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# **Navigating the Green Path: exploring the dynamics and impact of Peer-to-Peer Retail Returns**

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## **Abstract**

In response to growing sustainability concerns in product returns, a novel and to-date underexplored solution has emerged: peer-to-peer (P2P) returns. This solution allows returners to directly send unwanted items (e.g., wrong size) to new buyers who purchase them at a discount. This research employs mixed methods to examine the implementation and acceptance of P2P returns in the non-grocery retail sector, exploring the perspectives of large retailers, P2P providers, and customers. It identifies key challenges and values associated with sustainable and economically viable practices. The findings enrich innovation resistance theory by highlighting the roles of risk, trust, and value consistency in adopting sustainable retail practices. The managerial implications can inform practitioners who consider implementing P2P returns.

**Keywords: Product Returns, Innovation Resistance Theory, Sustainability**

## **Introduction**

The climate emergency and increased consumer demand for sustainability are compelling retailers and technology providers to reevaluate their operations. Some are adopting environmental initiatives to foster a circular economy, diminish emissions, and secure competitive advantage (Christmann, 2000). Efforts include developing resource-efficient products and optimising logistics to enhance fuel efficiency. Yet, significant gaps remain in implementing sustainable solutions in product returns management.

Customer returns are emerging as a critical strategic issue in retail due to their substantial financial impact—costing up to 30% of company revenue—and their environmental impacts (Benson, 2020; Calma, 2019). Returns necessitate additional transportation and packaging, degrade in value over time, and are often discarded to landfill or incineration. Notably, returns from e-commerce are estimated to contribute up to 14% more landfill waste than those from traditional retail (Silberstein 2021). This evidence indicates the urgent need for retailers and return handlers to explore innovative solutions for value recapture and advancing sustainable practices within the circular economy and green transition (Mollenkopf et al., 2007; Frei et al., 2020a).

In response, pioneering startups are developing peer-to-peer (P2P) returns solutions that reduce costs and support the circular economy. The P2P model, currently piloted in North America, Germany, and Sweden, allows customers to ship returned items directly to new buyers, facilitated by P2P providers who manage the logistics and remotely ensure quality. This minimises the need for warehouse returns, offers financial incentives to all parties involved, simplifies the returns process, and has the potential to increase the resale rate for returned items, which is notoriously low. However, the adoption of P2P returns is still underexplored, especially concerning barriers and challenges to its widespread use. With returns costing over £7 billion annually in the UK and imposing significant environmental burdens (Eccles, 2022), identifying ways to reduce product returns and their impact is a pressing matter and can contribute to a more sustainable and cost-effective retail landscape.

## **Literature review**

### *Rethinking Retail Returns Strategies*

Evidence shows that in 2023, US retailers encountered \$743 billion in returns (NRF, 2023), while the UK in 2022 saw a 26% returns increase from the previous year (Garrett, 2023). Remarkably, only 20% of returns are due to defects; the majority are due to incorrect sizing or buying multiple items to return some (Constable, 2021). Over 25% of returned products are discarded due to their unsellable condition or the prohibitive cost of restocking them, significantly heightening environmental waste (Frei et al., 2020b, 2023; Reagan, 2021). In Germany, the CO<sub>2</sub> emissions from processing returns in 2018 were akin to 2,200 car trips from Hamburg to Moscow daily, underlining the substantial carbon footprint of return logistics (Universität Bamberg, 2019). Preliminary studies indicate that consumers are largely unaware of the scale of returns' environmental impacts, as well as over 80% of 497 consumers agreed that they would add extra items to qualify for free shipping, with half planning to return some of these items (Zhang et al., 2023a).

In response, retailers are reevaluating their returns policies. For example, Zara was the first mover to introduce a fee for returns in the UK (Doherty, 2023). Technological solutions such as virtual try-ons are being deployed to reduce return rates (Batool and Mou, 2023), and 'greener' options such as in-store returns, and parcel lockers (Zhang et al., 2023b). Despite efforts to improve return efficiency and reduce returns rates through better forecasting (Cui et al., 2020; Mollenkopf et al., 2011), conventional return processes remain resource-intensive, suggesting a substantial opportunity for innovation in this space. P2P returns represent a potentially promising solution that minimises logistical overhead and reduces environmental impacts but comes with challenges that need to be addressed for an effective implementation. We explore this through the lens of Innovation Resistance Theory, which is introduced subsequently.

