CIRCULAR FASHION: IS FASHION FOR THE ENVIRONMENT POSSIBLE? A SURVEY ON THE PROPENSITY TO RESPONSIBLE PURCHASING AND CONSUMPTION

Giada Pierli, PhD student, Department of Economics, Society, Politics, University of Urbino Carlo Bo, Via A. Saffi, 42, 61023 Urbino (PU), g.pierli@campus.uniurb.it; Federica Murmura, Associate Professor, Department of Economics, Society, Politics, University of Urbino Carlo Bo, Via A. Saffi, 42, 61023 Urbino (PU), federica.murmura@uniurb.it

Abstract

In recent years, a new business model has appeared on the global economic-industrial scene that aims to integrate the principles of the circular economy with those of the fashion industry, giving rise to the so-called circular fashion. This phenomenon has become the subject of numerous studies in the managerial literature; however, the various research carried out so far has focused mainly on fashion manufacturers and retailers, with limited focus on consumers. This study starts from the assumption that the real protagonists of the circular fashion transition are the consumers with their purchasing and consumption choices, whose understanding is therefore crucial for companies wishing to build an efficient circular fashion system. Therefore, the aim is to make an empirical contribution to studies on the attitudes and behaviour of individuals in relation to circular processes in the fashion industry, investigating their level of awareness, perceptions, and their readiness to adopt new conscious approaches when purchasing, using, and disposing of clothing. These issues are also analysed from a generational perspective to highlight both similarities and inconsistencies in perception and behaviour between different age groups. To this end, a quantitative survey was carried out using a survey questionnaire; 386 individuals participated in the study. The results identify the existence of a behavioural gap, namely a discrepancy between fashion preferences and actual behaviour among individuals in terms of environmental sustainability. As a consequence, fashion companies should reduce the gap perceived by people between fashion and circularity in order to compete successfully in the market.

Keywords: fashion industry; circular economy; circular fashion; consumer behavior

1. Introduction and Theoretical background

Since the end of the 20th century, the global fashion scenario has been dominated by the phenomenon of fast fashion, which represents a business model based on the rapid production and distribution of inexpensive, low-to-medium quality clothing to satisfy a massive audience (Rauturier, 2022). Although fast fashion is highly successful on the demand side, while generating profits for companies and countless jobs worldwide, its environmental consequences are devastating (Fabbri, 2021; Peters et al., 2021; Niinimäki et al., 2020). Indeed, fast fashion-related production processes and consumption cause pollution of the planet in terms of emissions, exploitation of non-renewable natural resources and high levels of industrial waste (Anguelov, 2021; Giusepponi, 2020; Peters et al., 2021; Salvetti, 2018).

The growing awareness among industry players and individuals of the environmental dangers posed by global fashion trends is gradually leading some companies to question the fast fashion paradigm for a new approach that integrates circular economy principles with those of fashion, the so-called circular fashion (Dardana, 2020; Gazzola et al., 2020). According to Brismar (2017), it can be defined as: "*[...] clothes, shoes or accessories that are designed, purchased, produced and supplied with the intention of being used and circulating responsibly and effectively in society for as long as possible* *in their most valuable form, and from now on return safely to the biosphere when they are no longer of human use*" (Brismar, 2017; Rathinamoorthy, 2019, p. 23). Specifically, circular fashion aims to redefine the entire textile-clothing value chain by aspiring to close the life cycle of goods through the design, production and distribution of durable clothes that can be reintroduced into the production process after use, without generating waste (Rathinamoorthy, 2019).

Operating according to a circular logic in the fashion industry implies not only the need for organisations to safeguard the environmental balance, but also to put consumers and their purchasing and clothing consumption processes at the core (Gazzola et al., 2020). Despite an increasing segment of consumers appear to be oriented towards the choice of sustainable fashion products (Binet et al., 2019; Hur and Cassidy, 2019; Testa et al., 2021; Soyer and Dittrich, 2021), the results of the different studies conducted in this field appear contradictory (Grazzini et al., 2021; Musova et al., 2021). A gap emerges between individuals' favourable attitudes towards responsible consumption and their actual purchasing and consumption behaviour in the fashion ecosystem.

