

Advancing the circular economy through dynamic capabilities and extended customer engagement: Insights from small sustainable fashion enterprises in the UK

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Abstract

The circular economy holds the potential to significantly reduce resource use. However, attempts to fully utilize its potential have fallen short so far. Based on a longitudinal interview-based study, we examine how micro, small and medium enterprises (MSMEs) in the UK fashion industry advance the circular economy (CE). Whereas the dynamic capabilities framework is mostly used for medium and large businesses, our findings advance the current literature, demonstrating how the distinctive development and use of dynamic capabilities enable MSMEs to act in agile ways, allowing them to introduce, test and advance CE solutions, while providing them with more resilience during times of crises. Our study further shows that fashion MSMEs adopt circular economy business models (CEBMs) by going beyond conventional, technology-focused approaches currently dominating business thinking. The research highlights MSMEs' ability to engage in circular practices through an extension of existing business models in the form of close interactions with their customers demonstrating the importance and potential of *extended* business-customer engagement in businesses' attempts to adopt CE practices.

KEYWORDS

circular economy, consumers, dynamic capabilities, entrepreneurship, sustainability, sustainable fashion

1 | INTRODUCTION

Fashion is one of the most polluting industries in the world, accounting for an estimated 10% of annual global carbon emissions (The World Bank, 2019). Through the recent rise of low-price online retailers, consumers can access even more products for less money. Whereas this development has been sold as great benefit for the consumer, it has equally decimated local retailers with sometimes severe effects on jobs while encouraging overconsumption (Bocken & Short, 2021). Driven by this acceleration of production and consumption of cheap, low-quality clothing, 'fast fashion' business models are

contributing to environmental damages while eroding the cultural value of fashion (Cachon & Swinney, 2011; Sandvik & Stubbs, 2019).

Fashion, often regarded by theorists as being inherently about change (Lillethun, 2011), has mainly been translated into a large number of short-term transient trends (Gardetti & Torres, 2017) with resource intensive processes and ever shorter product life cycles. For instance, whereas overall clothing production almost doubled over the last 15 years, the average use of garments dropped by nearly 40% (Ellen Macarthur Foundation, 2017). Following the dominant linear production models based on 'take, make, dispose' logics of resources and goods, the fashion industry's current processes negatively impact

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human health and wellbeing, progressively pushing the planetary capacity of the natural ecosystem towards collapse (Stahel, 2016) and is therefore often considered to be antagonistic to sustainability.

By contrast, some scholars argue that fashion may be a key element in working towards more sustainable ways of living (Black, 2012; Gardetti & Torres, 2017). Recent years have seen the rise of fashion design entrepreneurs among micro, small and medium enterprises (MSMEs) who seek to challenge the 'status quo' of their industry by developing alternative visions of fashion, and business models actively incorporating circular economy principles. These MSMEs are often regarded as the 'creative engine' for the wider industry (Prieto-Sandoval et al., 2019).

Based on an in-depth qualitative study of sustainable fashion design entrepreneurs and their enterprises in the UK, this article explores how fashion design MSMEs advance circular economy (CE) practices and circular economy business model innovation within the fashion industry. We contribute to the advancement of literature on the circular economy by providing novel insights into (i) how dynamic capabilities and, in particular their microfoundations, enable small fashion enterprise agility to advance circular economy practices, (ii) the role and potential of extending customer engagement beyond traditional business practices and (iii) the potential of CE business models and dynamic capabilities to provide businesses with resilience when facing economic downturns and external shocks such as the SARS-CoV-2 ('Covid-19') pandemic. We therefore contribute to at least two themes of this special issue on Advancing Circular Economy, namely, what knowledge, competences, or (dynamic) capabilities companies need to implement circular economy initiatives', and how principles of circular economy can make companies resilient to pandemic supply-chain disruptions.

The remainder of this paper is structured as follows: Following the introduction, we review key literature that illustrates how a shift from linear to circular approaches is possible, making links to the fashion sector throughout, as the textile industry faces different material-related constraints compared to other industries (Fletcher, 2014). We then present our approach to data collection and analysis. Next, our findings section sets out the dynamic capabilities and supporting microfoundations relevant to sustainable fashion MSMEs as well as the crucial importance of customer engagement for these MSMEs. This is followed by a more detailed discussion, including consideration of MSMEs' impact and potential (and limitations) in advancing the circular economy. We will finish with a conclusion and identification of emerging themes warranting further research.

2 | LITERATURE REVIEW

The move away from conventional linear business models to achieve sustainability poses a major paradigm shift away from structures and operations being deeply rooted in linear thinking and approaches to growth (Blomsma & Brennan, 2017). Currently, single-use ownership is still the norm and material recovery is understood as not profitable with poor product design adding further layers of complexity

perpetuating so-called planned obsolescence. However, a growing number of private sector actors have emerged in recent years setting out to challenge this (unsustainable) status quo.

This section aims to provide an overview of different business strategies for sustainable change and how business models can drive progress. It introduces the circular economy, its opportunities and constraints in the fashion sector's attempt to embrace the circular economy as well as the role of dynamic capabilities, and its micro-foundations in advancing circular economy practices.

2.1 | Business strategies for sustainable change

Currently, business models in the clothing and textiles industry are marked by high volumes and low margins made possible through complex global supply chains and an unsustainable use of key resources (Bocken & Short, 2021). They are therefore inherently unsustainable and require rapid reformation.

Thus far, efforts of companies to 'green' business operations are limited and often seen as insufficient to achieve value in terms of true sustainability (Wright & Nyberg, 2015). Approaches towards improving business models and practices can broadly be categorised into supply chain and production-based strategies and customer-focused strategies (Heikkurinen et al., 2019). Figure 1 provides a visualisation of different approaches discussed in this section and the wider paper for illustrative purposes. The traditional linear economy is shown by the grey arrows running from left to right. Circular economy approaches creating loops that narrow and slow resource flows are shown by orange arrows. An additional green arrow indicates the customer's opportunity to extend product-life through reuse, repair or upcycling activities. Blue arrows show relationships between enterprises and their supply chains (light blue arrows) and customers (dark blue arrows).

Heikkurinen et al. (2019) divide supply chain and production-based strategies into eco-efficiency and eco-sufficiency, and the customer-focused strategies into *extended* eco-efficiency and *extended* eco-sufficiency. In its most basic form, eco-efficiency describes quality improvements of production processes, with eco-sufficiency describing voluntary restrictions of production processes (Bocken & Short, 2016). Eco-efficient techniques have been criticised as being too limited as they focus on product improvements alone, which critics see as insufficient in the attempt to close material loops (Braungart et al., 2007) as incremental eco-efficiency product improvements are usually being dwarfed by increases in sales (Stuchtey et al., 2016, p. 19). Eco-sufficiency in turn is not enough on its own as a business strategy as consumers can change from one business to another, rendering the strategy void and risking to seriously infringe the financial sustainability of businesses. This is particularly the case for fast fashion brands that rely on high volume throughput.

