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on
Catalogue of Fraud Types in Product Returns

By

[redacted]
Student number: 32539762
ERGO number: 75966

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Abstract

Most of us have engaged in some kind of online purchasing prior to COVID-19 lockdowns. Since Covid-19 prevailed, the retail business has experienced remarkable development and increased demand. People who believed they would never purchase a certain item online (like groceries, high-end electronics) discovered that they would. E-commerce has dramatically risen over the recent years. It is a fast-paced, cutthroat competing industry, contending with aggressive competitors, grumpy customers, and fraudsters. Now, due to the advent of new shopping patterns and substantial changes in the retail industry, it is more crucial for retailers to combine physical and digital touchpoints. They must absolutely personalize their offerings and implement user-friendly regulations if they are to draw in and keep customers. But unfortunately, the relaxed return policies of many big marketplaces (to retain customers) of which fraudsters take advantage and execute fraud seamlessly. Retailers are struggling with high product return rates, suffering with huge financial ramifications.

The many scams that are now occurring in the retail business while returning products will be thoroughly described in this study, whether it be online or offline/in-store shopping where fraudsters deliberately abuse the retailer's return policy in one way or another through different channels, pocketing benefits in terms of credits, gift cards or even cash sometimes. We will also classify these frauds on the basis of their mode of conduct.

Based on interviews with two retail professionals and responses received from a short survey, we will analyse characteristics that empower fraudsters to execute dishonest returns and will recommend strategies to deal with such product return frauds.

On the basis of important findings, we will also provide significant insights on how return policies can influence the shopping behaviour of customers of different age groups in different countries. These insights can help retail businesses to know better about their customers and can form corresponding strategies to prevent frauds.

Chapter 1: Introduction

1.1 Overview

This chapter introduces the background of expansion of e-commerce industry in last few decades and how product returns is a major problem for many retailers, and its evolution in modern world. The project's research objectives will also be presented further. Lastly, the motivation of doing this study and the structure of this study will also be presented.

1.2 Background

E-commerce has evolved into a crucial component of the global retail landscape in recent years. Just like other businesses, the retail environment has also seen a significant shift because of increasing digitization and globalization. This has resulted in the growth of number of digital buyers exponentially every year. Over 2 billion individuals made online purchases in 2020, and e-retail sales globally topped 4.2 trillion US dollars in that year (Das, 2012). Most of the global internet purchases are made through online marketplaces. Amazon, a Seattle-based e-commerce powerhouse that provides an array of diverse products, tops the list of the most popular online retail websites in the world in terms of traffic (**Figure 1.1**). In June 2020, it had more than 5.2 billion unique visits (Das, 2012).

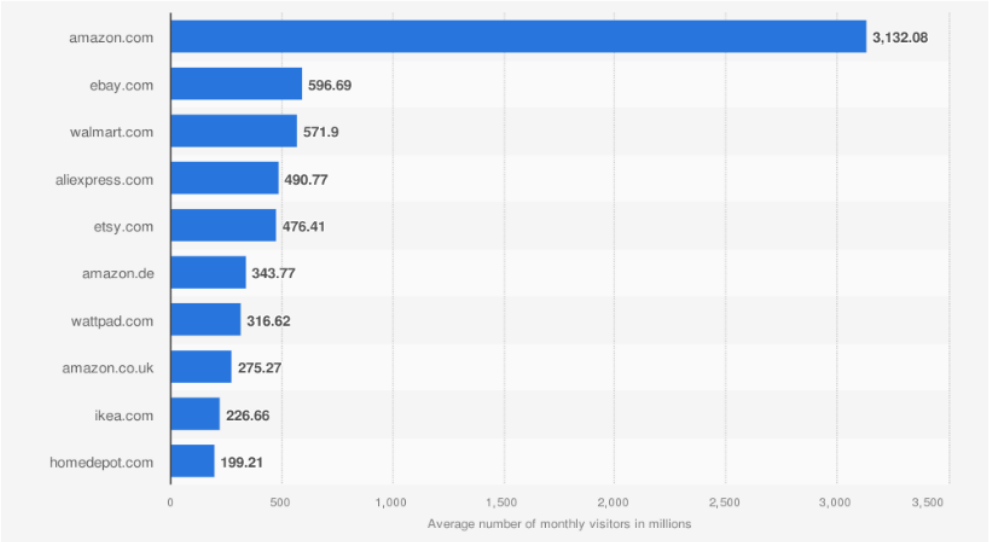

Figure 1.1: Most visited online retail websites worldwide in 2022, by average monthly traffic (in million visits) Source: (Statista, 2022)

A customer-to-customer (C2C) exchange site's gross merchandise value (GMV) is the total amount of goods sold within a specific period. Amazon comes in third place in terms of GMV, falling behind Taobao and Tmall. These two platforms are operated by Asia's largest supplier of e-commerce, The Alibaba Group (Das, 2012).

As per Statista (2022) reports, there have been significant increase in digital buyers from 2014 to 2021(**Figure 1.2**). In intent to grab larger audience for their services and products on marketplaces, most of the retailers push to formulate user friendly strategies to improve customer satisfaction and increase the loyalty levels. Although, there have been much research done in past (Frei et al., 2020; Piron and Young, 2000; Shang et al., 2017; Speights, 2010) to identify factors influencing the customer shopping behaviours and satisfaction. Some of them are Payment method, Website design, Security, Product quality and variety, Information Quality, delivery service as identified by Guo et al. (2012).

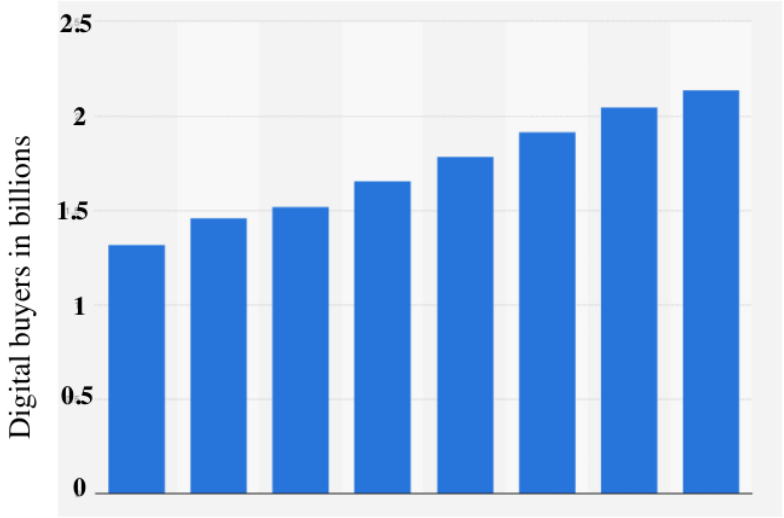

Figure 1.2: Number of digital buyers worldwide from 2014 to 2021(in billions) Source: (Statista, 2022)

Despite of achieving significant strides in the formulation and modelling of customer service platforms by marketing theories in e-commerce and retail industry, our comprehension of knowing the other side of customers, where they likely to return products and execute scam, is still inadequate. Most of the established marketplaces and humongous retailers assume that its employees and customers are right-minded. But unfortunately, fraudsters, among those customers or employees only, take advantage of relaxed consumer friendly policies and execute frauds and thereby pocketing rewards in the form of credits, gift cards or even cash.

With the development of contemporary technology and advancements in e-commerce, different types of frauds are also notably on the rise costing the globe billions of dollars annually (Laleh and Abdollahi Azgomi, 2009). According to a research by Cho (2022), only 5% of returned goods are legitimately substandard, rest 95% products are returned for other reasons or just for personal benefits. The rate of product returns can go high up to 30% for some online retailers in comparison to offline shopping because consumers buy the products without actual touch and feel in online shopping (Cui et al., 2020). Product returns is a very common problem which retailers face these days, resulting in huge business losses going unnoticed and other subsequent financial ramifications. As researched by Bower and Maxham (2012), consumer electronics device returns cost manufacturers and merchants over $20 billion in 2015, a 21%

increase since 2010. In 2019, US merchants received $309 billion in product returns, or 8.1 percent of sales (Fan et al., 2022).

1.3 Research Objectives

Most of the retailers formulate their return policies (RPs) that allow customers to return products within stipulated time from the date of purchase. Retailers try to be as empathetic while offering RPs to retain customers for long term relations and therefore increasing sales. A product's eligibility for return (full or partial), the refund mode (credits/gift cards/cash), and the return path (by post/courier, drop-off box, drop in-store, etc) are the few parameters which are commonly specified in RPs.

