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The definitive publisher version is available online at

<https://doi.org/10.1016/j.jclepro.2021.128648>

Collaborative fashion consumption – a synthesis and future research agenda

Abstract

Collaborative consumption in the fashion industry has been put forward as a way to overcome current challenges of the 'take-make-use-dispose' economic system that is currently dominating the market, and has gained interest from practitioners, academics, and policy-makers. The purpose of this paper is to explore the state of collaborative fashion consumption research across various disciplines by critically reviewing and synthesizing this fragmented body of work. To do so, this systematic literature review critically evaluates where, how, and what research has been conducted on collaborative consumption in the fashion context, by further outlining gaps and a future research agenda. The paper reviews publications between 2004 to 2020 within peer-reviewed journals written in English, focusing on product service systems, access-based consumption, and collaborative consumption as key words. The analysis demonstrates that scholarly work addresses issues of terminology, attitudes, and motivations, specific modalities of engagement and practices of use and disposal, as well as business models that can help facilitate collaborative fashion consumption. The review also highlights that various gaps remain that require further enquiries, arguing that a deeper and more critical research agenda is required in order to provide a coherent terminology, better understand motivations to uptake collaborative consumption practices, as well as more cross-country analysis.

Key words

Collaborative Fashion Consumption, CFC, Sharing Economy, Terminology, Attitudes, Motivations

Collaborative fashion consumption – a synthesis and future research agenda

1. Introduction

The fashion industry is at a crossroads: to either continue in a business-as-usual manner or work towards redesigning a 'new normal'. The COVID-19 pandemic forced the economy to a standstill, with factories closing, orders being cancelled and/or altered, and some consumers rethinking their current practices by becoming increasingly more conscious of the environmental impact of their clothing consumption (Niinimäki *et al.*, 2020; Rickenbacher, 2020). The COVID-19 crisis has also put further emphasis on social and economic sustainability issues, with factory workers losing their livelihoods as orders are cancelled and businesses of all sizes struggling to survive, and where consumers, who may have also been impacted by the crisis, are less likely to make non-essential purchases (e.g. fashion items) (Brown, 2020; Brydges and Hanlon, 2020; Vogue, 2020).

Despite this bleak outlook, there is also light on the horizon, as the current 'take-make-use-dispose' economic system is being challenged by the circular economy paradigm, which could imply a renewed emphasis on sustainability - a 21st century buzzword in the fashion industry (EAC, 2019; Brown, 2020). These efforts fit into a broader global sustainability agenda and the Sustainable Development Goals (SDGs) (UN, 2015). Transforming unsustainable consumption and production patterns is the focus of SDG 12, which stresses the importance of waste and chemical pollution reduction, among other things. The circular economy as an approach to tackle these challenges has gained prominence in recent decades (Stahel, 2016; Henninger *et al.*, 2020).

Circular fashion has emerged as a phenomenon to counteract the fashion industry's negative impacts, as it seeks to move away from the 'take-make-use-dispose' economic system, towards a regenerative system that is based on closed-loops (Niinimäki, 2017; Henninger *et al.*, 2020). The circular economy outlines four possible implementation strategies for manufacturers and suppliers, by focusing on designing for 1) longevity, 2) leasing or service, 3) re-use in manufacture, and 4) material recovery (RSA, 2020). Although interest in the circular economy has increased, it remains unclear how the industry can successfully implement circular economy strategies that could stimulate uptake, and the industrial and economic scalability of these strategies (de Pádua Pieroni *et al.*, 2018; Henninger *et al.*, 2018, 2020).

Collaborative consumption and the sharing economy are associated with the circular economy, as they seek to divert idle capacities (here garments, textiles, accessories) from landfill and thus, extend their overall usefulness (RSA, 2020). Collaborative consumption can be defined as a transactional exchange between two parties (Belk, 2014), and has seen increased interest in the past decade (WRAP, 2020a). Clark (2020) predicts that collaborative consumption will further thrive in importance after COVID-19, seeing as an economic downturn is predicted that leaves households with less disposable income to be spent on garments.

With consumers becoming increasingly conscious of the environmental and social issues in the fashion industry, turning to 'new' collaborative business models may become an attractive option (Brown, 2020; Clark, 2020). Yet, the opposite could also be the case, with predictions suggesting that the industry may heavily discount garments, in an attempt to encourage purchases (Bain, 2020; Murphy, 2020; Singer, 2020). Whilst previously the secondhand movement, which includes collaborative consumption practices, had a negative connotation (e.g. low status, poverty), mass media has changed this image, by broadcasting its benefits and

attractions (Appelgren, 2019; Henninger *et al.*, 2019). Whether this will remain the same pre-COVID-19 is yet to be seen, with concerns regarding contamination of secondhand garments increasing (e.g. Bond, 2020). Although it may seem that COVID-19 is only a passing phenomenon that hit the fashion industry in 2020, this article argues that COVID-19 is not a one-off issue, but rather could be seen as a catalyst and thus, accentuates shortfalls in the fashion industry concerning sustainability and the circular economy, which need to be addressed.

The purpose of this systematic literature review is to examine the state of collaborative fashion consumption (CFC) in the current academic literature, by critically reviewing and synthesizing the growing, yet fragmented body of scholarly work and providing future areas of research. Thus, this systematic literature review differs from other reviews in that it neither focuses on a single mode of CFC (e.g., Armstrong and Lang, 2013; Hu *et al.*, 2014; Battle *et al.*, 2018; Hürer *et al.*, 2018; Choi and He, 2019) nor on conceptualisations of definitions (e.g., Ertz *et al.*, 2016; Becker-Leifhold and Iran, 2018). Rather, this article critically analyses where, how, and what research on collaborative fashion consumption has been conducted, by further exploring research streams, and current gaps that may be of interest in light of the COVID-19 crisis. This study addresses the following research questions:

RQ1: How is collaborative fashion consumption defined in the literature?

RQ2: What are the key findings and themes in the current literature?

RQ3: What are gaps in collaborative fashion consumption research?

2. Methodology

A systematic literature review implies that it has a “reproducible design for identifying, evaluating, and interpreting the existing body of recorded documents” (Fink, 2005: 6). In line with past publications (Becker-Leifhold and Iran, 2018; Athwal *et al.*, 2019), this article critically evaluates existing research on collaborative consumption in the fashion industry, referred to here as collaborative fashion consumption (CFC) (Iran and Schrader, 2017; Iran *et al.*, 2018), by further identifying where, how, and what is studied about CFC, through the following key steps (Seuring and Müller, 2008: 1700):

- Step 1:** *Material collection* – defines inclusion/exclusion criteria of material included in the analysis;
- Step 2:** *Descriptive analysis* – provides an insight into the *where* and *when* questions of publications;
- Step 3:** *Category selection* – discusses emerging themes, constituted by single analytical categories;
- Step 4:** *Material evaluation* - provides analysis of structural dimensions, thereby highlighting interpretations of the results and outlining key gaps and.

Prior to collecting material, clear criteria were set to delimitate the search for literature (Step 1). In order to limit the volume, only peer-reviewed publications written in English were included, thus excluding any work written in other languages. Although the exclusion of non-English publications could be seen as a limitation, as there may be a bias towards geographic location, it is in line with previous research (e.g., Seuring and Müller, 2008; Becker-Leifhold and Iran, 2018; Athwal *et al.*,

2019). As demonstrated in the following, although the inclusion criteria were imposed, the review encompassed a global representation of studies, which cites leading authors in the field.