Acknowledging the shortcomings of conventional eco-sufficiency and eco-efficiency approaches, an extension, which includes customers has been proposed to address questions of production and

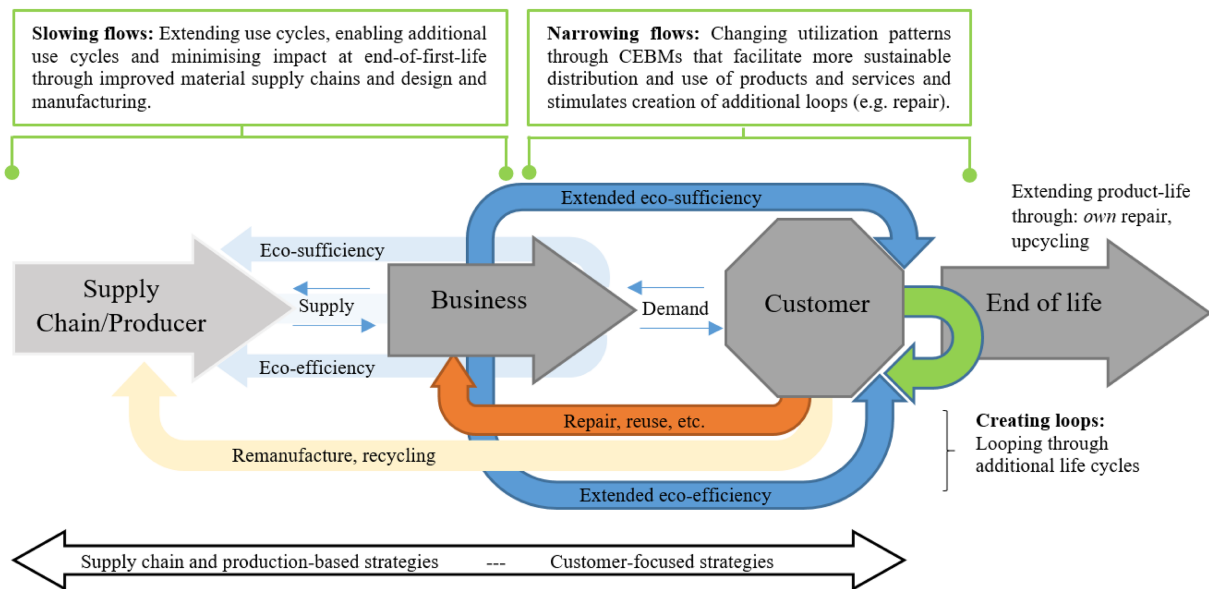


FIGURE 1 Circular economy activities and interaction between different actors. Adapted from Wellesley et al. (2019) and Heikkurinen et al. (2019) and further extended

consumption. There is a growing acceptance that, in addition to companies and governments (Webster, 2015), consumers and their consumption-patterns play an important role in efforts to make industries more sustainable and that companies should also engage with the consumption side (Elf et al., 2020; Heikkurinen et al., 2019). Simultaneously, consumers' interest towards sustainable solutions has increased in recent years (Ipsos MORI, 2019) potentially providing fertile ground for CE advances.

Placing the focus on the customer, *extended* eco-sufficiency aims to influence customers to consume less (Freudenreich & Schaltegger, 2020; Heikkurinen et al., 2019). Extending eco-sufficiency to customers shifts the focus on fewer but better products and services that can facilitate a necessary move away from fast fashion approaches. *Extended* eco-efficiency intends to influence the customer to consume better (Heikkurinen et al., 2019). It actively acknowledges that the underlying promise of conventional eco-efficiency approaches to provide an opportunity to decouple business practices from material dependency are not only insufficient but are, at best, wishful thinking (Hukkinen, 2001). In addition, both eco-sufficiency and extended eco-sufficiency alone may risk rebound effects to occur where customers use their saved money on other, potentially more carbon and/or energy intense products or services (Figg et al., 2014). A combination of strategies are linked to and correspond with the idea of simultaneously slowing loops or narrowing flows (see Figure 1; Wellesley et al., 2019) that aims to extend the life of products to minimize resource usage, and of closing loops, which, in turn, is about recycling to close the loop between end-of-life product stages and production processes (Geissdoerfer et al., 2017).

Another prominent strategy with a focus on the production of environmentally benign products and product systems is that of eco-effectiveness (Braungart et al., 2007). Eco-effectiveness was

developed in response to certain limitations of eco-efficiency as described earlier and 'proposes the transformation of products and their associated material flows such that they form a supportive relationship with ecological systems and future economic growth' (Braungart et al., 2007). It thus aims at doing good rather than just doing 'less bad'. However, a common critique is that it seemingly proposes the possibility of absolute decoupling, arguing that sustainability *and* continuous, unlimited growth in consumption are compatible (Bjørn & Hauschild, 2011; cf. Lorek & Fuchs, 2013).

While other business strategies and models for sustainability have been developed and discussed widely elsewhere (e.g. Bocken & Short, 2021; Evans et al., 2017), in this paper, we take a pragmatic view of CE. We apply a dynamic capabilities framework (introduced below) and focus on business models for the circular economy (Lüdeke-Freund et al., 2019) within the reality of the fashion industry.

2.2 | The circular economy and circular economy business model approaches

Whereas there is no general agreement on the concept of business models (Evans et al., 2017), an underlying key component is that of 'value'. Value, however, can have different meanings and can refer to customer value (Magretta, 2002) or economic value (Chesbrough & Appleyard, 2007), among others. Business models therefore commonly describe and capture the means and underlying logic of how businesses operate and, in the process, create and deliver value (Teece, 2010).

In contrast to linear business models, in which the value associated to a product or service is lost after its usage by customers, circular economy business models (CEBMs) aim to preserve value by

either retaining the highest *product* value through slowing resource loops (e.g. clothing rental business models) or retaining *material* value through closing the loop as in the case of cradle-to-cradle models (Lüdeke-Freund et al., 2019).

Circular economy thinking is nothing new and can be traced back to the 1960s (e.g. Spilhaus, 1966). The CE concept is based on the notion that the economy and the environment should coexist. Noteworthy concepts that draw on this thinking include 'industrial ecology' (Ayres & Ayres, 1996; Bocken et al., 2017), 'self-replenishing economy' (Stahel & Reday-Mulvey, 1981), which was later further developed into 'Performance Economy' (Stahel, 2006), 'Natural Capitalism' (Lovins et al., 1999), and work by Pearce and Turner (1990) who first contrasted (circular) natural systems with (linear) economic systems and stressed the importance of distinguishing between exhaustible and renewable resources.

The concept of CE proposes a transformative economy that actively seeks to redefine production and consumption patterns through resource efficiency, sustainable economic growth, environmental protection and social development that allows to eliminate waste (Kirchherr et al., 2017). Attempts to define the CE are plentiful, with different emphases but also considerable overlaps.

Focusing on social-economic aspects, Preston (2012, p. 1) defines the circular economy as 'an approach that would transform the function of resources in the economy. Waste from factories would become a valuable input to another process—and products could be repaired, reused or upgraded instead of thrown away'. Applying a systemic angle, the Ellen MacArthur Foundation defines a circular economy as 'an industrial system that is restorative or regenerative by intention and design. ... It replaces the 'end-of-life' concept with restoration, shifts towards the use of renewable energy, eliminates the use of toxic chemicals, which impair reuse, and aims for the elimination of waste through the superior design of materials, products, systems, and, within this, business models' (Ellen MacArthur Foundation, 2013, p. 7). Webster (2015, p.16) later simplified this definition stating that the CE is an economic model that is 'restorative by design, and which aims to keep products, components and materials at their highest utility and value, at all times'. Kirchherr et al. (2017), reviewing 114 CE definitions, synthesised existing definitions into one comprehensive definition arguing that '[A circular economy is] an economic system that replaces the 'end-of-life' concept with reducing, alternatively reusing, recycling and recovering materials in production/distribution and consumption processes. It operates at the micro level (products, companies, consumers), meso-level (eco-industrial parks) and macro level (city, region, nation and beyond), with the aim to accomplish sustainable development, thus simultaneously creating environmental quality, economic prosperity and social equity, to the benefit of current and future generations. It is enabled by novel business models and responsible consumers' (p. 229).