Formulation of strict return policies gained attention of retailers when increased number of customers were buying products with the intention of returning it after few uses/damages. This behaviour is often called "wardrobing" or "opportunism" by retailers (Hess et al., 1996; Shang et al., 2017). This wardrobing behaviour can be expanded to other commodities such as electronics, jewellery etc. This is the most common fraud which is being executed by fraudsters in e-commerce industry. For example, According to report published by Appriss Retail in 2019, there was a 35% increase from 2018 to huge fraction of $27 billion in fraudulent returns in 2019.

Just like wardrobing, there are many other illegal methods or strategies which fraudsters adapt and shoot frauds through different channels. For instance, return fraud can be used to get refunds for items that were never purchased, to get several refunds for the same item, or to get a new item in exchange for an old one that is broken or faulty. Return fraud can also be used to sell fake goods or to perform other crimes like identity theft. By understanding return fraud, businesses can take steps to prevent it from occurring and to mitigate the losses that it can cause. Studying product return fraud can help retailers to be aware about different types of frauds and develop strategies to prevent and detect such frauds.

The following are the research objectives that this study aims to meet:

RO1: What are the different types of product return frauds prevalence in retail industry? Classify them in a useful way from retailers' perspective.

RO2: What are some of the factors influencing product returns?

RO3: What counter-measures and strategies retailers can take to prevent these frauds and loss because of these frauds?

1.4 Motivation of Study

Product returns pose a significant problem to retailers and humongous marketplaces. According to the National Retail Security Survey (Hollinger and Davis, 2002), from the perspective of the retailers, wardrobing affected 72.7% of them in 2014, up more than 17% from the previous year. This is a key factor in the projected $10.9 billion (2015) in yearly store losses resulting from return fraud. Businesses may lose money as a result of lost inventory and restocking costs. Product return fraud may also harm a company's reputation if customers think the company is dishonest about its return policy. Retailers are so determined to keep pace with their other competitors and to retain a long lasting relationship with customers, that they oversight this tangent of business and then further financial ramifications go unnoticed. Furthermore, the laxity and negligence of the business markdown as a repercussion of these frauds are few of the reasons of motivation to conduct a thorough research on product returns fraud.

This study will have a descriptive understanding of various return frauds and their classification in certain ways, which may be very useful from retailers' point of view. Retailers may be able to identify fraudsters and stop scams as well as losses caused by such scams with the use of specific countermeasures and methods that will be addressed in this research. We will also analyse and provide some insights on how return policies can influence the shopping behaviour of customer of different age groups in different countries.

We will examine the extant research on product return fraud and conduct a survey using social media to learn more about consumer buying patterns and product return customs. In order to further refine our study, we will also conduct online semi-structured interviews with two retail professionals.

1.5 Structure of Study

A detailed analysis of recent studies and pertinent research on the many return scams that have been identified to date is provided in Chapter 2. The chapter will also provide a literature analysis on fraudulent consumers' return patterns and the factors that affect both purchasing patterns and returns. Chapter 3 will introduce to the approach of research and choice of research methodology. Identification of sample size of survey responses and semi-structured interviews with two retail professionals, having work experience in product returns department of humongous marketplace. A short note on Ethics approval to consider all the ethical issues raised in this study, will also be discussed. The results and other important findings (from the survey and interview) will be mentioned in Chapter 4. We will discuss the insights achieved from the analysis of survey data and thematic analysis of interview answers, followed by comparison of our results vs previous studies (in literature review) will be discussed in Chapter 5. Chapter 6, our study will come to a closure with a detailed summary of results along with some limits and advice for future researches.

Chapter 2: Literature Review

2.1 Overview

This chapter seeks to offer a thorough and in-depth examination of recent studies and essential research on the many product return forgeries that have been discovered so far, as well as the methodology choice for attaining the study goals. Firstly, the return patterns of fraudulent customers as well as the classification of serial returners will be discussed. Next, an overview of the common rules & regulations of the returns to formulate return methodologies practiced in the past by giant retailers, followed by returning experiences, satisfaction and customer outcomes is discussed later in this chapter. At last, existing literature on classification of return frauds along with strategies and its positive and negative impacts on consumer shopping behaviour is explained comprehensively.

2.2 Return patterns of fraudulent customers

The problem of fraudulent activity, and particularly the problem of fraudulently returning items, has drawn a lot of attention since last few decades (Harris, 2010). A substantial collection of research on how customers are deceived has emerged in the field of consumers and fraud studies (Marlowe and Atiles, 2005) and in the identification of fraudsters who target retailers (Dunkelberg and Robin, 1998). According to Statista (2020), return fraud affects the retail and hospitality industries severely, costing retailers 33.9 billion US dollars in North America and 93 billion US dollars globally in items (**Figure 2.1**).

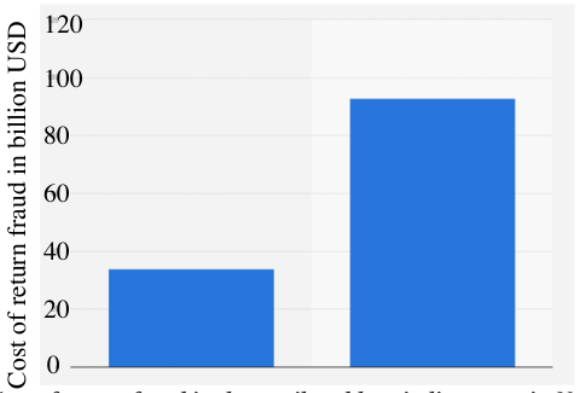

Figure 2.1: Cost of return fraud in the retail and hospitality sector in North America and worldwide in 2019 (in billion U.S. dollars) Source: (Statista, 2019)

According to a recent survey by the National Retail Federation (2020), merchants have indicated that stolen goods is the primary contributor to return fraud, according to more than half of all businesses surveyed, which has affected them the most (**Figure 2.2**).

Response	Average
Return of shoplifted/stolen merchandise	54.84%
Employee return fraud and/or collusion with external sources	37.10%
Wardrobing (returns of used, non-defective merchandise)	33.87%
Return of merchandise purchased on fraudulent or stolen tender	24.19%
Returns using counterfeit receipts	22.58%
Returns using e-receipts	19.35%
Returns made by ORC groups	17.74%
None of the above	16.13%
Other	4.84%
Unknown	1.61%

Figure 2.2: Examples of return fraud retailers have experienced in 2020, Source: National Retail Federation (2020), Returns Survey Oct-Nov 2020

As identified by Piron and Young (2000), "Wardrobing" or "Retail borrowing" is the most common behaviour where fraudsters acquire products with the knowledge that they would return them after properly using them. Additionally, they have identified five main factors that influence consumer borrowing decisions: social, economic, personal happiness, professional, and altruistic requirements. According to Phau et al. (2022), duplicating outfits and publishing on social media are considered as a fashion misjudgement. It is clear that a certain clothing culture has been permitted to endure among young customers. Therefore they may simply experiment with wardrobing if they cannot afford to buy new garments for new situations or to promote on social media (Jadezweni, 2019). Harris (2010) also claims that the motivation of retail borrowing is influenced by the gender, age, and education of consumers. There have been numerous additional researches done in past by Lwin and Shimul (2016) that demonstrate that younger consumers are more likely to continue borrowing clothing items. In one of the blog posts by Dopson (2022) on Shopify, Steve Pogson, FirstPier's creator and ecommerce strategy head, said,

"Consider someone who buys a certain dress for a particular occasion. Despite being utilized, the clothing is ultimately returned because they won't need it after that particular event. Wardrobing is frequently regarded as harmless by people who do it, yet it is still a fraud."