Moreover, publications included in this review had to contain at least one keyword from Sections A and B (Table 1), thereby ensuring that the work to be reviewed is related to the fashion industry. The terms used in Section A are commonly discussed in CFC research, as indicated by the references, whilst the terms in Section B outline phrases used in connection with the fashion industry (e.g., Niinimäki, 2017; Becker-Leifhold and Iran, 2018; Henninger *et al.*, 2020a). Additional keywords were considered, including but not limited to ‘peer-to-peer’ economy, reuse, and resale, yet dismissed. The former is seen to be included in the term ‘sharing economy’, which not only looks at ‘peer-to-peer’, but also ‘business-to-peer’, and ‘peer-to-agent-to-peer’, and thus is seen to be more inclusive. The latter have been excluded, as they are part of ‘second hand/secondhand/second-hand’, as well as form part of more market-oriented transactions (resale), as opposed to strictly CFC.

The fashion context was a further inclusion criterion, in that publications had to discuss the fashion context explicitly, as opposed to only briefly mention it. Technical papers that depict fibre recycling and the circular economy were excluded, as these did not address the research questions set and were thus beyond the scope of this review.

Table 1: Keywords identified for collaborative fashion consumption

Section A		Section B	
Product Service System/Product-Service System/PSS	Armstrong & Lang, 2013; Hüer <i>et al.</i> , 2018	Cloth	Armstrong & Lang, 2013; Niinimäki, 2017; Becker-Leifhold & Iran, 2018; Hu <i>et al.</i> , 2019; Henninger <i>et al.</i> , 2020a
Access Based Consumption/Access-Based Consumption/ABC	Battle <i>et al.</i> , 2018; Hu <i>et al.</i> , 2019		
Collaborative Consumption	Ertz <i>et al.</i> , 2016; Becker-Leifhold & Iran, 2018		
Circular Economy	Niinimäki, 2017		
Lending	Iran & Schrader, 2017		
Renting	Brydges <i>et al.</i> , 2020		
Swapping	Henninger <i>et al.</i> , 2019		
Sharing Economy	Iran & Schrader, 2017		
Sharing	Hwang & Griffiths, 2017		
Exchanging	Matthews & Hodges, 2015, 2016		
Borrowing	Loussaief <i>et al.</i> , 2019	Apparel	
		Fashion	
		Garment	
		Second Hand / Secondhand / Second-hand	

Although inclusion/exclusion criteria were implemented, the search remained open, in that no restrictions were imposed on when papers were published, as this allowed the researchers to get a better insight into what is currently known about CFC and how it evolved. A structured keyword search was conducted on four major databases: Scopus, Science Direct, Google Scholar, and Emerald, thereby following in line with previous research (Seuring and Müller, 2008; Bocken *et al.*, 2014; Athwal *et al.*, 2019). The four databases cover a wide range of peer-reviewed journals, as well as provided access to conference papers and abstracts published in the area of interest.

The material selection stage resulted in 312 publications that were collated in a database. Of this, 43 articles were duplications and immediately removed. The remaining 269 publications

were carefully checked against the research criteria, which resulted in a total of 154 papers for this review. Bias was reduced with all authors being involved in the material collection and the subsequent review of the publications.

Although interest in collaborative consumption is not new *per se*, but rather has been researched predominantly within the tourism and automotive industry, one can see an emergence of the concept within the fashion context in 2004 that has since steadily increased. The research field has seen an exponential growth in the last 2 years, with 30 publications in 2018 and 39 in 2019. The initial analysis (Step 2) further allowed the authors to categorise the papers in either conceptual contributions (30) or empirical ones, the latter can be further divided into qualitative (72), quantitative (40), and mixed methods (12).

A noteworthy remark that emerged from Step 2 is the fact that 35 of the 154 publications reviewed were conceptual, with a majority of empirical research being conducted in Europe (45) and North America (31), and only one publication (excluding cross-cultural studies) focused on the African continent (Malawi) (Figure 1). Of the 19 cross cultural studies, 14 are based within the Global North, of which 7 compare European countries (Hellwig *et al.*, 2015; Pedersen and Netter, 2015; Corvallec & Stal, 2017; Franco, 2017; De Pádua *et al.*, 2018; Henninger *et al.*, 2019; Hvass and Pederson, 2019), and the remaining 7 include European countries and either the USA (3) (Armstrong *et al.*, 2016; Gwodz *et al.*, 2017; Hirscher *et al.*, 2018), Australia and the USA (2) (Philip *et al.*, 2015; Kozlowski *et al.*, 2018), New Zealand (1) (Philip *et al.*, 2019), or Japan (1) (Gentina *et al.*, 2017). Only 3 cross-cultural studies investigated the Global South: Vietnam, Philippines, and Thailand (2) (Retamal, 2017; 2019), and Malawi, Mozambique, and Angola (1) (Norup *et al.*, 2019), and only 2 compared the Global North and South: Iran and Germany (Iran *et al.*, 2019) and the USA and China (Lang *et al.*, 2019).

Figure 1: Geographic overview of regions investigated

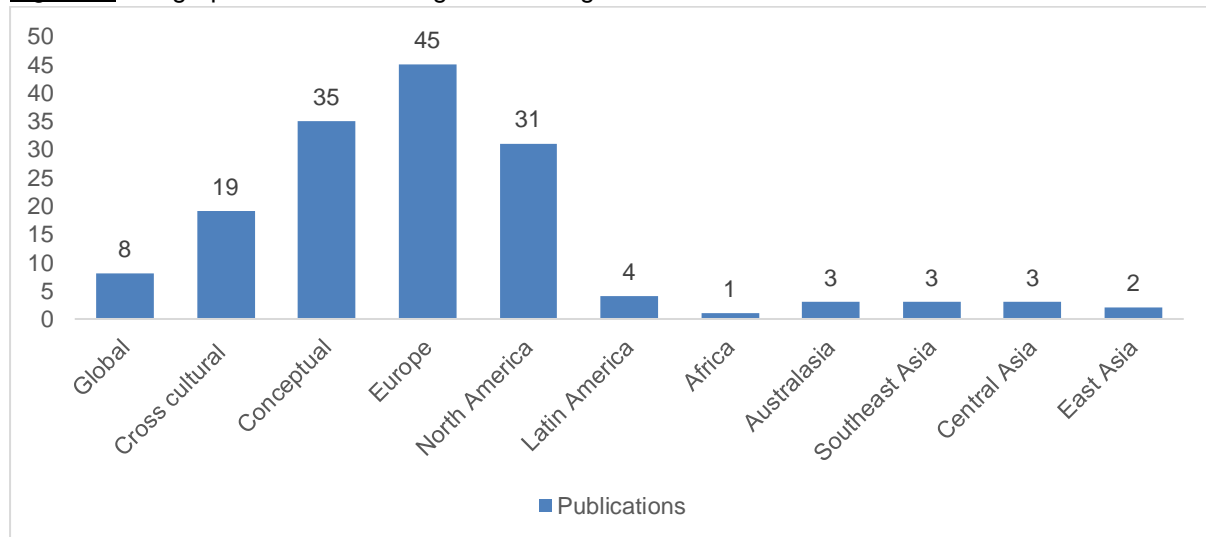


Figure 1 thus highlights that after the USA, Sweden, the UK, and Finland have received the most attention, which poses a call for more research to be undertaken in other countries, especially the Global South.

