What factors drive product returns in omnichannel retail?

Regina Frei(*), Danni Zhang, and Steffen Bayer
Business School, University of Southampton, UK
(*) r.frei@soton.ac.uk

Enrico Gerding and Gary Wills
Department of Electronics and Computer Science, University of Southampton, UK

David Speights
Appriss Retail Ltd., Tustin, California, USA

Abstract

Purpose: Retail businesses aim to give customers a positive experience when shopping in their stores or online channels. Easy or "frictionless" product returns are part of this experience, which is hoped to encourage additional purchases. However, customer-friendly policies lead to increased return rates and consequently a detrimental effect on the environment due to increased product wastage as well as additional packaging and transportation. Product returns also significantly affect retailers' profits through a reduction in net sales and the costs of processing returns. A better understanding of what drives product returns allows retailers to optimise their returns management.

Design/methodology/approach: Based on a review of literature, we conducted 14 semi-structured interviews with 19 experts from retailers, retailer associations and retail technology providers in the UK, the US and Canada. The interviews were transcribed and thematically analysed using an inductive approach.

Findings: We provide a comprehensive picture of the factors driving customers returns, building a framework of customer experience in product returns, and formulates actions that retailers can take to manage returns rates in view of their economic and environmental costs as well as the opportunities they offer for engaging with customers.

Originality: Whilst many authors have discussed selected drivers of product returns, predominantly with a focus on customer related aspects, there is no comprehensive overview. This article explores retailer related drivers of product returns and provides a synthesis of existing work enriched with new insights.

Keywords: Retail, eCommerce, product returns, reverse supply chains

1. Introduction

Consumer returns have become a significant challenge to the retail industry due to their adverse effects on businesses, society and the environment (Frei et al., 2020). Retailers and academics are drawing attention to the importance of identifying ways to reduce the returns rates, even before the Covid-19 pandemic. Since then, the situation has deteriorated due to increased online shopping, which was further accelerated by the pandemic. Many retailers have not fully recovered yet and are now struggling additionally due to inflation and reduced customer spending due to the cost-of-living crisis.

Some retailers see returns to store as a chance to achieve further sales, but only a few are able to use this opportunity effectively (Jack et al., 2019). Product returns are very wasteful in terms of resources, emissions, and monetary value (£7 billion in the UK according to KPMG; Eccles, 2022), significantly affecting companies, leading to deserted high streets, lost employment, and damaging the environment (Optoro, 2020). Many returned products cannot be resold or not through the same channel/at the original price; extra transportation and packaging is often required, and additional products are manufactured to replace those discarded (Wood, 2021; Frei et al., 2023). The costs of returns can be significant, increasing the cost of products to consumers, risking the jobs of retail workers, and reducing retail profitability. Even a small reduction in the returns rate can bring a significant improvement to profit (Douthit et al., 2011; Jack et al., 2019). To be able to tackle this challenge effectively and strategically, it is essential to gain a deeper understanding of why returns happen.

Evidence shows that return rates and costs are much higher for online shopping than for in-store purchases (Invesp, 2019; Ahsan & Rahman, 2022; Schleper et al., 2021). However, the Covid-19 pandemic led to a steep increase in online shopping and escalated product returns (OECD, 2020; Perez 2020). According to recent statistics, in 2019, the returns accounted for 33% of the UK's total online sales (US$79 billion; Statista, 2019). Although the proportion of retails sales through eCommerce has recently reduced somewhat after the lockdown, many consumers have maintained their increased online shopping habits and expect more customer-friendly returns policies (Cycleon, 2021; eCommerce News, 2021).

Therefore, we formulate the following research questions (RQ):

RQ1: How do retailers' operations and policies drive product returns?

RQ2: How do retailers perceive the different interventions to reduce returns rates?

The aim of this paper is to gain a deeper understanding of how retailers observe the drivers of product returns and the impact of returns policies, and to explore the interventions they can implement, especially after the disruption of the Covid-19 pandemic. Data were collected in 2020-21 through a series of semi-structured interviews with retailers in the UK, US and Canada as well as experts from retail associations. The findings were further validated through further interactions with other members of the retail associations.

In terms of supporting theory, product returns fit very well into the retail experience framework proposed by Grewal et al. (2009), which we expand and adapt. Grewal et al. illustrate that the customer experience – the central element of retail – is influenced by factors that are controlled by the retailer as well as external macro factors, which we further categorise. Based on our findings, we split the retailer-controlled factors into two categories (product and operations related versus process and policy related factors) and add customer related factors as an additional element.

The remainder of this paper proceeds as follows: Section 2 reviews literature on product return and factors affecting return rates, followed by a description of the research methodology in Section 3. Sections 4 and 5 present the findings. Section 6 concludes with a discussion of the results, contributions and limitations of this study.

2.Literature review

We reviewed both academic and non-peer-reviewed publications, such as reports produced by retail associations, to gain a comprehensive picture of what has been investigated on product returns across different disciplines. Given that this paper focuses on customer returns, only the business-to-consumers context was considered, excluding the returns of end-of-use and end-of-life products.

2.1 Product returns research across disciplines

In recent years, product returns literature has emerged following several streams of academic research. Similarly, in retail organisations, a variety of different departments deal with product returns and their many aspects, as summarised in SUPPLEMENTARY-1 and discussed subsequently.

Firstly, studies in the operations management area focus on how to process returned products efficiently and economically (Bernon et al., 2011; Guide et al., 2006; Hjort et al., 2019; Starr,

2003). Typical research topics include the costs of product returns (e.g., Anderson et al., 2009; Bower & Maxham, 2012; Hu et al., 2019; Shulman et al., 2009, Shulman et al., 2011), market competitiveness (Stock et al., 2002), product returns management (e.g., Abdulla et al., 2019; Bernon et al., 2016; de Araújo et al., 2018; de Brito & Van Der, 2009), and reverse logistics (e.g., Govindan & Soleimani, 2017; Hsu et al., 2016; Daugherty et al., 2005).

The second stream focuses on marketing and consumer behaviour-related research. For example, the studies explore the strategic role of returns on consumer loyalty (Ramanathan, 2011), and sales volume (Shehu et al., 2020; Li and Jiang, 2019). Evidence shows that returns policies affect both the customers' (re)purchase and return decisions (Jeng, 2017; Rokonuzzaman et al., 2021; Mukhopadhyay & Setoputro, 2005; Wang et al., 2020). It is also a key factor influencing customers' impulsive buying and unethical return behaviour (Chang, & Yang, 2022; Wachter et al., 2012; Wang et al., 2019; Zhang et al., 2022,2023). Customers changing their minds about purchases can be explained by 'post-purchase dissonance' (Sweeney et al., 2000; Lee, 2015; Sharma & Pandey, 2020), which is a feeling of dissatisfaction.

Finally, other studies focus on forecasting returns and returns fraud (De Caigny et al., 2018; Drechsler & Lasch, 2016; Potdar & Rogers, 2012; Ketzenberg et al, 2020). For instance, machine learning (Cui et al., 2020;) and artificial intelligence (Urbanke et al., 2015; Yang et al., 2020) have been used to forecast product returns rates to develop returns strategies. More recent studies pay increased attention to eCommerce (e.g., Al Imran & Amin, 2020; Zhu, et al., 2018), as online retailing has a higher return rate (Robertson et al., 2020; Incisiv, 2021). For instance, Happy Returns shows that approximately 15% to 40% of online purchases are returned compared to 5% to 10% of in-store purchases (Reagan, 2019). There are more uncertainties and risks associated with buying online (e.g., customers are unable to feel / try the product, or delivery problems may occur).