For the purpose of this paper, we will draw on Blomsma and Brennan (2017) who understand the CE as an 'umbrella concept' that seeks 'to extend resource life, for example: reuse, recycling, remanufacturing, servitization, repair, waste-to-energy, product longevity approaches, and the cascading of substances (i.e., the

transformation of materials through various use phases)'. Defining the CE as an umbrella concept allows to consider other, potentially important, factors (e.g. behavioural aspects) that might hold the potential to advance CE efforts. According to Blomsma and Brennan (2017), the circular economy therefore 'articulates (more clearly) the capacity to extend the productive life of resources as a means to create value and reduce value destruction' (p. 609).

As shown above, Lüdeke-Freund et al. (2019) argue that social and environmental resource issues require businesses to rethink their existing supply chains and adopt new business models. Drawing on, and extending the work by the Ellen MacArthur Foundation and others, the authors identified 26 CEBMs in the literature ranging from technological-driven approaches trying to foster efficiency, to sufficiency approaches such as sharing models, and proposed a typology of six major CEBM patterns, namely, (i) repair and maintenance, (ii) reuse and redistribution, (iii) refurbishment and remanufacturing, (iv) recycling, (v) cascading and repurposing, and (vi) organic feedstock business models (Lüdeke-Freund et al., 2019).

However, whereas the concept of circularity is now being understood as a major opportunity to achieve sustainability across the fashion industry using more commercially achievable approaches to guide design strategy and practice (Global Fashion Agenda, 2019), established businesses still show a strong reluctance to incorporate circular thinking in their existing business models (Lüdeke-Freund et al., 2019).

According to Evans et al. (2017), one factor for the lack of progress occurs due to the complexity of long value chains when trying to shift existing business models towards sustainable business models such as CEBMs, an issue particular pertinent across the fashion industry often characterised by global supply chains. Acknowledging the inherent complexity of business model innovation, Jaeger-Erben et al. (2021) suggests to embrace a systems approach with a societal focus that actively engages with all stakeholders including consumers.

Indeed, apart from a few notable exceptions (e.g. Bocken & Short, 2016; Tunn et al., 2019), behavioural elements are often overlooked in CE research, which has predominately focused on technical advancements (Mayers et al., 2021), as consumers are mostly seen as passive actors with little or no influence on business processes (Urbanati et al., 2017). However, several stages of the circular fashion model extend into consumer use, collection, recycling and re-use of garments, and most CEBMs rely on consumers' contribution to slow, narrow and close resource loops.

While their implementation may be rather functional, advancing CEBMs constitutes an extension of corporate sustainability efforts (Stål & Corvellec, 2018). Minelgaitė and Liobikienė (2019), for example, stress the importance of reducing, reusing and recycling *behaviours* as effective tools for solving the waste problem thus drawing attention to behavioural components required to fully close the loop and allow for effective circular practices. Similarly, the OECD (McCarthy et al., 2018) stress the importance of behaviours such as re-use and repair and modified consumer behaviour more generally in an attempt to advance the CE, making it an important area of research that requires further attention. Moreover, recent research has shown

that fashion consumers show positive attitudes towards the recycling of textile waste to produce new clothes (Kaisa et al., 2018), providing potentially fertile ground for CEBM adoption and innovation. As argued by Urbinati et al. (2017), CEBMs can only progress towards a fully circular approach when both upstream and downstream actions are taken into consideration, requiring overall reductions in resources and in unsustainable consumption practices.

2.3 | The role of dynamic capabilities and microfoundations in advancing circular economy practices

Another important factor to consider for the successful adoption of CEBM models is the presence or lack of (dynamic) capabilities within businesses (Khan et al., 2020). Dynamic capabilities were initially conceptualised as businesses' 'ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environment' (Teece et al., 1997, p. 516). Teece (2007) later developed the concept further suggesting that dynamic capabilities are underpinned by microfoundations in the form of distinct skills, processes and organisational activities and can be described as businesses' foundational capacity to respond to rapid changes in the business's environment, providing the respective business with a competitive advantage. To successfully respond to changing circumstances a business needs to '(1) sense and shape opportunities and threats, (2) seize opportunities, and (3) maintain competitiveness through enhancing, combining, protecting, and, when necessary, reconfiguring the firm's intangible and tangible assets' (Teece, 2007, p. 1319). Dynamic capabilities can therefore play a potential important role in business model innovation for sustainability (Bocken & Geradts, 2020).

While the concept was developed in an attempt to provide an umbrella framework integrating strategy and innovation literature with a focus on multi-national businesses, it provides equally important insights for micro and smaller businesses into how to address challenges involved in corporate change towards sustainability (Filser et al., 2021; Wu et al., 2013). Emerging research such as the work on business model innovation by Filser et al. (2021) have shown the potential of dynamic capabilities for sustainability ambitions in smaller enterprises. Wu et al. (2013) even argue that whether or not a business succeeds in adopting to changing circumstances and achieving their sustainability ambitions lies in the development and application of its dynamic capabilities. In a similar vein, Khan et al. (2020) demonstrate how microfoundations of dynamic capabilities facilitate CE implementation, providing empirical evidence that shows how sensing, seizing and reconfiguring activities can advance CE opportunities.

While existing research on dynamic capabilities and their relevance for sustainability has been confirmed in recent meta-analyses and systematic literature reviews (e.g. Amui et al., 2017; Buzzao & Rizzi, 2021), only few studies have applied a dynamic capability framework to the circular economy (e.g. Khan et al., 2020;

Prieto-Sandoval et al., 2019). However, with the Covid-19 pandemic posing unprecedented contextual challenges, businesses have to show resilience, agility and high levels of flexibility if they are to advance the sustainability of their business during the Covid-19 health crisis and future crises (Helfat et al., 2007).

3 | METHODS

3.1 | Data collection and case selection

This article presents findings from a longitudinal interview-based study focusing on fashion design MSMEs in the UK. This context was chosen since previous research indicated that UK fashion MSMEs show high levels of innovation (Malem, 2008), a crucial factor for the advancement of circular economy practices. Following an initial screening process surveying 144 fashion businesses, 48 enterprises were selected for further qualitative inquiry.

The data collection consisted of semi-structured in-depth interviews exploring the companies' visions, practices and capabilities. As primary selection criterion, we excluded all enterprises with only one interview to gain a longitudinal perspective, leading to the exclusion of 21 enterprises. Second round interviews were conducted within the space of 9 to 12 months after the first interview round taking place prior to the Covid-19 crisis and thus took place in the first 8 months of the pandemic outbreak. Drawing on data collected at two different time points with differing contextual features allowed for unique insights into factors enabling these fashion MSMEs to sustain and enhance their circular economy practices during a time of crisis.

