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Service design and circular economy in hybrid retail: Facilitating customer engagement in circular fashion practices

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Abstract: This paper serves as a pilot study exploring hybrid retail design within the context of the circular economy (CE). It examines how the retail environment shapes conditions that support customer adoption of CE. Utilizing an exploratory qualitative approach, we collect primary data through semi-structured interviews with an SME retail brand and ten of its customers. Additionally, we conducted observations of both the physical store, its online platforms and social media. This contributes to the limited research on hybrid retail design within circular economy, in the fashion industry. We found initial insights into which aspects of the hybrid retail environment support customer engagement with CE. Understanding the diverse motivation basis of CE types in different parts of the world can provide greater insight into how to support transitions towards CE through retail design. This study emphasizes the suitability of the Service Design approach in the design of hybrid retail environments to promote the mainstreaming of CE.

Keywords: Circular economy; Service Design; Retail Design

1. Introduction

Fashion retail is a sphere that all people have a degree of contact with; therefore, it has an important role to play in the sustainability agenda (World Green Building Council, 2016) and in embedding sustainability in societal development. The circular economy (CE) has been proposed to transform the fashion industry towards a more sustainable closed-loop system, with the goal of extending the useful life of products while preserving the value of products and materials for as long as possible (Niinimaki, 2017; EMF, 2017). Therefore, retail design in CE needs to facilitate activities such as sharing, renting as well as repairing, maintaining, upgrading, recycling, reselling, and donating. In this way, in CE, the value proposition to cus-

tomers is embedded within circularity through actions required from customers. These actions demand increased time and effort from customers, leading to challenges with mainstream adoption. The retail design plays an essential role in engaging customers and facilitating interactions between retailers and customers, and can therefore aid the mainstreaming of the CE.

The study of retail design in a transition towards CE is still in its infancy. Kongelf and Camacho-Otero (2020) identified service design, as a human-centered systems approach, arguing that it is valuable for addressing customer acceptance of circular business models. They highlight that both CE and service design share a shift from a focus on products to a focus on value and benefits. More recently researchers Műnster et al., (2022) have investigated the role of designers in CE and whether they are equipped to facilitate a shift toward CE, highlighting barriers and drivers. Their findings suggest that while designers understand their responsibility in transitioning to CE, they lack the tools and confidence.

In their book chapter, Grootboom, Quartier and Breed (2023) conceptualize the retail design process in CE as iterative, incorporating the use phase into the design process. Adapting the retail design process model by Claes et al., (2016), Grootboom et al., (2023) highlight the changing interactions over time in the use phase, which drive the transformation and evolution of retail. This newly conceptualized design process emphasizes several similarities to service design, such as being human centered, collaborative, iterative, sequential, real and holistic (Stickdorn, 2018). Therefore, it is necessary to explore a service design approach to CE retail design, identifying activities and touchpoints that support meaningful interactions between retailers and customers. We define meaningful interactions as those which support customer engagement with CE practices that lead to perceived customer value and benefits. We investigate touchpoints because they represent physical evidence of the service that shapes conditions for interaction (Penin, 2018). Activities encompass procedures, tasks, and mechanisms that support the cocreation of value between retail brands and customers (Penin, 2018). These activities can be carried out by the retail brand or the customer within a specific context, some of which are overt and deliberate, while others are based on routine, unconscious behavior. We propose that by examining the relationship between CE practices, activities and touchpoints, we can understand how the retail environment shapes conditions that support customer adoption of CE.

Both CE and service design emphasize understanding customers in context (Penin, 2018; Franconi, 2022). The operationalization of CE has recently been synthesized by Reike et al., (2018), outlining 10 value retention options. These CE practices emphasize both value creation and retention. Circular economy retailers engage in CE practices that appear to reinforce their value proposition to customers. They extend these practices to create resonance between value retention and creation across touchpoints, activities, customers and context.

Based on the above, the paper documents an exploratory study of the current practices and motivations of a CE retail brand in order to identify activities and touchpoints that support

customer uptake of CE. By this, we aim to gain a better understanding of how value is created and retained to make recommendations for the design of the hybrid retail store to encourage pro-environmental behaviors. Since there are different motivations for circular economy practices, this research contributes to a global understanding of CE by focusing on CE in a peripheral context within an emerging economy.

