

# MOTIVES FOR THE USAGE OF COLLABORATIVE FASHION CONSUMPTION ONLINE PLATFORMS

MOTYWY KORZYSTANIA Z WIRTUALNYCH PLATFORM  
DO WSPÓLNEJ KONSUMPCJI MODY

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## ABSTRACT

In recent years, there has been a noticeable increase in consumer interest in participating in the sharing economy. One of the markets in which this is particularly visible is the clothing market. Dynamic technological progress and the virtualisation of life have contributed to the creation of applications with which consumers can buy, exchange or borrow clothes. The use of this type of application is treated as a manifestation of sustainable consumption. The main aim of the article is to determine the influence of selected motives on the attitudes towards these applications and their use. The article discusses the results of the research conducted in 2021 on a sample of 412 respondents. Confirmatory factor analysis and structural equation modelling were used in the process of analysing the results. The research results suggest that the most important motives for using the discussed applications were economic and utility, with their impact on attitudes towards these applications and the willingness to use them confirmed. Social motives turned out to be the lowest-rated group of determinants. Moreover, their negative impact on both attitudes towards the application and the willingness to use it was confirmed. Ecological motives turned out to be relatively important determinants of using the discussed solutions. Their influence on attitudes towards the application and consumption behaviour was confirmed.

**Key words:** collaborative fashion consumption, sharing economy, consumer behaviour, motives, structural equation model, sustainable consumption

## ABSTRAKT

W ostatnich latach widoczny jest wzrost zainteresowania konsumentów uczestnictwem w ekonomii współdzielenia. Jednym z rynków, na którym jest to szczególnie widoczne jest rynek odzieżowy. Dynamiczny postęp technologiczny, jak również wirtualizacja życia, przyczyniły się do powstania aplikacji, za pomocą których konsumenci mogą kupować, wymieniać, czy też pożyczać ubrania. Korzystanie z tego typu aplikacji traktowane jest jako przejaw zrównoważonej konsumpcji. Celem głównym artykułu jest określenie wpływu wybranych motywów na postawy wobec wspomnianych aplikacji i korzystanie z nich. W artykule omówiono wyniki badań przeprowadzonych w 2021 r. na próbie 412 respondentów. W procesie analizy wyników wykorzystano confirmacyjną analizę czynnikową (CFA) i modelowanie równań strukturalnych (SEM). Wyniki badań sugerują, że najważniejszymi motywami korzystania z omawianych aplikacji były motywy ekonomiczno-użytkowe. Potwierdzono ponadto ich wpływ zarówno na postawy wobec tych aplikacji, jak i na chęć korzystania z nich. Motywy socjalne okazały się najniżej ocenianą grupą determinant. Co więcej, potwierdzono ich negatywny wpływ zarówno na postawy wobec aplikacji, jak i chęć użytkowania. Motywy ekologiczne okazały się relatywnie ważnymi determinantami korzystania z omawianych rozwiązań. Potwierdzono ich wpływ na postawy wobec aplikacji i zachowania konsumpcyjne.

**Słowa kluczowe:** wspólna konsumpcja mody, ekonomia współdzielenia, zachowania konsumentów, motywacja, model równania strukturalnego (SEM), zrównoważona konsumpcja

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## Introduction

The circular economy (CE) is an increasingly popular approach to create sustainable business. The aim of a CE is to attain a sustainable society and economy by avoiding and minimising resource consumption through multiple product-and-material loops (Ellen MacArthur Foundation [EMF], 2015). Sustainable consumption (SC) is a complex and ambivalent concept composed of two visibly opposite terms-consumption and sustainability. Existing definitions nevertheless show that the main aim of SC is to reach the harmony between the satisfaction of consumer needs and preservation of the environment (Piligrimiene, Žukauskaite, Korzilius, Banyte & Dovaliene, 2020). SC entails satisfying consumer needs while reducing negative impacts caused during material extraction, production and consumption (Mont and Plepys, 2008; Cooper, 2013). SC emphasises

individual actions of consumers in the areas of acquisition, usage and disposal of goods, products and services, taking into account the impact on ecological and socioeconomic conditions for today's and future generations (Geng, Mansouri & Aktas, 2017). According to Phipps et al. (2013), SC is a compromise between environmental, social and economic aims, acquiring, using and utilising products, seeking global welfare for the present and future generations. SC, representing the demand side of the consumption/production coin, should allow for potential changes in consumer behaviour (Phipps et al., 2013).