According to survey conducted by "Retail Technology Review" (2022), anti-tamper devices would prevent 45% of "wardrobers," up to 54% of the worst offenders between the ages of 16 and 24 and 50% of those between the ages of 25 and 34. Poulter (2019) claims that The R-Turn Tag, created by security specialists at Checkpoint Systems, may be sewn into the front of any article of clothing; however, it is so big and noticeable that the consumer could not wear the garment socially without taking it off. Once removed, the tag can't be reattached and hence, the buyer would forfeit their entitlement to an automatic refund (**Figure 2.3**)

In addition to wardrobing, fraudsters can attack shops by returning goods via a variety of channels using a number of additional unlawful tactics. According to Speights (2006), when a customer buys two things for different amounts followed by repackaging the less costly item in the box of the more expensive item and returning it for a full refund is referred to as "Price Arbitrage". Electronics frequently encounter this situation since it can be hard to distinguish between cheap imitations and genuine goods (Speights, 2006). In this case, scammers keep the original pricey merchandise in addition to demanding a complete refund. Zachary Leaven (2022) mentioned in one

of his blog post that in an operation carried out by National Police in 2018, total 25 people were arrested in creation of 500 fake profiles using 400 different credit cards to purchase technology products and returning the packages with heavy objects instead of the product, extorting Amazon of around 500,000 Euros. The items that were stolen in the interim were eventually sold on the marketplace for buying and selling used goods.

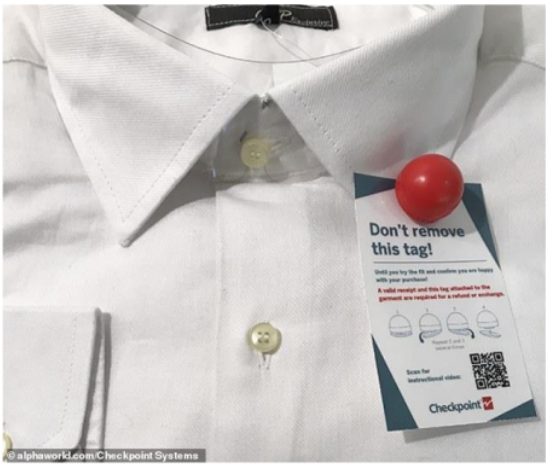

Figure 2.3: R-Turn Tag attached to the front of item of clothing so it can't be worn in public, Source: (DailymailUK, 2019)

A recent fraud technique, Triangulation fraud (Jendruszak Bence, 2021) is a method that combines a real consumer, a real online store, and a fraudulent online business run by a fraudster with access to credit card information. The modus operandi of this fraud is using a stolen credit card (by fake sellers on marketplaces like amazon etc) to buy the product from a legitimate online store and is shipped to customer, however, the owner of stolen credit card initiates a chargeback and legitimate online store have to pay the chargeback whereas the fake seller keeps the original customers money (**Figure 2.4**).

In order to safeguard against such fraud, Jendruszak Bence (2021) has highlighted a few data points that should be regularly audited, such as new customer profiles, contradicting addresses, any links between users, low-value transactions, or incorrect contact information.

Another peculiar form of fraud is known as "Shoplisting," according to Speights, (2006). In this practise, fraudsters fraudulently get or fabricate a legitimate receipt, enter the store, shoplift the products listed on the receipt, and then proceed to the returns counter to request a refund. Ultimately, the shop buys the goods twice: once from the manufacturer and again from the fraudster. According to Forter Team (2022), In order to prevent this shoplisting behaviour, the return policy should include a time restriction to prevent fraudsters from returning new products with old receipts. Also, Stock Keeping Units, SKUs on receipts may be able to assist stop receipt fraud. Returns should not be accepted if the SKU doesn't match the item. Cho (2022) mentioned in one of his blog post on fraudfighter,
"I've found people combing parking lots outside major stores hoping to luck out on rogue receipts to tender inside for a score"

– Bill Hedrick, Chief of Staff for the City Attorney's Office of Columbus, Ohio

Figure 2.4: Modus operandi of triangulation fraud, Source: (Seon.io, 2019)

In addition to several fraud schemes, Cross-retail return fraud is a type of fraud that occurs when a customer returns merchandise to one store (usually at a higher price) that was originally purchased from a different store (usually at a lower price). This type of fraud can be difficult to detect because the return transaction appears to be legitimate. However, cross-retail return fraud can be costly for retailers because it results in the loss of both the original purchase and the return. Nienaber (2020) in one of the blog posts on Apprissretail that fraudsters benefit from crowded stores and frequent pricing changes during holiday sales season to execute such cross-retailer returns. However, Wachter et al. (2012) developed a measurement scale in order to quantify a customer's propensity for returning goods and also examined the connection between the return behaviour and social issues. Reinartz and Kumar (2003) found that there is an inverse U-shaped connection between consumer return behaviour and the product value. Up to a certain point, customers who make more returns are more valued, but eventually, when the returns become excessive they hamper the profitability.

According to Davis et al.(1998), there have been many retailers who are considering money-back guarantee policies, which let customers to return goods for a full refund for any reason, even if the product or service fully fulfils its stated purposes. As a result, consumers may be enticed to buy products, use them then return them even if they are happy with the product. Davis et al. (1998) has referred this behaviour as "*moral hazard in consumption*", which differs from the normal usage of the word "moral hazard" in the literature on product warranties, which explains a consumer's incentive to improperly maintain things that are protected by warranties.
According to a blog post by fraud.net, Bricking is another type of product return fraud which involves buying a functional electronic device, disassembling it to remove all valuable and required parts to render it useless, and selling the unusable product again. It happens a lot with electronics products in particular. For instance, buyers can buy a cell phone and disassemble it to sell the circuit board or speaker, which are the

most valuable components. After putting the phone back together, which appears to be functional now, the customer returns it to the merchant for a complete refund. Sometimes to create the appearance that the item is intact, con artists may occasionally just remove the expensive electronics from within and replace them with a substantial weight. After then, the item is usually returned and resold. The broken item is discovered by the new customer, who then returns it, doing double the damage to the seller and perhaps harming their online reputation (merchantfraudjournal, 2021). The majority of consumer electronic returns, according to Frei et al. (2019), are frequently caused by customers who are unaware of how to utilise the item they have purchased.
The National Retail Federation (2018) in one of Organized Retail Crime Survey report also claims that In-store returns of merchandise purchased online by fraudsters have sharply increased. That was before the pandemic, which led to an increase in omnichannel shopping habits at numerous stores.

Now to prevent such return frauds in e-commerce scenarios, Selwitz (2021) has advised to ensure a clearly defined return policy without any ambiguities which is easy to understand by customers. Selwitz (2021) has also mentioned the importance of showing identification and proof of purchase while making any returns. Also, even in cases when there is a receipt, returns must be made to the original credit card. If there is no supporting evidence, retailers must choose to stick to providing store credit. By doing this, they can prevent fraud-for-hire schemes.

2.3 Classification of Returners

As e-commerce enterprises have expanded, consumer purchasing habits have also been changed. In the retail sector, returns of items by customers and refunds of the purchase price by merchants are not peculiar (Das, 2012). According to John et al., (2020), understanding client behaviour and having a warehouse to store the collected pieces are two of the biggest challenges which retailers are facing today. To achieve this goal, the inventory management and customers must both follow an effective and efficient method. Based on the purchasing habits, consumers who return items have been divided into three categories by Swisslog (2010): (a) the honest (b) the over-orderer and (c) the fraudster.

The honest customer is a customer who does not try to return merchandise they have used or damaged, or who does not attempt to get a refund for merchandise they have already received a refund for. According to John et al. (2020), the consumer here has a true need for the product they purchased, but there is a chance that it won't live up to their expectations since the product description was too ambiguous or deceptive. Therefore, the only choice left to the consumer is to return the goods and they may shop at rival businesses as a result of their displeasure.
The over-orderer is a shopper who buys more merchandise than they need (variety of specifications, such as size and colour) and ends up with excess inventory. This shopper typically is well aware of the return policies and the fact that items can be returned back after a trial, free of cost. The over-orderer may also be influenced by sales or discounts. The store certainly bears the increased expense of processing time and labour involved in bringing these products back into stock (John et al., 2020).

The fraudsters typically target high-value merchandise, electronics, jewellery, and designer clothing. They buy the item with the intention of using it once and returning it. After submitting the return application, the ordered product may not always be returned depending on the product and the merchant. Due to their internal policy knowledge or connections with the support staff, the fraudster ends up receiving both the refund and the desired merchandise. The phrase "concessional refund scam" is another name for this (Bogenschneider and Mironko, 2020).

