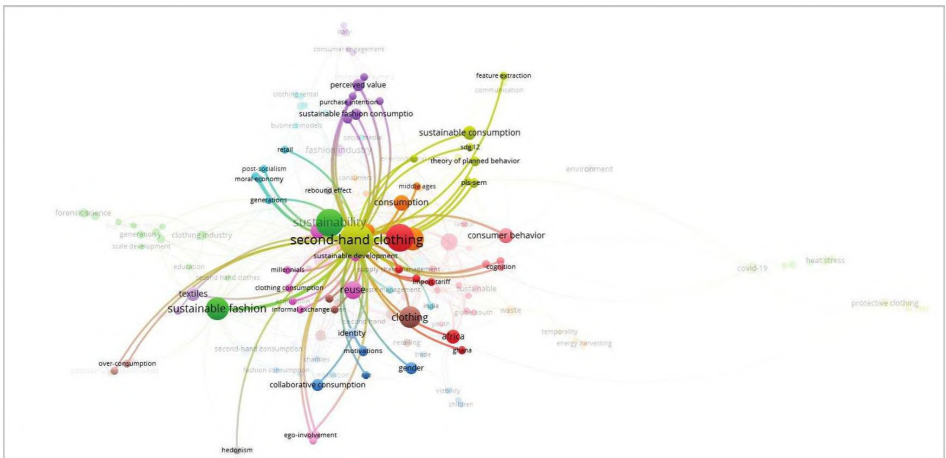


Figure 2. Important keywords related to the phrase "second hand clothing"

Source: Own research, 2025

ond-hand clothing. These factors are crucial for understanding how to effectively market second-hand products and encourage more sustainable consumer habits. Other notable connections in the diagrams include “recycling” and “reuse”, which are practical aspects of sustainability in fashion. These connections highlight the importance of circular economy principles in reducing waste and extending the life cycle of clothing. The mention of “textiles” and “clothing consumption” points to the material side of fashion, emphasizing the need for industries to consider more sustainable practices in the production and consumption of textiles.

The diagrams also touch on demographic and cultural factors such as “millennials”, “youth”, and “gender”, indicating different consumer segments and their attitudes towards second-hand clothing. This suggests that different strategies may be needed to engage various groups effectively, considering their unique preferences and consumption patterns.

Overall, these diagrams provide a comprehensive view of the current landscape of second-hand clothing within the context of sustainable fashion. They highlight the critical role of consumer behavior, the potential environmental benefits, and the broader social and economic factors that influence the second-hand clothing market. This holistic view is essential for developing strategies that not only promote sustainability but also resonate with diverse consumer bases.

CONCLUSIONS

The body of literature reviewed demonstrates that second-hand clothing is a vital element of the sustainability conversation in fashion. Consumer behaviour studies show a growing willingness to adopt second-hand fashion, motivated by cost savings, unique style finds, and ethical concerns, especially among younger generations. At the same time, these studies illuminate the challenges of stigma and quality perception that must be addressed to mainstream second-hand consumption. Environmental assessments unequivocally indicate that second-hand clothing has a smaller ecological footprint – each reused garment saves resources and emissions, contributing to waste reduction and circular economy goals. Economic analyses reveal that the second-hand market is not just a fringe trend but a booming industry that alters global trade flows and retail business models, creating economic opportunities. Moreover, the social and policy implications suggest that embracing second-hand clothing can align with sustainable development objectives, social equity, and corporate responsibility.

In synthesis, second-hand clothing and sustainability have a synergistic relationship: reusing apparel promotes sustainability, and the drive for sustainability is bringing second-hand clothing into the fashion mainstream. Our paper provide a comprehensive overview of this relationship – from why consumers engage in second-hand shopping to how it benefits the planet to what it means for markets and society. As the fashion industry grapples with environmental impacts, second-hand clothing offers a practical and positive pathway forward. The literature suggests that with continued efforts to improve consumer acceptance (through better communication, retail experiences, and policy support), second-hand fashion will further contribute to a more sustainable and responsible fashion system. In conclusion, second-hand clothing is transforming from a choice into an integral part of sustainable consumption, em-

powering consumers to “dress green” without sacrificing style or budget and, in turn, driving the fashion industry toward a more circular and conscientious model.

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