SC patterns are necessary to realise a sustainable society and economy (Druckman & Jackson, 2010). Customer SC behaviours facilitate the efficient use of underutilised resources (e.g. sharing spare household resource) and extend the life cycle of accessed products (e.g. keeping items in good conditions for others), thereby reflecting the significant potential of sustainability in the sharing economy (SE) (Munoz & Cohen, 2017). Second-hand clothing is an example of recycling that extends the life of products by reusing. Reuse of clothing is associated with reducing the amount of disposed clothing, thereby reducing environmental pollution (Farrant, Olsen & Wangel, 2010). Second-hand and vintage clothes are getting popular due to environmental benefits and also for a personal style (Johansson, 2010).

The main purpose of this paper is to identify the importance and to determine the influence of selected types of motives on the attitudes towards using collaborative fashion consumption (CFC) applications/platforms and willingness to use them in the future.

## **The Concept of CFC**

Collaborative consumption (CC) is one of the new consumption trends in consumer behaviour that includes an alternative approach to meeting needs. This trend is based on access to goods without the need to own and transfer property rights. In Belk (2014), the term 'collaborative consumption' was defined as 'people coordinating the acquisition and distribution of a resource for a fee or other compensation'. CC is dynamically developing in various areas of human activity. The popularity

of CC has significantly increased due to the development of digitalisation. Owing to the dissemination of smartphones, the development of mobile technologies, Internet accessibility and the proliferation of online payment, the CC has never been so easy and widespread (Muangmee, Kot, Meekaewkunchorn, Kassakorn & Khalid, 2021; Kapoor & Vij, 2021). The growing consumer awareness of environmental concerns and anti-consumerist attitudes also contribute to the development of CC. The areas in which it is most developed include transport, tourism, education, food, clothing, healthcare and leisure (Paczka, 2020). CC is most often studied in the context of the SE (Belk, 2014), presumption (Ritzer & Jurgenson, 2010), sharing (Belk, 2010; Lamberton & Rose, 2012), access-based consumption (Bardhi & Eckhardt, 2012) or connected consumption (Schor & Fitzmaurice, 2015). The principal idea behind all of these approaches is to promote the notion of using, as opposed to owning, products (Iran & Schrader, 2017).

According to Iran and Schrader (2017), CFC is a consumption trend 'in which consumers, instead of buying new fashion products, have access to already existing garments either through alternative opportunities to acquire individual ownership (gifting, swapping or second hand) or through usage options for fashion products owned by others (sharing, lending, renting or leasing)'. CFC can be between peers; then, we are talking about 'pure cooperation', a form that has existed since forever, when clothes were shared between family members prior to the industrial revolution (Belk, 2014). Nowadays, it could be organised by peers themselves either through online or offline platforms. But it can also take place between businesses and end consumers; then, we are talking about 'trading cooperation'. There are companies offering either service as substitutes for product ownership (renting and leasing) or second-hand retail service to make the purchase of new products dispensable (Iran & Schrader, 2017). Finally, CFC can be mediated by a third party; then, we are talking about 'sourcing collaboration' (Henninger, Brydges, Iran & Vladimirova, 2021). On the basis of the literature review, the following forms of CFC can be distinguished: sharing, borrowing, reuse, charity, second-hand market, SC, anti-consumption, swapping, resale, take-back schemes and repurpose. These practices result in reduced new product

acquisitions, increased product reuse and extended product life cycle (Armstrong, Niinimäki, Lang & Kujala, 2016). Various forms of CFC are accepted and practiced by consumers. Some people accept one or more form(s) of CFC, while others reject the concept entirely and are against sharing their clothes (Iran, Geiger & Schrader, 2018). In the apparel industry, the SE enables consumers to have access to fashion products that would not be accessible otherwise, achieving more variety in apparel choice (Balck & Cracau, 2015).

CFC has gained an increasing amount of attention among not only consumers but also academia (Lang, Seo & Liu, 2019). Researchers identify that CFC serves to not only reduce waste and negative environmental impact (Gopalakrishnan & Matthews, 2018) but also increase sustainability in the apparel industry (Geissdoerfer, Savaget, Bocken & Hultink, 2017).

The emergence of new information and communication technologies has caused significant changes in the rules of fashion sharing. Such activities, initially carried out only with family members or friends and acquaintances, gradually began to be undertaken also with previously unknown people. Access to new technology and digital platforms makes it easier to communicate at a distance and to find people who have spare resources and those who would like to use them. More and more platforms for CFC have emerged around the world, e.g. Rent the Runway, Share Wardrobe, GlamCorner, Dress & Go, Vinted, Zalando Pre-owned and E-Garderobe.com (Lee, Jung & Lee, 2021). Such platforms are having a serious impact on the fashion industry. Contemporary SE applications create a market form in which strangers rather than kin and communities exchange garments, thereby creating new ways of provisioning goods and services as well as opportunities for CC. Many consumers are becoming more open to renting and thrifting and, as a result, businesses are adapting by making the shift from not only selling products but also offering subscription services. An individual who cannot afford to buy luxury goods can rent various designer fashion items at lower prices. It is worth noting that CFC applies to different consumer segments of the clothing market. According to experts, CFC could rapidly grow into one of the fastest-growing segments of retail in the next 10 years (Chieng, 2021).