2.2 Drivers of product returns

A thorough search of literature resulted in an extensive collection of returns drivers. We structured them into three categories. The first category comprises product and operations related returns reasons, such as poor product quality, product price, and wrong product delivery. We further categorise this category into seven sub-categories, detailed in SPPLEMENTARY-2. For each driver, we provide an explanation, a list of references, an

indication of whether the driver applies to online, offline or both purchase modes, and at what stage the customer decides to make a return. For instance, regarding online purchase mode, Saarijärvi et al. (2017) found wrong product delivery (e.g., wrong sizes or colours), as well as the received product differing from what is provided on the website are key return reasons. However, they did not explore the drivers of these returns reasons from the retailers' operational side: what kind of operational issues result in these types of returns?

The second category is returns policy and process related drivers, which affect customers' shopping and returns decisions. We group the returns policies according to three aspects: the costs of delivery and returns shipping, the return process, and the refund process. In SUPPLEMENTARY-3, we provide an explanation and a list of references for each driver. These are independent from the purchase mode, and the returns decision stage is not relevant. While there are different opinions about the impact of return policies, it is suggested that offering generous return policies would induce a higher likelihood of high return rates (Janakiraman et al., 2016). If this is the case, it is worthwhile to explore how retailers view their returns policies and whether they consider restricting the returns policies.

The third category is customer related drivers, which are detailed in SUPPLEMENTARY-4. For each driver, we provide the same information as in SUPPLEMENTARY-2. Based on the literature review, the fundamental reasons for customer-related drivers could be emotional dissonance and impulsive purchase (Powers and Jack, 2015). This type of returns drivers is likely out of a retailer’s influence and, thus, is not the focus of our research.

3.Methodology

Given the nature of the research question concerning "how", a qualitative research methodology via semi-structured interviews is most appropriate approach (Flick, 2022; Kvale & Brinkmann, 2009). Various quantitative studies have suggested interventions for reducing returns, such as displaying customer reviews (Sahoo et al., 2018) and reconsidering returns policies (Janakiraman et al., 2016); however, they typically neglect retailers’ perception. Hence, using a qualitative research method allows us to gain a deeper understanding of how retailers assess the drivers of product returns, along with their concerns, as well as the interventions that they would implement to reduce the returns rates, rather than to generate

descriptive data. Furthermore, the semi-structured approach enables informants to express their valuable perceptions flexibly whilst consistently addressing the research questions (Leech, 2002).

Before conducting the semi-structured interviews, the first phase of this qualitative study consisted of reviewing academic and trade publications on product returns to gain a comprehensive picture of the currently available insights on the drivers of customer returns. This process allowed us to develop the interview protocol, ensuring the reliability of the data collection and to reflect on the informants' interpretation of how and why the actions were adopted. The second phase was to undertake semi-structured interviews with retailers and retail experts in the UK and North America to understand how they observe the driving factors of returns and what they are concerned about most. The third phase consisted of validating our findings by obtaining feedback from retailers.

3.1 Data collection

In total, we conducted 14 in-depth semi-structured interviews, with 12 experienced managers from 8 large omnichannel retail organisations from the UK, US and Canada, 3 experts who closely work with retailers on returns and from retailer associations, as well as 4 experts from 3 returns technology service providers. A total of 19 interviewees, with responsibilities in loss prevention, data analysis, and returns management for both offline and online businesses, were interviewed individually or in small groups. Our data collection reached saturation as our initial data analysis showed no newly emerged findings after 12 interviews. Based on Hennink and Kaiser (2021)’s findings, a sample size of 9-17 interviews can reach saturation for qualitative research. Additionally, small sample sizes are appropriate in qualitative research as they allow the researcher to gain a deeper understanding of the situation (Crouch and McKenzie, 2006), especially when informants are experts on the subject (Bogner et al., 2009). Although there is little consensus on the ideal number of interviews in qualitative studies, small samples with a selection of interviewees to maximise the richness of information is valid and reliable for qualitative research (Marshall et al., 2013). Due to the ongoing pandemic, all interviews were conducted online, and the interview duration was 75 minutes on average.

Interviewing both knowledgeable retail managers and industry experts can provide rich information and more comprehensive insights. While the retailers provided insights on product return strategies and practices, the industry experts offered independent perspectives. To support data triangulation, interviewing experts is one of the most effective and valid

techniques in empirical research (Bogner et al., 2009). Moreover, we employed a purposeful sampling approach for sampling selection (Patton 2002). These self-selected organisations retail various products, including groceries (which were excluded in our data analysis), clothing, homeware and electronics. Studying these major retailers allowed us to conclude the common reasons for product returns and compare the particularities and challenges of returns management across different retail sectors. Their store numbers ranging from 500 to over 1,000 in 2021/2022 indicates their significant impacts on the retailing market, society and economy. It is speculated that, in comparison to smaller retailers, they should have more resources, better strategies, and well-established IT systems to manage returns. Our purposive sampling can be seen as a non-probability technique aiming to gain detailed knowledge instead of statistical inferences (Higginbottom, 2004; Murphy et al., 1998).

We complemented this with the snowballing technique to recruit knowledgeable informants (Marshall & Rossman, 2014). To achieve rigour in our sample selection, we also conducted informal meetings with potential retailers to select the most suitable participants, assessing their knowledge and experiences of managing product returns daily issues. SUPPLEMENTARY-6 details the interviewed retailers and the roles of the interviewees. A large percentage of the interviewees work in the loss prevention area, which is likely to emphasise their responses. In most retailers, it is loss prevention managers who have the deepest and widest understanding of how product returns processes are set up in their organisation. In rare cases, they said they would need to check certain aspects with their colleagues in logistics, warehousing, marketing or accounting and get back to us.

Before each interview, we also conducted desk research to understand the retailers' return policies and their product display online. This assisted us in designing interview questions and led to the emergence of additional possible factors influencing customer returns. For example, payment methods and related refund processes: if retailers offered various payment methods (e.g., PayPal and Klarna), we would ask, 'Are there any significant differences in returns rate by payment types?'. If retailers offer a shorter return window (i.e., 14 days instead of 45 days), we would ask, 'Based on your observation, do you think the return window influences the returns rates and why?'. If returns policies were unclear or unavailable from retailers' websites, we would specifically ask to ensure the discussions were consistent amongst all retailers. These specific questions were proposed on the basis of our literature review and knowledge gained by participating in several meetings of the ECR Retail Loss Group, ORIS Forums, and the Reverse Logistics Association, and have not been explored in-depth in current literature.

Examples of other commonly asked open questions were: 'Are there any factors you are aware of that have influenced the returns rate?', or 'Could you briefly introduce your company's return and refund process?'. The conversation also evolved naturally with other follow-up questions.