To date, the focus has mainly been on the supply system, exploring the drivers, barriers, strategies, operational approaches and enabling factors related to the adoption and implementation of the circular fashion model by companies (Ki et al., 2020; Musova et al., 2021). Less attention has been paid to consumers and their processes related to the adoption of a lifestyle in line with circular fashion principles (Musova et al., 2021). To fill this gap, the study seeks to assess the coherence between individuals' attitudes and behaviour in relation to circular fashion by investigating their levels of knowledge, perceptions and propensity to responsible purchasing and consumption. As empirical investigations on circular fashion attitudes and behaviours conducted using socio-demographic variables return contrasting data regarding age (Morgan and Birtwistle, 2009; Joy et al., 2012; Vehmas et al., 2018; Musova et al., 2021), these questions are also analysed from a generational perspective. To meet these objectives, a quantitative survey was conducted through the administration of an online survey questionnaire, obtaining 386 responses.

The present paper is organised as follows. The second section presents the research methodology used. The third section illustrates the results of the study, while the fourth provides the main conclusions and academic and managerial implications, as well as limitations and suggestions for future research.

2. Research Methodology

To investigate the level of awareness and perceptions of individuals in relation to circular processes in the fashion industry as well as their willingness to take conscious approaches when purchasing, using, and disposing of clothing, a quantitative analysis was developed by a survey questionnaire. The questionnaire was carried out through the computer-assisted web interview (CAWI) methodology and was administered to a heterogeneous sample of consumers using different channels, such as e-mail, WhatsApp, Instagram, LinkedIn and Facebook. The data were collected in February 2023. A total of 386 individuals took part in the survey.

The survey consists of 22 questions, divided into 3 sections. The first aims to collect socio-demographic information on age, gender, area of origin, educational qualification, occupation, and monthly income. The second focuses on individuals' purchasing and consumption habits of clothing products, while the third section aims to examine the knowledge and propensity to buy and consume circular fashion products. Each section includes a series of closed-ended questions with single or multiple answer options, and several questions using the 5-point Likert scale.

The results of the survey were processed by means of a descriptive statistical analysis using Excel software and, subsequently, compared and integrated with the literature investigated. A twofold analysis was carried out: a general one, aimed at examining the overall answers obtained from the sample investigated; and a specific one, using the discriminant of generational classes for several questions in the last section of the questionnaire.

3. Results

3.1 Section 1: socio-demographic features of respondents

As shown in Table 1, the female component dominates with 69.9%, while male respondents amount to 29.8%. Only 0.3% do not identify themselves in any gender. Concerning age, the majority of respondents are between 26 and 41 years old (38.9%), the so-called Millennials. 25.1% of the sample belonged to the 18-25 age group, which corresponds to Generation Z, while 18.7% of the respondents were between 42 and 57 years old (Generation X). Finally, 16.8% of the sample is aged between 58 and 76 years and belongs to the Baby Boomers generation. Most of the respondents were resident in Northern Italy (60.6%), 23.8% of the sample came from Central Italy and 12.2% were from Southern Italy and the islands (Sardinia and Sicily). With respect to the level of education, those with a high school diploma prevail with a percentage of 39.4%, just over 35% of the respondents have at least a university degree (of which 21.2% have a Bachelor's degree, 14.5% a Master's degree and 3.1% a post-graduate degree). Most of the respondents are employed (> 65%) and among them employees, both public and private, predominate with 43.5%. About half of the sample (49.5%) claimed to be in the range of 1001 to 2000 euros. At the same time, a significant proportion of the participants have a low-income capacity, with 15.3% of them earning between 500 and 1000 euros per month and as many as 25.4% with a monthly income of less than 500 euros.