## Hypotheses Development and Conceptual Model

Users' motivation to participate in CFC has been the subject of research by scientists all over the world for many years. Guiot and Roux (2010) distinguished three main categories of motives for second-hand shopping: critical motivations (distance from the consumption system, ethics and ecology), economic motivations (gratificative role of price, searching for a fair price) and hedonic/recreational motivation (treasure hunting, originality, social contact and nostalgia). Padmavathy, Swapana and Paul (2019) proposed a scale to measure online second-hand shopping motivation and focussed on economic motivation (price orientation, bargaining power and critical orientation), convenience motivation (usefulness and ease of use) and ideological motivation (need to be unique, nostalgia, trust and assurances). Based on a literature review, Becker-Leifhold and Iran (2018) identified the drivers of CFC from a consumers' perspective — hedonic motives (e.g. availability of rare items, excitement, fun, satisfaction, treasure hunting, nostalgia and social interaction), utilitarian motives (smart purchase behaviour, fair price, frugality and bargains) and biospheric motives (environment-friendly consumption, prevention of wasteful disposal and distance from the system). Zaman, Park, Kim and Park (2019) distinguished six consumer orientations relevant to second-hand clothing shopping: frugality, style consciousness, ecological consciousness, dematerialism, nostalgia proneness and fashion consciousness. Park and Armstrong (2019) classified five basic consumer motivations for collaborative apparel consumption: saving money, saving time, finding desirable product assortment, utility and no burden of ownership. Cervellon, Carey and Harms (2012) have studied the influence of nostalgia, fashion involvement, need for uniqueness, need for status, frugality and value consciousness and environmental-friendly proneness on the intention to purchase second-hand fashion pieces (and vintage pieces). Xu, Chen, Burman and Zhao (2014), in their cross-cultural study, distinguished four perceived values for purchasing second-hand clothing: economic value, hedonic value or treasure hunting, uniqueness and environmental value. The results of their study have shown significant differences in second-hand clothing consumption behaviour between US and Chinese consumers. This justifies the conduct of research in individual

countries, as the behaviour of consumers from different countries may differ significantly from each other.

The subject scope of our study includes the recognition of the impact of economic and utility motives (e.g. promotions, convenience and saving time), social motives (e.g. being a part of a group of people with similar interests, image and following trends) and ecological motives (e.g. to protect/care for the natural environment, to limit excessive consumption and to extend the life of the products) on attitudes towards CFC applications and the willingness to use them in the future.

## Economic and Utility Motives

The analysed literature on the consumption of used clothing suggests that pragmatic motivations based on time and money saving play an important role in shaping attitudes towards second-hand buying (Williams & Paddock, 2003). Guiot and Roux (2010) state that economic motivations are important incentives of second-hand purchase behaviour. The results of a study conducted by Cervellon et al. (2012) have shown that the main driver for the purchase of second-hand clothes is frugality. Studies indicate that economic factors play the most important role for clients when making decisions on the use of SE (Barnes & Mattsson, 2016). However, it should be noticed that the findings of the study by Won and Kim (2020) suggest that utilitarian motives (saving money or maximising utility) do not affect consumer attitude towards fashion-sharing platforms. On the other hand, the findings of Ek Styvén and Mariani (2020) indicate that economic motivations influence positively the attitude towards buying second-hand clothing on SE platforms. The study by Yan, Bae and Xu (2015) has shown that college students' shopping frequency for second-hand clothing was predicted by price sensitivity.

Based on a review of previous research, the authors propose the following hypotheses.

**Hypothesis 1a (H1a):** Economic and utility motives positively influence the attitudes towards using CFC applications/platforms.

**Hypothesis 1b (H1b):** Economic and utility motives positively influence the willingness to use CFC applications in the future.



## Social Motives

Social motives are incorporated for instance in the possibility of getting to know other people who have similar desires (Benoit, Baker, Bolton, Gruber & Kandampully, 2017). Findings from a study by Angelovska, Èeh Èasni and Lutz (2020) suggest that motives such as meeting with people and social responsibility are significant predictors of participation in the SE. A study by Yan et al. (2015) suggests that consumers who shopped for second-hand clothing might do so for social reasons (among others). Psychological factors promote people to interact on peer-to-peer (P2P) platforms and form the basis for borrowing and rental mechanisms, as well as transferring ownership through exchange, donation or purchase of used goods (Hamari, 2013; Hamari, Sjöklint & Ukkonen, 2016; Piscicelli, Cooper & Fisher, 2015).

Based on a review of previous research, the authors propose the following hypotheses.