3.2 Data analysis

Each interview was recorded and transcribed verbatim. We employed the thematic analysis method to identify, analyse, and report key themes within data using close reading and manual coding (Seidman, 2013). The first level of analysis consisted of open coding (Corbin & Strauss, 1990) to uncover important passages to identify the related driving factors on customer returns as described by the members of each organisation. For the second level of analysis, an axial coding technique was employed (Corbin & Strauss, 1990) to review, refine, analyse, and compare the initial codes and produce them into potentially connected categories. That is, gathering all relevant data for each potential theme. The final coding stage was to integrate categories into a further analytical procedure and then produce the thematic driving factors of product returns. The coding process was conducted across the entire dataset. Other parts of the findings related to fraudulent returns and the environmental impacts of return have been reported in [redacted for review A and B], respectively. All coding and data analysis processes were conducted manually; transcripts were independently coded and analysed by three researchers from the research team. Additionally, our research team had group meetings regularly to discuss the data analysis and outcome to check any discrepancies to ensure the analysis's credibility (Vollstedt & Rezat, 2019). Our findings were also validated through interactions with other retailers, manufacturers and logistics providers. This was achieved through participation in retailer association meetings online as well as a face-to-face presentation and subsequent discussion at the Reverse Logistics Association’s European Summit in Amsterdam in June 2022. This cross-checks approach enabled us to provide solid and reliable data analysis and findings (Sandberg, 2005).

4. Findings

In this section, we present the findings from the analysis of the interviews with retailers. We divided the identified returns drivers into two main categories: (1) operations and product related drivers, which often directly generate returns, and (2) policy and process related drivers, which may have a less direct influence on the likelyhood of a return. The third category of

customer related drivers (such as purchases being made late at night potentially leading to higher returns rates due to buyer's remorse) were excluded from the analysis due to the following reason: Whilst extant research has identified numerous customer-related driving factors (e.g., regretted purchases, change of mind), retailers have little influence on these drivers. In contrast to the findings described in literature, our qualitative results revealed that retailers are more concerned about the drivers caused by their operations (e.g., inaccurate product information on their websites) and the factors they can mitigate. Importantly, our findings further explain the reasons behind returns drivers that provide practical implications in the field on how retailers could reduce unnecessary returns and factors they should consider for long-term benefits.

4.1 Operations and product related drivers

Our data analysis confirms that multiple purchases, wrong product delivery, and dissatisfaction with the products remain the main driving factors of online product returns. Our results further reveal that the fundamental causes of these returns factors are the retailers' internal fragile management and a lack of communication between different departments. Retailers commented most on three main drivers: poorly designed product information, wrongly delivered products, and unclear product manuals.

4.1.1 The quality of product information

All interviewees expressed that product description and image play a dominant role in driving returns fin eCommerce. Unsurprisingly, for the apparel industry, orders containing multiple sizes or variants of the same item significantly increase the returns rate. Compared to the uncertainty around true colours, size issues are the primary concern to managers. In contrast to in-store shopping, customers are unable to try on the items, and hence often buy multiple sizes of the same product to maximise the likelihood of having the best fitting item. Therefore, size-related information (e.g., model's information of height and the size they are wearing, or product measurements for each part), as well as product image, affects the volume of unnecessary orders and returns. Specific to the pandemic, a few managers highlighted that a portion of the in-store purchased returns was also due to multiple sizes purchases, as fitting rooms remained closed when stores reopened. This indicates that even though customers can touch and feel products, as well as select preferred colours in-store, they still struggle to predict the right fit without trying them on. This finding also confirms IMRG's recent benchmark data that 'for fashion categories, 52% of multi-size orders are returned' (IMRG, 2021, p.6).

Managers further commented that although they are aware of the sizing problem, it continues to plague them because improving the sizing information for reducing multiple-size ordering is challenging due to various uncertainties. Especially womenswear is difficult to fit remotely as women with the same height, weight and basic measurements may have very different body shapes, making it difficult for retailers to recommend an appropriate size. The other challenge is that despite the efforts to standardise size charts, sizes across brands, or even between different products within the same brand, can have staggering inconsistency. This may result from different designs, materials, processes or manufacturers. One manager specified that:

> 'It [sizing] depends on supplies, and everything counts, such as where they are made. I think there is a fraction of an inch out sometimes on things. The other thing is the shapes of our women. I don't think it is clear cut, it is hard enough as a man sometimes buying clothes. But I think when they got hips and everything else to go with, it is slightly more difficult to get it right.' (Loss prevention manager, Company 2).

For retailers of electronics, our results shows that unclear or incorrect product details (e.g., functionality and component) on the webpage are the main driver for non-defective electrical returns, resulting in the electronic device not fulfilling customer needs and hence being returned. For instance, one loss prevention manager said that:

> 'The information on the website, especially in the description of the product, is very, very important…For example, a website did mention that a particular item has included HDMI, we forgot to put an HDMI as included in the product, or a Bluetooth function on a particular product was missed out during our setup of the product. So, it does drive returns. In this case, for example, a customer buys a product, we said that HDMI is included in the product. When the customer buys it, there's no HDMI, so the customer returns it because we put wrong information on our website. The other one is the functionality of the product because most of the time, what you see on our website, these are provided to us by our vendors. So, for example, if we miss some sort of a check or for example, it was mentioned that the product can actually do ABC, but an actual fact, you can only do A, not B and C that drives customer returning. Again, customer expectation is there, it does drive a lot. Customer expectation is set as they're going to website, because most of them, they go there, review and take that information and that's where the expectation is set.' (Loss prevention manager, Company 4)

Therefore, regardless of the retailing industry sector, inconsistencies between the image, the description and the product are an important driving factor of returns. We found this is more likely to happen for large and grocery-focused retailers when selling non-food items. The loss prevention manager of a major retailer stated that:

> 'We stock so many tens of thousands online and offline products, and we don't always get it right. So, I know we've seen this recently where the image doesn't match the description. So, the customer is ordering what the image looks like as opposed to the description, and then they don't know which one to follow that leads to quite a lot of our returns. And I think clothing is a great example of it.' (Loss prevention manager A, Company 1)

We further explored the reason for this with managers and found the cause is the lack of effective communication among the purchasing, IT information, and marketing teams at the initial selling stage.

4.1.2 Wrongly delivered products

Wrongly delivered products include items in a wrong size, colour, or the wrong items altogether. Although this finding supports extant studies (Kaushik et al., 2020), our analysis shows that this driving factor does not equally apply to all retailers but mostly to grocery-focused retailers. This may be explained by the fact that they pay less attention to their non-grocery operations; thus, their purchasing and information systems, and product management are relatively underdeveloped. As a grocery-focused manager highlighted:

> '…I think another thing to flag as well is the clothing in our store is almost a separate business. So, although it [clothing] still goes into our business' P&L [profit and loss], it's not replenished by our in-store colleagues. It's separate colleagues from [clothing brand] who come to fill it. So, our colleagues who are picking in the store won't have the best product knowledge, and they won't know where everything is. So, if the description on the device colleagues picking from is wrong, then chances are the customer will then be receiving the wrong products as well. ' (Loss prevention manager B, Company 1)

In contrast, we found that leading retailers who specialise in one retailing sector have already addressed this returns driver by installing cameras in distribution centres (DC) and/or using radio frequency identification (RFID) to reduce the probability of wrong items being picked and packed.