Step 2 further highlighted that research conducted surrounding CFC has predominantly been with female participants residing in urban areas. The former could be explained as females are seen to be more involved in the fashion consumption process, comparatively to their male counterparts and have been described as a rapidly growing market segment (O’Cass 2004; Statista, 2020). The latter may be justified due to a potential lack of infrastructure and accessibility of CFC in rural areas. Yet, neither of these have been evidenced and provide a further avenue of research.

The preliminary analysis indicated that scholarly work addresses issues of terminology, attitudes, and motivations, specific modalities of engagement and practices of use and disposal, as well as business models that can help facilitate collaborative fashion consumption. In moving to Step 3, these themes are discussed as follows: 1) terminology, 2) business models and 3) consumption cycle (pre-phase, use-attainment, disposal).

3. Research Streams

3.1 Terminology

The introduction highlighted that collaborative consumption - the sharing of idle capacities/resources - is “as old as humankind” (Belk, 2014, 1595), with garments having been shared between family members and/or close social groupings (sharing-in) prior to the industrial revolution. Although it is not a new phenomenon, there is no consensus what collaborative consumption actually entails (Botsman and Rogers, 2010; Belk, 2014; Ertz *et al.*, 2016; Henninger *et al.*, 2019; Philip *et al.*, 2019), when and how it ‘emerged’ (Botsman and Rogers, 2010; Ritzer, 2013; Philip *et al.*, 2019), how it can be categorized (Tukker, 2004; Bocken *et al.*, 2014; Ertz *et al.*, 2016; Henninger *et al.*, 2019; Philip *et al.*, 2019), and what types of ownership are included (Piscicelli *et al.*, 2015; Armstrong *et al.*, 2016; Petersen and Riisberg, 2017). In order to gain a better understanding of collaborative consumption and CFC more specifically, papers from key authors in the field were integrated into this article, even though they did not necessarily focus on fashion but proved vital in providing context for this study.

The term collaborative consumption, coined by Felson and Spaeth (1978), is seen as a business model that requires the active participation of providers and obtainers in a new self-service model of autonomous co-creation (Vargo and Lusch, 2004; Ertz *et al.*, 2016; Henninger *et al.*, 2019). Collaborative consumption can not only be between peers (pure collaboration), but also between businesses and end-consumers (trading collaboration), or mediated by a third party (sourcing collaboration) (Tukker, 2004; Leisman *et al.*, 2013; Ertz *et al.*, 2016; Battle *et al.*, 2018; Mukendi and Henninger, 2020), which adds to the complexity of the definition.

Although the term collaborative consumption emerged prior to the development of Web 2.0 (Felson and Spaeth, 1978), technology seems to be a key part of its definition in the 21st century, as the growth of the internet and its accessibility through smartphones, and globalisation in more general terms, have provided new avenues for ‘obtainers’ to access idle capacities, whether this is through renting, swapping, secondhand purchasing, or donating (Botsman and Rodgers, 2010; Gansky, 2010; Bardhi and Eckhardt, 2012; Möhlmann, 2015; Hamari *et al.*, 2016; Ranjbari *et al.*, 2018; Mukendi and Henninger, 2020).

Collaborative consumption has moved from solely being associated with sharing-in to more often being referred to as sharing-out (between strangers) (Belk, 2010), thereby allowing individuals to “engage in simultaneous disposition and acquisition of everyday items with peers

via an online network” (Philip *et al.*, 2019: 413). Bardhi and Eckhardt (2012) further noted that the internet allows for various access consumptionscapes to emerge, that foster, *interpersonal anonymity* between trading or sourcing collaborations, where peers do not necessarily interact, *temporality* (length of wanting to access items), or *spatial anonymity* (private versus public use of items).

A further aspect adding to the complexity of defining collaborative consumption is the fact that different authors discuss the same phenomenon using different terminology (Table 2). Similarly, authors use a variety of viewpoints that discuss aspects of collaborative consumption, thereby highlighting that swapping, sharing, renting, secondhand consumption, and other modes all form part of the same phenomenon. It has to be highlighted that collaborative consumption in the early stages was conducted in the context of the automotive and tourism industry, with Iran and Schrader (2017) and Netter (2017) coining the term CFC.

With this in mind it may not be surprising that various definitions provided, may not necessarily fit the fashion context, seeing as garments are products that are worn close to the skin and can be easily exchanged, and thus, bear different opportunities and barriers that are discussed later on. This article follows the CFC definition of Iran and Schrader (2017: 472) as 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)”.

Table 2: Terminology used to describe ‘collaborative consumption’ (adapted from Belk, 2014; Hamari *et al.*, 2015, Benoit *et al.*, 2017; Hu *et al.*, 2018)

<p>Consumption practices described as ‘sharing’</p>	<ul style="list-style-type: none"> • Collaborative consumption • Commercial sharing systems • Co-production • Co-creation (linked to service-dominant logic) • Pro-sumption • Product-service systems (PSS) • Access based consumption (ABC), access economy • Non-ownership services • Two-sided market • Sharing economy, Shareconomy • Peer-to-peer economy • On-demand economy, gig economy, platform economy • Grassroots economy • Collaborative fashion consumption (CFC) 	<p>Mont, 2002; Prahala & Ramaswamy, 2004; Vargo & Lusch, 2004; Rochet & Tirole, 2006; Humphreys & Grayson, 2008; Belk, 2010; Botsman & Rogers, 2010; Ritzer & Jurgenson, 2010; Bardhi & Eckhardt, 2012; Lamberton & Rose, 2012; Wittkowski <i>et al.</i>, 2013; Botsman, 2015; Belotti <i>et al.</i>,2015; Hamari <i>et al.</i>, 2015; Martin <i>et al.</i>, 2017; Becker-Leifhold and Iran, 2018; Hu <i>et al.</i>, 2018; Henninger <i>et al.</i>, 2018</p>
<p>Viewpoints of collaborative consumption</p>	<ul style="list-style-type: none"> • Sharing • Borrowing • Reuse, remix culture • Charity • Secondhand market • Sustainable consumption 	<p>Hibbert & Horne, 1996; Lessig, 2008; Young <i>et al.</i>, 2010; Ozanne & Ballantine, 2010; Joung & Park-Poaps, 2013; Belk, 2014; Jenkins <i>et al.</i>, 2014; Weber <i>et al.</i>, 2017; Henninger</p>

	<ul style="list-style-type: none"> • Anti-consumption • Swapping • Resale • Take-back schemes • Personal reuse (hand-me-down), repurpose 	<i>et al.</i> , 2019; Mukendi and Henninger, 2020
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With authors not only using different terminology, but also elements in their definitions – some see gift-giving as part of collaborative consumptions, others do not – categorising collaborative consumption is challenging. For example, Davlembayeva *et al.* (2019) showcase a socio-economic continuum of the sharing economy and its practices, thereby aligning different ‘viewpoints’ (Table 2) between two oppositions (social versus economic consumption). Although this provides a baseline to understand different practices embedded in collaborative consumption, it does not fully reflect the complexity (e.g. (non-)ownership, (non-)monetary exchange), which emerges within the fashion context. Tukker (2004) uses a broader approach by presenting eight types of product-service systems (PSSs) that are categorised as product-, use-, or result-oriented and could be combined with the idea of pure, sourcing, and trading collaborations (Ertz *et al.*, 2016). In linking more generally to sustainable consumption and the emergence of new business models, Bocken *et al.* (2014) provide three archetypes - technological, social, and organisational – that include various different collaborative models, yet a key limitation here is that some seem to be overlapping, with collaborative (fashion) consumption falling into all three types.