### *Innovation Resistance Theory (IRT)*

IRT was developed by Ram (1987) to understand why individuals and organisations resist innovations despite apparent benefits (Friedman & Ormiston, 2022). This framework categorises resistance into functional and psychological barriers, offering insights into the hurdles encountered when adopting new technologies (Heidenreich & Handrich, 2015). *Functional barriers (active resistance)* include tangible issues related to the innovation's effectiveness, risks, and value proposition (Yu & Chantatub, 2015). For example, high transition costs present a significant functional barrier to retailers' adoption of blockchain (Dwivedi et al., 2023). Conversely, in sectors such as mobile banking, the convenience

and advantages often outweigh traditional barriers (Laukkanen, 2016), suggesting the need for a context-specific analysis of stakeholder resistance. *Psychological barriers (passive resistance)* encompass intangible elements such as emotional and cognitive resistance, including inertia and adherence to tradition (Laukkanen, 2016; Kaur et al., 2020). These barriers are evident in preferences for traditional banking over online methods. Based on perceptions of an innovation's complexity or origin, image concerns also significantly impact adoption decisions (Lian & Yen, 2013).

Despite its broad applicability, previous IRT studies have primarily focused on end-consumer resistance. Limited investigations are using IRT within business-to-business contexts, including blockchain (Dwivedi et al., 2023) and AI-enabled drones for manufacturing audits (Shankar et al., 2024). However, the perspectives of business decision-makers and technology providers seen through the IRT lens are underexplored.

### *Circular Economy (CE)*

The CE is recognised for its potential to offer firms competitive advantages through the identification of market opportunities that deliver both economic and environmental benefits. Key digital technologies such as blockchain and simulation have facilitated the transition towards more circularity, optimised resources, and improved supply chain agility (Kristoffersen et al., 2020; Oliveira-Dias et al., 2022). However, recent studies have found that significant barriers exist that impede the adoption of novel solutions, and thus, the transition to CE is still in its nascent stages (Stucki et al., 2023; Trevisan et al., 2023). Challenges include a wide array of technical, cultural, financial, and socio-political factors, which underscore the need for a comprehensive approach that combines empirical and theoretical research methods (Grafström & Aasma, 2021). Additionally, CE practices have traditionally concentrated on material use, product design, and recycling, yet integrating returns management is essential for effective waste reduction—a frequently neglected aspect by retailers and customers (Zhang et al., 2023b). Despite these insights, current literature lacks the application of IRT to create frameworks that address both functional and psychological barriers in CE contexts while linking these barriers to the perceived value of new technologies.

Overall, this research aims to (1) investigate the values and inhibitors of P2P returns adoption in retail from the perspectives of providers and retailers, and (2) explore the acceptance of P2P returns across different product categories from customers' viewpoints. This approach aligns with the need for stakeholder-engaged, transformative change towards sustainability and circularity.

### **Methodology**

We adopted a mixed-methods approach, integrating both qualitative and quantitative data, to investigate the perceptions of retailers, returns-service providers, P2P providers, and consumers regarding P2P returns. This methodology can provide comprehensive and actionable insights (Venkatesh et al., 2016). In 2023-2024, we conducted 17 semi-structured interviews across three key groups: major UK retailers, established returns service providers, and P2P returns enterprises. The interviewees were typically returns managers in retailers, consultants in service providers, or founders/CEOs of startups. The interviews were semi-structured and lasted between 45 and 80 minutes. The objective was to identify the barriers to and value of adopting P2P returns. The interviews were transcribed and analysed independently by two researchers using the analytical principles outlined by Gioia et al. (2013). This analysis systematically employed open, axial, and selective coding to organise the data into structured themes, a simplified version of which

is illustrated in Figure 1. Insights from the interviews informed, we launched a survey (between-subjects design) targeting UK customers' acceptance of P2P returns in fashion, electronics, and small furniture sectors (3 conditions). We introduced the survey with detailed descriptions of P2P concepts and processes to ensure clarity. After applying intention and P2P comprehension checks to ensure quality responses (Oppenheimer et al., 2009), we analysed 273 valid surveys collected via Prolific, a platform known for reliable data. The survey included both scaled and open-ended questions, enhancing the depth of consumer insights gathered. The average age of the sample was 36 (SD = 8.44), with 140 identifying as female and 187 having obtained a bachelor's degree or a higher qualification. We employed one-way ANOVAs, with the agreement of purchase intention (1-7 measurement scale) as the dependent variable and product types as the independent variable.