In a second step, we applied Lüdeke-Freund et al.'s (2019) typology of CEBMs to identify fashion MSMEs that engage in circular economy practices. Lüdeke-Freund et al.'s (2019) paper with its strong practice focus provided an excellent basis for the empirical work at hand. The typology proved useful as a starting point with further categories (e.g. resale and take-back scheme) added and existing categories refined to account for industry specific differences. The screening exercise found 26 fashion enterprises of the initial 27 engaging in CE practices, generating a data set of 52 semi-structured interviews.

Table 1 provides an overview of the final sample specifying the size and the respective core business as well as relevant CE practices. Names of the businesses were anonymised. Overall, the sample consisted predominantly of micro (81%) and small (15%) sized enterprises with one enterprise falling into the medium category. Half had been in business for 6 years or less, and just 7% for more than 15 years.

3.2 | Data analysis

All interviews were transcribed and analysed using thematic analysis (Nowell et al., 2017). To ensure additional rigour, NVivo (Release 1.0) was used to compile the collected data into a database and facilitate coding. An abductive coding process was then applied to identify

TABLE 1 Overview final sample consisting of MSMEs and their respective circular economy practices

Business (FE = fashion enterprise) ^a	Core business	CE practices															
		Classic life-long design	Waste reduction through reduced production	Repair services	Recycled materials	Creating value from waste	Repurposing materials	Rental or sharing platforms	Service platform	Resale scheme	Take back	Encourage sufficiency					
MicroFE1	Luxury footwear	✓	✓	✓	✓	✓	✓										
MicroFE2	Womenswear/ menswear	✓								✓							✓
MicroFE3	Menswear/ womenswear	✓	✓			✓	✓	✓			✓						✓
MicroFE4	Womenswear	✓															✓
MicroFE5	Childrenswear		✓													✓	
MicroFE6	Wearable technology for couture and wellbeing	✓		✓													✓
SmallFE1	Accessories/ homewares from upcycled waste	✓	✓			✓	✓	✓	✓	✓							✓
MicroFE7	Manufacturing/ production services	✓						✓									
MediumFE1	Outdoor wear/surf wear/leisurewear	✓	✓			✓	✓	✓	✓	✓							✓
MicroFE8	Organic lingerie		✓					✓									
MicroFE9	Consultant, special projects development																✓
MicroFE10	Artisanal accessories									✓							
MicroFE11	Clothes sharing and swapping platform											✓					✓
MicroFE12	Consultancy, special projects																✓
MicroFE13	Women's/men's jackets	✓	✓			✓	✓	✓	✓	✓							✓
MicroFE14	Innovative sustainable childrenswear							✓									✓
MicroFE15	Womenswear/ menswear	✓				✓	✓	✓	✓	✓							✓
SmallFE2	Womenswear/ menswear	✓	✓			✓	✓	✓	✓	✓							✓
MicroFE16	Upcycled jewellery															✓	✓

(Continues)

TABLE 1 (Continued)

Business (FE = fashion enterprise) ^a	Core business	CE practices													
		Classic life-long design	Waste reduction through production	Repair services	Recycled materials	Creating value from waste	Repurposing materials	Rental or sharing platforms	Service platform	Resale	Take back scheme	Encourage sufficiency			
SmallFE3	Womenswear	✓			✓					✓					
MicroFE17	Men's swimwear	✓	✓		✓									✓	
MicroFE18	Womenswear	✓				✓									✓
MicroFE19	Wardrobe management app														
SmallFE4	Software as service for manufacturing		✓												
MicroFE20	Consultancy														✓
MicroFE21	Womenswear	✓	✓			✓									

^aSynonym indicates type of enterprise, which is defined according to number of employees: micro: 0–9, small: 10–49, medium: 50–249.

categories for themes (Bryman & Bell, 2015, p. 27; Dubois & Gadde, 2002). This allowed to engage with existing literature on CEBMs (e.g. Lüdeke-Freund et al., 2019; Pedersen et al., 2019) and (traditional) dynamic capabilities (Khan et al., 2020; Teece, 2007), as well as to capture new codes through inductive coding (Boyatzis, 1998).

First codes grounded in the literature on circular economy and dynamic capabilities were used to construct an initial coding scheme. Following Miles and Huberman (1984), the research team made memos throughout the research process identifying emerging themes that allowed the research process to be refined as it progressed. A second level of analysis was then undertaken, where the data were grouped into themes concerned with actions and activities related to CE and enabling factors contributing to CEBMs. The final coding schemes were agreed following extensive discussions among the research team.

4 | FINDINGS

In this paper, we focus on how MSMEs can advance the circular economy. Whereas large businesses often still aim to optimise processes to further advance their efficiency with less than one in five pursuing a shift towards innovative business models such as circular economy business models (World Business Council for Sustainable Development, 2018), MSMEs often employ innovative solutions that remain neglected in the mainstream literature.

4.1 | Advancing circular economy practices through dynamic capabilities

To identify dynamic capabilities that enable fashion MSMEs advancing circular economy practices, we draw on Khan et al.'s (2020) framework of microfoundations of dynamic capabilities. While a growing number of publications identify dynamic capabilities in relation to sustainability and green business models (e.g. Buzzao & Rizzi, 2021; Chen & Chang, 2013; Zhu et al., 2013), Khan et al.'s (2020) framework explicitly focuses on the circular economy thus providing an appropriate basis for identifying relevant dynamic capabilities and their microfoundations. Following the overall abductive approach of our study, we identified a number of key microfoundations set out by Khan et al. (2020) in our data (partly adapted to better reflect the industry specific characteristics of fashion MSMEs) as well as additional microfoundations emerging from the data, using Teece's (2007; Teece et al., 1997) 'sensing-seizing-reconfiguring' framework as a sensitising device. Table 2 provides an overview of sustainable fashion MSMEs' main dynamic capabilities and their microfoundations, that is, those that were identified repeatedly across the sample, and at least in the accounts of two different participants, thus validating their meaningfulness and importance for such firms.

These microfoundations either relate to the companies' efforts to introduce (more) circular economy practices and increase impact,

TABLE 2 Sustainable fashion MSMEs' main dynamic capabilities and their microfoundations