A further question that emerges is whether different types of consumption practices and viewpoints are dependent on which segment of the fashion industry they fall into (e.g. slow, fast, high-end, luxury) and/or what type of garments are involved (e.g. children’s or women’s wear, maternity or occasion), and in turn, if these may have an impact on intention/attitude and motivation of participating in CFC. Creating a definition that is broad enough to cover key criteria, yet also specific enough to make sense within the fashion context is vital, as this would not only allow the inclusion and exclusion of various business models but could further contribute to developing policy. The fashion industry remains one of the most polluting industries, in which encouraging extended life-cycles and rightful disposal of end-consumer waste remain key challenges (Brown, 2020; Clark, 2020; WRAP, 2020a). Defining what constitutes CFC could lead to integrating these practices into policy creation, and thus, foster commitment and up take.

3.2 Collaborative Fashion Consumption - Business Models

Since the industrial revolution, the fashion industry has developed complex supply chains, by outsourcing garment production from high to low labour cost countries, which has created increased levels of fragmentation and the bearing of various environmental challenges (Ashby, 2018). This complexity is not only reflected in the terminology of collaborative (fashion) consumption (previous section), but also in the development of business models that could enable and foster its practices.

A number of intertwined concepts emerged, including product-service systems (PSSs), which are often viewed as business model innovations that support a circular economy (Lang *et al.*, 2013; Hüer *et al.*, 2018; de Padua *et al.*, 2018; Comin *et al.*, 2019; Vermunt *et al.*, 2019; Adams *et al.*, 2018); circular economy principles, which are seen to enable organisations to implement and be part of the circular economy (Hvass and Pederson 2019; Tunn *et al.*, 2019, Van Loon *et*

al., 2018; de Padua *et al.*, 2018), and closed-loop supply chains, which actively promote a circular economy by reusing resources (Van Loon *et al.*, 2018; Ashby, 2018; Hu *et al.*, 2014). The latter are seen to overcome environmental challenges associated within the fashion industry (e.g., Crandall, 2006), as they could build “a local infrastructure of designer-makers and users to grow local capacity” (Norris, 2019: 2018), thereby uncovering and overcoming premature disposal practices and other challenges. Thus, PSSs, in their capacity as business model innovations enable collaborative consumption practices, circular economy principles, as actionable guidelines, and closed-loop supply chains, as restructured operating systems, are all seen to foster an industry’s transition from a linear (take-make-use-dispose) to a circular economy, and thus intertwined concepts.

It is noteworthy that CFC is predominantly discussed within the remit of sustainability, and thus viewed as a more ‘sustainable’ alternative comparatively to traditional linear business models (‘take-make-use-dispose’), since they foster the reduction of resources and waste creation by 1) extending the use of products (e.g. renting and swapping) (Hirschl *et al.*, 2003; Pedersen and Andersen 2015; Philip *et al.*, 2015; Hüer *et al.*, 2018; Pal and Gander 2018; Comin *et al.*, 2019), and 2) preventing premature disposal, through for example, changing the actual design (material and shape), service design, and/or systems design (Laitala *et al.*, 2015; Niinimäki, 2017; Pedersen *et al.*, 2018; Norris, 2019), thus ensuring “that appropriate environmental practices can be implemented” (Ashby 2018: 699).

CFC business models are also often linked to the circular fashion phenomenon, which is based on closed-loop systems that extend a garment’s life-cycle and/or usefulness through reusing the actual garment or recycling the material (Armstrong and Lang 2013; Laitala *et al.*, 2015). This closed-loop supply chain perspective was predominantly adopted, by business-centred studies that were interested in business and production processes as opposed to consumer engagement (Tunn *et al.*, 2018; Comin *et al.*, 2019; Vermunt *et al.*, 2019).

Limited studies are dedicated to developing typologies for CFC practices and studying their sustainability potentials (e.g. Armstrong and Lang, 2013; Pal, 2015, 2016; Kotzłowski *et al.*, 2018). Armstrong and Lang (2013) highlight that CFC models, more specifically PSSs, have the potential to decrease the reliance on material resources, diminish waste, and increase consumer satisfaction, by providing services that foster utilisation. Pal (2016) concurs highlighting that servitization drives responsibility in used-clothing PSS and can be further enhanced through value-adding services, product leverage, collaborative partnership, information transparency, awareness, and platform-enabled networking.

Yet, a key challenge here is closing the material and responsibility loops, as fast fashion (take-make-use-dispose), not always provides garments designed for longevity, making it more challenging to create a fully functioning closed-loop supply chain (Pal, 2015). Authors (Hu *et al.*, 2014; Hvass, 2014; Ashby, 2018; Birkie, 2018; Ciulli and Kolk, 2019) investigating this challenge have adopted a range of perspectives (and assumptions) regarding the role of businesses in achieving CFC and treat consumers as a ‘black box’. Others, for example, Vermunt *et al.* (2019) outline internal and external barriers to the development of PSS and circular models, thereby insisting that consumers are a vital part in the success of the CFC models, as without their (consumer) buy-in they will fail. Similarly, Hüer *et al.* (2018) and Ashby (2018), who adopt a more traditional view of value creation, call for additional research to understand consumption and usage practices in order to foster CFC uptake.

CFC business models centre on co-creation and the integration of customers into the closed-loop supply chain, which enables reverse flows that can increase value as well as decrease waste in the fashion industry (Ashby, 2018). Thus, one can see a move away from the acquisition-focused customer experiences towards use-focused experiences (Freudenreich and Schaltegger 2020) whereby individuals are no longer 'consumers', but rather 'users' of garments. Thus, the role of the 'user' is extended from solely being someone who consumes (obtains), to also becoming a 'provider' (Matthews and Hodges, 2016; Henninger *et al.*, 2019; Philip *et al.*, 2019). Pal (2016) and Tunn *et al.* (2018) insist that uptake and participation could be enhanced by developing: 1) a resource use strategy (e.g. improving transparency, collaboration), 2) objectives for consumption levels, 3) co-creating mechanisms, and 4) a financially viable framework for businesses that benefit both companies and consumers.

These findings highlight that CFC is reliant on different stakeholders (especially consumers) to actively engage in the process, as without their strategic alignment and commitment, these business models will fail (e.g. Pederson and Netter, 2015; Adams *et al.*, 2018; Ashby, 2018; Battle *et al.*, 2018; Gopalakrishnan and Matthews, 2018; Appelgren, 2019; Henninger *et al.*, 2019; Holtström *et al.*, 2019; Pedersen *et al.*, 2019). This illustrates "how fashion companies interested in the circular economy fundamentally have to rethink conventional approaches to value, organisational boundaries and temporality" (Pedersen *et al.*, 2019: 308).