2.4 Rules and Regulations for Returns

Return policies have a significant impact on whether a consumer would shop at a certain retailer in the future or not. According to a research by Bower and Maxham (2012), when customers have to pay for product returns or shipping fee, their likelihood of making another purchase is low and even the chances of making additional purchases from the same retailer is also lowered by about 90%. However, a no-questions-asked return policy, without any charges or shipping fee, leads to up to 4 further purchases from the same retailer within 24 months. The economic research, which contends that merchants should tighten their shipping and return procedures, is in stark contrast to this.
The return policies set by retailers are usually customer satisfaction oriented whilst limiting the misuse of product return and refund options. John et al. (2020) also claims that an unbiased policy has been the industry standard for while now. In accordance with this policy, if a return is required due to a manufacturing defect or a marketing misrepresentation of the goods, the manufacturer or retailer is responsible for paying for the return; otherwise, the customer is responsible for paying (**Figure 2.5**). Mostly e-commerce businesses project protocols to execute the returns made by consumers and process the refund to them. According to John et al. (2020), a standard acceptance policy frequently requires that the products be returned within a certain amount of time following the purchase date or that it be returned undamaged. Return policies may variate among different businesses.

A blog post on signifyd by McNally (2020) claims that the industries with the greatest return rates are apparel, accessories, and footwear as well as electronics & computers. The return rates were added up to 80% during pandemic in comparison to pre-pandemic numbers. Janakiraman et al.(2016) conducted a meta-analysis of 21 studies and came to the conclusion that there are five factors that influence how lenient return policies are, and that these factors differentially effect purchases (for example, money and effort leniency boost purchases) vs return proclivity (stricter time and exchange leniency reduce returns). In a report published by signifyd, 2020 Consumer Sentiment Survey results showed that 74.5% of respondents(1500) said they never felt bad about returning a purchase. Nearly 84% said that they don't feel any sympathy for retailers and it's just simply the cost of doing business. Only 6.6% of respondents said they anticipated things to change and believed the current situation was unfair to merchants.

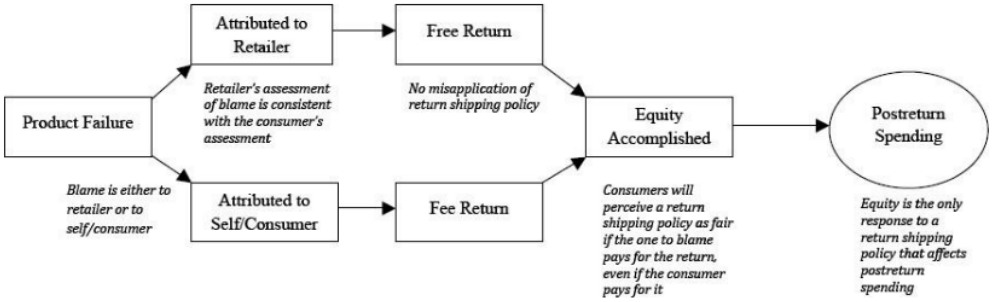

Figure 2.5: Model of the Normative Assumptions Underpinning Equity-based return shipping policies for product returns, Source: (John et al., 2020)

2.5 Returning experiences, satisfaction and Customer outcomes

The e-commerce companies set forth the rules and regulations that customers must follow when shopping on the company's website or store. These policies may include things such as the types of payment methods that are accepted, the shipping and returns policy, and the rules for using any promotional codes or discounts. It is important for customers to read and understand a company's return policies before making a purchase, as they will be held responsible for adhering to these policies. Rintamäki et al., (2021) claims that there is plenty of data to support the idea that consumers' online return habits and future purchases are influenced by how flexible a company's return policies are. Bower and Maxham (2012) came to the conclusion that offering free returns boosted post-return sales, whereas imposing fees on returns reduced post-return purchases. From the standpoint of the consumer, relaxed return policies may reduce the danger that is frequently connected to online shopping. Lysenko-Ryba and Zimon (2021) also assert that consumer returns are frequently brought on by an impulse or a sudden feeling. A product may be purchased by a buyer in order to see how it will function (for example, its colour or size) in real-world situations. However, the majority of the time, customers are "dishonest" with the seller rather than "dissatisfied" with the product as sometimes the consumer did not have even chance to try out the product at home. The stages of return evaluation (Retrieval of Products, Transport of Products, and Product Recovery Process) are depicted in **Figure 2.6**. These functions, which take into account a variety of activities, inputs, outputs, and mechanisms from the perspective of return products, are shown as a set of functions.

In a recent research by Accenture (2015), in collaboration with Forrester, CEOs were asked to identify their top goals for the coming year, and improving the customer experience consistently obtained the top spot. For merchants and practitioners to fully grasp the effects of the aspects influencing the customer experience, it is now more important than ever to understand the customer experience, or how satisfied a consumer is with a product or service (Lemon and Verhoef, 2016).

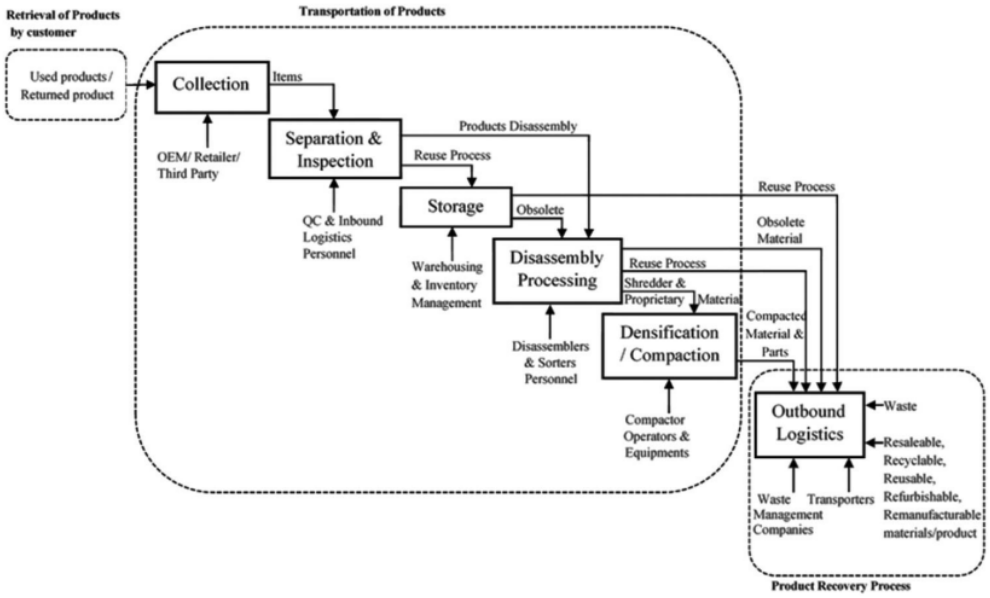

Figure 2.6: Return evaluation stages, Source: (Bai and Sarkis, 2013)

The process of returning goods for those customers who made purchases online is a part of their entire experience with the business (Wood, 2001). The effect of positive customer satisfaction is twofold. First, satisfied customers are more likely to return to make future purchases. Second, satisfied customers are also more likely to refer friends and family to the business, providing valuable word-of-mouth marketing. It can lead to increased sales, improved brand loyalty, and improved customer retention rates. Additionally, it can lead to positive online reviews as well which can be highly impactful to attract new customers. On the contrary, If any e-commerce or retailer has negative customer satisfaction, it may lose customers and revenue. Negative customer satisfaction can lead to a decrease in sales, as customers may be less likely to purchase products or services from a company that they are not satisfied with. Additionally, it can lead to an increase in negative online reviews, which can further damage a company's reputation (Lemon and Verhoef, 2016).

There is so little study on the impact of the returning experience on customer outcomes given the significance of return policies in influencing return inclination. Ambilkar et al. (2022) discovered that recent returns—those made within a month—improved the quality of the goods and the happiness with the purchasing experience. Janakiraman et al. (2016) has given five dimensions (**Figure 2.7**) from which the leniency of return policies can be analysed : time leniency (Ex. 60 days vs. 30 days return policy), monetary leniency (Ex. stores offering full refund vs 50% refund), effort leniency (Ex. no account registrations or forms required vs. account registrations or forms required), scope leniency (Ex. accepting returns on slae items vs. not accepting returns) and exchange leniency (Ex. cashback vs. store credit).