Dynamic capability	Microfoundation	Description	Examples
Sensing	Market monitoring (Khan et al., 2020 partly adapted)	Gathering of information on customer behaviour and best practices across ecosystem and industry to improve and optimise product/service offerings, and wider business processes in line with circular economy thinking.	Actively monitor sell-through rates of products for smart stock management to avoid surplus production (MicroFE1, Small FE2). Gathering data on behaviour of users of company's share and swap platform to optimise platform's offering (MicroFE11). Market research to understand user-base to expand products and improve sustainability messaging to target new customers (MicroFE14).
	Idea generation (Khan et al., 2020)	Active development of vision and/or potential solutions for business to advance its circularity.	Plans to offer take back scheme in the future (MicroFE1, MicroFE21). Plans to fully 'close the loop' in garment production (MicroFE17).
	Knowledge creation (Khan et al., 2020; Vargo et al., 2015)	Processes including R&D to advance sustainability of materials among others. Processes may be marked by feedback loops with other actors within the ecosystem and active co-creation with customers.	Search for optimisation of materials [less material for same performance], of colour and fabric palettes (SmallFE2). Online co-creation and development of designs following sustainable design principles through interaction between designers and members of the public (MicroFE2).
	Experiential learning (Khan et al., 2020)	Active engagement in trial and error experimentation to test existing ideas/explore opportunities to venture into new areas. Active involvement of customers in testing of products and services.	Beta-testing of business model using groups of customers, family and friends (MicroFE8, MicroFE19). Creation of wetsuit tester community (MediumFE1).
	Orientation to innovation (Buzzao & Rizzi, 2021)	Orientation to develop industry innovations.	Development of novel sustainable materials and designs to enable garments to adapt to user requirements (MicroFE14). Development of novel software enabling made-to-order services (SmallFE4). Innovative development of products made from recovered waste/surplus materials, constant evolution of product range (SmallFE1).
Seizing	Collaboration (Khan et al., 2020)	Strategic collaboration with partners (e.g. other businesses and organisations) to create new opportunities and share knowledge to seize opportunities.	Creation of collaborative collective with other businesses upcycling jewellery for scaling up and increasing impact (MicroFE16). R&D partnership with university to develop solar forge turning aluminium cans into accessory components and share knowledge open source (SmallFE1).
	Business model innovation (Khan et al., 2020 adapted, Buzzao & Rizzi, 2021)	Introduction of innovative business model to fashion industry/introduction of changes to	Business model evolution: from offering made-to-order customised knitwear to provide

(Continues)

TABLE 2 (Continued)

Dynamic capability	Microfoundation	Description	Examples
		business model to adapt to new circumstances and/or exploit new opportunities.	software to other fashion businesses (SmallFE4). Move from sales of upcycled jewellery to jewellery upcycling kits (MicroFE16) [Covid-19 response]. Move from sharing to swapping model (MicroFE11) [Covid-19 response].
	Positive technology exploitation (Khan et al., 2020 adapted)	Utilisation of technology such as social media, communication platforms and other technology platforms to enable direct-to-consumer model and to engage with customers.	Instagram as sales channel and means to engage with customer and create community of followers around company's sustainability messages (several MSMEs). Offering of digital studio tours and workshops (SmallFE2). Move to direct-to-consumer models (several MSMEs).
Configuring ^a	Clear vision and purpose/commitment to sustainability (Buzzao & Rizzi, 2021, adapted)	Vision of circularity and sustainability as guiding principle for business.	'It's all about extending the lifecycle of our clothes without having to constantly buy new things ... essentially we just want pieces to be worn as much as possible' (MicroFE11). '[We] had always had a bit of a make do and mend, appreciate materials for their real value beyond the financial one. ... So sustainability is just something that is inherently embedded in practice, not for any other reason really than it just makes sense' (SmallFE2).
	Team compilation (inductive)	Recruitment of right team for business.	Multidisciplinary team to enable innovative product design (MicroFE14, SmallFE4). Multi-tasking team motivated through vision of business (MicroFE11). Agile team enabling rapid adaption of business model (e.g. MicroFE14, MicroFE3).
	Extended supply chain engagement (inductive)	Strategic selection of suppliers to facilitate vision of business, engage in long-term trusting relationships.	Loyal, long-lasting engagement with trusted suppliers allowing for flexible supply chain management providing resilience and making supply chains less susceptible to shocks (MicroFE14) [Covid-19 response]. Flexible contracts (often based on trust) allowing agile responses (MediumFE1; MicroFE4) [Covid-19 response]. For example, 'We had really good relationships with our suppliers beforehand, which I think has given

TABLE 2 (Continued)

Dynamic capability	Microfoundation	Description	Examples
			<i>us a really good, left us in a very good situation. We have not had to cancel orders. We've delayed some orders but we certainly have not cancelled anything'</i> (MediumFE1).
Reconfiguring (only found in few businesses)	Knowledge integration (Khan et al., 2020) Organisational restructuring (Khan et al., 2020)	Integration of new knowledge into enterprise by reconfiguring some business practices. Changes to how work, resources and so forth are organized within the business.	Designers' integration of new skills through knowledge created through collaborations (MediumFE1). Changing internal workforce structure to adapt to new B2B business model (SmallFE4).

^aPlease note that *configuring* is not a traditional dynamic capability (Teece, 2007) but was include for reasons of clarity following our data-led approach.

and/or to create a viable, resilient business in order to pursue their vision of circularity and sustainability in the long term. Instances of the former included *market monitoring* as a classic microfoundation. This was used by companies to actively monitor sell-through rates of their products for smart stock management and to avoid surplus production (e.g. MicroFE1 and SmallFE2), or to gather information to better understand the company's user base to expand products, and target new customer groups, as done by a company that invented childrenswear that 'grows' from circular materials (MicroFE4). Other microfoundations linked to the advancement of circular economy practices included *knowledge generation*, frequently referred to as continuous search for more sustainable materials and design, as well as *idea generation*, which related to entrepreneurs' desire to innovate and advance circular business practices through, for example, introducing take-back schemes (e.g. MicroFE1 and Micro FE21), with some enterprises showing a strong *orientation to innovation*, enabling the continuous development of novel materials (e.g. Medium FE1), products (e.g. SmallFE1) and services (e.g. Small FE4).

Engaging in strategic *collaborations* with business partners and organisations was frequently mentioned as a means to increase their impact and enhance opportunities for their business, as, for example, was the case with an upcycled jewellery business:

'The collective [with other jewellers] came about because I wanted to scale up, I wanted to have bigger impact and I didn't have investment or money to employ people to help me reduce waste. So the next idea I came up with was to collaborate with other designers to help me upcycle so that we could reduce more waste'. (MicroFE16)

The ability to utilise (existing) technology platforms (*positive technology exploitation*), such as Instagram, enhanced resilience and business opportunities through building direct-to-consumer models as a way to circumvent, or reduce dependency on, expensive wholesale models (*business model innovation*).

Another important microfoundation was the ability to engage in *agile business model innovation* to exploit new opportunities, as in the case of SmallFE4, which moved from made-to-order customised knitwear to prevent wasteful production to the provision of a customisation service platform for other fashion businesses. The ability to quickly innovate the firm's business model to adapt to new circumstances came to the fore in particular during the Covid-19 crisis, where, for example, a company offering a platform for sharing clothes (MicroFE11) was able to quickly expand their offering to a swapping service. Moreover, many other firms in the sample expanded or completely changed to technology-based direct-to-consumer models.

All of above-mentioned microfoundations, which would classically be categorised as *sensing* or *seizing* microfoundations, feed into a *fluid and constant* reconfiguring of the business rather than a more *structured and slower* reconfiguring as presented in traditional literature on dynamic capabilities (Teece, 2007) and which is more typical of larger businesses. A more typical 'reconfiguring' process such as *knowledge integration*, was only found in a few businesses in the sample (see Table 2), which had been growing substantially for a period of time. Instead, what was important to many firms was to *configure* the 'right' structure from the outset when the business was founded to enable positive impact, reflecting their purpose in setting up the business. This is in line with Teece (2007) drawing attention to the need to 'configure and reconfigure assets and systems as necessary' and relates to a careful recruitment of the 'right' team with appropriate and complementary skillsets (*team compilation*) and to the setting up of the supply chain based on carefully managed trusted and transparent relationships (*extended supply chain engagement*).

The 'right' configuration of supply chain partners and processes allowed those businesses to quickly adapt to new circumstances during the Covid-19 crisis and to avoid significant disruptions as was the case for most mainstream fashion businesses (Bloomer & Khambay, 2020), thus demonstrating greater resilience.