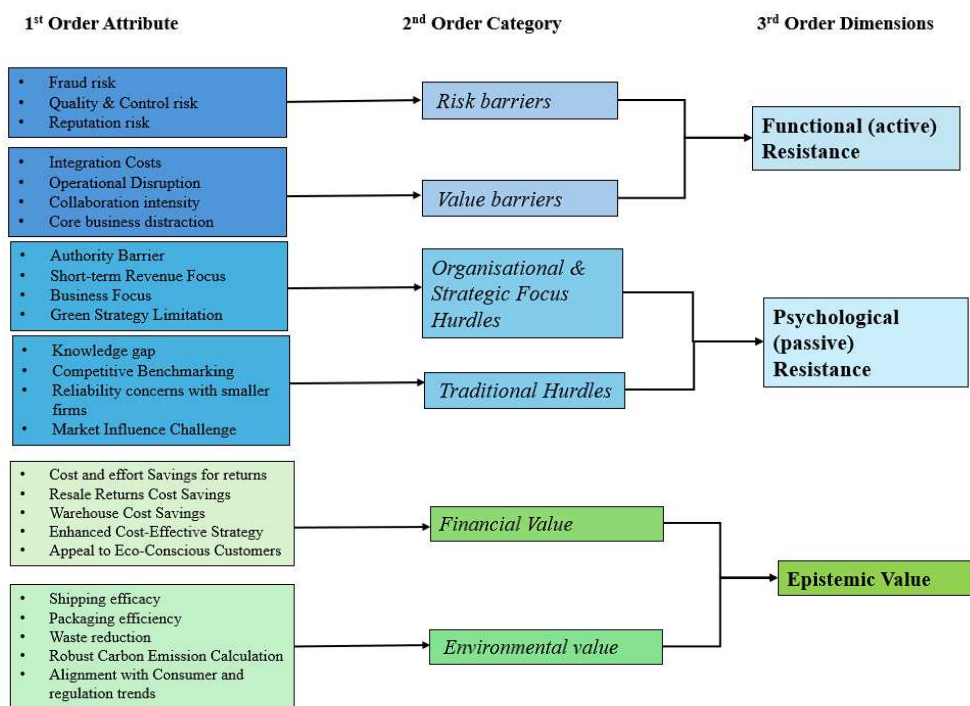


Figure 1–Data structure of the barriers and values regarding the P2P returns adoption

## Results

### *Findings of the qualitative study (semi-structured interviews): Barriers*

First, our analysis identified three principal risk barriers to the adoption of P2P returns: quality control, fraud, and brand reputation. Specifically, retailers commented that inadequate quality control in P2P transactions is seen as a significant vulnerability, introducing potential risks in returns management and a potential increase in fraudulent returns. This concern is rooted in past return fraud and customer dishonesty incidents, which create reluctance to adopt P2P returns. Conversely, this perception contrasts with the experience of P2P providers, who have not experienced fraud or quality issues, suggesting a disparity in the perceived reliability of P2P returns. An alternative explanation is that P2P returns are not sufficiently common yet for being targeted by organised fraudsters. Another notable concern is that while promoting P2P returns may align with environmental goals by minimising waste, it forces retailers to acknowledge that not all returned items are resalable. Hence, this recognition could conflict with a retailer's broader sustainability strategies and negatively impact its environmental reputation.

Second, retailers and experts perceived P2P returns as offering lower benefits relative to their associated costs, presenting significant value barriers. Specifically, concerns exist that implementing P2P returns requires significant investments in IT infrastructure, marketing, and workforce training. It may also necessitate staff reallocation and revisions to existing return and sustainability strategies, disrupting the operational system and shifting focus from core activities. For example, a retailer expanding into rental services worried that P2P initiatives might overshadow these new ventures. Additionally, one key finding is the suitability of P2P returns for certain products is unclear, with a lack of robust evidence supporting customer engagement and effectiveness. Retailers commented that they must carefully evaluate how P2P returns align with their strategic objectives and market demands, necessitating further research. Furthermore, P2P providers suggested that successful implementation demands extensive promotional and educational campaigns across multiple departments, such as returns processing, supply chain management, customer service, and marketing. This reinforces findings from previous literature that the required additional efforts for adopting CE initiatives can limit collaboration potential and diminish sensing and seizing opportunities (Lozano et al., 2021).