Table 1 – Consumer Profile

		n	%
Gender			
	Male	115	29.8
	Female	270	69.9
	Prefer not to say	1	0.3
Age (years)			
	18-25	97	25.1
	26-41	150	38.9
	42-57	72	18.7
	58-76	65	16.8
	77 and above	2	0.5
Residence area			
	North-Italy	234	60.6
	Centre	92	23.8
	South and Islands	47	12.2
	Foreign country	13	3.4

Education			
	Primary School graduation	8	2.1
	Secondary School graduation	76	19.7
	High School graduation	152	39.4
	Bachelor’s degree	82	21.2
	Master’s degree	56	14.5
	Postgraduate degree	12	3.1
Occupation			
	Student	59	15.3
	Working student	30	7.8
	Employee (public or private)	168	43.5
	Freelancer	61	15.8
	Housewife	20	5.2
	Unemployed	14	3.6
	Retired	34	8.8
Monthly income			
	Less than 500€	98	25.4
	501-1000€	59	15.3
	1001-1500€	106	27.5
	1501-2000€	85	22.0
	2001-2500€	17	4.4
	2501-3000€	11	2.8
	Above 3000€	10	2.6

3.2 Section 2: purchasing and consumption habits

The second section aimed to explore the purchasing and consumption habits of fashion products by the sample investigated. Concerning the frequency of purchase of fashion items, the interviewees declare that they buy with an average frequency of 3.12, thus being occasional buyers. In addition to shopping frequency, the participants were also questioned about the main places, both physical and online, where they habitually shop. The overall answers report that the respondents buy clothes most frequently at Fast Fashion chains (3.11) and at retail outlets (2.78). Following this, they state that rarely shop in e-commerce (2.61), although in relation to this the standard deviation is high at 1.316, denoting that not all respondents are aligned in their answers. The lowest average score is attributed to luxury boutiques (1.55), followed by eco-stores (1.86) and second-hand shops (1.81).
A further aspect investigated concerns the attributes of clothing products considered to be relevant in the consumers' purchasing decision process. Among these, emerged aesthetics (4.19), comfort (4.07), versatility of use (3.99) and price (3.98). This result is in line with studies conducted in management on factors influencing purchase intentions, where the quality, price and design of apparel play a decisive role in consumers' choices, also about circular clothing (Musova et al., 2021; Vehmas et al., 2018). On the other hand, less importance was placed on brand (2.50).

Finally, an attempt was made to understand the respondents' beliefs and attitudes towards environmental issues related to the fashion industry (Table 2). The results show that the sample agreed with the majority of the alternatives submitted to them: buying garments made by environmentally sustainable processes (3.97), prolonging the life of the garments and repairing/converting them to another purpose (4.05), reducing their purchase and the number of washing and ironing (3.93) and, not throwing the garments in the rubbish, but donating/exchanging/selling them (4.29). According to several authors, the basis of the increased interest in fashion sustainability lies in the increased access to information by consumers, positively conditioning the underlying motivations to purchase clothes that meet environmental requirements (Musova et al., 2021).

Table 2. Purchasing/consumption behaviour to reduce negative environmental impacts of the fashion industry. Likert scale 1 - 5

	Mean	**St. Dev.**
It is important not to throw discarded clothes in the bin, but to donate and/or exchange and/or resell them	4.29	0.980
It is necessary to wear clothes as long as possible before discarding them, taking care to repair damaged ones or convert them to another purpose (e.g. for domestic use)	4.05	1.012
It is important to buy clothes made by processes that minimise environmental impact and exploitation of natural resources	3.97	0.987
It is necessary to reduce the purchase/consumption of clothes and the number of washing and ironing of clothes	3.93	1.096
It is necessary to reduce or avoid the purchase of Fast Fashion garments and/or garments made by irresponsible brands	3.40	1.133

3.3 Section 3: knowledge and propensity to buy Circular Fashion

The last section of the research aims to assess individuals' awareness of the Circular Fashion production model, their willingness to purchase garments made using circular processes, and, in general, the propensity of consumers to adopt conscious consumption practices.