**Hypothesis 2a (H2a):** Social motives positively influence the attitudes towards using CFC applications/platforms.

**Hypothesis 2b (H2b):** Social motives positively influence the willingness to use CFC applications in the future.

## Ecological Motives

The SE is part of ethical consumerism, and participation in it can be perceived as a form of sustainable consumer behaviour (Perlacia, Duml & Saebi, 2017). Sold sales, transition, renting or transferring unwanted/unnecessary clothes contributes to the extension of the product life, reduction of production and fashion waste (Perlacia et al., 2017; Sarigöllü, Hou & Ertz, 2021). Although participation in the sharing economy may potentially have a positive impact on the environment (Botsman & Rogers, 2010) (no resource consumption), it does not seem to be a strong motivator for many consumers (Habibi et al., 2016). Furthermore, Leismann, Schmitt, Rohn and Baedeker (2013) show that 'use instead of having' patterns may also have undesirable ecological side effects, because customers can abuse shopping, which can eliminate



positive environmental effects. Some studies suggest that purchase of second-hand clothes is not driven by ecological consciousness directly but through the mediating effect of bargain hunting (Cervellon et al., 2012). Findings from the study by Won and Kim (2020) indicate that hedonic and ecological motivation affects consumer attitude towards fashion-sharing platforms. Ek Styvén and Mariani (2020) found that perceived sustainability influences positively the attitude towards buying second-hand clothing on sharing-economy platforms. On the other hand, the study by Yan et al. (2015) did not confirm the relationship between environmental attitudes and the shopping frequency for second-hand clothing among college students. Those authors noticed, however, that second-hand shoppers tend to be more environmentally conscious than non-shoppers.

The literature review findings regarding the impact of ecological motives on attitudes towards SE/CC and participation in SE/CC are ambiguous. The authors propose the following hypotheses.

**Hypothesis 3a (H3a):** Ecological motives positively influence the attitudes towards using CFC applications/platforms.

**Hypothesis 3b (H3b):** Ecological motives positively influence the willingness to use CFC applications in the future.

## Attitude

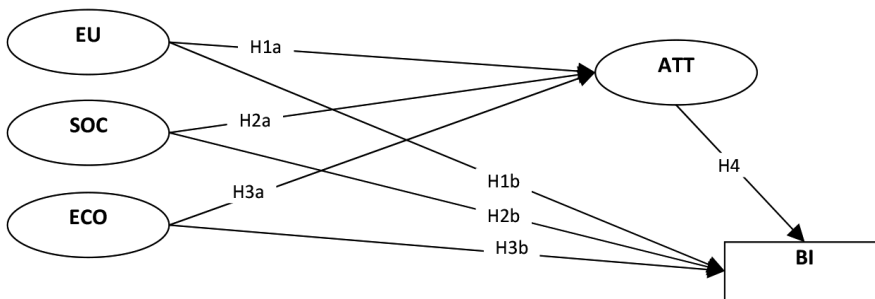
According to the theory of planned behaviour, an individual's intention to perform a certain behaviour is determined by a combination of three factors: attitudes towards the behaviour, subjective norms and perceived behavioural control (Ajzen, 1991). The assumption of the positive influence of the attitude towards CC or second-hand shopping on behaviour intention (participation in CC or buying second-hand fashion) is supported in the literature. In the study by Hamari et al. (2016), attitude had a significant positive effect on behavioural intentions to participate in CC. Ek Styvén and Mariani (2020) suggest that attitude towards buying second-hand fashion positively influences behavioural intention to buy second-hand goods on P2P-SE platforms. Won and Kim (2020) indicate that consumers' attitudes towards fashion-sharing platforms have a positive effect on their purchase intentions.

Based on a review of past research, the authors assume that the attitude towards CFC positively affects behavioural intention and thus propose the following hypothesis.

**Hypothesis 4 (H4):** The attitudes towards using CFC applications/platforms positively influence the willingness to use them in the future.

The following conceptual research model is proposed (Figure 1):

**Figure 1. Proposed theoretical model.**



Constructs: motives: EU — economic and utility; SOC — social; ECO — ecological | ATT — attitude towards using collaborative fashion consumption (CFC) apps/platforms; BI — behavioural intention.

Source: Own research.

## Research Design

The data was collected through an online research panel (Nationwide Research Panel Ariadna) with the use of an online survey in 2021 on a total of 412 Polish respondents. The non-random sampling method was used in the selection of the research sample. The structure of the research sample corresponded to the structure of adult Poles in terms of gender, age, education level and place of residence. The dataset was created with SPSS, version 27 (IBM). A confirmatory factor analysis (CFA) was performed and a structural equation model (SEM) was developed using AMOS, version 21.0. Based on prior studies, a multi-item measurement scale was developed to measure motives and attitude. Economic and utility motives, social motives, ecological motives and attitude were each measured with

four items and behaviour intention with one item. All items were measured utilising a five-point Likert scale (1 = strongly disagree to 5 = strongly agree).