4.1.3 Unclear instructions

An interesting driving factor highlighted by the non-apparel retailers is the information provided in product instructions / manuals. For example, one returns manager mentioned that many customers returned one particular product claiming it was defective. However, after investigation, it was because customers had to charge the product first to enable it to operate. This suggests that even if the item is delivered perfectly, there could be unnecessary returns because product instructions are unclear, or the presentation of the instruction is not intuitive, which discourages customers from reading them in the first place. Unlike apparel retailers, electronics retailers may need to put more effort into product instructions and customer support. Moreover, this situation can also be indirectly exacerbated by the effortless free return policy, which may further encourage consumers to simply return the item instead of contacting customer services to get assistance.

4.1.4 Key findings

Inconsistencies between the expected and the received product, including problems with sizing, colour and resulting multiple item purchases can typically be linked back to ill-designed product description pages. Root causes of this driver include the displayed information being edited by different teams but without discussion with the returns team. There is a lack of effective communication amongst different departments. Moreover, there is limited (or no) data analysis and evaluations of customers' returns reasons, although these could be a rich source of insights.

Especially with complex electronic products, unclear user instructions can result from limited (or no) communication amongst departments including sales, customer services and returns desks.

Issues related to the management and operation of shipping are often due to retailers' purchasing and information systems being underdeveloped. Furthermore, retailers are not utilising available technology, such as RFID, to verify the accuracy of the picked, shipped or returned items. Instead, some retailers have installed cameras in distribution centres to provide evidence that the correct products were packed when customers claim that an item was missing. Going further, retail technology providers are able to tag products with RFID appearing in videos to provide even clearer proof of what was picked and packed.

4.2 Policy and process related drivers

Based on the findings of the literature review, we asked interviewees to provide their perceptions of key factors of returns policies on returns rates, including return windows, free delivery and returns, and return and refund process. All returns managers we interviewed commented that although they know that liberal returns policies can induce higher returns rates, sales and customer satisfaction are always a priority for retailers.

4.2.1 Return period

Our findings indicate that return periods have little impact on return rates, although return periods are primary components of return policies (Janakiraman et al., 2016). The IMRG expert commented that they did not find a correlation between the length of the return period and return rates (IMRG, 2021). This finding supports Ertekin and Agrawal's (2021) finding, which showed that the change in return period does not have any statistically significant impact on sales and return rates for online retailing. The IMRG expert stated that:

> 'We did a little research on that to see whether if you shorten them at time, does that change the customer behaviour of returns or not?... what we did was we split, we lined them all up in terms of who had the lowest policy window and who had the longest policy window, split it down the middle. And then averaged how long it took customers to send it back on the small window and the long window for 3 weeks or more. We found it was almost exactly the same portion of all customers. It came out 22 % of all the returns that came back for the low windows against the high windows.' (Expert, IMRG)

It is surprising that almost all retailers accept returns and provide refunds for items returned beyond the return period. For example, when we asked one retailer who offers a shorter return period of 14 days [cf. the same industry offering 30 or 90 days], the manager expressed that:

> 'Truth be told, if you return an item on day 17, it's still processed, the return. And that 14 days return policy is just to get the items back into circulation as quickly as we can. It's just a prompt for customers who return quicker. I'm not saying we're gonna penalise anybody, but it gives us a clearer picture if we can get it within two weeks' (Fraud Analytics Manager, Company 6).

This situation is another example of retailers not enforcing their existing returns policies (Jack et al., 2019), and information about such behaviour can spread fast across social media, encouraging customers to further 'stretch' returns policies with these retailers.

4.2.2 Free returns and free delivery

Offering free returns and delivery can increase customer purchase decisions and the likelihood of buying with the retailer again (Blaeser et al., 2018). However, free delivery and returns also increase the returns rate. The interview with the data expert from IMRG highlighted that they had found a positive correlation between free returns and returns rate (IMRG, 2021). This finding also supports the study by Shehu et al. (2020), who found that free shipping resulted in higher return rates. We speculate that free returns and free delivery are more likely to encourage impulsive buying behaviour, and customers are less responsible about their purchase decisions.

Surprisingly, our interviews reveal that the impact of free returns and delivery on return rates have not received attention from returns managers. When we asked them about their knowledge or observations of the influence of free return shipping on return rates, they were either unclear about the impact or believed they had "a good cost return model", meaning that they were in control of the situation and there was no detrimental effect to their free returns shipping. Notably, all managers pointed out that they believe these free policies can enhance customer satisfaction and increase sales. However, two experts questioned whether retailers have good visibility of the costs of returns and the incurred losses. For example, the expert from IMRG highlighted that:

> 'And there is a perfect correlation between, if you offer it for free returns, that you're gonna get higher returns. And also, if it's free delivery, in the first instance, we cross-correlated whether you can get your parcel delivered for free, or whether you have to put a certain amount of value in your basket to then qualify for free delivery. In both instances, if you offer either of those, your return rate is going to be higher. Again, we literally compared the companies that make you pay for your delivery, and the companies are give it to you for free, and then look at the return rates. It's clear that if you provide that, free cost to the customer, they're gonna take advantage of it and return more.' (Expert, IMRG)

In contrast, one manager commented that:

> ‘I’m sure free returns and delivery can drive the sales. I know a lot of people actually do charge for returns. They take the value of the postage out of the return. And we have got a cost of return model. And we've looked at that, and we know what some of our levers are. So, we have got great visibility of what our cost of returns are, all the levers that we need to do.’ (Loss prevention manager, Company 2)

In late 2022, the fast fashion retailer Zara started to charge a very modest fee for online returns, whilst still accepting them for free in their stores (Nanji, 2022). This created a precedent, and many other retailers have joined in the meantime (Garner, 2022; ParcelLab, 2021).

Further, it is worth addressing the discussion about providing a free return and delivery pass, either against a fee or by getting customers to join a free membership programme. Especially fashion retailers choose the latter option, as increasing sales and creating customer loyalty is their prime goal. The IMRG expert specified that:

> ‘It became very popular for fast fashion retailers a few years ago to start offering membership schemes. Typically, you pay something between £10 and £20 to get an annual subscription of free delivery to your house for all their website products. And thinking behind it, it's gonna kind of create a bit of stickiness for that customer. They'll keep coming back with you, but the cost that comes with that customer who's now suddenly given free returns and purchase as much as they want, knowing that it's all gonna be delivered free and sent back for free, turned out to be a financial nightmare…And a big multichannel retailer that we know who sells fashion to kind of young people introduced a loyalty scheme for delivery, had it open for a year, closed it because it was not financially viable.’ (Expert, IMRG)

Retailers should consider all the possible costs of returns and potential losses from returns frauds. Our findings indicate that all retailers lack detailed data that allows them to calculate the return costs more accurately. Even the leading retailers only pay attention to the transportation cost and the cost of lost-in-transit and do not consider the costs of additional administration, processing, cleaning, repackaging, remanufacturing etc.

4.2.3 Return and refund processes

The stringency of return and refund processes varies among retailers. In general, we found that most retailers have relaxed return and refund processes. Many retailers will not question their

customers if the returned item is less than £40, for instance. Furthermore, we observed a pattern showing that all retailers are moving toward frictionless returns and refunds processes; that is, it requires less effort for customers to return items, and retailers aim to enhance customer experience. For instance, offering pre-paid return labels in advance, introducing more drop-off collection pods or lockers where everything is automated, and offering credit back to the customers immediately upon shipping their return. It is plausible that a more relaxed return and refund environment could induce more returns. All returns and loss prevention managers agreed with this assessment; however, they believe that sales volume remains the key business goal.