2. Literature review

2.1 Circular economy principles

In recent years, the concept of CE has regained attention in relation to achieving a more sustainable society (Niinimaki, 2017; Reike et al., 2018). Circular economy, as opposed to the current linear economic model, is presented as an alternative model of production and consumption that focuses on preserving natural resources and reducing waste through value retention and regenerative design (Moreno et al., 2016; Campbell-Johnson et al., 2020). According to this model, a product must be designed to have multiple lifecycles. Therefore, the sequential and consecutive use of resources is a potential method to create added value in CE practices (Campbell-Johnston et al.,2020).

The current framing of CE focuses on retaining the value of resources in the age of resource depletion and has been synthesized into a 10R framework by Reike et al., (2018). Circular economy practices are described as the following R-imperatives, sometimes referred to as R-hierarchies or strategies indicated in **Table 1**. This table illustrates the hierarchically ranked R-imperatives that serve as CE practices and operationalization strategies towards CE. Shorter and longer product lifecycle loops can be distinguished among the value retention strategies. Lower R values indicate activities that can be initiated by customers or businesses throughout the value chain of the product (Reike et al., 2018). This entails a new mindset for industry, business and designers, as well as for customers, who need to use products for longer, maintain them well and buy less (Niinimaki, 2017). The focus of CE is on use, and, in terms of design, the focus is to create opportunities for desired interactions to occur.

Table 1 R0 – R9 Hierarchy of CE practices (Reike, Vermeulen and Witjes, 2022).

		RO #	CE concept	Key activity customer	Key activity market actor
SHORTEST LOOPS	CLIENT	**R0**	**Refuse**	Refrain from buying	
		R1	**Reduce**	Use less, use longer *recent:* share the use of products	
		R2	**Resell, reuse**	Buy second hand or find buyer for your non-used produced/possibly some cleaning, minor repairs	Buy, collect, inspect, clean, sell
	PRO DUC	**R3**	**Repair**	Making the product work again by repairing or replacing deteriorated parts	Making the product work again by repairing or replacing deteriorated parts

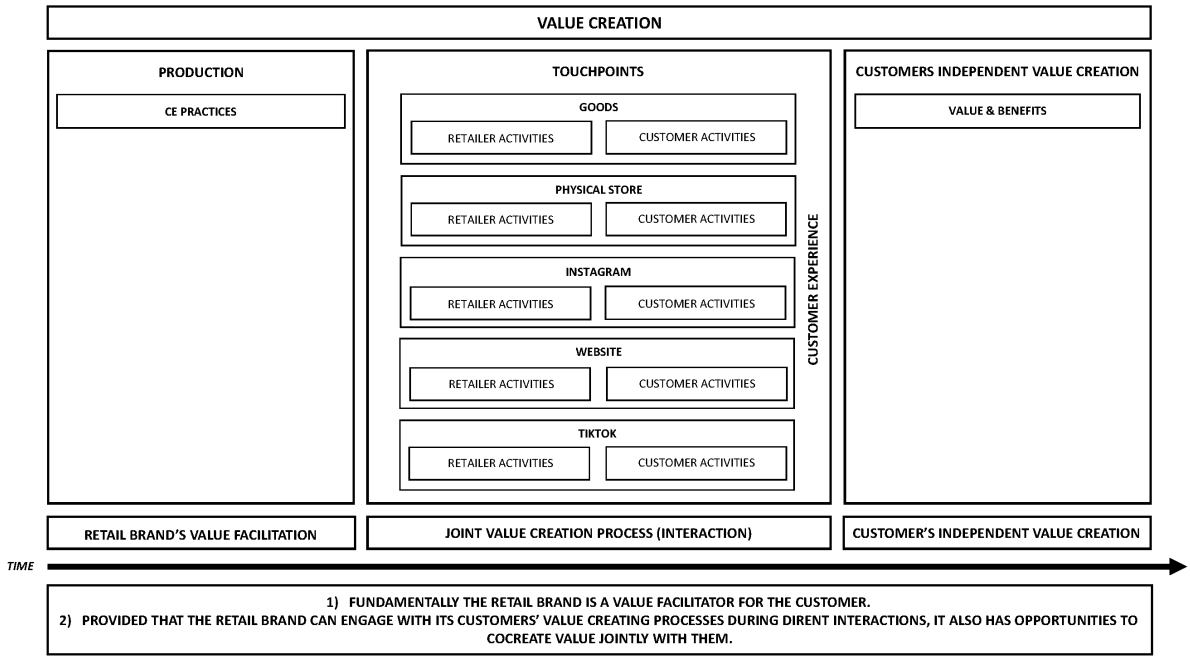
MEDIUM LOOPS		**R4**	**Refurbish**	Return for service under contract or dispose	Replacement of key modules or components if necessary
		R5	**Remanufacture**	Return for service under contract or dispose	Replacement of key modules or components, if necessary, decompose, recompose
	DOWNCYLING	**R6**	**Re-purpose**	Buy new product with new function	Design, develop, reproduce, sell
LONG LOOPS		**R7**	**Recycling**	Dispose separately; buy and use secondary materials	Acquire, check, separate, shred, distribute, sell
		R8	**Recovery (energy)**	Buy and use energy (and/ or distilled water)	Energy production as by-product of waste treatment
		R9	**Re-mine**	Buy and use secondary materials	Grubbing, cannibalizing, selling (South)/high-tech extracting, reprocessing (North)