The selection of the research sample was carried out by the quota method (selection criteria: sex, age and place of residence). The structure of the research sample is presented in Table 1.

**Table 1. Structure of the research sample**

Characteristics	Frequency	%
<b>Sex</b>		
Male	211	51.2
Female	201	48.8
<b>Age (years)</b>		
18–24	51	12.4
25–34	97	23.5
35–44	77	18.7
45–54	77	18.7
55–64	72	17.5
≥65	38	9.2
<b>Place of residence</b>		
Village	155	37.6
Small city (up to 20,000 residents)	54	13.1
Medium city (from 20,000 to 99,000 residents)	82	19.9
Big city (from 100,000 to 500,000 residents)	72	17.5
Very big city (>500,000 residents)	49	11.9
<b>Education</b>		
Primary	8	1.9
Vocational	36	8.7
Secondary	130	31.6
Post-secondary	62	15.0
Bachelor's	35	8.5
Higher	141	34.2
<b>Number of household members</b>		
1	27	6.6
2	107	26.0
3	122	29.6
4	102	24.8
≥5	54	13.1

Source: Own research.

## Measurement Model

Table 2 shows the results of the CFA, including factor loadings and descriptive statistics. Two of three motives to participate as a user of CFC platforms were of relatively high importance: economics and utility motives (EU) (meanEU = 3.88) and ecological (ECO) (meanECO = 3.65). Social (SOC) motives were considered by the respondents as less important (meanSOC = 3.22).

**Table 2. Constructs and items**

Constructs	Items	Loadings	Mean	Standard deviation
EU	EU1: due to promotions	0.76	3.88	0.78
	EU2: for convenience	0.73		
	EU3: to save time	0.74		
	EU4: to get many benefits	0.79		
SOC	SOC1: to be a part of a group of people with similar interests	0.92	3.22	1.07
	SOC2: to take care of my image	0.81		
	SOC3: because they are fashionable	0.91		
	SOC4: so that other people can see that I follow trends	0.82		
ECO	ECO1: to be able to buy/consume fashion in an environmentally friendly way	0.92	3.65	1.01
	ECO2: to protect/care for the natural environment	0.93		
	ECO3: to limit excessive consumption	0.92		
	ECO4: to extend the life of the products	0.83		
ATT	ATT1: using these applications is wise behaviour	0.80	3.86	0.75
	ATT2: using these applications is something positive	0.88		
	ATT3: using these applications makes a lot of sense	0.90		
	ATT4: using these applications is something good	0.88		

ATT, attitude; ECO, ecological motives; EU, economic and utility motives; SOC, social motives.

Source: Own research.

SEM was used to test the hypothetical relationships between observable and/or latent variables in experimental and non-experimental research (Konarski, 2009, p. 15). The SEM consisted of a structural and

a measurement part — the structural part of the model describes the theoretical cause-and-effect relation or correlation between the studied phenomena, while the measurement part takes place when the analysed phenomena are not directly measurable (therefore, they are represented in the constructed model by unobservable/latent variables). This means that before starting the estimation of the SEM, its measurement part should be determined and verified. One of the methods of verification of the measurement model is by the use of CFA (Bedyńska & Książek, 2012, pp. 219–223). The reliability of the measurement instrument was tested using CFA, where the results showed acceptable model fit indices (Table 3).

**Table 3. Fit indices of the CFA model**

Measure	Recommended threshold
CMIN/DF	<3.0
CFI	>0.90
NFI	>0.90
GFI	>0.90
AGFI	>0.80
RMR	<0.08
RMSEA	<0.08