Text

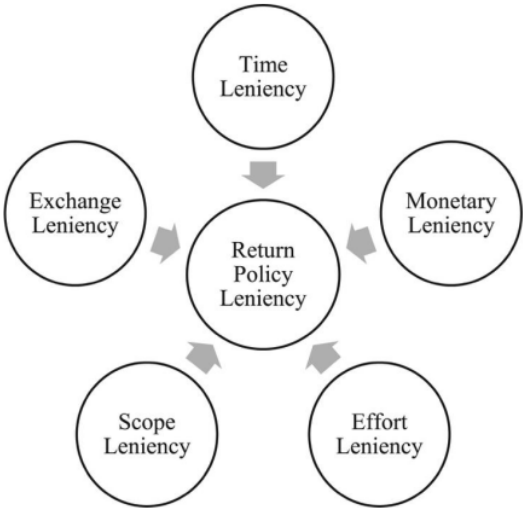

Figure 2.7: Dimensions of product return policy leniency, Source: (Janakiraman et al., 2016)

Janakiraman et al. (2016) also suggests that return policies have an impact on consumer behaviour, with more permissive policies encouraging more purchases while other researchers find no discernible effect. The lack of agreement may be the result of methodological disagreements, such as the use of various return policy leniency metrics. Dhar and Wertenbroch (2000) discovered that more permissive return policies (those that let returns for any reason and do not demand a restocking charge) resulted in higher customer purchases when they were applied to online fashion merchants. A different study, however, found no evidence of a major impact of lenient return policies on consumer behaviour (Cheung et al., 2008). The different measures of return policy leniency used may be the cause of the disparate results of these studies.

The criteria employed by Dhar and Wertenbroch (2000) took into account both, the existence or absence of a restocking fee as well as the grounds for allowing returns. Cheung et al. (2008), on the other hand, utilised a measurement that only took into account the justifications for a return is permitted. Depending on the goods being bought, it's probable that the impact of lenient return policies on consumer behaviour differs. For example, Dhar and Wertenbroch (2000) discovered that the effect of lenient return policies was more for purchases of clothing than for other kinds of purchases. Therefore, return policies may have an impact on how consumers behave, but the impact will depend on the product being purchased and the level of leniency applied to the return policy.

2.6 Classification of return frauds and existing strategies to combat and its impacts

There isn't consensus in the literature regarding the proper classification of retail fraud, as different retailers may classify these frauds into different categories or depending on various parameters. Some academics contend that the method used to conduct the crime should determine how retail fraud is classed (Abdulla et al., 2019), while others contend that the sort of goods that was stolen (such as apparel, electronics,

etc.) should determine how retail fraud is classified (e.g., wardrobing, shoplifting, credit card fraud, etc.)(Shang et al., 2017). Chesnokova (2007) claims that the type of retail fraud should be determined by the perpetrator's motivation (e.g., personal need, financial gain, etc.). The most common classification scheme for retail fraud is based on the type of item stolen. In this scheme, retail fraud is classified as either theft of merchandise or theft of services. Theft of merchandise refers to the theft of physical goods from a retail store, while theft of services refers to the theft of services from a retail store (e.g., stealing cable TV service)(Abdulla et al., 2019). Another common classification scheme for retail fraud is based on the method used to commit the crime. In this scheme, retail fraud is classified as either shoplifting or credit card fraud. Shoplifting refers to the act of stealing merchandise from a retail store and sometimes returning it back to earn credits , while credit card fraud refers to the act of using a stolen or counterfeit credit card to make purchases from a retail store (Walsh and Brylla, 2017). The motivation of the perpetrator is the basis for yet another typical classification system for retail fraud. This strategy divides retail fraud into two categories: money gain and personal need. Personal need is the term used to describe the theft of goods or services from a retail establishment for the offender's own use, whereas financial gain is the term used to describe the theft of goods or services from a retail establishment with the intention of reselling the stolen goods or services (Fuller et al., 2016).

While no single strategy is guaranteed to prevent all return fraud, implementing multiple layers of security can help to deter and detect fraudulent activity. According to a blog post by Selwitz (2021) on redstagfulfillment, following are the few measures which retailer can choose to prevent losses from return frauds: (a) Implementing a return policy that is clear and concise (b) Educating employees on return fraud and how to identify it (c) Training employees to properly handle returns (d) Requiring a return authorization for all returns (e) Checking ID when processing a return (f) Checking receipts to ensure they match the items being returned (g) Inspecting returned items for signs of wear or damage (h) Recording all return transactions (i) Investigating suspicious return activity. Lindblom and Kajalo (2011) has identified four effective shoplifting prevention strategies include: Physical security measures include locks on the doors and windows, security cameras, and alarms, performing routine audits of the inventory and security protocols, putting up placards and other obvious reminders of the repercussions of shoplifting, addressing shoplifting instances as soon as they happen.

Ketzenberg and Zuidwijk (2009) suggests that implementing a try-before-you-buy policy, which allows customers to try on items before they purchase them, may ensure that customers are happy with their purchase and reduces the likelihood of returns. Román (2010) also claims that increasing prices can also be helpful to combat wardrobing, as it makes less likely that customers will purchase items with the intention of returning them. This strategy may not be viable for all brands, but it is something to consider. According to Rosenbaum et al. (2011), Improving data sharing and collaboration among retailers may help them to combat cross-retail return fraud. This could involve sharing information about known fraudsters, as well as sharing data about suspicious activity. To combat bricking fraud, using GPS tracking devices or

other tracking methods on electronic devices and doing regular audits may help retailers to identify if any device parts are stolen or missing (Seo et al., 2016).

Employee fraud can take many forms, from embezzlement and bribery to kickbacks and expense reimbursement fraud. Akuh (2017) recommends to implement strong internal controls, procedures and policies to prevent and detect fraud as it can make it more difficult for employees to commit fraud and can make it more likely that fraud will be detected if it does occur. Conducting background checks can also help retailers to identify employees who have a history of fraud or other criminal activity. According to Shah and Okeke (2011), keeping track of your personal information and to be careful about who has access to it may be effective in reducing the risk of becoming a victim of identity theft frauds. This entails using caution while disclosing information on social media and being mindful of the online data that is available about you. Making use of secure passwords and keeping them private is another tactic. This entails creating unique passwords for every account, keeping passwords private, never sharing them with anyone else, and making use of a mix of letters, numbers, and symbols (Akuh, 2017).

There can be also be indirect impacts of retail crime according to retailers in the United Kingdom. In one of the researches by Richter-White (2002), it is perceived that retail crime generally results in greater security expenditures for businesses as they attempt to prevent similar instances in the future. These expenses could involve setting up security cameras, paying security guards, and purchasing more security equipment. It may even harm a company's reputation and drive away consumers (Reinartz and Kumar, 2003). Customers may experience this if they think the establishment is unsafe

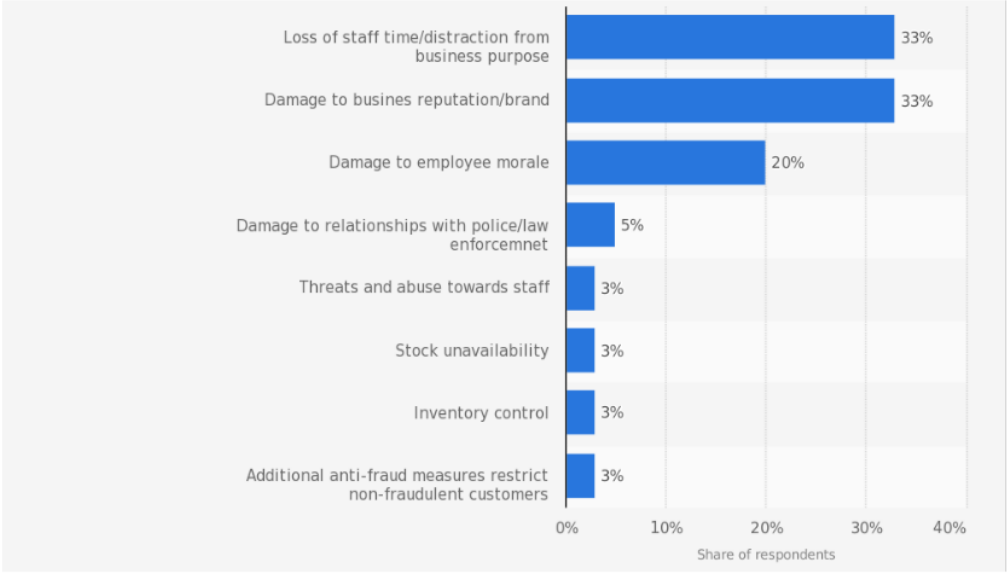

Figure 2.8: Indirect impacts of retail crime according to retailers in the United Kingdom (UK)in 2013/2014 and 2014/2015, Source: (British Retail Consortium, Statista, 2019)

or if they see a crime in progress. Employees of companies victimised by retail crime may experience psychological effects, especially if they see a crime in progress. In addition, they can feel less secure doing their jobs, which could result in absences or

turnover (Lemon and Verhoef, 2016). According to BRC Retail Crime Survey report (2014), which surveyed UK retailers about the effects that crime has on their companies outside of the immediate financial expenses, a third of respondents said that a key indirect impact of retail crime was the loss of staff time and diversion from the business's purpose. **Figure 2.8** summarises the findings of a survey on retail crime.