4.2.4 Payment methods

Retailers are offering more payment methods, such as PayPal and Klarna, to increase sales. Therefore, we were interested in whether retailers have identified any correlations between payment methods and returns rates. We found a disagreement between retailers and the IMRG data expert regarding this relationship.

> ‘We collected some data on whether any of different payment methods increases or decreases the likelihood of a return. They do, is the answer. Surprise: ‘buy now pay later’ was the highest return rate. On average, 22% of all the orders were returned. Debit or credit cards had 17%, [which] was the average return rate. Paypal was 12%, anything through Apple pay was just 8%. Now the top number there was 22% for ‘buy now pay later’. That is an average; it includes all products sectors. So, anything that might have been purchased for home and garden or for health and beauty or for clothing. If you are to dig a little deeper behind that average, you would see that in some instances for fashion retailers, where the orders are purchased via ‘buy now pay later’ scheme, you saw some return rates in excess of 40 or 45 %, really big, which is worrying. And again, it all ties back to this idea that there's no costs to the customer on a ‘buy now pay later’ scheme. The clue is in the name that they can get that product. Probably on free delivery. No money leaves their account. They can just send it all back and it's back to zero for that customer. So certainly, the type of payment method that you're using is a big influence over your return rate.’ (Expert, IMRG)

However, retailers expressed that they either have no idea or have not identified the relationship between legitimate returns and payment methods. On the other hand, they have observed that

PayPal could induce more returns frauds (Zhang et al., 2023). One fraud analytics manager said that:

> 'This [the impact of payment method] is something that we've looked at a number of times. And we thought there would be a vast difference, but the last time I looked at this there wasn't a difference between the returns rates. If there was, it was within a percent.' (Fraud Analytics Manager, Company 6)

These findings confirm the suggestion by Sahoo et al. (2018) that retailers are more concerned about their customers' satisfaction and brand reputation. As retailers commented, this is because, in such an "internet environment" unhappy customers can easily comment on their dissatisfaction with unresolved product returns through social media; thus, retailers are concerned about the impact of negative word-of-mouth.

4.2.5 Key findings

These empirical findings provide a new understanding of the drivers of product returns due to the primary goal of customer satisfaction and market competitiveness. Whilst there are different opinions about the impact of return policies, there is some consensus amongst retailers that offering generous return policies is likely to lead to increased return rates. The shipping fees for deliveries and returns are driven by customer satisfaction, a competitive market, and sales goals. A new finding from our interviews is that some retailers offer free return and delivery for certain customers, e.g. "club members" who sign up and provide a few additional details in their account information. We also observed that grocery-focused retailers pay less attention to non-food returns, which increases the probability of wrong product delivery and unnecessary returns.

Lenient returns processes as well as lenient refund processes are driven by customer satisfaction, a competitive market, and brand reputation. Our new findings from the interviews indicate that the following factors increase return rates: In the interest of the three above drivers and to avoid confrontation, staff sometimes accept returns which have been worn or used if the items do not show obvious signs of damage. It is very common that no questions on the returned products or the reasons for returning are asked if the items are under a certain product value.

Examples of 'effortless' return process:

- If returning items to a sister brand store: there is a lower likelihood of any questions being asked about the item or the reason for returning. Also, the store assistant is less likely to be familiar with the product and hence unable to assess whether it is genuine or complete.
- If returning items via shipping: customers do not need to contact retailers to request a return, and retailers have pre-printed returns labels for their customers in advance.

Retailers and experts suspect that certain payment methods have higher returns rates; in particular credit cards (as opposed to debit cards) and 'buy now and pay later' schemes (such as Klarna). However, contradictory evidence makes it impossible to clearly confirm or reject this assumption. Again, the difficulty was in obtaining sufficient data where detailed sales transactions are linked to returns transactions, excluding any other factors except for the payment method. Similarly, there is little hard evidence on whether a longer returns window actually increases the returns rate.

5.Discussion

Understanding the fundamental drivers of product returns provides the basis for reducing returns. We discussed different approaches to lowering return rates with retailers, which deepened our knowledge of the challenges of reducing returns and managing returns effectively. The analysis of interviews indicates actions retailers can take, as summarised in SUPPLEMENTARY-6. Selected key actions for reducing return rates are discussed subsequently.

5.1 Producing better product description pages and motivating in-store shopping

The most common return situation is when consumers are uncertain about product sizes or functions. Providing better product descriptions is the primary action retailers should take. All managers have expressed that they have already been making headway to enhance the information provided on their webpages to improve customer confidence in selecting the right product. High-quality information can reduce the return rate in online retail (De et al., 2013; Li & Choudhury, 2021; De Leeuw et al., 2016). Our analysis indicates that it is easier for

electronics than apparel retailers to provide accurate information because of the complexity of the clothes fitting issue, especially with women's apparel. This contributes to existing knowledge of why multiple-purchase returns remain a key return reason for clothing even though many retailers have already made efforts to improve sizing information. Hence, we suggest that apparel retailers could offer a personalised booking system that encourages customers to order online, collect, and try items in-store. This would allow customer to ensure the desired items are available, eliminating the risk of a wasted trip to the store. Stores could also offer free gifts or discounts to encourage customers to shop in-store. These strategies may increase sales and reduce the costs of returns.

5.2 Utilising web technology on product description pages

Leading retailers use various advanced techniques to reduce return rates and enhance customer experience, including video demonstrations, customer reviews, product comparison tools, chatbots, fitting analytics tools, or virtual catwalks (Incisiv, 2022). For example, the use of customer reviews has been promoted recently and is being offered by specialised companies, such as Feefo and Yotpo. Customer review tools can provide valuable information to both retailers and potential customers. Sahoo et al. (2018) suggested that unbiased online reviews help reduce returns. However, academic studies show that the effectiveness of customer reviews in reducing returns depends on various factors. For example, Minnema et al. (2016) found that positive reviews can lead to both increased sales and increased returns, due to higher customer expectations.

We asked retailers about their experiences with these techniques if implemented on their websites. Surprisingly, none of the managers knew whether these techniques could reduce return rates. They either had not analysed the impacts on return rates yet or assumed the impacts would be analysed by different teams (e.g., the marketing team). For instance, a Head of Digital Risk said that:

> 'In truth, I don't know. I'm only guessing, but now you've mentioned that and I'm gonna have a look. I guess the feedback will be good to use from our insight team. I haven't looked at it from a fraud and returns perspective to be honest. But I do know that our trading team are absolutely keen to get the sizing guides more right for our customers, because obviously that's a big return factor for our good customers in truth.' (Head of Digital Risk, Company C).

Another unanticipated finding is that an electronics retailer stated that the live chat offered online did not meet the expected benefit and, at the contrary, became a driving factor on returns:

'Now, the chat that you asked [about] is very critical because if the person behind a chat is not that knowledgeable in terms of product, where customer expectation is that they're supposed to answer a particular question. Simple question, maybe, that could drive a customer to return the product, because the person of the other side wasn't able to answer the proper questions. It does drive a return behaviour. What I can say a significant driver in terms of return is the way we present the product, our product or customer to our website does drive a lot of returns behaviour as well.' (Return manager, Company 4)

As a result, retailers should explore whether and how these techniques can help their customers select the most suitable product and reduce returns. In other words, they should obtain evidence-based information specific to their case to inform their strategic plans for reducing product returns. It is also important to obtain customer views of how helpful they find customer reviews and how frequently they inform their purchase decisions and reduce unnecessary ordering.