Research and practice have found that circular products and businesses can be linked through service design, which connects the user experience, touchpoints and the flow of services to suit the users' needs (Kongelf & Camacho-Otero, 2020; Franconi et al., 2022). This suggests that in the service design approach, both technical and non-technical dimensions of sustainability must be considered simultaneously to create an integrated and coherent solution. Technical approaches for design for CE include design for assembly and disassembly, design for modularity, and design for repairability (Sassenelli et al., 2020). Non-technical approaches encompass design for product attachment, design for customer satisfaction, and design for timeless aesthetics which are crucial for influencing customer behavior (Mugge et al., 2018). We will delve further into this topic in the next section.

2.2 What is service design?

As described previously, in CE goods act as conduits for service provision therefore requiring a shift from a goods dominant logic to a service-dominant-logic (Grootboom et al., nd) as an approach to retail design. In this logic, customers cocreate value in exchange for service (Kimbell, 2010). According to the literature, interactions are the essence of services (Shostack 1982; Meroni & Sangiogi, 2011; Penin, 2018;). As such, Penin (2018) describes services as the soft infrastructure of our daily lives as social entities that include retail and digital services such as social media. Therefore, as social entities, services require customers to actively participate in their production in order to perceive value.

Table 2 How the CE hybrid retail environment facilitates customer value creation (adapted from Grőnroos, 2011).



Services are the basis of all economies (Shostack, 1982; Polaine, 2013; Penin, 2018; Stickdorn, 2018). Designers view services through the lens of human experiences rather than economic activities (Penin, 2018). According to Penin (2018), service occurs when there's an exchange of value between two parties. In other words, when a provider of a service performs a specific activity that includes a certain output, it involves experiences that result in value or benefit to a recipient of the service. This process is depicted in **Table 2** for the CE hybrid retail environment, which reinforces that interactions are at the heart of services as social entities. Services need users to participate in their production, this is in line with service-dominant-logic wherein customers are cocreators of value (Kimbel, 2010; Penin, 2018; Stickdorn, 2018).

In this context, retail is considered a service (Shostack, 1982). The retail environment and digital touchpoints are physical evidence of the service, shaping the conditions for interaction (Penin, 2018). They create meaning and give users tangible evidence of the quality of service they can expect or are experiencing.

In the physical realm, all products including products of the built environment, are the result of services. They represent the "physical embodiment of the knowledge, mental, and physical skills of one or a large number of people who were involved in the design and production of each product" (Penin, 2018, p. 28). In this 'service-dominant-logic', products and services are both integrated into the physical (built) environments that surround us.

The design of the retail environment plays a crucial role in customer engagement with CE practices. When viewed through the lens of service-dominant-logic, designers can simultaneously consider technical and non-technical dimensions and explore interactions across both physical and digital dimensions.

2.3 Design for service

Service design involves designing for specific interactions to occur (Penin, 2018). In the context of CE, the retail environment serves as a platform for action. Meroni & Sangiodi (2011, p. 3) describe a platform for action as "a system that makes a multiplicity of interactions possible", by enabling the probability of certain behaviors while leaving opportunities for action and interpretation open. In this context, many designers refer to designing for services, emphasizing the design of conditions for interactions rather than the interactions themselves (Penin, 2018).

In CE, customers must actively participate in the activities to extend the lifespan of their fashion items. As service users, customers contribute to creating value for themselves by bringing their own knowledge and goods to the interaction. Therefore, designers use service evidence to shape conditions for interactions. Interactions between retailers and customers occur as a result of specific activities, whether on or via various touchpoints. According to Penin (2018), touchpoints encompass physical goods, spaces, printed materials, graphics on surfaces, digital devices and interfaces, lighting, furniture, clothing worn by staff, smells, music and sound, and even the spoken script when interacting with users.

> "In principle, all material components of a service can be subjected to design, and all of them have been designed more or less intentionally whether or not they involved professional designers." (Penin, 2018, pp. 35)

The service evidence communicates meaning (and values) to customers through its design and technification (Konigk, 2015).