Regarding the knowledge of Circular Fashion, it is interesting to point out that more than half of the sample investigated (56.2%) declared that they were not familiar with Circular Fashion, while 24.1% of the respondents were aware of it, or, at least, had heard of it, and 19.7% had only heard of it in part.

Concerning consumer attitudes toward circular fashion (Table 3), the sample agreed with the hypotheses that this production model can improve the current environmental situation (3.94) and is a way to generate awareness in people (3.96). Conversely, respondents disagree about the option "Adopting the circular model will not change the environmental situation" (2.66). With respect to the idea that the circular fashion is limited to being a cosmetic environmentalism (3.23) and that it essentially serves to increase corporate profits (3.07), interviewees show uncertain opinions. Analysing the data from a generational perspective, it can be observed that all generational classes agree that Circular Fashion is a tool to generate awareness and push individuals to eliminate waste, showing on average values close to or above 4. By contrast, while members of Generation Z and Millennials on average agree with the statement that Circular Fashion will transform the environmental situation (with mean values of 3.90 and 3.88, respectively) and, conversely, express disagreement about the hypothesis that such a system will not change the current environmental conditions (2.28; 2.58); the oldest groups, Generation X and Boomers, are perplexed with respect to both statements. Such critical views of the phenomenon depend on the hypocrisy that characterises some fashion industry players. Many consumers are convinced that fashion organisations do not really implement what they promote and communicate in terms of circularity, thus encouraging the spread of negative opinions towards them (Adamkiewicz et al., 2022; Munir and Mohan, 2022).

Table 3. Sample opinions about Circular Fashion. Likert scale 1 – 5

	All sample (100%; 386)		Gen. Z (25.1%; 97)		Millennials (38.9%; 150)		Gen. X (18.7%; 72)		Boomers (17.3%; 67)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
It is a way to generate awareness and push people to eliminate waste	3,96	0,951	4,14	0,952	4,05	0,951	3,70	0,955	3,98	0,952
Adopting the circular model will change the environmental situation for the better	3,94	1,001	3,90	0,994	3,88	1,001	3,17	0,991	3,16	0,994
It is a way to appear environmentally responsible, but in most cases it is cosmetic environmentalism	3,23	1,076	2,98	1,067	2,58	1,076	3,09	1,070	2,94	1,067
It is a way to increase profits by leveraging environmental issues	3,07	1,087	3,43	1,082	3,12	1,087	3,12	1,088	3,13	1,082
Adopting the circular model will not change the environmental situation	2,66	1,104	2,28	1,098	2,58	1,104	3,24	1,107	3,09	1,098

At the level of behavioral attitudes toward Circular Fashion and the companies that adopt such a system (Table 4), all respondents say that they agree on average both to show support for Circular Fashion retailers by buying their products (3.99) and to recommend them to their family, friends, and colleagues (4.01). On the other hand, the sample exhibits indecision with respect to the alternatives of not buying clothing made by environmentally irresponsible companies (3.02) and publicly criticizing them (2.94). The generational comparison about interviewees' attitudes about circular fashion, appears to be in line with what was described in the general analysis. However, it is reported that the Baby Boomers belonging to the sample investigated, express insecurity about buying circular garments (3.28), but, at the same time agree on average with publicly criticizing environmentally disrespectful fashion companies (3.89); these results confirm the findings of authors McNeill and Moore (2015) and Vehmas et al. (2018), according to whom there is often a mismatch between individuals' beliefs about the environment and their actual clothing purchasing and consumption behaviors.