Third, we also found that organisational hurdles hinder the adoption of P2P returns. P2P providers highlighted that returns managers in larger firms often lack the authority to advance sustainability initiatives independently, facing protracted approval processes that stall innovation. Furthermore, they reported a prevailing prioritisation of immediate financial performance over long-term sustainability solutions. Some interviewees reasoned that the resale of returns represents a small portion of overall business compared to primary sales and customer services, resulting in minimal motivation to innovate in the returns area. Neglecting the importance of product returns means missing opportunities to integrate returns and resale practices more closely with broader sales strategies and potential cost savings during the customer return process.

Finally, the data shows a limited understanding of customer perceptions towards P2P returns in the UK, suggesting a need to explore customers perception of this solution. Retailers and some service providers reported that they tend to await proven success from competitors before adopting new solutions, as evidenced by the cautious approach following Zara's implementation of return fees. One noteworthy finding is a significant preference exists among retailers for working with larger, more established service providers over smaller P2P providers, citing concerns over liability and trust. This risk aversion is detrimental to smaller startups in the returns management sector, which struggle to demonstrate reliability and gain market traction without substantial influence from retailers.

#### *Findings of the (semi-structured interviews): Values*

Interviews with P2P providers highlighted two main benefits of P2P returns: environmental and economic. First, in addition to the reduction in fuel consumption, emissions and packaging waste, P2P providers can offer advanced capabilities for measuring emission reductions, which is critical for retailers aiming to meet sustainability goals. Two returns service providers reported that they had already developed their own carbon calculator that utilised advanced Greenhouse Gas Protocol and Flexport's carbon calculators. One of them stated that their calculations showed average savings of approximately 0.9 -1 lbs of CO<sub>2</sub> per P2P transaction. Second, providers highlighted that P2P returns simplify operations by bypassing traditional warehousing steps such as handling, inspection, repackaging, and further shipping, leading to cost reductions. Another service providers evidence suggests that P2P processes are more cost-effective

as traditional warehouse returns cost approximately \$10 per item, excluding additional shipping charges of \$5. This efficiency cuts direct costs and reduces storage fees because fewer items are returned to warehouses. Additionally, they believe that the growing consumer preference for sustainable practices provides a further economic incentive, allowing retailers to attract eco-conscious shoppers, enhancing sales, and minimising losses associated with traditional returns. Thus, adopting P2P returns offers dual advantages, enhancing epistemic value by fostering innovation and providing competitive differentiation for adopting organisations.

*Findings of the quantitative study (consumer survey):*

This subsection highlights key survey findings on customer perceptions of the P2P return solution. First, descriptive data revealed that an astonishing 78% of respondents agreed that they would rather purchase items through P2P than a traditional shopping channel, regardless of product type conditions (see Figure 2). This finding provides insights into retailer concerns regarding consumer willingness to engage with P2P platforms, as previously discussed in our interview data. Additionally, when comparing purchase preferences for different product types, value distributions for the furniture scenario show a concentration towards the upper scale of agreement compared to purchasing clothes or small electronics (see Figure 3).