This highlights the need to shift from a product-oriented to a purpose-oriented design in CE (Grootboom et al., nd). This shift implies moving towards systems thinking and strategic design, promoting cultural transformation that arises from the understanding of customers in their context (Kretschmer, 2014). Different cultural contexts affect users' perception of value and meaning and influence the types of conditions that facilitate meaningful interactions.

3. Methodology

To explore circular practices, motivations, touchpoints and activities, we will draw on data from a Small, Medium and Micro Enterprise (SME) brand in Johannesburg, South Africa. Research on retail design and CE in the global South is limited. There is a pressing need to explore specific motivations for CE practices in the context of the developing world. South Africa, like many other middle-income developing countries, is a capitalist country with socio-economic challenges such as huge economic inequality, unemployment, resulting in a 'culture of entrepreneurship' that has been a key driver for job creation (BER, 2016). Within this

SME retail sector, many businesses in the informal sector earn their livelihood through "circular practices that retain the value of materials and goods", in line with the necessity-based CE conceptualized by Korsunava et al., (2022, p. 10).

Based on the contextual socio-economic focus the specific choice of SME retailers emerged from both theoretical and practical arguments. First, they are well positioned to drive mainstream CE because they account for 91% of formalized businesses and employ 60% of the labour force in South Africa (BER, 2016).

The study used a case study methodology with a qualitative multi-method approach. A case study was selected because it allows for in-depth understanding, of a current, real-life case, using multiple sources of information with the possibility to triangulate the data (Creswell & Poth, 2018). This approach was useful to study of hybrid retail design and make observations across multiple channels and actors. The selection criteria adopted were an SME brand with physical and digital presence that engages customers in a circular value proposition through new customer interactions rather than one-off sales. The ten customers who were interviewed were selected randomly in the store, based on time and willingness to engage.

3.1 Data collection

The data was gathered by the first author, who is based in South Africa and is familiar with the cultural nuances ensuring a rich perspective. Data-gathering took place from June to August 2023, with breaks in between to allow for reflection and cumulative learning.

Primary data was gathered through semi-structured interviews with the retail brand and 10 customers in the store as well as online and offline participant observations (Spradley, 1980; Turley & Milliman, 2000; Chamberlin & Boks, 2018). Ethical clearance was obtained from Hasselt University for the fieldwork. All interviews were voluntary and were recorded with consent, while interviewees could select to remain anonymous. The interviews followed a semi-structured approach, avoiding technical CE jargon. For instance, the SME brand is an owner run startup, and respondents were unfamiliar with words such as CE, omnichannel and value retention. When interviewing, the first author sought to maintain a conversational style explaining concepts such as value creation and elaborating on CE. Key questions centered on observed CE practices. Questions related to the interactions between retailers and customers through activities and on various touchpoints, collecting details about CE practices and the motivations and how this led to customer engagement with CE practices. The interview with the store owner lasted 1 hour whilst interviews with customers had a duration of approximately 30 min each.

In store observations were conducted in the same period as the interviews. An observation schedule was used 4 times and observations took between 1 and 2 hours to complete.

3.2 Data analysis

The interviews were transcribed and analyzed by the first author using Atlas.Ti version 23, a qualitative data analysis software. The data was coded in two main rounds using thematic

analysis (Braun & Clarke, 2017): Firstly, through an inductive process, and a second round deductively, based on theory relating to retail and service design.

Two questions guided the coding and analysis: How is CE service performed? In what ways (if any) do the retail environment and its services motivate/support customers to engage in CE practices?

Accordingly, in the first round of coding, the focus was on identifying CE practices, motivations of both retailers and customers in engaging in CE practices, identifying activities and touchpoints that support interactions between the retailer and customers. This was used to identify elements in the designed environment that support meaningful interactions that lead to customer engagement with CE practices.

In the second round of coding, codes were scrutinized in light of retail and service design literature to align with theoretical concepts in the literature and to reveal interrelationships between people, infrastructure, communication and materials in supporting the retailer's CE value proposition to customers.

4. Results

Figure 1 IFUKU Store

4.1 CE practices

Based on interviews and analysis IFUKU Store focuses on male customers in the area of fashion. The store focuses on selling vintage clothes, some of which are repaired and refurbished as well as shoes and new denim clothes. The store presents itself as a platform for a cult community concerned with rare and quality clothes and shoes, referred to as pieces. The primary CE value proposition includes selling pre-loved vintage clothing and shoes (R2 – resell/reuse), new durable denim clothes designed by the owner and made by local tailors (R1 – reduce). The secondary CE value proposition, which is not communicated on any of the

online channels, includes, refurbishing clothes sourced by the owner (R4 – refurbish) and repairs (R3 – repair). Knowledge of these services of the secondary value proposition comes from becoming part of the community and interacting with the owner. Clothes and shoes are rented out only to actors (R0 – refuse).