Table 4. Sample attitudes to circular fashion. Likert scale 1 - 5

	All sample (100%; 386)		Gen. Z (25.1%; 97)		Millennials (38.9%; 150)		Gen. X (18.7%; 72)		Boomers (17.3%; 67)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
I would advise friends, family, and colleagues to buy clothing produced by companies that adopt a circular model	4,01	0,955	3,88	0,952	3,92	0,955	3,77	0,953	4,11	0,952
I would support a fashion company that protects the environment by buying circular clothing	3,99	0,927	4,02	0,922	3,97	0,927	3,47	0,923	3,28	0,921
I would not buy clothing produced by environmentally irresponsible companies	3,02	1,103	2,95	1,097	3,03	1,103	3,11	1,098	3,23	1,101
I would publicly criticise environmentally irresponsible companies	2,94	1,242	2,70	1,237	2,83	1,242	2,69	1,248	3,89	1,244

To conclude, the study participants' use of the main collaborative fashion consumption practices was analysed, thus minimizing the negative environmental consequences generated by the fashion industry. In this regard, the overall data obtained from the survey (Table 5), report low use of all the proposed modes of conscious and collaborative consumption: Vintage and Second Hand (2.25), Upcycling and Regenerate Clothing (2.11) and Fashion Renting (1.30). This therefore seems to confirm the results of the study conducted by Morgan and Birtwistle (2009), according to which there is little awareness of the environmental impact of disposing of high textile waste volumes and, where there is, it does not appear to be correlated with individual behaviour regarding the disposal of discarded and/or worn-out garments and the attitude to reuse and recycle textiles. The average values of the above responses are consistent with those assigned by the individual generational classes. In general, the various responsible practices are rarely implemented by the different generations surveyed, registering in most cases values slightly above 2. Recent studies (McNeill and Moore, 2015; Musova et al., 2021; Vehmas et al., 2018), argue that upcycling, regenerate clothing, and other products of a circular nature in the fashion industry, are not very widespread among any age customers, as they are not aware of the need to recycle clothing or are not particularly interested in such practices.

Table 5. Frequency of recourse to conscious and collaborative fashion consumption practices. Likert scale 1 - 5

	All sample (100%; 386)		Gen. Z (25.1%; 97)		Millennials (38.9%; 150)		Gen. X (18.7%; 72)		Boomers (17.3%; 67)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Online Used Clothes Exchange/Sale Applications	3,19	1,367	2,60	1,234	2,14	1,241	2,22	1,239	1,86	1,235
Vintage and Second Hand	2,25	1,241	2,04	1,036	2,07	1,047	2,11	1,041	2,34	1,037
Upcycling and Regenerate Clothing	2,11	1,047	1,37	0,697	1,34	0,708	1,30	0,704	1,14	0,700
Fashion Renting	1,30	0,708	3,94	1,361	3,02	1,367	1,66	1,344	1,35	1,356

4. Conclusions

The aim of this study was to understand the level of awareness and perceptions of individuals regarding circular fashion, and their propensity to make conscious purchasing and consumption decisions. This purpose was declined in a generational comparison, to highlight both similarities and inconsistencies in attitudes and behaviour between different aged people. Therefore, a quantitative analysis was conducted through the administration of an online survey, in which a total of 386 individuals took part. The survey highlighted the existence of a behavioural gap, namely a distance between fashion preferences and the actual behaviour of individuals in terms of environmental sustainability, confirming the findings of the literature on the topic. Several studies have shown that, while consumers' predisposition towards circularity is a prerogative for the effective implementation of circular fashion, their attitudes do not always translate into consistent behaviour (McNeill and Moore, 2015; Morgan and Birtwistle, 2009; Musova et al., 2021; Vehmas et al., 2018). The sample investigated showed positive attitudes and opinions towards circular fashion, showing a willingness to engage in conscious purchasing and consumption choices. However, inadequate general awareness towards circular fashion, limited purchase of garments made through closed-loop processes and insufficient use of consumption methods aimed at minimising environmental impacts also emerged, indicating that the respondents' behaviours do not conform to their attitudes.