Despite the association with sustainable consumption and sustainability more broadly, there is little scientific evidence that supports the claim that CFC models are in fact 'more sustainable' and/or can be fully operationalised (Lang and Armstrong 2013; Hu *et al.*, 2014; de Padua *et al.*, 2018; Pal and Gander 2018; Norris, 2019). Joyner Armstrong and Park (2017) indicate that although digital CFC platforms (consumer-product, consumer-consumer, and consumer-business) can be evaluated based on sustainable potential of resource efficiency, community, and the nature of the business, these platforms do not necessarily contribute to sustainability in itself. To explain, whilst utility-based non-ownership and redistributed ownership can decrease the need for new fashion items and extend the lifetime of garments (*ibid*), or enhance resource efficiency, by renting garments that are not frequently used (Reim *et al.*, 2015), it can also foster hyper-consumption and increase environmental challenges due to enhancing the carbon footprint (e.g. shipping) and utilising other resources (e.g. water for laundering).

Thus, it is suggested that future research focuses on an interdisciplinary approach, by investigating the entirety of a garment's life-cycle and outlining a carefully calculated life-cycle assessment (LCA), both from a consumer and also business perspective. Understanding the use of garments, as well as the impact of CFC business models can have implications for policy, seeing as various supra-national organisations seek to reduce the overall impact the fashion industry has on the natural and social environment, as well as outline what a 'sustainable' wardrobe could look like. From the literature it seems that there are only 'absolute' suggestions, rather than investigating hybrid models that combine CFC with other models, including fast fashion.

Although CFC business models have been researched, as evidenced here, research has predominantly relied on either qualitative enquiries or conceptual frameworks. While qualitative, case-study based research can help understand specific examples of business innovation, its potential for generalisation and broader use is limited, highlighting a need to conduct both mixed methods and quantitative research. An explanation as to why business models have

predominantly been investigated through a qualitative lens may be that the phenomenon is still relatively recent and continuously developing, with new technologies emerging. As CFC is evolving, further empirical research is needed to understand processes and business innovations that are used to facilitate CFC, as well as connections between these practices and the different dimensions of sustainability and address the question of scalability of these CFC business models. Businesses do not operate in a vacuum, thus it cannot be expected to find solutions by solely focusing on one research method. Rather, it is suggested that an interdisciplinary approach is taken to tackle issues surrounding CFC.

It currently remains unclear whether CFC business models are 'more sustainable'. Thus, it is suggested that further investigations are needed that explore the real environmental and social impacts of CFC (e.g., Joyner Armstrong and Park, 2017). One such avenue for future research relates to the conducting further studies focusing on life-cycle assessment (LCA).

3.3 Consumption cycle pre-phase – Intention/Attitude

Within this review a distinction is made between publications that centre on the intention and/or attitude towards CFC. This is a key distinction as it provides for a hypothetical understanding of potential users (no current CFC engagement) and those that focus on the use-attainment phase (current CFC engagement). Literature discussing intention and attitudes surrounding CFC predominantly look at its associated opportunities and barriers (see Table 3).

Here, it is noteworthy to highlight that factors that may have a positive or negative impact on intention/attitude, are subjective, in that they are based on an individual's personality, lifestyle, self-image, and consumption behaviour (Catulli *et al.*, 2013). Whilst younger consumers have often been associated with the secondhand movement, as garments are more affordable and they can engage in a 'treasure hunt', they do not necessarily find them exciting, valuable, unique, or of good quality (Sorensen and Jorgensen, 2019).

Vehmas *et al.* (2018) concur with the latter aspect, as secondhand garments, and those produced in closed-loop supply chains are seen to be less fashionable and comfortable, and not always of the same quality, as garments produced from virgin materials. These perceptions of CFC act as key barriers and could be one of the reasons as to why consumers may not actively engage in these services.

Table 3: Intentions and Attitudes towards CFC (authors' own)

Independent Factor	Predictor	References
Factors positively affecting		
Intention towards CFC	<ul style="list-style-type: none"> • Perceived enjoyment • Social shopping value • Attitude • Social norm • Perceived behavioural control • Fashion Leadership • Need for uniqueness • Values (e.g. egoistic, biospheric, hedonistic) • Empathy 	Akbar and Mai 2016; O'Reilly and Kumar 2016; Hwang and Griffiths 2017; Becker-Leifhold 2018; Becker-Leifhold and Iran 2018; Lang 2018; Lang and Joyner Armstrong 2018; Lang and Zhang 2019; Lang <i>et al.</i> , 2019; Lee and Chow 2020
Attitude towards CFC	<ul style="list-style-type: none"> • Frugal shopping • Fashion leadership 	Hwang and Griffiths 2017; Lang 2018; Lang and Joyner Armstrong 2018; Lee and Chow 2020

	<ul style="list-style-type: none"> • Personality • Utilitarian and hedonic values • Perceptions of advantages of CFC • Compatibility • Ownership • Ecological value 	
Factors negatively affecting		
Intention towards CFC	<ul style="list-style-type: none"> • Perceived risk (e.g. performance, social) • Materialism • Endowment effect • Hygiene and health • Lack of trust (e.g. information) • Lack of ownership • Consumption habits 	Akbar and Mai 2016; Becker-Leifhold and Iran 2018; Lang and Joyner Armstrong 2018; Lang and Zhang 2019; Park and Joyner Armstrong 2019b
Attitude towards CFC	<ul style="list-style-type: none"> • Perceived risk (e.g. financial, performance, psychological, social) 	Lang 2018; Lang and Zhang 2019

Authors (Vehman *et al.*, 2018; Abbes *et al.*, 2020) further indicate that ease-of-use and accessibility are major influencers, with fast fashion not only being affordable, but also dominating the high street, CFC models need to be readily available for users to engage with them, which could also be a reason as to why one can see more studies in urban, as opposed to rural areas. Although the internet has reduced space and time dimensions in some ways, if consumers have to wait too long to gain access to garments, they may opt for ‘alternatives’ that are at their doorsteps.

As one example, the literature further debates whether different age groups prefer different viewpoints of CFC (see Table 2). For example, younger consumers are more likely to engage with swapping and renting (Armstrong *et al.*, 2015; Henninger *et al.*, 2019), whilst older consumers, who have a higher disposable income, may prefer CFC business models that centre on re-design (Niinimäki, 2012; Armstrong *et al.*, 2015).

In the same vein as in the previous section on business models, sustainability emerged as a further theme, with users, who identify themselves caring for the environment being more likely to engage with CFC, by emphasising the need to reuse and recycle garments (Armstrong *et al.*, 2015; Becker-Leifhold 2018; Aitkin *et al.*, 2019). A question that arises here is whether the attitude-behaviour and/or intention-attitude behaviour gap could be closed in the future. Although intention-attitude behaviour gap has been widely researched in other contexts (Carrington *et al.*, 2010, 2014), measuring the actual behaviour within CFC uptake lacks investigations.