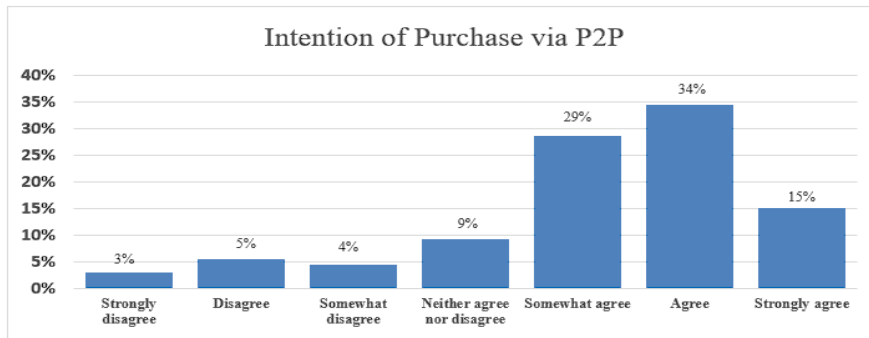


Figure 2 – The overall response of purchase intention via P2P returns solution

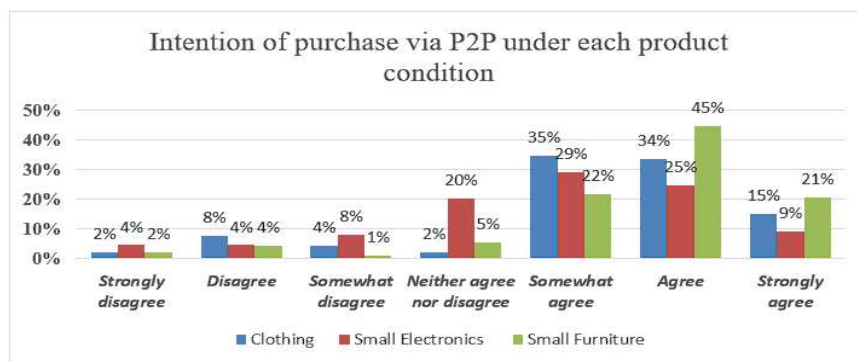


Figure 3 –The response of purchase intention via P2P returns solution for each product type

Second, ANOVA results indicate that the type of returned product significantly affects purchase intentions through the P2P solution, with  $F(2, 270) = 7.30, p < 0.001$ . Tukey HSD post-hoc tests revealed that the mean score for small electronics was significantly lower than that for small furniture ( $M_{est} = -0.812, SE = 0.213, p < 0.001$ ) and marginally lower than for clothing products ( $M_{est} = -0.465, SE = 0.213, p = 0.076$ ). No statistically significant difference in purchase intentions was observed between furniture and clothing

conditions ( $p = 0.228$ ). Third, the analysis showed no significant differences in financial and environmental motivations across the three product types. Consistent with retailer motivations, our data demonstrated that, across all product types, monetary incentives were prioritised over environmental concerns (see Table 1). We consolidated three environmental motivation questions concerning the reduction of packaging waste, air pollution, and landfill waste into a single 'environmental motivation' scale (Cronbach's  $\alpha = 0.92$ ). Specific concerns varied by product type: quality and condition issues for electronics, hygiene for clothing, and potential shipping damage for furniture. Open-ended responses revealed concerns about rights during disputes, trust issues, and the reliability of the initial buyer's shipping quality. Participants also considered the offered 20% discount inadequate to compensate for the perceived shipping risks. Despite these concerns, there was a general eagerness for broader market adoption of P2P platforms. Due to page limitations, we will present additional statistical data at the conference.

*Table 1 – The respondents mean score for perceptions under each condition*

Condition / Variables	Purchase Intension	Financial Motivation (Discount)	Environmental Motivation
	Mean (SD)	Mean (SD)	Mean (SD)
<b>Clothing</b> (n = 92)	5.22 (1.47)	5.80 (1.15)	5.38 (1.30)
<b>Small Electronics</b> (n = 89)	4.75 (1.497)	5.67 (1.32)	5.19 (1.38)
<b>Small Furniture</b> (n = 92)	5.57 (1.35)	5.92 (1.07)	5.62 (1.15)
<b>Total</b> (n = 273)	5.18 (1.47)	5.80 (1.18)	5.40 (1.28)

*Mean score: range 1-7. The higher the number indicates the stronger agreement.*

## Discussion

Our research advances the understanding of returns operations, CE, and IRT, by identifying key attributes for innovative and sustainable return solutions. Our findings reveal a general hesitancy among retailers towards new return solutions, primarily due to their risk-averse nature. Retailers are apprehensive about fraud and damage in returns management, and some customers worry about their rights during disputes. This underscores the critical role of risk perceptions in the adoption of sustainable retail practices (Ruiz-Molina & Gil-Saura, 2018). This apprehension is compounded by mistrust in direct shipments between returners and new buyers, expanding literature suggesting distrust can hamper sustainable solutions' success (e.g., access-based systems; Tunn et al., 2021). Moreover, retailers' scepticism towards the reliability and effectiveness of solutions offered by technology startups underscores the critical need for perceived trustworthiness and operational competence in facilitating the adoption of these innovative models. Consequently, establishing trust that is functional and perceptual is thus crucial for successfully implementing economically and environmentally sustainable solutions in retail returns.