> "To us, this is more like art, so if I own a piece, it means a lot to me. So, part of this also is even selling the story of the piece. So that's why you see renting makes it lose the value rather than owning it. I think when someone owns it, even when they're done with it, they bring it back. Even when you tell the customer this was owned by this person." (store owner)

The store has a broad approach to CE, incorporating value creation and retention, educating customers about the quality, origin, care and maintenance of pieces. In doing this, the store creates a culture of sustainability awareness around pieces. Additionally, the store employs local tailors to make the F-Store denim clothes and local furniture makers to make custom store furniture (R0 – refuse) that could not be sourced second hand (R2 – resell, reuse).

Whilst not all customers identified as conscious CE customers all expressed that they had engaged in donating and some in buying and selling secondhand clothes.

> "Definitely the donating clothing I do. Because besides like things not fitting or anything, it's just. They played their part, you know." (customer 5)

> "Culturally, we're not like the West. We've been doing this. We knew, like you even knew that your rich cousin is coming with a bag of clothes during school holidays and you're going to have to choose or your aunt. We've been doing this, yes. Look at this, when someone dies in the family. What happens? We wash them, and then there's a ceremony and then it's giving of clothes." (customer 2)

Figure 2 Second hand & custom furniture as well as artwork in store.

The retailer's CE practices can be seen, in part, as an extension of the CE value proposition to customers, a way of making CE practices more acceptable in a capitalist society.

> "I think it's the way the merchandise is presented, right (…). It makes it feel, I don't know like more acceptable because it's packaged well. I think their clothes never feel like that's new and that's old. You never know what's essentially new and what is second life." (customer 7)

F-Store's goal is to covertly educate customers about sustainability of garments by positioning the store as a denim gallery. The store owner prefers not to state that the store has an educational component.

> "So, we prefer to call it a denim gallery. Hence why we use the displays directly as you enter." (store owner)

Customers confirm that they learn about clothes in the store.

> "Sure, I've learned a lot, you know, through speaking to him, not just about clothing itself, but then the principles behind the clothing, the stories behind the clothing." (customer 5)