From a generational point of view, it is the younger generation, namely Generation Z and the Millennials, who potentially represent the preferred target segment for the implementation of circular fashion. They showed themselves to be rather inclined to support circular brands and to adopt collaborative fashion consumption practices, such as the exchange, purchase, and sale of reconditioned and second-hand garments, especially through online platforms. The profile outlined is consistent with the various academic contributions analysed, which identify the new generations as the fashion leaders; in other words, those who, on the one hand, support new trends and, on the other, are increasingly sensitive to the socio-environmental issues of the fashion industry (McNeill et al., 2020). This paradox shows the contrast between the desire to consume and the efforts to limit consumption typical of these two generations, partly explaining the reasons for the resistance to change towards circular fashion products (Grazzini et al., 2021; Morgan and Birtwistle, 2009; Musova et al., 2021; Vehmas et al., 2018).

Besides enriching the literature on circular fashion by investigating consumer attitudes and behaviour, this study provides useful suggestions for fashion industry players to bridge the gap between consumer attitudes and behaviour. Firstly, companies should leverage communication, developing an information system based on storytelling, to promote circular clothing and educate individuals to change their consumption, storage, and disposal habits. Furthermore, companies in the sector are advised to implement integrated environmental certification and labelling systems capable of ensuring the quality, transparency, and traceability of all processes in the value chain, from raw materials to textile waste disposal. To make end customers co-creators of value, companies should also implement innovative take-back and recycling programmes for textile goods, or optimise existing ones, for instance by increasing existing collection points or installing new ones.

Despite the academic and practical contributions made, the research is not without limitations. Firstly, the age groups examined are not homogeneously distributed; hence, the second level of analysis, specific to generational comparisons, is conditioned by the fact that, in percentage terms, Millennials (38.9%) have a fairly significant weight over the other generational classes. Moreover, the quantitative nature of the survey makes it complex to understand the underlying motivations behind the participants beliefs and actions. To analyse in depth the causal links characterising the individual conducts that emerged, the study could also be completed by carrying out future qualitative research based, for example, on a focus group. Finally, the small number of survey participants (386 individuals) and the prevalence of respondents from the Italian region alone (96.6%) should be noted as limitations; to validate the results obtained, the sample of respondents should be enlarged and other geographical areas should be involved, both at a European and global level.

References

Adamkiewicz, J., Kochanska, E., Adamkiewicz, I., & Łukasik, R. M. (2022). Greenwashing and sustainable fashion industry. *Current Opinion in Green and Sustainable Chemistry*, 100710.

Anguelov, N. (2021). From Fashion to Fast Fashion. In Anguelov, N., *The Dirty Side of the Garment Industry: Fast Fashion and Its Negative Impact on Environment and Society*. Boca Raton, CRC Press, pp. 1-13.

Binet, F., Coste-Manière, I., Decombes, C., Grasselli, Y., Ouedermi, D., & Ramchandani, M. (2019). Fast fashion and sustainable consumption. *Fast fashion, fashion brands and sustainable consumption*, 19-35.

Brismar, A. (2017). What is Circular Fashion?. *Green Strategy*, available at https://greenstrategy.se/circular-fashion-definition/ (ultimo accesso 15.01.2023).

Dardana, C. (2020). Come sta cambiando la moda, un viaggio nel futuro. *LifeGate*, available at https://www.lifegate.it/longform/moda-futuro (ultimo accesso 12.01.2023).

Fabbri, L. (2021). The value of unfashionable fashion. The management and evaluation of unsold goods according to fashion cycle and circular economy. *ZoneModa Journal*, 11(1), pp 133–146.

Gazzola, P., Pavione, E., Grechi, D., & Raimondi, V. (2020). L'economia circolare nella fashion industry, ridurre, riciclare e riutilizzare: alcuni esempi di successo. *Economia Aziendale Online*, *11*(2), 165-174.