Chapter 3: Research Methodology

3.1 Overview

This chapter's goal is to provide a thorough rationale and explanation of the research methods utilised in this study, as well as a detailed description of how the data was gathered through a survey and interviews with two retail specialists, then modified and analysed in order to answer the research questions. This chapter includes detailed description of philosophy of research as mentioned in various literatures followed by approach of research and choice of methodology. Research strategy is discussed further with a note on ethics approval.

3.2 Philosophy of research

According to Saunders et al.(2019), the research philosophy is a collection of ideas or a framework that guides the gathering and evaluation of data for a study. The study researcher makes decisions on the sort of data to be gathered, the procedures for gathering and evaluating the data, and the manner in which the results will be interpreted and implemented based on the study's philosophy. There are three main types of research philosophy (**Figure 3.1**): positivism, interpretivism, and pragmatism (Bell et al., 2022; Saunders et al., 2019). **Positivism** is a research philosophy that approaches the study of the world from a scientific perspective. This way of thinking is predicated on the idea that knowledge can be attained via observation and experimentation and that the natural world can be understood. In order to get data that can be evaluated using statistical methods, positivist researchers frequently utilise quantitative techniques like surveys and experiments. Bhaskar and Callinicos (2003) are chiefly credited with developing **critical realism**, a naturalistic, epistemological, and ontological approach to the social sciences. The goal of critical realism is to combine Marxism with the philosophy of science, as well as the philosophy of social science. It is occasionally referred to as a "transformative" approach. **Interpretivism** is a research philosophy that approaches the study of the world with a more humanistic perspective. This philosophy is founded on the notion that knowledge may be discovered via the interpretation of evidence and that the social environment is complicated. To gather information that can be studied using techniques like content analysis, interpretivist researchers frequently utilise qualitative techniques like participant observation and interviews (Saunders et al., 2019). **Pragmatism** is a research philosophy that takes a practical approach to the study of the world. This mode of philosophy is predicated on the idea that solving issues in the actual world is the greatest way to learn new things. In order to gather data that can be examined and utilised to address an issue, pragmatic researchers generally combine quantitative and qualitative methodologies (Bell et al., 2022; Saunders et al., 2019).

Pragmatism is used in this study because there are many diverse methods to do research and understand the world, and since there may be various realities and no one point of view that can ever capture them all (Kelemen and Rumens, 2008). The goal of this study's research is to look at several unlawful tactics that fraudsters use to commit product return frauds through various channels. Kelemen and Rumens (2008) also claims that consumers from different backgrounds may have different responses to different policies. Shopping behaviours of consumers can also be influenced by

many external factors, such as timing, individual's state of mind, return policies, discounts and other marketing offers, etc.

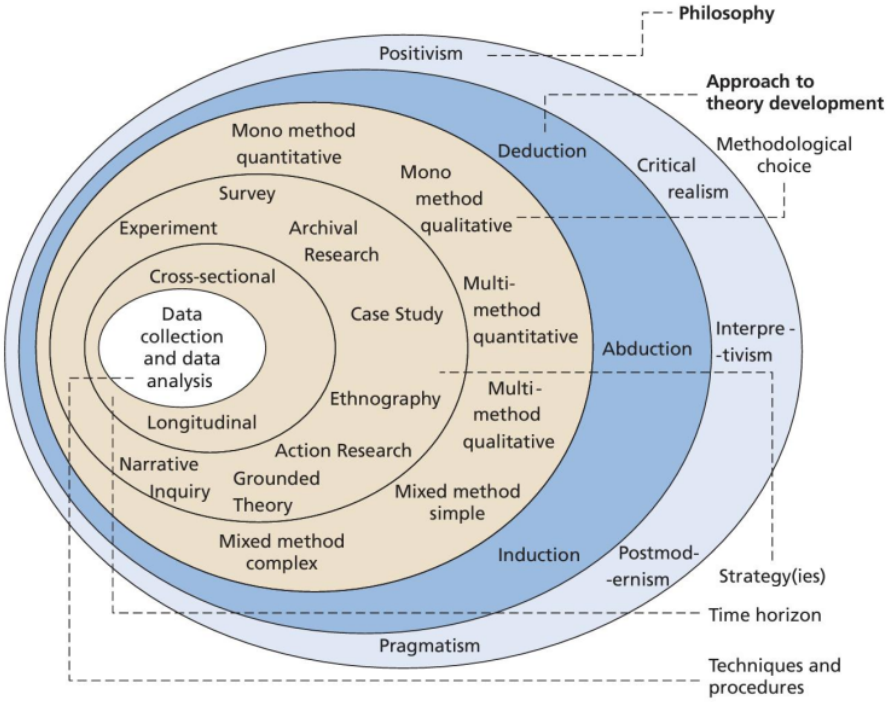

Figure 3.1: The 'research onion'. Source: (Saunders et al., 2019)

3.3 Approach of research & choice of methodology

Mixed methods research approach is used in this study which uses both quantitative and qualitative data to study aforesaid problem. According to Saunders et al.(2019), there are a number of different approaches to theory development (**Table 1**): (a) In the **deductive method** of theory development, a theory is created based on a series of assumptions that are extrapolated from an existing theory. In the physical sciences, where hypotheses are established based on empirical evidence, this method is frequently applied. (b) Creating a hypothesis based on a collection of actual evidence is known as the **inductive method** of theory creation. This method is frequently applied in the social sciences, where ideas are created using data and observation.(c) According to the **abductive method** of theory formation, a theory is created based on a collection of empirical data and is then put to the test by more research, experimentation, and observation. In the sciences, where ideas are established based on observation and data, and then tested by more observation and experiments, this technique is frequently utilised. (d) A theory is developed using the **hermeneutic method** to theory formation, which centres on a close study of texts. In the humanities, where ideas are generated based on close readings of texts, this method is frequently employed (Friesen et al., 2012).

	Deduction	Induction	Abduction
Logic	In a deductive inference, when the premises are true, the conclusion must also be true	In an inductive inference, known premises are used to generate untested conclusions	In an abductive inference, known premises are used to generate testable conclusions
Generalisability	Generalising from the general to the specific	Generalising from the specific to the general	Generalising from the interactions between the specific and the general
Use of data	Data collection is used to evaluate propositions or hypotheses related to an existing theory	Data collection is used to explore a phenomenon, identify themes and patterns and create a conceptual framework	Data collection is used to explore a phenomenon, identify themes and patterns, locate these in a conceptual framework and test this through subsequent data collection and so forth
Theory	Theory falsification or verification	Theory generation and building	Theory generation or modification; incorporating existing theory where appropriate, to build new theory or modify existing theory

Table 1: Deduction, Induction and Abduction: from reason to research. Source: (Saunders et al., 2019)

The research methodology employed in this study, which examines consumer purchasing behaviour and product returns, is **inductive reasoning** since the study's research goals were achieved as a consequence of the outcomes and analysis of the primary data gathered through surveys and interviews.

3.4 Research Strategy

Choosing appropriate databases to search in order to find academic materials is the first stage in this research technique. Databases that concentrate on consumer buying behaviour, product returns, and different sorts of retail frauds would probably be the most pertinent and likely to have the most recent and up-to-date scholarly materials for this particular issue. After finding relevant journals and articles, the researcher does a systematic review and meta-analysis of the available sources. This approach allows for the pooling of data from several studies to improve the analytical power and produce a more reliable assessment of the treatment's effect, making it the most suitable way to respond to the research question (Kelemen and Rumens, 2008). A statistical method called a meta-analysis is used to aggregate the findings of several research. We will identify all of the relevant studies by searching electronic databases such as PubMed and Google Scholar. “Product returns”, “consumer purchasing patterns”, and “types of retail scams” will all be utilised as search criteria. It's critical to assess the value and calibre of the sources that are returned in this stage. It would be crucial to find sources for this specific topic that have undergone peer review and have been printed in respectable publications. The next stage would be to study and evaluate the sources after a list of relevant and excellent sources has been compiled. During this phase, it's critical to make thorough notes and pinpoint any essential arguments or points presented in the sources. The next step would be at this stage is data collection through surveys and interviews as the research questions will be

addressed using a mixed-methods approach in this research strategy. In the part that follows in this chapter, other ethical concerns relating to the collection of primary data will also be covered. In-depth interviews with retail experts will be used to get qualitative information, and a survey of a representative sample of customers will be used to gather quantitative information.