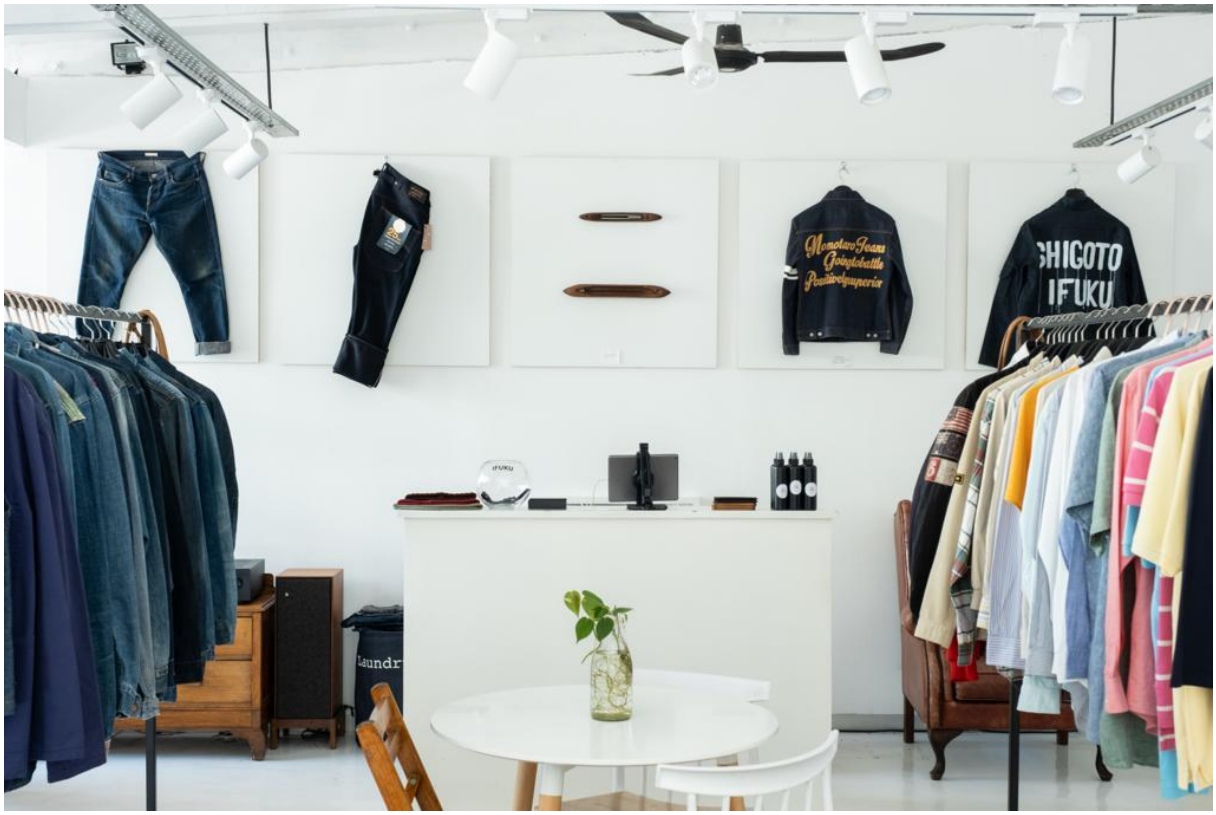


Figure 3 View of demin gallery.

4.2 Motivation

Although the store today represents a growing cult following of conscious customers driven by the quote "those who know, know". The owner's initial motivation for selling preloved clothes was borne out of necessity:

> "…for me vintage clothes have been taking care of me from I think 2003 when I lost my mum and my grandmother who used to take care of me. (…) I was a DJ at the time and every time I would be wearing something someone would like it. I think from knowing the market I started from going there. (…) Yeah, how people started buying from me." (store owner)

Today the owner focuses on sourcing quality pieces and making pieces with durable materials such as denim, canvas and leather.

> "The whole I idea for me is to not have fast fashion. Something that we can handover to the next generation and talk about, learn about." (store owner)

Customers expressed a range of motivations for engaging in CE practices, chief amongst these were quality, durable unique pieces, doing good for humanity and cost effectiveness.

> "First, I'm getting something that's different. Secondly, I'm getting value because I'm not paying the original price for that and the third one is, I'm actually doing something good for humanity." (customer 1)

> "What motivates me to donate is just knowing that someone out there would probably appreciate what I have more than I do, if it's a clothing item. If I don't use it anymore, if I donate, I get motivated because I know it was put into good use for someone else." (customer 8)

4.3 Touchpoints

The hybrid store relies on a variety of touchpoints that immerse the customer in an environment that reinforces the primary value proposition of quality, well-crafted pieces, whether preloved, vintage or IFUKU brand denim. This is achieved through the design of the physical store, as well as visual communication on social media and the retailer's website. The design of the hybrid store is intentionally minimalist (R0 – Refuse & R1 – Reduce), to "highlight the piece". The interviews revealed that the main touchpoints that support interactions between the retailer and customers towards the adoption of CE are the physical store, social media, and the fashion pieces themselves.

> "So for me, as a conscious person who cares about community, who cares about people, who cares about equality, who cares about equity in the world; when I come into the store it embraces it without saying it. I don't feel like I'm at my job." (customer 2)

The value proposition is also reinforced through the location of the store. The store is situated in a precinct that was once a series of industrial buildings in the 1930s. The precinct consists of a range of curated bespoke stores. It is considered a "boutique shopping destination", (INP, nd), drawing in a niche clientele. These factors aid in elevating these pieces into "niche collectors' items".

This approach is carried through to the visual communication on the retailer's social media page.

> "I don't like clean things to say – polished things. I feel like what you see on me is what you must see in my store like even if you check on my Instagram, I do raw pictures because I don't want anything edited." (store owner)

This is confirmed by several customers that mention the store being situated in a "perfect location" and that the manifestation of the brand is "authentic" and "genuine". Images and videos of the store are shared on social media encouraging customers to visit the store.

The pieces themselves are also seen as an important touchpoint creating value, validation and opportunities for customers to interact. Conversations around pieces have grown the brand community organically.