Our findings contribute to the existing literature in IRT and CE by highlighting a notable discrepancy between retailers and P2P providers regarding the perceived functional value and associated costs of a new return solution. Retailers are more concerned about the need for extensive cross-departmental collaboration and compatibility issues with existing operational frameworks. In contrast, P2P providers emphasise the direct economic and environmental benefits, often overlooking the substantial 'intangible' efforts required for effective implementation. While previous



research highlighted the importance of functional value (Talwar et al., 2020), it does not fully address the value perceptions of both retailers and providers. It is critical for providers to apply Resource-Based Theory by leveraging and reconfiguring internal resources (Brandon-Jones et al., 2014). This fosters an adaptable, well-integrated supply chain, which is essential for successfully adopting innovations within the CE framework. Additionally, our survey highlights customer concerns regarding data protection in P2P returns, an issue often overlooked by providers and retailers. This requires further investigation as the role of data protection and ownership has been highlighted by previous literature (e.g., Dwivedi et al., 2023). Our research suggests the need for transparent communication and enhanced system visibility, which are important for effectively easing the transition to P2P platforms and addressing customer risk concerns; as well as the necessity of establishing a consistent perceived integration value among key stakeholders to ensure a seamless transition when adopting innovative, sustainable solutions in retail.

Our findings also indicate that immediate financial benefits are crucial motivators for both retailers and customers when exploring new solutions in the competitive retail market. To capitalise on this, our findings suggest that providers should emphasise the conditional value P2P returns offer compared to traditional returns channels and secondary markets. The conditional value refers to the perceived benefit derived from specific circumstances that improve functional or social worth (Gómez et al., 2018). Specifically, showcasing the potential for P2P customers to obtain discounts on otherwise out-of-stock products can significantly boost engagement. Additionally, certain returns are only resold at very low prices through traditional outlets like jobbers, potentially harming the retailer's reputation (Frei et al., 2020b). Providers can leverage data analytics to promote P2P returns as a solution to efficiently manage returns with low resale probabilities, high return costs, or minimal fraud risks, promoting these as the 'low-hanging fruit' to underline financial benefits and build trust. Our survey provides new insights and demonstrates that P2P returns are more attractive for clothing and small furniture products than for electronic items, potentially due to the complexity and technical characteristics of the latter. This indicates that when developing and adopting new solutions, the specifics of products and contexts should be carefully aligned with the needs of both implementers and end-users (Poppelaars et al., 2018).

While retailers and customers recognise the cost-efficiency and sustainability potential of P2P platforms, environmental motivations remain a low priority. This also reveals a significant misalignment in the importance of environmental values regarding the adoption of new solutions in returns processes and sustainability initiatives. Retailers fear negative public perceptions related to waste and environmental harm from returns, whereas providers promote the environmental advantages of their solutions. This discrepancy underscores a broader issue—the superficial commitment of firms to environmental sustainability, particularly in returns processes (Zhang et al., 2023b). We found that the reason for this is that because returns are a minor component of overall business operations, they receive limited focus, contributing to the negligible efforts directed towards mitigating associated environmental issues. This expands upon existing literature, furthering the discussion on the real motivations behind firms' sustainability efforts and the perceived benefits thereof (Tunn et al., 2021; Trevisan et al., 2023).

## **Conclusion**

In conclusion, this research explored innovation in product returns by exploring P2P returns. Our research contributes to the existing knowledge in several ways: (1) it

highlights the significant role of risk perceptions and trust issues, which stem either directly from the solution itself or from different user traditional perceptions, and how they critically influence the acceptance and adoption of sustainable retail practices; (2) misaligned values between retailers, solution providers, and customers can obstruct the adoption of new solutions and impede the transition towards more sustainable practices in the retail sector; (3) despite the focus on short-term profits due to uncertainties, it is crucial to emphasise conditional values when promoting greener solutions; and (4) fostering strong dialogue among key stakeholders is essential for building relationships that support organisational success and transformation. This is pivotal for navigating the complexities of adopting new, sustainable retail models.

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