'So production has continued again because we did everything to ensure the best supply chains, and I think the best supply chains are the ones that are perhaps

least susceptible to abrupt changes. I've seen a lot of fast fashion retailers in the last couple of months pull their order from certain manufacturers. And as a result, I imagine those manufacturers are going bust or are no longer able to operate. But when you surround yourself with a supply chain that promotes good practices, I think you become less susceptible to those deviations'. (MicroFE4)

The careful and deliberate recruitment of their workforce (*team compilation*) with the 'right' values and a passion for their work allowed for solution-oriented work processes and further contributed to resilience:

'So I think that by taking an approach to go direct-to-consumer we were also able to not be affected by say buyers pulling their orders because of the situation, and having our destiny in loads of other people's hands. We were able to work as a team, come together and use our sort of different approaches ... I think that's a sort of testament to being really agile as a team, and also just a testament to setting those strong foundations from the get-go'. (MicroFE4)

Equally importantly, the entrepreneurs' *clear vision and purpose/commitment to sustainability* of their business related to circularity and sustainability goals (see quotes in Table 2) served as an important 'configuring' microfoundation, operating as guiding principles for their business.

4.2 | Microfoundations, CEBMs and the role of consumers in advancing the circular economy

A noticeable feature of a number of microfoundations listed in Table 2 was the active involvement of potential and actual customers. For example, *experiential learning*, which related to constant testing of products, business models and processes often involved feedback loops from customers and informal groups:

'I made some pants and I sold them to some people and then I got some feedback and then I made a little website and I set up a mailing list and I just put it out to my friends and family. I've tested everything in that way'. (MicroFE8)

Highlighting the importance of their customers in their overall approach ('We're not noisy in a press world but we're noisy in our community, so our customers are our biggest advocates'), Medium FE1 reflected on their wetsuit testing programme:

'We've been developing the wetsuits now for a decade and it still feels like we're only learning. ... we went

through three different prototypes with a series of wetsuit testers to get their feedback, how did the material perform, in what sort of temperature water, there's taking on and off anything that gave way because, again, it's such a challenge. (...) Seeing that enjoyment of [our women's tester group] who looked at the ocean and saw it as a scary place, and then enabling them to get into it by giving them a really good quality, warm, well-fitting wetsuit, that we're interested in their feedback on, and that engagement with the suit. Amazing'. (Medium FE1)

Similarly, some businesses (e.g. MicroFE2 and SmallFE4) pursued an active co-creation strategy for their products with their customers. Technology platforms such as Instagram were not just used to sell directly to customers but to also to engage with customers to create a community of followers—to strengthen and grow the online community and to ensure that a frequent exchange and co-creation can be maintained in a time when local, face-to-face engagement was not possible.

Beyond microfoundations, it is often the MSMEs' business models that require or encourage active customer involvement that extends conventional customer engagement processes. They do not just offer customers garments and other products that follow CE design principles by retaining value at material level (Lüdeke-Freund et al., 2019) such as garments from recycled materials (e.g. recycled nylon for swim- and surf wear; MediumFE1), fashion accessories from repurposed out-of-use products (e.g. out-of-use fire-hoses; SmallFE1) and high quality durable fashion items using timeless designs (e.g. MicroFE17 and MicroFE21), enabling customers 'to consume better' (Heikkurinen et al., 2019). The MSMEs we studied also actively sought to challenge and change customer behaviour around garment use through offering rental, sharing, swapping, repair, resale and other services—either as sole offering (e.g. MicroFE11 and MicroFE19) or as an additional one (e.g. SmallFE1 and SmallFE3, MediumFE1) with potentially far-reaching impact on their own business models, generating opportunities to further engage in CEBM and making them more viable. These CEBM innovations are designed to encourage customers to consume fewer new items (i.e. extended eco-sufficiency), and thus slow resource loops (Lüdeke-Freund et al., 2019). Examples include rental and sharing models that have gained traction in recent years (Martin, 2016).

'[Investors and businesses] see the opportunity and see how the services around a purchase is the opportunity for the next generation of relationship between a retailer and their customer. That it cannot be based only on transactions, it has to be more than that'. (MicroFE19)

An interesting example of business model innovation to encourage more customer involvement was provided by MicroFE16. Changing the focus from selling upcycled jewellery to 'upcycling kits' teaching

customers how to upcycle jewellery themselves during Covid-19 gave customers the opportunity to learn a new, CE-enabling skills as well as potentially increase the transformative impact of the business model.

'[Covid-19] actually ended up opening a door to selling upcycling kits. So because people were at home, I decided to start putting together kits for people to learn to make jewellery using the upcycled materials that get sent into my upcycling service. (...) So to make kits for people to upcycle with me, and learn a new skill, has actually really benefitted me. It solved two problems. It's generated business because I'm now selling kits as well as jewellery, and it means that I'm getting the materials back into circulation faster because there's more of us contributing towards upcycling the materials that I receive'. (MicroFE16)

In addition, our results showed that MSMEs engaging in CEBMs benefit from wider customer interactions, something that has shown to hold great potential to advance the circular economy (Bocken & Ritala, 2021). As argued previously, businesses' interactions with their customers were motivated by a desire for customers not to overconsume:

'I think the main point is around overconsumption. I would be alarmed if people were coming in and leaving [MediumFE1] with bags and bags of products. This stuff is expensive. I don't think it's too expensive, I think it's value for money. (...) I think it's a false economy fast fashion and I think overconsumption is an absolute false economy because you get crap stuff, you put it in the wash, it twists, it's rubbish'. (MediumFE1)

Complementing attempts to innovate existing business models towards more CEBMs, many MSMEs took on wider roles and responsibilities to reach out to their customer to raise awareness and educate them about the need for fashion to be more sustainable:

'We want to educate people on not buying fast fashion and how they can move away from it'. (MicroFE11)

'I think the message is educating the consumer that there is choice about sustainability, that you can question what you are buying and you can have a beautiful product which is sustainable' (MicroFE1).

Customer education ranged from providing customers with educational leaflets, writing blog-posts and messages on the company's website or social media to running events, studio tours and workshops (which continued online during the pandemic):

'We had a series of skills workshops physically in the lab. (...). [I]t's definitely a side of the business that is core to what we do and want to move forward with. ... I think going back to this idea of running workshops and getting people interested in the true value of clothing and what's behind- the people behind them' (SmallFE2)

The above findings show that MSMEs employ innovative approaches to advance the circular economy. The use of dynamic capabilities equipped fashion MSMEs to innovate their business models and integrate further CE practices in addition to the Covid-19 pandemic pointing towards extensive commitment to sustainable business practices and greater resilience. Table 2 summarises these findings. Our findings also demonstrate the importance of customers in their attempts to advance CE practices and will be discussed below in more detail.

5 | DISCUSSION

The circular economy has received much attention over recent years, becoming increasingly recognized as a sustainable alternative to resource intensive business models and practices (Blomsma & Brennan, 2017). However, the practical application of CEBMs and circular practices require an active integration into existing business strategies, business models and operations, often facing a range of barriers along the way (Ormazabal et al., 2018).