5.3 Effective communication among departments

It is important to promote effective communication among departments to reduce returns and enhance customer experience. As discussed in Section 4, our analyses demonstrate no clear connection between the people responsible for selling the items and those managing the returns. This lack of a closed-loop feedback system induces unnecessary returns. For example, the expert from IMRG said that:

> 'So it's common in a situation where you've got someone in the commercial team saying push that product, sell it regardless of returns, whereas your supply chain manager and your operations manager in the warehouse is going, no, I don't have space for that. That's a massive problem. It's kind of operationally wise to make sure that those two teams actually talk… So, a company I work for, we have connections at quite a few different departments. The majority of our connections are within the eCommerce team, kind of people that managed the website, they run the commercials, they sort the marketing out. And we're also well connected with the supply chain guys and the operational guys. We will run events where we'll get them all together and kind of sometimes in a room, sometimes on zoom. And the amount of times that the same

> company, two different people haven't met each other. They don't know that person. You'd be amazed. We know them both and we know that this guy over here is running a campaign and this guy over here is sorting his warehouse out, but they've actually never met. They all introduce themselves at the beginning to say who they are, which team they work in, because they don't know each other.' (Expert, IMRG)

We suggest initiatives for more effective communication among different departments to discuss problems (e.g., costs of sales and returns, higher returns in certain types of items) and provide updated information obtained from the data analysis (e.g., the analysis of returns when implementing new technologies). Effective internal communication can be reasonably inexpensive to implement and might achieve the double benefit of increased sales and decreased returns.

5.4 Systematic data collection and data analysis

To develop effective strategic plans for reducing returns while increasing sales, data collection and data analysis will play a dominant role. As mentioned, returns and loss prevention managers did not effectively leverage the power of data analysis to help them make better strategic plans. This is typically because (1) retailers lack coherent data and have poor information systems (e.g., only have the information of refund value and no detailed information), or (2) retailers are customer-centric, resulting in a lack of focus on efficient returns. One expert from ECR highlighted that:

> 'I think, obviously, not getting the data is a big strategic mistake, I suppose, putting a head in the sand. I guess the mistake would be not to see the end-to-end journey of a product and to continue to live in your silos and your sort of functional boundaries. Sales department moaning about everyone else, not giving them enough sales. Supply chain moaning about everyone else, costing them too much money. The loss prevention team never being heard because sales is a priority. I also think is that people don't quite understand that how to capture or quantify the cost when someone brings the product back to a store, what are the best methods and practices that a retailer can deploy in order for that return to lead to more sales? I don't see much evidence around success in doing that.' (Expert 11, ECR)

However, data analysis can flag returns problems (e.g., due to quality, shipment, or size issues), indicate the costs of returns, and demonstrate the effectiveness of implementing new technologies. This allows the customer service team to take action with more confidence and based on evidence. Meanwhile, senior management can utilise the analysed data to better monitor the organisation's performance in reference to the returns strategy on a regular basis. It is worth noting that achieving these data-generated benefits requires (a) a good information system, (b) an effective data analysis team, and (c) staff efforts in inputting accurate data, which extends the study by Saghiri and Mirzabeiki (2021). While Saghiri and Mirzabeiki discuss the importance of data collection, data flow integration, and digital technologies in the retail industry, their research focuses on the whole retailing chain with a limited investigation of product returns data. They suggest that product returns data is valuable market data and point out that retailers lack visibility about returns. Our research identifies the challenges to achieving the benefits of data flow and collection in terms of product returns and provides practical suggestions for retailers. We found that even retailers who collected returns codes were reluctant to analyse the data because the data's reliability is often questionable (Jack et al., 2019). One manager addressed an additional point to consider: the cost of collecting the data. Without evidence, it may be challenging to make a solid business case to invest in improved data collection and analysis.

6. Conclusions

In the light of recent events, consumers are more inclined to shop and return through online channels (Cycleon, 2021; Ward, 2022; National Retail Federation, 2022). In response to this, many retailers have upgraded their returns management, and academics have made suggestions to reduce the volume of returns (e.g., Ratchford et al., 2022). Product returns have become a fast-growing research field (Sorkun, 2022). Previous studies that identified returns drivers focus mainly on consumer behaviour (e.g., impulsive purchase; Chen et al., 2020). However, there was a knowledge gap in terms of what drives product returns on retailer side, which this article addresses.

Effectively managing product returns is an essential component of supply chain management, especially for online and omnichannel retailers (Frei et al., 2022). However, few studies have explored the type of interventions retailers have implemented or could implement to reduce returns rates with a limited negative impact on sales volume and customer satisfaction. The

effects of various interventions on reducing product return rates are currently only known anecdotally, thus more empirical evidence is needed.

Our findings relate returns reasons (e.g., multiple-item purchase, and wrong delivery) to the causes of these returns at a strategic management level. For instance, the interviews demonstrated that retailers lack effective communication among departments (e.g., loss prevention, marketing, IT information, and data analysis team) and are not collecting, analysing and using their data effectively. Understanding these fundamental driving factors is important to enable strategic planning for reducing and managing returns effectively.

The analysis of retailers' views and their practices in terms of returns management add to the growing body of research. It indicates that although the research on the relationship between product returns and returns policies is quite clear in some ways, retailers still have limited expertise in other aspects, such as the impact of returns windows and payment methods. In addition to the lack of data analysis and internal communications, we have demonstrated that a customer-centric strategy is a major driver of lenient return policies, which induce higher return rates. One of the most striking drivers of returns is the lack of effective internal communication. Retailers should foster more effective collaboration among departments instead of focusing on the leniency of returns policies.

The interviews expanded our understanding of the challenges faced by retailers in terms of reducing product returns in practice. Our results demonstrate that although all retailers agreed that providing more accurate product descriptions is essential to reduce online returns, this is particularly challenging for apparel retailers. As returns drivers vary across product categories, we suggest that retailers should plan their returns interventions and strategies based on the product types.

6.1 Contributions to theory

The retail customer experience framework by Grewal, Levy and Kumar (2009) was expanded and adapted for the case of product returns (Figure 1). It now includes more details on the macro-factors that provide external influence as well as on the performance metrics that reflect the customer experience. The feedback loop consists of two streams: a direct effect on retailer-controlled factors via interventions and policy changes, and an indirect effect via the economic, societal and environmental impact of product returns on macro-factors. Customer related

factors were added as another element that influences customer experience, and retailers have very limited control over this. They do, however, have control over the product and operations related factors as well as the process and policy related factors. This is where the actions suggested in SUPPLEMENTARY-6 come to effect.

6.2 Practical implications

This study has direct practical implications for retailers who wish to improve their product returns management. Retailers and experts who have seen the findings expressed that it is very useful for them to improve their awareness of what drives product returns and they appreciate the suggested actions. Several study participants have decided to take this information to their senior management, striving to develop a more strategic approach to their returns management.