A further remark is that aside from three single country context studies, two of which focus on India (O’Reilly and Kumar, 2016; Fernando *et al.*, 2018), and one on China (Lang and Zhang, 2019), and one cross-cultural study between the USA and China (Lang *et al.*, 2019), the remaining publications are either conceptual (6) or centre on the Global North (19). Thus, there is a lack of research into the Global South to understand whether consumers from other country contexts share the same set of attitudes and/or intentions towards CFC as their counterparts in the Global North. Research into this area is vital, seeing as large amounts of secondhand garments are shipped from the Global North to the Global South, where they flood the local economy (e.g. Brooks and Simon, 2012; Chitrakorn, 2017; Wolff, 2020).

3.4 Consumption cycle – Use-attainment phase

Literature exploring the use and acquisition (attainment) phase emerged in 2015, with approximately one-third of the papers being published in 2019. A key strength of various papers reviewed in this section is the rich empirical detail provided by in-depth examinations of users, yet, this comes at the expense of strong theoretical underpinnings. A caveat is the use of social practice theory to gain insights into the use-attainment phase, as opposed to solely looking at motivations, which can shed light on why and how CFC can be facilitated as part of everyday life (Appelgren and Bohlin, 2015; Philip et al 2015, 2019; Camacho-Otero et al., 2019b).

Our reading found that a majority of the papers reviewed in this section were based in the Global North (31), including three cross-cultural studies (Philip *et al.*, 2015, 2019; Henninger *et al.*, 2019), with one study providing a comparison between the Global North and South (Iran and Germany) (Iran *et al.*, 2019) and five investigating the Global South, four of which are a single country approaches Columbia (Camacho-Otero *et al.*, 2019a), Ecuador (Cruz-Cardena *et al.*, 2019), Malawi, and the Philippines (Isla, 2013), and one cross-cultural study Mozambique, Malawi, and Angola (Norup et al., 2019). A benefit of comparative approaches is the fact that one can gain insights into how CFC practices may vary across contexts.

However, a potential limitation of this approach is that the majority of these studies (with the notable exception of Iran *et al.* (2019)) are comparing relatively similar markets. Thus, it is vital to gain more insights into the Global South, seeing as cultural differences could have an impact on uptake of CFC. Moreover, an area that has further been overlooked is how acculturation can shape the emergence of CFC, in that more people are studying abroad and may introduce trends, such as CFC, into their home countries.

The use-attainment phase, similar to intention/attitude, is shaped by highly personal factors. Norum and Norton (2017) highlight that active participation in secondhand acquisition is dependent on socio-demographic and contextual factors, including income, number of children (0-17 years), as well as sewing and repair skills. The latter may not be surprising, with media highlighting that sewing skills were lost, yet see a revival within the COVID-19 pandemic, which could imply that one may see changes in the future (Turner, 2017; Alfonso III, 2020).

Similarly, age is seen as a key determinant, with Millennials being more likely to consume secondhand garments than previous generations (Norum and Norton, 2017). There could be twofold explanations: 1) older generations may still see a stigma attached to secondhand products, and thus, see them as inferior (e.g. quality) and less hygienic (Norum and Norton, 2017; Hu *et al.*, 2018; Henninger *et al.*, 2019; Lo *et al.*, 2019), and 2) cost and time saving, and following trends may foster uptake in younger generations (Armstrong *et al.*, 2015; Ferraro *et al.*, 2016; Hu et al. 2018; Kim and Jin, 2019; Park and Armstrong, 2019a; Yuan and Shen, 2019; Lang *et al.*, 2020).

Economic motivations are a primary driver if these CFC services are seen to provide better value for money, which might be the case if users are able to rent 'large-ticket' items (Philip et al., 2015) and thus, have access to unique and exclusive brands (Matthews and Hodges, 2015). In staying with fashion rentals, Lang and Zhao (2020) found that experiential, utilitarian, financial value, and ease-of-use, were major motivational drivers. Interestingly, within a luxury fashion context risk avoidance was seen to be a motivational driver, in that consumers were able to try-before-they-buy, and thus, see whether they fit the style and want to buy-in (Turunen and Leipämaa-Leskinen, 2015; Hu *et al.*, 2018).

Similarly to findings in the previous section, literature remains divided (and limited) on the role of altruistic concerns for the environment and sustainability as a motivational factor for engaging with CFC. Whilst authors (Balderjahn *et al.*, 2018; Hu *et al.*, 2018; Khan and Rundle-Thiele, 2019; Kim and Jin, 2019) insist that environmental concerns were influential in up-taking CFC, others (Gnanamkonda *et al.*, 2019; Park and Armstrong, 2019a, b) either found no evidence supporting these altruistic motivations, or found them, but they were outweighed by economic considerations (Khan and Rundle-Thiele 2019).

Moreover, Sihvonen and Turunen (2016) and Machado *et al.* (2019) found that price is key: if secondhand garments are more expensive than fast fashion, consumers opt for the latter for economic reasons. This links to the issue of value, which has been widely discussed within the literature. Value is a contested topic with respect to fashion, as the price of clothing has become incredibly cheap with the advent of fast fashion. Focusing on users, those engaging in CFC put a range of demands on their garments beyond value, including aesthetic expectations, quality, and functionality (Niinimäki, 2012).

CFC services can experience a number of challenges with respect to appealing to customers to not only spend their money, but also invest their time in CFC. Binninger *et al.* (2015) argue that online PSSs can create new consumer behaviours, built around values such as responsibility, independence, and communal living. Socialising and community in the form of a “swapping culture” (Matthews and Hodges, 2015: 2016) have been identified as important factors or values that individuals prioritise in order to engage with CFC, such as swapping. Iran *et al.* (2019) concur and indicated that attitude, social norms, and perceived behaviour control are three important predictors of user intention to engaging in swapping, gifting, sharing, and secondhand fashion.

Just as it is personal considerations that can predict intended use, Petersen and Riisberg (2017) found that feelings of nostalgia and memories imbued in baby clothing can shape users’ decisions to engage in online subscription rental services. Understanding how and why participants decide to engage in CFC (e.g. swapping) can help the organisers of such events and platforms make these services more desirable in appealing to a wider range of consumers (Camacho-Otero *et al.*, 2019a).

Although the terminology surrounding collaborative consumption focuses predominantly on digital services, CFC still sees a dominant uptake of offline interactions (Albinsson *et al.*, 2010; Roux, 2010; Isla, 2013; Appelgren and Bohlin, 2015; Johnson *et al.*, 2016; Balderjahn *et al.*, 2018; Holmes, 2018; Camacho-Otero *et al.*, 2019b; Henninger *et al.*, 2019; Ritch, 2019) and/or a mix of offline and online (Matthews and Hodges, 2015, 2016; Roos *et al.*, 2016; Zamani *et al.*, 2017; Iran *et al.*, 2019; Loussaief *et al.*, 2019; Norup *et al.*, 2019). This continued reliance on the offline context could be explained by the tactile nature of garments, which is often best experienced in person, rather than online. It further reiterates a point made in the terminology section, in that the definition of CFC needs further refinement, as it may not fully fit with criteria set for collaborative consumption that emerged from different contexts (e.g. tourism, automotive). Thus, this provides a new research agenda that currently remained overlooked.