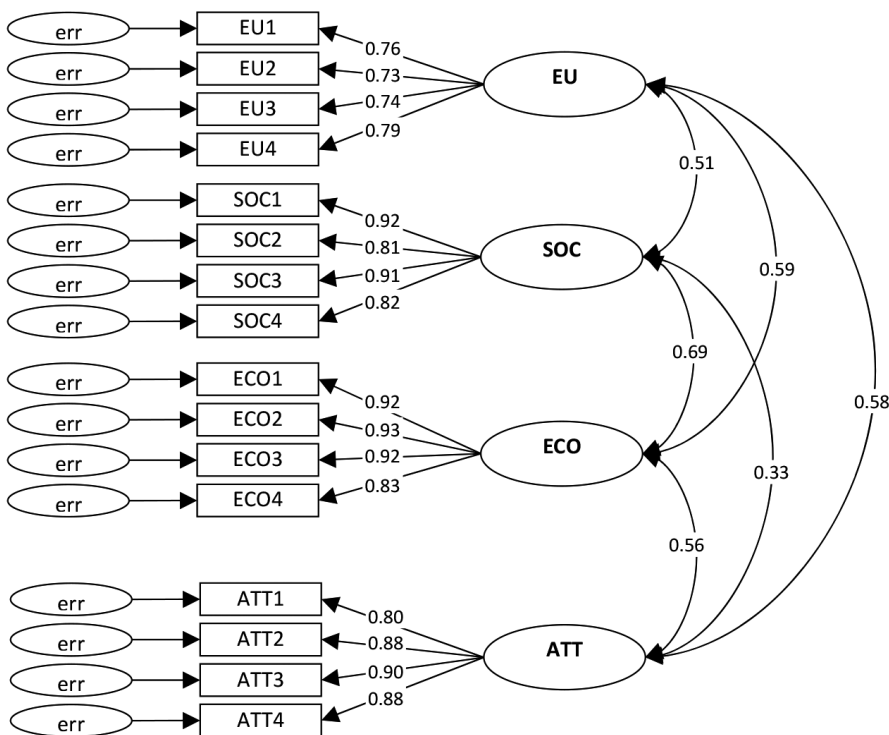
AGFI, adjusted goodness-of-fit index; CFA, confirmatory factor analysis; CFI, Comparative fit index; CMIN/DF, chi-square/df; GFI, goodness-of-fit index; NFI, normed fit index; RMR, root mean-square residual; RMSEA, root mean-square error of approximation.

Source: Ode and Ayavoo (2020) and own research.

The evaluation of the overall measurement model (Figure 2) and the assessment of reliability and validity of the constructs were performed with a CFA. In the process of evaluating the measurement model, the discriminant and convergent validities were verified — the discriminant validity measures the extent to which the factors intended to measure a specific construct are actually unrelated (Wang & Wang, 2012). The Fornell and Larcker approach for the assessment of discriminant validity was used (Fornell & Larcker, 1981). Within this approach, the average variance extracted (AVE) for each research construct should be higher than the square of the correlation between the construct and other constructs (Ode & Ayavoo, 2020). The diagonal (shown in bold with asterisks — \*)

elements shown in the table are the squares of multiple correlations between the research variables. As shown in Table 4, the AVE ranges from 0.57 to 0.81, while the diagonal values range from 0.75 to 0.90, indicating that the diagonal variables are higher than the AVE values (in rows); this result suggests that all constructs have appropriate discriminant validity. The data presented in the table shows that the measurement model has satisfactory discriminant validity.

**Figure 2. Measurement model**



Constructs: motives: EU — economic and utility; SOC — social; ECO — ecological | ATT — attitude towards using CFC apps/platforms | err — error. Fit indices: CMIN/df = 2.216; RMSEA = 0.054; NFI = 0.963; CFI = 0.979; GFI = 0.938; AGFI = 0.912; RMR = 0.050. CMIN/df, chi-square/df; CFC, collaborative fashion consumption; RMSEA, root mean-square error of approximation; NFI, normed fit index; CFI, comparative fit index; GFI, goodness-of-fit index; AGFI, adjusted goodness-of-fit index; RMR, root mean-square residual.

Source: Own research.

**Table 4. Reliability and validity measures of the measurement model**

CR	AVE	MSV	MaxR(H)	Estimates	Construct	EU	SOC	ECO	ATT
0.84	0.57	0.35	0.84	<0.73, 0.79>	EU	0.75*			
0.92	0.75	0.47	0.93	<0.81, 0.92>	SOC	0.51	0.86*		
0.95	0.81	0.47	0.95	<0.83, 0.93>	ECO	0.59	0.69	0.90*	
0.92	0.75	0.34	0.93	<0.80, 0.90>	ATT	0.58	0.33	0.56	0.87*

CR, composite reliability; AVE, average variance extracted; MSV, maximum shared variance; Estimates, standardised factor loadings; MaxR(H), maximum reliability.

Constructs: EU — economic and utility; SOC — social; ECO — ecological | ATT — attitude towards using collaborative fashion consumption (CFC) apps/platforms.

\*Indicates squared multiple correlations between the research variables.

Source: Own research.

Convergent validity measures the degree to which the factors measuring single constructs are consistent with each other. Convergent validity was assessed using composite reliability (CR) and AVE — the minimum values adopted in the analysis were such that AVE should be  $>0.5$  (Fornell & Larcker, 1981), factor loadings should be  $>0.6$  and CR should be  $>0.6$  (Hair, Black, Babin & Anderson, 2009; Ahmed, Romeika, Kauliene, Streimikis & Dapkus, 2020; Popa & Dabija, 2019; Szczepańska-Woszczyzna, 2021). On the basis of the obtained results, all three minimum values were reached, which suggests that the reliability and validity of the model and the constructs used are acceptable.