5.1 | Distinctive use of microfoundations

In line with a growing body of research (e.g. Filser et al., 2021; Kabongo & Boiral, 2017; Khan et al., 2020), our investigation into the practices of sustainable fashion MSMEs suggests that the successful integration of CE practices into business models depends to a great extent on the application and coordination of dynamic capabilities and their microfoundations. Our analysis shows that the dimensions of dynamic capabilities for CE are not isolated (Khan et al., 2020), nor can they be understood as step-by-step processes common among research on dynamic capabilities that mostly focuses on larger businesses, which naturally involves more structured processes. Instead, our analysis shows that microfoundations often interact more fluidly, frequently occurring simultaneously. We argue that it is not the presence of dynamic capabilities per se that is important when engaging in attempts to innovate existing business models (cf. Khan et al., 2020), but the *distinctive use* of them and the *interaction* between different dynamic capabilities when trying to experiment with CEBMs and CE practices, before eventually adapting and/or adopting them. The findings thus provide insights into fundamental elements for resilient CEBMs, responding to Evans et al.'s (2017, p. 603) call to explore 'ways in which companies can easily experiment with business models'.

It is worth noting that MSMEs appear to show greater levels of agility through a number of factors including shorter supply chains, nimble technology adaptations that help to shift sales models, and the active support of their staff helping to adjust business models allowing greater responsiveness to change. This is further enabled by their ability to 'configure' their business from the outset in a way that helps to pursue visions of circularity and sustainability in a holistic and sustainable manner. It contrasts with the inherent complexity of long value chains typically occurring in large mainstream fashion businesses, which can hinder shifts towards more sustainable business models (cf. Evans et al., 2017) such as CEBMs.

5.2 | Extended customer eco-engagement

As argued throughout this article, sustainable fashion MSMEs show particular propensity to involve customers through their CEBMs, in particular by offering services such as sharing, repair and resale. This is in line with Normann (2001, p. 271) who argues that organizations are increasingly forced to reshape themselves through searching for identity more in values, capabilities and principles, that is, in the abstract domain rather than in the physical domain alone. It therefore also aligns with insights from the marketing and management literature from the field of service-dominant logics (Vargo et al., 2015; Vargo & Lusch, 2004) and transformative service research (Blocker & Barrios, 2015; Ostrom et al., 2014) providing ample evidence that the role of services has gained greater attention in recent years. Service research understands the customer as an active co-creator of value, positioning the customer-business relationship as the determining factor for the business's potential to succeed and the customer's ability to improve his/her wellbeing (Anderson et al., 2013).

Our research notes in particular that sustainable fashion MSMEs engage with their customers and the community they operate in, in a way that shares features with, but goes beyond, conventional businesses-customer relationships. These engagement activities, however, do not fall into the category of recently proposed concepts such as extended eco-efficiency or extended eco-sufficiency alone (cf. Heikkurinen et al., 2019). While Heikkurinen et al. (2019) provide crucial insights showing the importance of extending business practices to further engage with customers, it, however, omits other important business-customer extensions that contribute to businesses' adaptive capabilities and that hold the potential to advance circular economy practices (Jaeger-Erben et al., 2021). Our findings suggest that, while MSMEs' CEBMs differ in their starting points, priorities and objectives, they often go beyond conventional extensions, acknowledging that customer engagement is also about education, awareness raising and attitude change that can facilitate better and less consumption through different extensions of their own practices by engaging more closely with their customers. A number of these *extended* engagement activities have often no direct financial link but provide businesses and customers with opportunities to engage in a vision of better, more sustainable fashion.

Drawing on our findings, we propose the concept of *extended customer eco-engagement* (ECEE). As outlined above, ECEE establishes extended engagement in the form of communication and joint activities, and this in turn can facilitate opportunities for experiential learning, idea and knowledge creation as well as innovation. It consequently draws attention to the increasingly important role of co-creation with customers and their centrality in value creation (Anderson & Ostrom, 2015). Moreover, ECEE operates on the intersection between extended business-customer activities (Heikkurinen et al., 2019) and a number of microfoundations (Khan et al., 2020) by employing a series of combinations of customer-facing activities which are broader in scope and approach providing a bridge to the literature on dynamic capabilities.

Our findings show how ECEE can enable agility and resilience. MSMEs can reduce risk involved in piloting new products and services through the co-creational nature of ECEE, which holds the potential to facilitate higher levels of customer loyalty and commitment and makes it more likely that there is a market for the MSMEs' products and services (cf. Baldassarre et al., 2020). ECEE, through its, by definition, close interaction with customers enables microfoundations such as market monitoring, idea and knowledge generation, experiential learning and collaboration, among others, and may constitute an important building block of what Chesbrough and Appleyard (2007) describe as open innovation strategy. Furthermore, ECEE can be considered a proactive environmental strategy (Aragón-Correa & Sharma, 2003) that is part of and gives way to dynamic capabilities allowing for CEBM innovations and adaptation beyond sufficiency measures (Freudenreich & Schaltegger, 2020). Figure 2 summarizes some of the main features of ECEE and its objectives (outlined) emerging from our analysis.

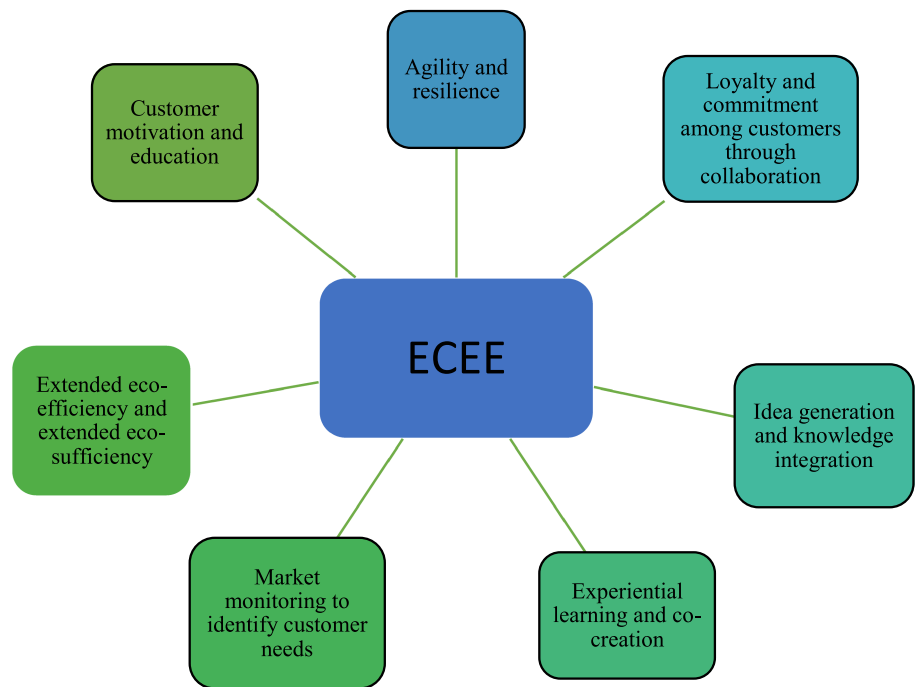
Moreover, the awareness raising component central to ECEE might hold the potential to overcome common criticism of (extended) eco-sufficiency. For example, eco-sufficiency approaches are often criticised to entail risks of rebound effects (Figge et al., 2014). Recent research has shown that strong business-customer interaction can facilitate relationships that cement commitment towards pro-environmental objectives and avoid rebound effects (Elf et al., 2019). More research is required to further test this notion and understand the underlying processes.