Based on the analysis provided a number of current gaps were identified and subsequent themes for future research. The first is gender. Overwhelmingly, in this literature, there is a focus on the use/attainment behaviours of female participants, even if this point is not made explicitly clear. Even studies of children’s clothes (Petersen and Riisberg, 2017; Ritch, 2019) are highly

likely to be gendered and examine collaborative consumption behaviours of women, who are more likely to be responsible for children's clothing, as compared to men.

Thus, a reoccurring theme for future research is to examine and better understand the ways in which men engage in collaborative consumption (Henninger *et al.*, 2019; Philip *et al.*, 2019). For example, are men actually less likely to participate in collaborative consumption of fashion, or is it simply that their use/attainment behaviours have yet to be examined? If the industry is to move toward a more circular economy, CFC practices are becoming increasingly more important, and thus, it is necessary to understand why men may (not) engage with these practices.

Similarly, with gender fluidity becoming increasingly commonplace and the fashion industry providing more gender fluid collections, it is vital to further portray this research on CFC, thus calling out for research to be more inclusive and not limited to solely binary studies (male versus female). This identified gap is a key contribution of this research, by highlighting the importance of *gender* and the fact that studies should not be limited to having a binary focus, but rather move with current times where gender emerges as a buzzword.

Moreover, as Loussaief *et al.* (2019) argue, age is another useful and related lens to consider. For example, consumption patterns, as well as feelings of attachment and identity to consumer goods change over one's life-time. Future research could therefore investigate the use patterns of older adults (age 60 years and older), as well as provide an analysis across different generations (e.g. through a life histories approach (Alevizou *et al.*, 2021)). Qualitative methodologies, which can provide rich empirical accounts of use/attainment behaviours, are highly appropriate methodological approaches for this subject. However, a limitation is that to facilitate such an approach, the majority of case studies in this literature have been confined to a handful of geographic contexts and often rely upon small sample sizes.

Elaborating on this point, the limited range of contexts that have been examined thus far remains a critical research gap. There is a need to move beyond the particulars of a single geographic context (cf. Zamani *et al.*, 2017) or highly urban contexts when international cases are compared (Philip *et al.*, 2015) in order to increase the validity of findings (Balderjahn *et al.*, 2018). Philip *et al.* (2015) and Ritch (2019) argue that a range of socio-economic cultural, political and structural factors can also foster or impede the ways in which users engage with sharing and renting, and that there is a need to compare across countries.

For example, as Isla (2013) demonstrates, even within a national context such as the Philippines, there can be considerable variation in attitudes and experiences towards secondhand consumption when one compares regional and national opinions. Additionally, for mobile-enabled collaborative consumption practices, access to differing technologies available to users can also shape outcomes but also remains poorly understood (Zhang *et al.*, 2019).

While research on motivations to engage in CFC is an important part of scholarship on the topic, this review demonstrates that studies exploring actual consumer behaviour are marginalised as opposed to research on hypothetical behaviour, intentions and attitudes. The reasons behind this lack of empirical studies may have to do with the novelty of CFC as practiced through online rental and resale platforms. Moreover, the systematic literature review identified no single study on motivations to engage into apparel swapping, which is an important growing trend in CFC.

Finally, when looking within national contexts, an additional theme that emerges is the clear urban focus. It becomes clear through this body of work that collaborative consumption is a highly urban phenomenon, with a number of studies (e.g. Iran *et al.*, 2019 and Zamani *et al.*, 2017) highlighting the need to consider a broader range of contexts.

3.5 Consumption cycle - Disposition

Disposal forms a vital part of the consumption process and signals the final stage of a garment lifecycle (Park, 2010). CFC enables consumers to extend the useful life of their idle capacities and unwanted garments, thereby entering a new cycle of simultaneous acquisition and disposal and moving from simply being obtainers, to becoming providers (Matthews and Nelson Hodges, 2016; Henninger *et al.*, 2019; Philip *et al.*, 2015, 2019).

Out of the 154 papers investigated only 32 explicitly focus on disposal behaviour of garments, a majority of which have been published after 2015 making it an under-researched topic area, and one that only recently has gained momentum (Joung, 2013; Bubna and Norum, 2017; Philip *et al.*, 2015, 2019). Noteworthy observations are that all but one paper (Bubna and Norum, 2017) focus predominantly on female rather than male participants, whilst four studies are conducted in the Global South (Mhango and Niehm, 2005; Milgram, 2012; O'Reilly and Kumar, 2016; Cruz-Cardenas *et al.*, 2019) and three are cross-cultural (Corvallec and Stal, 2017; Philip *et al.*, 2015, 2019).

In terms of disposal, the literature distinguishes between pre- and post-consumer waste (Joung and Park-Poaps, 2013), highlighting that textile waste overall remains a consumer affair (Weber *et al.*, 2017). An interesting notion that could turn into a philosophical debate, seeing as retailers produce fast fashion that is meant to be worn ten times or less, thereby fostering a throw-away culture (Henninger *et al.*, 2016; Athwal *et al.*, 2019).

Disposal has been described as either temporary or permanent (Jacoby *et al.*, 1977; Albinsson and Perera, 2012), which can be linked to the waste hierarchy (Pensupa, 2020), whereby the ultimate goal is waste prevention. Disposition practices of post-consumer waste (Joung and Park-Poaps, 2013), link to collaborative consumption, in that 'waste' is seen as a new resource that may hold value for others (Table 2). Authors have investigated the motivations of clothing disposal (Birtwistle and Moore, 2007; Joung and Park-Poaps, 2013; Joung, 2014; Lewis, 2015; Weber *et al.*, 2017; Philip *et al.*, 2015, 2019), highlighting that these are underpinned by individual characteristics, available infrastructure, and product quality (Paden and Stell, 2005; Sandin and Peters, 2018), which may be a further reason as to why research has predominantly focused on urban instead of rural settings.

Product quality is one of the main reasons for obtainers to discard garments, as these are seen to be too worn, broken, or no longer functional (Part, 2010). Individual characteristics are associated with emotional attachment to garments, which in turn can also be an indicator of how a garment is disposed, as those that have a strong emotional value may be passed down to family or close friends, whilst those with negative associations are binned, donated, or swapped (Joung, 2013; Lewis, 2015; Philip *et al.*, 2015; Bubna and Norum, 2017).

Although different options are available to divert garments from landfill, there seems to be generally lack of awareness on how to dispose of them from the consumer side (Morgan and Birtwistle, 2009; Joung, 2013; Bubna & Norum, 2017). Thus, more research should focus on

how disposal methods can be communicated in a way that enhances the knowledge of these different options, and its uptake.

4. Discussion

This systematic literature review highlights that within the growing body of research surrounding on CFC, the concept remains fragmented and under-developed in a number of areas (Table 4). Defining CFC remains a key issue, and could potentially lead to a normative debate, in terms of what modes should be included, and which ones should not. Understanding what CFC includes is important in order for businesses to communicate their unique market position and provide a platform to fully capitalise on the provider-obtainer aspect.

As indicated, there is a strong emphasis in the non-fashion related literature to link definitions surrounding CFC to an online context, yet, this may not be suitable for clothes, seeing as it is a very tactile product. Similarly, within the fashion context, there are a variety of ownership modes ranging from complete transfer, to redistribution, to only granting access for a limited amount of time with no ownership transfer.