6.3 Limitations and further research

This article focused on omnichannel retailers in the UK, US and Canada. It is worthwhile to investigate retailers who only operate in the eCommerce environment, which has significantly grown. The insights gained from this study may assist in exploring whether online retailers have better management and web-design in contrast to omnichannel retailers. Furthermore, the insights gained from this study suggest that the various factors, such as customer reviews, 'buy now and pay later' schemes, or chatbots, affect returns, but the impacts are hard to quantify and should be investigated further. Additionally, it would be beneficial to analyse the effectiveness of other advanced tools, such as clothes fitting tools and artificial intelligence, for reducing return rates. It would also be interesting to investigate whether the problems and possible solutions from the business-to-customer market also apply in a business-to-business setting. Furthermore, sustainability is an increasing concern for many retail customers (Rausch et at., 2021; Frei et al., 2023), and research is needed to determine whether providing information on the un-sustainability of product returns will change consumer behaviours.

Statistical analysis of detailed returns transaction data would be a very powerful complementary tool to quantify the influence of specific factors on product returns and the effects of recommended interventions. Meaningful data would need to cover prolonged periods of time to observe "before / after" situations whilst accounting for seasonality and other external factors and also include detailed information on returns policies active at the time as well as all other relevant factors.

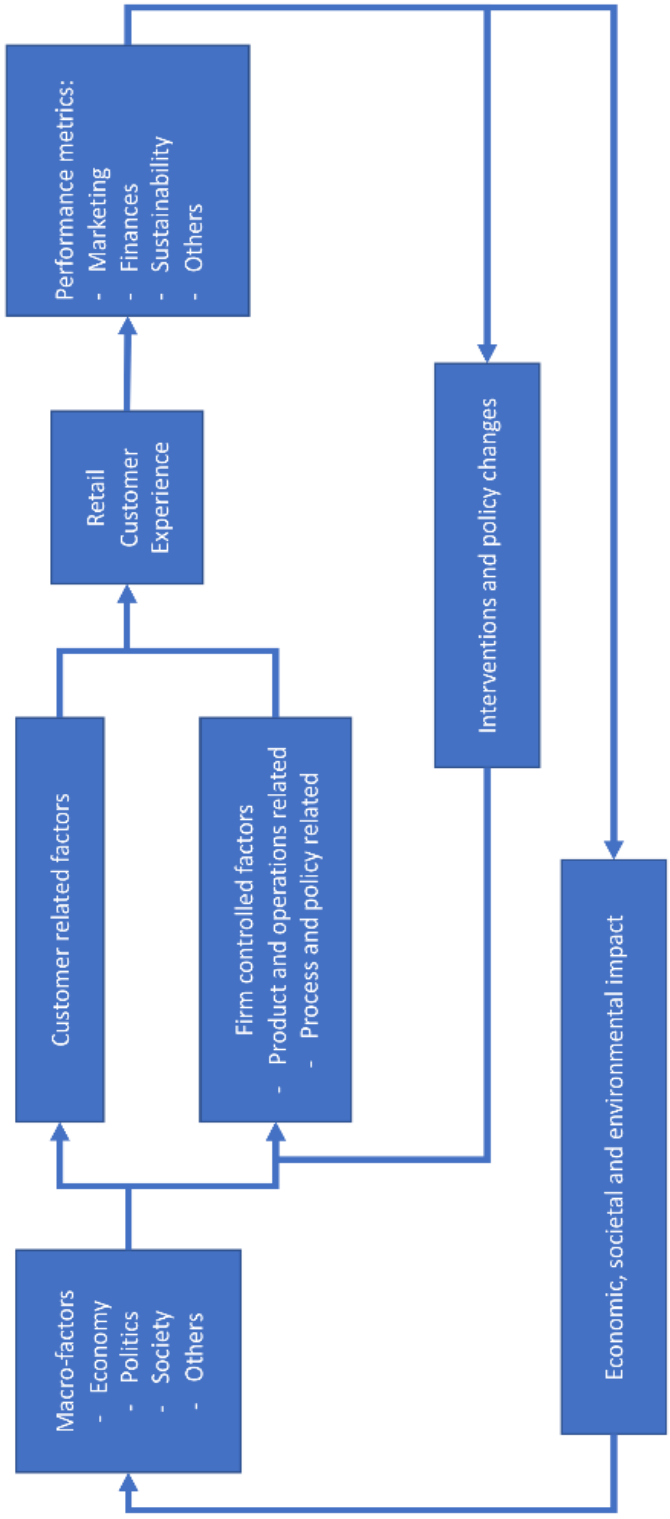

Figure 1: The customer experience framework for product returns

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SUPPLEMENTARY-1: An overview of product returns research

Research areas	Research focus	Related departments or teams in retail organisations	Examples of References
Operations	The efficient handling of returned items from economic and logistical perspectives; streamlining of returns processes.	• Supply chain • Logistics • Operations • Loss prevention	• Bernon et al. (2016) • de Araújo et al. (2018) • de Borba et al. (2021) • Gustafsson et al. (2021) • Mollenkopf et al. (2007)
Marketing and consumer behaviour	What customers to return items, and how return policies can drive customer purchase decisions and future brand loyalty.	• Marketing • Purchasing • Loss prevention • Customer service	• Ambilkar et al. (2021) • Griffis et al. (2012) • Janakiraman et al. (2016) • Wang et al (2019)
Returns prediction and modelling	Predicting returns volumes or rates. Investigating and mitigating fraudulent returns. Three types of input factors: product-related, customer-related and basket composition (e.g. 2 sizes of the same item).	• Marketing • Returns • Purchasing • Supply chain • Loss prevention • Data analytics	• Cui et al. (2020) • de Caigny et al. (2018) • Urbanke et al. (2015) • Yang et al. (2022) • Zhang et al. (2022a)

SUPPLEMENTARY-2: Operations and product related drivers of returns

The returns reasons	Explanation	Sources	Purchase mode	When consumers make the decision to return the merchandise
Inconsistency between the expected and the received product	The product does not meet customers' expectations. For example, • An unanticipated negative feature that was not visible in the product pictures. • The material or the usefulness of the product differs from what was expected. • The information provided online is inaccurate.	Fu et al. (2016) Powers and Jack (2015) Saarijärvi et al. (2017)	Online	After they received and assessed the item.
Product size	The size of the product is not 'right' due to fit and size variation.	Asdecker (2015) Lee (2015) Saarijärvi et al. (2017) Smriti (2018)	Offline and Online	After they received and assessed the item.
Multiple-item purchase	The customer purchased multiple products with the intention to keep only one or a few of them, including • Multiple sizes or colours of the same product. • Similar products for the same need.	Cui et al. (2020) Lee (2015) Li et al. (2018) Zhu et al. (2018)	Offline and Online	At the purchase stage.