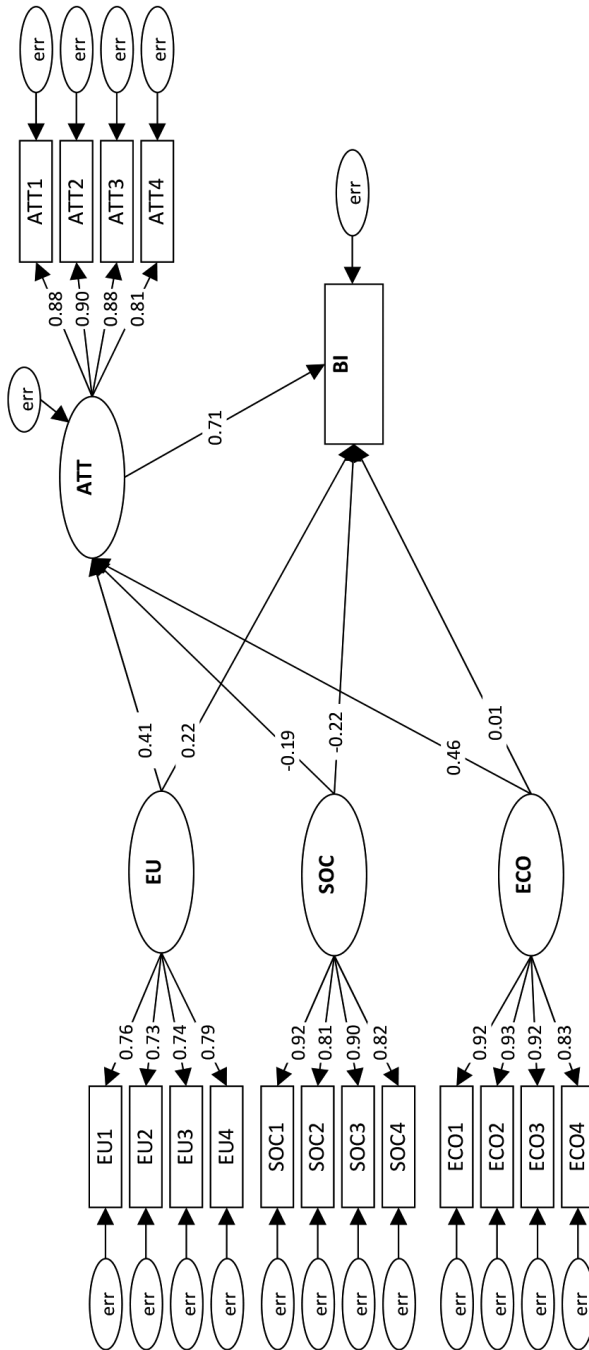
## Structural Model

Based on the research conducted in the literature review, the results of CFA and the proposed hypotheses, a research model was developed and is graphically illustrated in Figure 3.

All the fit indices of the SEM allow us to proceed to the verification of the research hypotheses.



Figure 3. Proposed structural equation model.



Constructs: Motives: EU — economic and utility; ECO — ecological; SOC — social | ATT — attitude towards using CFC apps/platforms | BI — behaviour intention. Fit indices: CMIN/df = 2.169, RMSEA = 0.053, NFI = 0.962, CFI = 0.979 and GFI = 0.936. CMIN/df, chi-square/df; CFC, collaborative fashion consumption; RMSEA, Root mean-square error of approximation; NFI, normed fit index; CFI, comparative fit index; AGFI, adjusted goodness-of-fit index; RMR, root mean-square residual.

Source: Own research.

## Testing the Hypotheses

The test results for the hypotheses are shown in Table 5. The results indicate that ATT was influenced by EU ( $\beta = 0.410$ ,  $p < 0.001$ ), SOC ( $\beta = -0.195$ ,  $p = 0.002$ ) and ECO ( $\beta = 0.455$ ,  $p < 0.001$ ). We found that EU ( $\beta = 0.255$ ,  $p < 0.001$ ), SOC ( $\beta = -0.223$ ,  $p < 0.001$ ) and ATT ( $\beta = 0.706$ ,  $p < 0.001$ ) influenced BI. ECO has been found to be not significantly associated with BI. It should be noticed that the hypothesis regarding social motives (H2a and H2b) were not supported due to the negative effect of those factors on ATT and BI.

**Table 5. Effects of independent variables on the dependent variable**

Relationship	Beta ( $\beta$ )	Standard error	CR	p-Value	Hypothesis	Testing results
EU → ATT	0.410	0.057	6.316	***	H1a	Supported
SOC → ATT	-0.195	0.036	-3.169	0.002	H2a	Not supported
ECO → ATT	0.455	0.045	6.534	***	H3a	Supported
EU → BI	0.255	0.061	4.228	***	H1b	Supported
SOC → BI	-0.223	0.037	-4.578	***	H2b	Not supported
ECO → BI	0.014	0.047	0.250	0.803	H3b	Not supported
ATT → BI	0.706	0.069	13.396	***	H4	Supported

CR, composite reliability.