The fact that this study can only offer a glimpse of consumer opinions and behaviours at one particular time is one of its limitations. Another drawback is that the findings might not be applicable to the full customer base.

3.5 Ethical Approval

Ethics approval for this research was granted, with ERGO approval number **75966**. Through an anonymous survey and an interview with two retail professionals, this study included human participants and collected primary data on their purchasing habits and intents to return products. The researcher believes that the data collection, analysis, and results described in this publication serve the public interest and represent no danger to authors or participants since all ethical concerns were completely taken into account during the whole study process. The primary ethical issues that are brought up by this study were consent, confidentiality, and privacy. **Consent:** Interview participants were asked to sign a consent form prior to participate in the Interview. The consent form specifically outlined the study's objectives, the tasks the participant would be expected to do, and their right to withdraw from the study at any time. The confidentiality and privacy policies that will be in place were also covered in the form. Anonymous participants in the survey gave their consent before it began, however they were free to abandon the survey at any time without having their responses recorded. **Confidentiality:** All information gathered through surveys and interviews is kept private and is only accessible by the researcher. All information is kept in a secure area in accordance with university guidelines. **Privacy:** All survey information is entirely anonymous. In neither this report nor the literature, interview subjects are mentioned by their names. In the aforementioned setting, the interviewees were asked about their professional experiences. No respondents to the survey or interviewees experienced any stress as a result of taking part in the study.

3.6 Sampling technique

The snowball or chain approach is a strategy for increasing survey participants' recommendations (Kirchherr and Charles, 2018) is effectively employed in this study. The survey administrator or researcher gets in touch with a selected group of people and requests their help in providing the names of others who might be interested in doing the survey. The administrator then gets in touch with those individuals and requests the names of further individuals, and so on. The benefit of this method is that it may be used to rapidly and effectively create a large number of potential survey respondents in a very short span of time (Kirchherr and Charles, 2018). Due to the possibility that those who are willing to engage in the survey may not be representative of the population as a whole, this might lead to a survey that is not representative of the population of interest. The five key recommendations (**Table 2**) discovered in the research by Kirchherr and Charles (2018) provide the framework for our study. In

qualitative data collection through interviews, the purposive sampling approach is employed in this study because it enables the researcher to choose a sample that is most likely to shed light on the study subject. This method is utilised when the researcher wishes to choose a sample that will be most beneficial in reaching a certain aim or objective (Rai and Thapa, 2010).

Recommendation	Measure
Prior personal contacts of the researcher are required	Sample diversity within total interviews (and success of reach-outs) generated via cold calls compared with personal or professional contacts
Sample seed diversity is important	Sample diversity compared to initial seed
Technology means face-to-face interviews are no longer required	Comparison of referrals from telephone interviews with face-to-face overall, and by sample diversity
Persistence is necessary to secure interviews	Reach-outs to contacts per completed interview
More waves of sampling are required to access more reluctant interviewees	Sample diversity by wave

Table 2: Summary of descriptive analyses, Source: (Kirchherr and Charles, 2018)

3.6.1 Data Collection

Mixed approaches of qualitative and quantitative data collection were used in order to accomplish the aforementioned research objectives. In order to safeguard data protection and uphold integrity, a survey with 16 questions was created in Qualtrics. We configured Qualtrics such that respondents may only take the survey once. As mentioned in the security statement of Qualtrics, high-end firewall systems are in place to secure their servers, and frequent scans are done to make sure that any vulnerabilities are immediately identified and fixed. Quantitative data was collected through that survey by snowballing technique where we received massive responses. The survey's goal was to better understand customer shopping habits and product return rates by asking respondents about their knowledge of various product return behaviours, their shopping habits, what drives their purchasing decisions and the decision of returning products, whether they have ever returned a product, and their experiences with return policies for various brands from the United Kingdom, India, and China. Over the course of a week, 125 responses were gathered through posting the survey on social media and with known contacts and their references.

We also conducted semi-structured interviews with 2 experts from retail background having experience working in product returns department. These retail experts were

interviewed individually online. Every interview lasted around 30 to 45 minutes. The interviews were taped, written down, and then thematically examined. The chosen retail professionals were in working reverse logistics and customer service departments of stores that sold a variety of goods, including electronics, clothing, beauty items, and general commodities. The details about participating retail professionals who were interviewed are mentioned in **Table 3**. The purpose of the interview questions was to discover (a) the various type of returns fraud (b) some of the techniques that fraudsters use to commit product return fraud and retailers' strategy for their identification (c) any red flags that may indicate product return fraud (d) consequences of product return fraud (e) the strategies which retailers have taken so far to overcome such frauds. A lot of new product return scams and the fraudsters' methods of operation were made clear to us through the conversations with retail professionals. We also learned about various tactics used by merchants to stop these frauds and avoid financial repercussions. Examples of interview questions can be found in the Appendix.

No	Retail sector	Working background experience	Country	Number of stores	Economic status of the customers
E1	Fashion & Apparel, Footwear, Accessories, Electronics and Groceries	Retail operations, Customer service team	India	More than 500	Medium to high income customers
E2	Fashion & Apparel, Footwear and Accessories	Reverse logistics, Distribution centre	India	Less than 500	Medium to high income customers

Table 3: Details about participating retail professionals

3.6.2 Data Processing and Analysis

There are many ways to process the quantitative survey data, but some common techniques include data cleaning, weighting, and imputation (Fisher and Marshall, 2009). This study employed data cleaning technique which involves identifying and correcting errors in the data, was performed using Python programs to remove the null values from the survey responses. We also performed weighting to adjust the data to account for factors such as non-response bias. A collection of statistical methods known as **descriptive statistics** is employed in this study to explain, present, or summarise survey data in a comprehensible fashion so that, for instance, patterns may appear in the data. Measures of central tendency, measures of dispersion, and measures of form are some of the most popular approaches to measure descriptive statistics of this study. Measures of central tendency includes calculation of mean, median, and mode. Measures of dispersion include the range, variance, and standard deviation. The range is the difference between the largest and smallest data points, the variance is a measure of how spread out the data points are from the mean, and the standard deviation is a measure of how spread out the data points are from the

mean. Measures of shape include the skewness and kurtosis. Skewness is a measure of how asymmetrical the data are, and kurtosis is a measure of how peaked the data are (Fisher and Marshall, 2009). All the above analysis was performed in MS Excel and python.

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Chapter 4: Results and Findings

4.1 Overview

This chapter presents the results of the study based on the data collected from the participants through survey and interviews. It includes the main findings of our study in relation to our research questions: different types of frauds and their classifications, the strategies for retailers to overcome these frauds. The chapter is typically divided into two sections: 1.Descriptive statistics: The detailed descriptive and statistical presentation of significant information gleaned from carrying out the research investigation from survey and interviews 2. Descriptive strategies: The detailed description of preventive measures from return scams with examples cited from interviews and survey.

4.2 Demographics of respondents

We had 125 responses who completed at least 80% of the survey. We performed analysis on survey results and found that 73% of responders were men and 26% were women overall (**Figure 4.1**). However, 54% of respondents were between the ages of 25 and 34, while 26% were between the ages of 18 and 24 (**Figure 4.2**). Additionally, study results revealed that 53% of respondents were from India, 33% were from the United Kingdom, 12% were from China, and the remaining 2% of respondents were from Italy, the United Arab Emirates, and Belgium (**Figure 4.3**).