Product shipments	The wrong product was delivered, including the wrong colour, size, item, or part missing. The delivered product has been damaged due to careless packaging or lost during transport. The customer found the ordered products faster from another retailer while waiting for the products to be delivered. Delivery too late. Replacement was sent, original then found and returned.	Fu et al. (2016) Kaushik et al. (2020) Mollenkopf et al. (2011) Rao et al. (2014). Saarijärvi et al. (2017)	Online	After they received and assessed the item. At the time waiting for the products to be delivered.
Product complexity	After a brief use of the product, the customer found out the product was very difficult to use or assemble the product and then returned it.	Cullen et al. (2013) de Araújo et al. (2018) Lee (2015) Yu and Wang (2008)	Offline and Online	After they received and assessed the item.
Product quality	The products have defects or poor quality.	Ferguson et al. (2006) Jack et al. (2019)	Offline and Online	After they received and assessed the item. After use of the item.
Product price	After the purchase, the customer found the same or similar product that is cheaper or offered a free gift / discount from another retailer. After the purchase, the customer found that they would pay less if they could wait for a while until the discount season.	Kaushik et al. (2020) Powers and Jack (2015) Saarijärvi et al. (2017)	Offline and Online	After they received and assessed the item. At the time waiting for the products to be delivered.
Note: All driving factors on return rates can interact with each other (including lenient returns policies) and drive excess purchases and higher returns				

SUPPLEMENTARY-3: Policy and process related drivers of product returns

Influential factors	Explanation	Sources
Shipping costs for deliveries and returns	Free returns and free shipping can encourage consumers to purchase more than they need, hence increasing return rates, including. Factors that encourage over-purchasing include: • No returns shipping costs and free returns to stores. • No restocking fees.	Heiman et al. (2001) Lepthien & Clement (2019) Petersen & Kumar (2009) Sahoo et al. (2018)
Lenient return process	The fewer restrictions and efforts on the return process, the more likely customers will return products. Examples of lacking restrictions: • Not requiring the original tags or product packaging to be retained. • Not requiring return forms to be filled out.	Davis et al. (1998) Heiman et al. (2001) Janakiraman et al. (2016)
Lenient refund process	• Customers can get a cash refund even if they used another payment option for the purchase. • Customers can still get a cash refund or a store gift card refund even if they do not provide a purchase receipt.	Davis et al. (1998) Heiman et al. (2001) Janakiraman et al. (2016)

SUPPLEMENTARY-4: Customer related drivers of product returns

Influential Factors	Explanation	Source	Purchase Approach	When consumers make the decision to return the merchandise
Change of mind	Customers' need for the product has faded away, or they feel unsatisfied with the product. For example, • The customer did not like the product when using/wearing the product • The customer regretted spending too much money. • The customer realised that he/she does not actually need the product after all.	Lee (2015) Powers & Jack (2015) Saarijärvi et al. (2017) Smriti (2018) Sweeney et al. (2000)	Offline and Online	It could happen right after the purchase decision, or after received and assessed the item.
Impulsive purchases during the Holiday seasons	Consumers are more impulsive during holiday seasons, which leads to higher returns (Seasonality).	Anderson et al. (2009) Cui et al. (2020) Kaushik et al. (2020)	Offline and Online	It could happen right after the purchase decision, or after received and assessed the item.
Unplanned impulsive buying	Customer regretted their impulsive purchase which induced by intense promotional events. For example, • Consumers purchase with incomplete product knowledge or information because retailers (unintentionally) provide special discounts for limited periods of time.	Asdecker et al. (2017). Cook & Yurchisin (2017) Kang, & Johnson (2009). Kaushik et al. (2020) Park et al. (2012). Saleh (2012)	Offline and Online	It could happen right after the purchase decision, or after received and assessed the item.

SUPPLEMENTARY-5: Information on the interviewed companies

Company	Retail sector	Representatives	Country	Number of stores	Socio-economic status of the targeted customers
1	Groceries, Apparel, Electricals	**LP1 A:** Loss Prevention Manager in charge of online and wholesale operations. **LP1 B:** Loss Prevention Manager in charge of store operations.	UK	More than 500	Low to middle-class
2	Fashion and Apparel, Footwear, and Accessories	**LP2:** Profit Erosion and Data Mining Manager.	UK	More than 200 physical stores as well as five dedicated online sites.	Middle-class
3	Electricals, Fashion and Apparel	**LP3 A:** Head of Digital Risk. **LP3 B**: Risk and Loss Prevention Investigator	UK	More than 750	Middle to high-end
4	Electricals	**LP4 A:** manager of Loss Prevention and Inventory Control (online). **LP4 B:** Returns Manager, involved with returns and returns prevention.	Canada	More than 150	Low to middle-class

5	Groceries, Apparel, Electricals	**LP5**: Multi-Channel Returns Manager.	UK	More than 1,000	Low to middle-class	
6	Fashion and Apparel, Footwear, and Accessories	**LP6 A**: Fraud Analytics Manager. **LP6 B**: Head of Online Loss Prevention.	UK	More than 500	Middle-class	
7	Electricals	**LP7:** Fraud Prevention and Investigations Manager.	UK	Focus online, limited stores.	High-end	
8	Fashion and Apparel	**LP8:** Director of Loss Prevention.	US	More than 1,000 stores worldwide	Low to middle-class	
9	Expert (IMRG)	**E1:** An analyst who has valuable retail experience.	UK	N/A		N/A
10	Expert (ECR)	**E2:** Works closely with retailers on identifying problems of loss and returns.	UK	N/A		N/A
11	Expert (ECR)	**E3:** 30 years of research experience in understanding retail loss problems.	UK	N/A		N/A
12	Expert	**E4:** Senior Manager (Public Relations) who works closely with retailers.	US	N/A		N/A

	(Returns technology service provider)	**E5:** President of the retail technology company.			
13	Expert (Returns technology service provider B)	**E6:** CEO & Co-founder	Based in Israel but provide services globally.	N/A	N/A
14	Expert (Returns technology service provider)	**E7:** Chief technical Solutions in product returns	US	N/A	N/A

SUPPLEMENTARY-6: Actions that retailers can take to reduce returns rates

Returns Drivers	Proposed Solutions	
	Confirmed through our interviews or other existing studies	**Require further investigation by retailers or future research by academics to validate their effectiveness**
Multiple-item purchase	• Clear, informative size charts for each product (Bustos, 2009). • Offer sizing latent vectors which are personalised at a user, brand level based on their historical data (Kedia et al., 2019).	• Offer virtual fitting room (or similar technology). • Encourage customers to provide feedback on the size / fitting of the product they purchased. *Note: it is important to analyse the feedback for quality control and to check whether sizing and descriptions are provided accurately on the web page).* • Use different kinds of models in the product images, potentially including real customers (Incisiv, 2022). • Offer free gifts or discounts to encourage customers to shop in-store.
Wrongly delivered products	• Leverage camera and video from the fulfilment centre (or DC) to control the pick accuracy of the products. • Utilise the new technology of RFID to ensure the accuracy of the product delivery. • Explore the reasons of delivery errors/damage. Whether because of human errors, poor information system about product details, or poor packaging.	• Leverage shipping software to eliminate shipping errors and fulfil orders with higher accuracy.
Product price and costs	• Build price guarantee schemes (Smriti, 2018). • Provide free gifts if possible and profitable (Asdecker et al., 2017).	• Offer discounts for not returning products (e.g., seasonal products).

Poor product information page	• Provide high-quality product images and/or videos from multiple perspectives. • Balanced customer reviews (Sahoo et al., 2018).	• Web sites should be frequently updated to offer consumers the most up-to-date product information.
Unclear product details and instructions	• Regular analyse customer feedback and investigate return reasons.	Offer better support services, including: • A customer hotline to ask about item details. • Live chat to ask about item details. • Chatbot (an automatic answering service that can answer frequently asked questions, such as: How much is delivery?)
Other possible actions:		
• Build a thorough consumer-based data system to track each consumer's returns behaviour. • Encourage regular communication among different departments. • Organise promotional campaigns stressing the harm and costs involved in unnecessary returns. • Reward customers after a certain number of orders without any returns. • Moral persuasion: a pop-up window reminds customers of the environmental impact associated with product returns.		