Constructs: Motives: EU — economic and utility; ECO — ecological; SOC — social; | ATT — attitude towards using collaborative fashion consumption (CFC) apps/platforms | BI — behaviour intention.

\*\*\*p-Value is  $< 0.001$ .

Source: Own research.

## Discussion

Our study allowed to identify the importance and to determine the effect of economic and utility motives, social motives and ecological motives on the attitudes towards using CFC apps/platforms and behavioural intention regarding the willingness to use them. We investigated also the influence of attitude towards using CFC platforms on behavioural intention. As assumed, our study confirmed the effect of attitude on willingness to use CFC applications in the future.

The findings suggest that economic and utility motives were considered by the respondents to be the most important type of motivation for participation as a user (consumer) of CFC applications. The results confirm previous findings wherein economic/utility/frugality motivation was suggested to be a main or important driver of second-hand fashion consumption (Guiot & Roux, 2010; Cervellon et al., 2012). Furthermore, economic and utility motives significantly affected the attitude towards CFC apps and the willingness to use them in the future. Those conclusions are in line with the works of other researchers (e.g. Ek Styvén & Mariani, 2020; Yan et al., 2015). It should be recalled that the overall findings of prior studies in this area are ambiguous. In some studies, utilitarian motives (saving money or minimalising utility) did not affect consumer attitude towards fashion-sharing platforms (Won & Kim, 2020).

Social motives turned out to be the least important factor (among the three types of motivation) for participation in CFC as a consumer. While analysis of the literature suggests that social motives might be an important reason for second-hand clothing shopping behaviour (Yan et al., 2015) or can be a significant predictor of participation in the SE (Angelovska et al., 2020), our findings seem to be quite interesting in that aspect. In our research, social motives significantly affected both attitude towards CFC platforms and intention to use them in the future; however, the effect on those variables was negative.

Ecological motives were considered to be a relatively important factor for buying second-hand clothing through CFC platforms. Our study findings confirm that ecological motives positively influence the attitudes towards using CFC applications/platforms, which is in line with previous studies by Won and Kim (2020) or Ek Styvén and Mariani (2020). It should be noted, however, that our results did not support the hypothesis that those motives positively influence the willingness to use CFC applications in the future, same as in Yan et al. (2015). Ecological motivation can be seen as a quite important factor regarding participation in CFC platforms, but they may not directly affect the behavioural intention to use them.

## Conclusions

The results of our research have shown that there is significant evidence to conclude that the most important motives for using online applications for collaborative fashion consumption were economic and utility motives. Moreover, their impact on attitudes towards these applications and the willingness to use them was confirmed. Past research demonstrates that second-hand consumers are more likely to be price-sensitive and motivated by low prices. Saving money is a key driver for consumers. Thus, low prices exert a major influence on consumers' willingness to purchase second-hand goods (Cervellon et al., 2012; Guiot & Roux, 2010; Isla, 2013; Williams & Paddock, 2003). Ecological motives emerged as relatively important determinants of the use of CFC applications. Environmental and ethical benefits of garment reuse are also significant drivers according to previous research (Guiot & Roux, 2010; Waight, 2013; Xu et al., 2014). Social motives not only were the least important determinants of participation in CFC, but they seem to have a negative impact on both ATT and willingness to use CFC platforms.

From a theoretical perspective, this study contributes to the fashion literature by shedding light on the motivations for using CFC online platforms, especially in the context of the results on social motives. The findings presented in this article can be extremely valuable and useful in designing and implementing solutions to support CFC, such as mobile applications or dedicated websites. The results of our research can be used when designing activities in the field of marketing communication. In order to promote their applications/platforms, enterprises should first of all focus on economic and utility benefits, as well as on ecological aspects, and not focus on social benefits.

## Limitations and future research directions

The study has several limitations. Because of the sample size and the selected method of sampling, the results cannot be treated as representative for the general population of Polish consumers who use CFC

platforms to buy second-hand clothing. Due to the differences in consumer behaviour regarding various forms of participation in SE/CC, it should be kept in mind that the possibility of inference is limited only to CFC platforms. Our research was focussed on three types of motivation regarding the usage of CFC applications, so it would be a good idea to widen the spectrum of motives in future research. The research findings could be used to describe the consumer behaviour of Polish consumers; however, it should be noticed that due to cultural differences, the importance and the influence of motives for using CFC platforms can differ in other countries. It would be interesting to conduct cross-country research in that aspect. Future studies could also explore other forms of consumer behaviour regarding the usage of CFC platforms, e.g. consumer engagement.

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