Giusepponi, K. (2020). Fashion Industry: impatti socio-ambientali ed esigenze di tracciabilità. In Bentivoglio, C.A. e Giusepponi, K., *Fashion e sostenibilità: opportunità offerte dalla tecnologia blockchain*, Milando: Ledizioni, pp. 7-9.

Grazzini, L., Acuti, D., & Aiello, G. (2021). Solving the puzzle of sustainable fashion consumption: The role of consumers' implicit attitudes and perceived warmth. *Journal of Cleaner Production*, *287*, 125579.

Hur, E., & Cassidy, T. (2019). Perceptions and attitudes towards sustainable fashion design: challenges and opportunities for implementing sustainability in fashion. *International Journal of Fashion Design, Technology and Education*, *12*(2), 208-217.

Joy, A., Sherry Jr, J. F., Venkatesh, A., Wang, J., & Chan, R. (2012). Fast fashion, sustainability, and the ethical appeal of luxury brands. *Fashion theory*, *16*(3), 273-295.

McNeill, L. S., Hamlin, R. P., McQueen, R. H., Degenstein, L., Garrett, T. C., Dunn, L., & Wakes, S. (2020). Fashion sensitive young consumers and fashion garment repair: Emotional connections to garments as a sustainability strategy. *International journal of consumer studies*, *44*(4), 361-368.

McNeill, L., Moore, R. (2015). Sustainable fashion consumption and the fast fashion conundrum: fashionable consumers and attitudes to sustainability in clothing choice. International Journal of Consumer Studies, 39(3), pp. 212-222.

Morgan, R. L., Birtwistle, G. (2009). An investigation of young fashion consumers' disposal habits. *International Journal of Consumer Studies*, 33, pp. 190-198.

Munir, S., & Mohan, V. (2022). Consumer perceptions of greenwashing: lessons learned from the fashion sector in the UAE. *Asian Journal of Business Ethics*, *11*(1), 1-44.

Musova, Z., Musa, H., Drugdova, J., Lazaroiu, G., & Alayasa, J. (2021). Consumer attitudes towards new circular models in the fashion industry. *Journal of Competitiveness*, *13*(3), 111.

Niinimäki, K., Peters, G., Dahlbo, H., Perry, P., Rissanen, T., & Gwilt, A. (2020). The environmental price of fast fashion. *Nature Reviews Earth & Environment*, *1*(4), 189-200.

Peters, G., Li, M., & Lenzen, M. (2021). The need to decelerate fast fashion in a hot climate-A global sustainability perspective on the garment industry. *Journal of cleaner production*, *295*, 126390.

Rathinamoorthy, R. (2019). Circular fashion. In Subramanian, S. M., *The Textile Institute Book Series, Circular Economy in Textiles and Apparel – Processing, Manufacturing, and Design*, Woodhead Publishing, pp. 13-44.

Rauturier, S. (2022). What Is Fast Fashion and Why Is It So Bad?. *Good on you*, available at https://goodonyou.eco/what-is-fast fashion/ (last accessed on 12. 01.2023).

Salvetti, D. (2018). Fashion Revolution: come l'educazione al consumo critico può portare ad una rivoluzione etica della moda. *Groundbreaking - rivista di culture della moda degli studenti dell'Università degli studi di Milano*.

Soyer, M., & Dittrich, K. (2021). Sustainable consumer behavior in purchasing, using and disposing of clothes. *Sustainability*, *13*(15), 8333.

Testa, D. S., Bakhshian, S., & Eike, R. (2021). Engaging consumers with sustainable fashion on Instagram. *Journal of Fashion Marketing and Management: An International Journal*, *25*(4), 569-584.

Vehmas, K., Raudaskoski, A., Heikkilä, P., Harlin, A., & Mensonen, A. (2018). Consumer attitudes and communication in circular fashion. *Journal of Fashion Marketing and Management: An International Journal*, *22*(3), 286-300.