Whilst Iran and Schrader (2017) provide a comprehensive definition, a key question that has been raised in the literature is whether gifting should be included as a mode of CFC. For example, building on Belk (2014), Iran and Schrader (2017) continue the tradition, yet it could be argued that gift giving may not necessarily fit, seeing as it does not imply that, here, garments are kept in existence longer. The current review does not seek to provide a definition of CFC, but rather outline that there remain challenges with existing ways of discussing CFC, not only due to the various terminologies used (often wrongly interchangeably), but also due to the vagueness of the concept and the blurred boundaries of what it means to have “access to already existing garments” (ibid: 472).

Whilst there may have been some bias in this research, by only choosing publications written in English, it nevertheless becomes apparent that a majority of publications have been published in the context of the Global North, leaving the Global South experiences unexplored. Yet, this geographic area is increasingly becoming important, seeing as secondhand garments are not only ‘flooding’ these markets, but now with the recent pandemic there are further issues that need to be considered in relation to CFC.

Indeed, disruptions across the supply chain have left the most vulnerable, namely garment workers, in even worse conditions (Brydges and Hanlon, 2020; Uddin, 2020). With less income, CFC, which is often at a lower price point depending on the level of ownership and the way it is facilitated (e.g. Henninger *et al.*, 2019), may become even more important. Yet, this could also have negative consequences, in that stigma may be attached to these methods of consumption, fostering the belief that CFC is only for those classes in society that have a low standing.

Keeping in line with the pandemic theme, yet moving towards a focus on the Global North, future research will be necessary to explore the impact of COVID-19 on CFC. Current market research seems to foresee two different scenarios: on the one hand, the level of CFC could see an increase in line with conscious consumption, in that individuals have had time to reflect on their consumption practices, and actively looking for alternatives that are less harming (Fairs, 2020; Brydges *et al.*, 2020b).

On the other hand, there are also negative implications with fears of contamination and hygiene issues becoming a major concern for consumers (Singer, 2020). Although these issues

could be overcome relatively easily through ensuring appropriate cleaning measures, increased laundering may not only reduce the lifetime of a garment, but also has environmental implications. Research shows that more washing detergents and microfibres may infiltrate the wastewater systems, and in the worst case reach the oceans (Laitala *et al.*, 2015; Yan *et al.*, 2020).

In order to make CFC a mainstream reality, the infrastructure that underpins it needs to be readily available. Although swap shops, rental platforms, and secondhand stores are available in many countries, these may not always be conveniently located (e.g. Henninger *et al.*, 2019). Similarly, in light of the pandemic, various existing infrastructures were disrupted. For example, as charity (second-hand) stores were unable to make collections and/or accept donations, the number of garments landfilled saw a dramatic increase (e.g. Ortolan, 2020), thereby counteracting the key principle of CFC – extension of a garments lifetime.

Whether CFC becomes a mainstream phenomenon is also strongly dependent on actual consumer behaviour, which lacks investigation and could be approached through the social practice theory lens, as could provide insights into meaning, materials, and competences involved in specific consumption practices (e.g. Appelgren and Bohlin, 2015; Philip *et al.*, 2015, 2019; Camacho-Otero *et al.*, 2019a,b). Thus, this approach sheds light on everyday actions and can uncover what may need to be done in order to facilitate more uptake of CFC, as well as provides insights into how these closed-loop systems could be supported from an industry perspective.

Moreover, cultural aspects should not be overlooked, seeing as the world is changing. Enhanced adoption and implementation of sustainability agendas in national contexts (e.g. Saudi Arabia) will favour modalities of consumption that are aligned with SDG 12 on Responsible consumption and production. Future research could investigate the role of culture and acculturation in adopting different CFC models, informing policy strategies to support and enhance CFC in different national contexts.

As alluded to earlier, the fashion industry is changing with introducing more gender fluid garments, yet this fluidity has neither made it into mainstream fashion literature, nor are its implications discussed within CFC. Within current research, it becomes apparent that CFC modes (e.g. swapping, renting) are set up in a rather “binary” (man/woman) way, which poses to question of inclusion and exclusion criteria. The way these CFC modes are set up could exclude individuals not identifying within binary confinements, similarly, it could exclude those within vulnerable groups (e.g. low social income) due to cultural stigma and stereotypes. If the fashion industry is to transition towards a more circular model, it is vital to investigate potential perceptions of inclusion and exclusion that could hinder individuals to engage. With consumer consciousness increasing and secondhand consumption rising dramatically, since the start of the pandemic, this will become even more important.

Table 4: Summary of Research gaps



A further aspect that features in all parts of this systematic literature review is that of sustainability and CFC. Sustainability is a key issue in the fashion industry, as such, CFC practices become more important than ever. Yet, opinions within the literature are twofold on whether associated business models are indeed more sustainable or not, and whether there could be a rebound effect in that they (CFC models) also foster hyper-consumption (e.g. Lang and Armstrong 2013; Balderjahn *et al.*, 2018; Gnanamkonda *et al.*, 2019; Pal and Gander 2018; Park and Armstrong, 2019a, b; Norris, 2019; Khan and Rundle-Thiele 2019).

There is considerable scope to develop this area of research further, by critically examining various viewpoints of CFC and their potential to present a more sustainable business model. This links with a previous remark made, in that what CFC entails remains elusive, and effective strategies for implementing CFC remain obscure. Whilst the COVID-19 crisis might be seen as temporal, similarly to the Rana Plaza Factory incident, in which thousands lost their lives (Westervelt, 2015), and microfibre pollution (e.g. Yan *et al.*, 2020), it puts renewed emphasises

on a key underlying issues: the unsustainability of the fashion industry and the need to address it in light of sustainability being a top global priority (UN, 2015; EAC, 2019; Brown, 2020). Thus, as pointed out in the introduction, the fashion industry is currently at a crossroads, thereby having an opportunity to make changes to current practices and develop policies that can foster a more sustainable future and capitalise on CFC, by further exploring its potential to being a more 'sustainable' alternative, through, for example, undertaking LCA studies that could provide scientific evidence of these claims.

5. Conclusion

As a concluding remark, this systematic literature review is novel in that it clearly outlined not only the current state of CFC with the literature, but further provided various avenues of future research. Various tensions were outlined within the field of CFC consumption, especially the key issue of developing a definition that fully encompasses distinctive products and services provided within the fashion remit. This research is unique in that it synthesises current progress surrounding the topic of CFC, but also highlights current shortcomings in light of political debates (e.g. gender) and changes in the global economy, such as countries opening up and introducing sustainability agendas (e.g. Saudi Arabia) that could foster increased uptake of CFC.

Sustainability is and will increasingly become a key priority in the fashion industry, currently further accelerated through the COVID-19 pandemic, which sees increasing consumer buy-in for more sustainable solutions, thus CFC will see an increase in interest in the future. With the pandemic continuing into 2021, the full impact of the situation on CFC remains unknown. Various changes have already been occurred, such as a move to online environments, yet with fashion being a tactile medium, it will be interesting to observe whether certain CFC business models (e.g. swapping) may revert back not only to a physical, in-store environment, but also to its pre-COVID peak. What is known, however, is that there are fascinating research opportunities available that could further focus on the impact the pandemic has on CFC business model developments.

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