4.4 Activities

Whilst IFUKU has adopted a broad approach to CE, a clear focus can also be discerned in the way it addresses CE. Above all, IFUKU aims to create a conscious community by "curating pieces that customers will love". Although the retailer sells male clothing and shoes, it sees its customer as a person rather than gender based as per the quotation below:

> "They're the same as me, same soul different bodies. Yeah, if you see me, you see an IFUKU customer. Like I say, we share almost everything from men to women. So, me describing an IFUKU customer, I'm part of the customers. Because, yeah, we dress all the same (…) – the trick here is I sell what I wear." (store owner)

The denim IFUKU brand clothing is perceived as unisex and worn by both male and female customers. As we can see from this interview extract, IFUKU owner sees themselves as a member of the cult community and embodies its values. The owner organizes the range of pieces, store and communication to engage customers, sharing short videos of themselves interacting with products, celebrity customers and arranging the store on social media.

> "It reflects like the hands-on side of it that I mentioned you know, because HE'S taking the pictures, HE'S his own content creator." (customer 5)

Every morning the store owner shares "his dress for the day" on social media, showing different ways of styling pieces. Customers are also encouraged to share their style and the owner reshares on the brand's social media page.

Customers indicate the value they get from interacting with the brand includes becoming part of a community, personalized services, unique pieces and engaging with the owner.

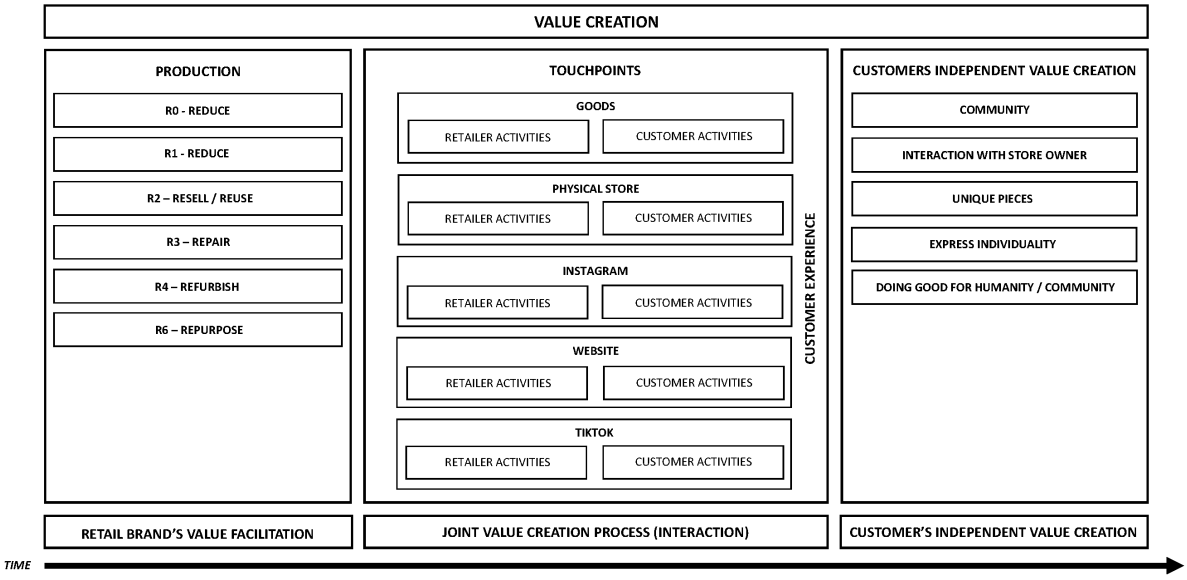
The description above outlines how an SME retailer is encouraging customer uptake of CE practices. Analysis of the CE practices, motivations, touchpoints and activities in the hybrid retail store has helped us understand how value is created for customers. In the hybrid CE retail store "there's a focus on community as part of the consumption aspect of it."

Table 3 summarises the main context-specific findings which shed light on how contextual and cultural influences shape the types of conditions that facilitate effective interactions.

Table 3 Summary of findings.

CE Practices	Retailer's CE practices range from R0 – R4, for pieces and environmental design elements. Store is in a repurposed building R6. CE practices support value proposition to customers. Most customers engage in R2 donating.
Motivation	Retailer's motivation initially borne out of necessity transforming into self-transcendent and altruistic motivation underpinned by a strong sense of community. Customers' motivations include quality, durable unique pieces, doing good for humanity and cost effectiveness
Touchpoint	Touchpoints that support meaningful interaction between customers and retailers resulting in benefits & value are the physical store, social media and fashion pieces themselves.
Activity	Activities that support meaningful interaction between customers and retailers resulting in benefits & value are community, educational aspects in store and digital touchpoints.

Table 4 Customer value creation in the IFUKU store



5. Discussion

The starting point of our study was the observation that CE practices in the hybrid retail environment positively influence customer adoption of CE practices. The effect of the designed environment on pro-environmental behaviours has not been adequately addressed in CE academic literature. Our paper represents an effort to advance the conceptualisation and discourse of CE in the retail sector by integrating service design and empirically substantiating this conceptual development.