Finally, fashion MSMEs already practicing ECEE prior to the Covid-19 pandemic appeared to show greater resilience during the pandemic through their direct links with their customers and, in some cases, their local communities. In contrast, businesses that did not engage intensively with their customers during the pandemic but followed traditional business-customer relationships via wholesale models alone reported to have struggled during the Covid-19 pandemic. Consequently, their ability to advance circular practices during times of crises was limited. Further research is needed to verify and further explore these emerging insights.

5.3 | Limited growth ambitions

Another noteworthy insight is that fashion MSMEs in our sample showed only limited interest in short-term returns and wider growth

FIGURE 2 Dynamics and objectives of extended customer eco-engagement



ambitions. Conventional growth ambitions were only pursued when control over the sustainability of products and services as well as wider decision-making processes was guaranteed. That is, growth opportunities were not being seized when MSMEs experienced a gap between those opportunities and their enterprise's vision and values. This might lead to criticism that sustainable fashion MSMEs' impact remains comparably low through their limited scalability, a concern echoed by Demirel and Danisman (2019) whose research highlights that the majority of circular eco-innovations has, so far, failed to deliver expected growth rates for smaller businesses. However, the wider impact and value of sustainable fashion MSMEs in our sample can be seen in the active shaping of customers' values, attitudes and behaviours, which holds the potential to spill over into other domains potentially generating far-reaching impacts through influencing the discourse in the fashion industry as a whole and in providing models of innovative practice for replication and adaptation in other fashion and non-fashion businesses.

Our findings also contribute to the wider entrepreneurship literature. To date, research has argued that whereas many small businesses start from a desire to find an outlet for professional, technical or craft skills rather than out of purely economic motives (Storey, 1994, p. 113), they are less likely to engage in ethical behaviours earlier in the business cycle and are quick to abandon ethical concerns (Morris et al., 2002). The results indicate that, driven by an underlying, sustainable purpose, traditional growth ambitions were limited. Instead, fashion MSMEs in our sample actively go against the capitalist economic growth logic and narrative underlying the majority of current CE thinking (Hobson & Lynch, 2016). Closely holding onto their fundamental purpose and the ambition to go beyond conventional types of innovation following substitution and efficiency logics, fashion MSMEs are often dependent on loyal customers in the short-

term, their ingenuity to create and access new markets to ensure medium-term success, and, wider external support to advance their impact through scaling up.

6 | CONCLUSION

The objective of this article was to examine how sustainable micro, small and medium fashion enterprises (MSMEs) in the UK advance the circular economy through the lens of dynamic capabilities. The paper started by identifying fashion MSMEs that enact circular economy (CE) practices by applying a refined version of Lüdeke-Freund et al.'s (2019) typology of CEBM patterns to account for industry specific practices. We applied an abductive approach to data collection and analysis drawing on the dynamic capability literature, which allowed in-depth insights into important dynamics that unfolded before and during the Covid-19 pandemic, and how fashion MSMEs not only survived but further advanced their ambitions to engage in CE practices.

This paper contributes to the literature by setting out fundamental microfoundations that allow sustainable fashion MSMEs to develop dynamic capabilities enabling them to pursue their goals and advance CE practices. An important insight is that, instead of a traditional understanding of the dynamic capability 'reconfiguring' which is rather static; findings suggest that a more *fluent reconfiguration* of changes in existing MSME structures is possible. That is, organizations working well and successfully remain open to reform, indicating a positive outlook towards the future and the ability to face changes.

Our study empirically demonstrates that by an active strengthening of the business-customer relationship in the form of *extended customer-eco engagement* (ECEE), fashion MSMEs were able to

co-create solutions, ensuring that a market for new potential products and services was being developed, and dynamically configured their business processes in a time of crisis. ECEE can therefore provide a key strategy that may advance circular economy practices. By actively engaging in ECEE, fashion MSMEs showed they absorbed higher order learning (Kabongo & Boiral, 2017) generated through an extended business-customer interaction. It thus permits enterprises to innovate their business models and move towards CEBMs through rethinking their 'products and services from the bottom up, all the way through to the customer value proposition. This implies eliminating waste, creating step changes in resource productivity and at the same time enhancing the customer value proposition on dimensions such as price, quality and availability' (Accenture, 2014, p. 4).

Our research has significant practical implications. Although large businesses have the financial means to try and drive innovation through investments into R&D, they often lack the ambition to do so through incumbent, yet arguably outdated thinking calling on the government to provide a level playing field to be able to change (Stuchtey et al., 2016, p. 38). In contrast, MSMEs often display highly creative and innovative thinking to actively change the 'status quo', as they advance CE practices under financial and other 'liability of smallness' constraints. Government policies seeking to advance the CE should therefore actively recognise and support the role and potential of small MSMEs in transforming the economy towards circularity. At the same time, our research draws attention to the fact that the main contribution of sustainability-oriented fashion enterprises to the CE currently lies in the slowing of product cycles and resource loops rather than the creation of fully closed resource loops due to the materials-related constraints of the fashion sector. While in the future fashion products might be more easily upcycled and produced with renewable energy and other resources (Stuchtey et al., 2016, p. 161), this is currently not the case and, taken together with our other findings, should further inform governments' CE policies.

Furthermore, fashion design entrepreneurs who seek to start their own sustainable fashion business may learn from those pioneering businesses we researched. Our findings show which micro-foundations are crucial for successful, impact-driven sustainable ventures and allow to learn about the vital importance of extended engagement with customers. Finally, larger fashion businesses seeking to adopt more CE practices may look to their smaller counterparts for inspiration and emulation, although not all practices that MSMEs engage in may be easily transferable to larger businesses due to differing organisational cultures and structures.

Our study is limited by data collected exclusively in the UK only and by a focus on micro, small and medium enterprises in the fashion industry that already enacted circular practices. The context of the Covid-19 pandemic resulted in extreme changes to the conduct of normal business procedures, and will require further reflection in the new business context that is currently unfolding.

Furthermore, we mainly relied on the entrepreneurs' accounts to develop our insights and were not able to include interviews with customers, which may have introduced some bias. However, interview accounts can be treated as 'uncertain, but often interesting clues for

the understanding of social reality and ideas, beliefs, values and other aspects of "subjectivities" (Alvesson & Kärreman, 2000)', and therefore as valid sources of insight into the research phenomenon we studied. Further research with customers as well as quantitative approaches are needed to validate our findings further.

More research into the consequences of the circular economy on producers in other cultural contexts and in low-and middle-income countries that are heavily dependent on sectors such as textile manufacturing (Amui et al., 2017; Schröder, 2020) is also required. Future research should also investigate the ability of bigger businesses to engage in ECEE as an emerging concept, and how a more distinct use of dynamic capabilities can deliver resilience and advance a transition to a circular economy that goes beyond product end-of-life management alone (Mayers et al., 2021). Complementing this, future research should look more closely at support mechanisms that aim to sustain and foster practices of innovative fashion MSMEs. Finally, so far the majority of literature on circular economy focuses on supply chain and technological barriers and drivers. Moving forward, research advancing the circular economy will require a stronger focus on emerging trends such as behavioural issues. This holds the potential to benefit practitioners and scholars alike as they continue to close the loop of circular economy research.

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