Results from this study demonstrate that the design of the hybrid retail environment can indeed support customer uptake of circular practices, thereby facilitating the mainstreaming of CE in a developing world context. Value retention and creation practices R0 – R4 were

found at both a store design and product level (see Table 3). CE practices that form physical evidence in the designed environment are used to support the CE value proposition to customers. These results concur that the design of the retail environment needs to encompass both technical and non-technical approaches to sustainability. To expand on this, Konigk (2015) explains how the physical environment is imbued with meaning, making it a meaningful object. In other words, the tangible induces the intangible (Konigh, 2015; Penin, 2018). In the hybrid retail environment, CE practices support how service is performed and result in meaning that motivates customers to engage in CE practices. The retailer makes CE acceptable by making the invisible visible, showing their interaction with garments, with objects in the store and educating customers about the sustainability of garments in the physical store through conversation and storytelling creating a personalized service, without the need for a palliative marketing strategy. This narrative concurs in line with the principles of service design (Penin, 2018). This highlights the importance of integrating physical and digital touchpoints and providing opportunities for customers to interact with brands.

Although these CE practices in this part of the world, were uniquely borne out of necessity and economic motivation (Korsunova, 2022), these practices now support value creation between the retailer and their customers. The different motivations highlight that mainstreaming CE can only be achieved if the interests of all actors are taken into account (Aminoff et al., 2016).

In South Africa, although many informal retailers generate income by retaining the value of goods, there is still a stigma about buying second-hand goods. Customers interviewed indicated CE practices as embedded in the cultural fabric of South Africa, mainly due to the vast social inequalities as part of the capitalist society. Most customers indicated that they have donated goods to people they know. This correlates with Sonnenberg et al., (2022) that found that South Africans prefer donating over reselling and reusing textiles due to high levels of income inequality. They highlight higher income segments feel morally obliged to donate clothing as a form of redress to disadvantaged community members.

Some customers indicated that adopting CE practices was made acceptable through the community dimension of the store that is enabled across physical and digital touchpoints. The narrative of the store remains one of authenticity and genuineness, which result in social interaction across physical and digital touchpoints and people feeling less “lonely” no matter what their gender is. The association between social norms and personal moral norms is also reported in empirical evidence derived from other developing and emerging economies (Arkorful et al., 2021; Le and Nguyen, 2022; Liu et al., 2017) that often have strong communal orientations. The retailer creates opportunities for community members to interact and create value and benefit for themselves by engaging with community members. The retailer uses these insights to create unique service offerings that resonate with community members in the context. This confirms findings by Stickdorn (2018) that by interacting with customers the retailer finds new ways of cocreating value with customers and improving the service offering.

5.3 Limitations

As this is a pilot study, only a single case has been investigated. It would, therefore, be appropriate to replicate the study in similar contexts to substantiate conclusions as proposed by Yin (2009). Another limitation is the geographical context of South Africa, which might be perceived as a narrow foundation for the theoretical implications we assert. However, the developing world encompasses an important geographic focus area while Africa will be housing 25% of the world's population by 2050 (Ncube, 2011). In addition, South Africa is widely considered the most developed country in Africa with characteristics of developed economies; the specificity of this geographical region can therefore also be seen as a strength. Suggestions for further research include interviews of a larger sample group of customers within the same brand and in another geographical region to yield more insights into different motivations for circular economy practices in different parts of the world. These insights can then be used to make recommendations towards approaches to circular economy and service design in fashion retail.

6. Conclusion

Results from this study demonstrate that the design of the hybrid retail environment can indeed support customer uptake of circular practices, thereby facilitating the mainstreaming of CE in a developing world context. Understanding the motivation basis of CE types in different parts of the world can build a more integrated approach to addressing transitions towards CE.

Understanding retailers and customers in their context is the very heart of a CE design transformation, and the findings of this study underscore that a service design approach is promising to achieve this objective. This indicates an urgent need to educate new designers in CE principles and service design, but also offer supplemental education and training for experienced design practitioners.

Further research should be done on hybrid CE stores in context to further validate results and to suggest prerequisites for the design of the hybrid store. Additional research should also focus on how designers experience and learn from their role in designing for customer adoption of CE. Beyond this, we hope that our approach to analyzing interactions across physical and digital realms can serve as inspiration for similar research in other design fields. We believe that this study represents a step towards equipping designers for the future.

7. References

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