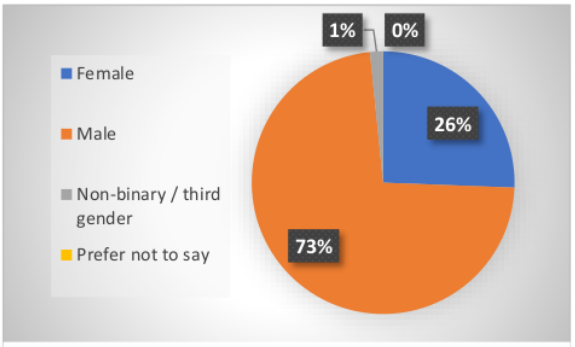

Figure 4.1: Gender classification of survey respondents

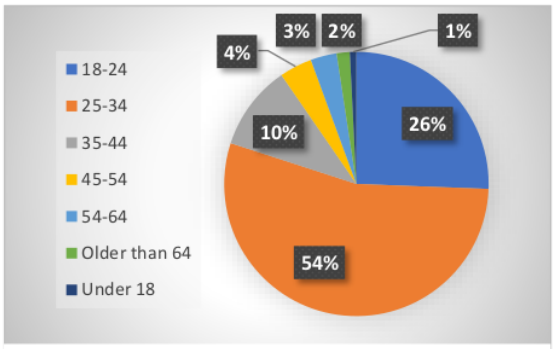

Figure 4.2: Age classification of survey respondents

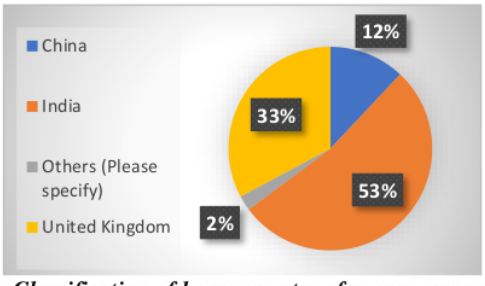

Figure 4.3: Classification of home country of survey respondents

4.3 Fraud types and factors influencing product returns

We divided return frauds into fourteen types (listed in **Table 4**) based on information gathered from a survey, interviews, and a comprehensive assessment of the literature. The findings of the survey have been analysed (**Figure 4.4**), and we found that wardrobing (37%) was the most frequent fraud among retailers, followed by cross-retail return (23%) and price arbitrage (21%). The remaining fraud categories included shoplisting (3%), triangulation fraud (6%), and bricking (10%).

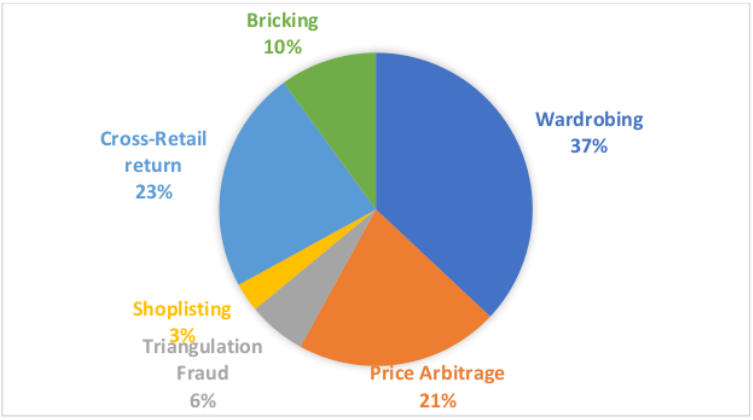

Figure 4.4: Classification of product return types as analysed form survey responses

The factors affecting the return of products were also clearly revealed by our examination of survey data (**Figure 4.5**) 78% of consumers said that the product does not fits or fulfils their requirement, whereas 57% of consumers said that the product delivered to them was defective or damaged. "Product does not match the description" was the reason for 52% of consumers who returned the product.

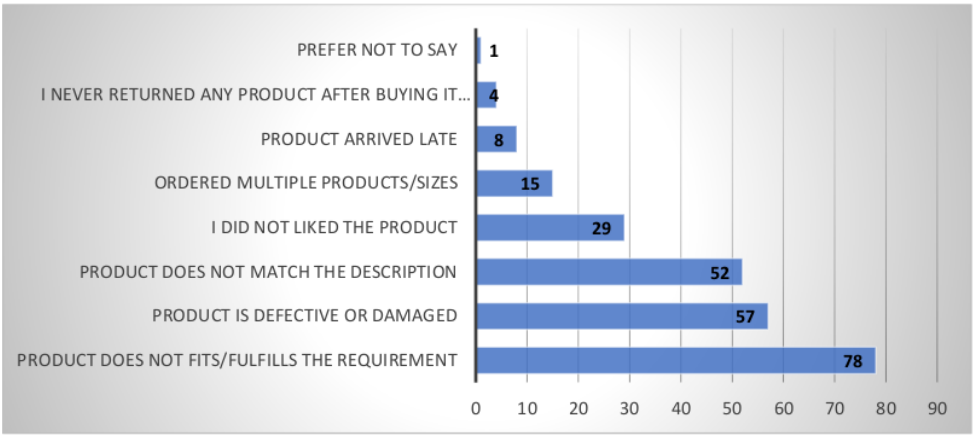

Figure 4.5: Factors influencing product returns as analysed from survey responses

No.	Fraud type	Description	Mode of return
1	Wardrobing	The practice of buying (apparels, clothing, etc), using it and returning to store in hopes of getting a refund or an exchange.	Online/In-store
2	Shoplisting	Returning stolen/cheap similar looking products mentioned on stolen receipts (from store itself), in hopes of getting refund/gift card.	In-store
3	Bricking	Returning a high end electronic item after stripping it of all valuable components intentionally to make it unusable.	Online/In-store
4	Brushing	Fraudsters order low priced products in bulk and then return it after giving a poor/very bad rating on merchant's website. This is done in order to manipulate the product search algorithms and overall tarnishing the online reputation of merchant.	Online
5	Triangulation Fraud	Fraudsters using stolen card to fulfil a legit order by a legit customer who placed order through a fake web marketplace which was designed by scammer. Fraudsters gets the original buyer's money as well as refund on stolen credit card (as the victim of theft card raise an alarm on purchase)	Online
6	Seller Vandalism	The seller purchases inventory in bulk from a rival competitor and returns it as late as possible to deplete their stock, even returning fake products on occasion.	Online
7	Empty-box fraud	Fraudsters, after receiving the product, claim that they have received an empty box instead of merchandise and claim a refund	Online
8	Price Arbitrage	Returning the similar looking but cheaper products in hopes of pocketing the difference.	Online/In-store
9	Cross-retail return	Returning or exchanging products purchased at another retailer for refunds, or higher-priced products at another retailer.	Online/In-store
10	Stolen Card fraud	Returning the products bought by stolen credit cards/gift vouchers in hopes of getting store credits or cash	Online/In-store
11	Abusing return policies	When a customer abuses a store's return policy by returning products they didn't buy or returning items after the return period has passed.	Online/In-store
12	Bundling	A consumer places a number of orders with the goal to keep one and return the others. This usually happens with apparels when consumer is unsure about what size and colour will be suitable for them.	Online
13	Fake returns	When a consumer tries to return the products which were never bought. They usually try to return products received in gifts and claim refund.	Online
14	Sweethearting	Retail employees giving unauthorized discounts or free merchandise to their relatives or friends. They sometime even try to create hinderance while scanning products at checkout counter.	In-store

Table 4: Types of product return frauds as analysed from survey responses and interviews with retail professionals

4.4 Strategies against fraudulent product returns

There may be a variety of reasons why a product is returned. According to the analysis we did above, most customers returned the product if it doesn't fit or meet their needs. It's always a loss for the store, regardless of the cause for the return, whether it's a benign return or one that is meant to conduct fraud. For the store, each return entails a substantial expense. We asked few of the retailers and consumers through survey and interview, about what measures they can take and how effective these measures can be to overcome such frauds and prevent financial repercussions. The results are discussed in following subsections.

4.4.1 Implementing a strict return policy

A return policy should be simple and unambiguous, and it should specify the circumstances under which a product may be returned. Customers will be discouraged from trying to return things that they are aware are not subject to a refund as a result of this (Ketzenberg and Zuidwijk, 2009). In order to prevent the **wardrobing** behaviour of consumers, we analysed that if "products can only be returned with tags still attached" is the most effective strategy (75.3%) (**Figure 4.6**) which can be used to re-vamp the return policy. This result is in line with the findings of Piron and Young (2000) who assert that tags (R-turn) can reduce wardrobing behaviour by up to 50% because the tag is so huge that the buyer cannot wear the item socially while the tag is still attached. Huge marketplaces with lax return policies make it simple for scams like wardrobing to happen.

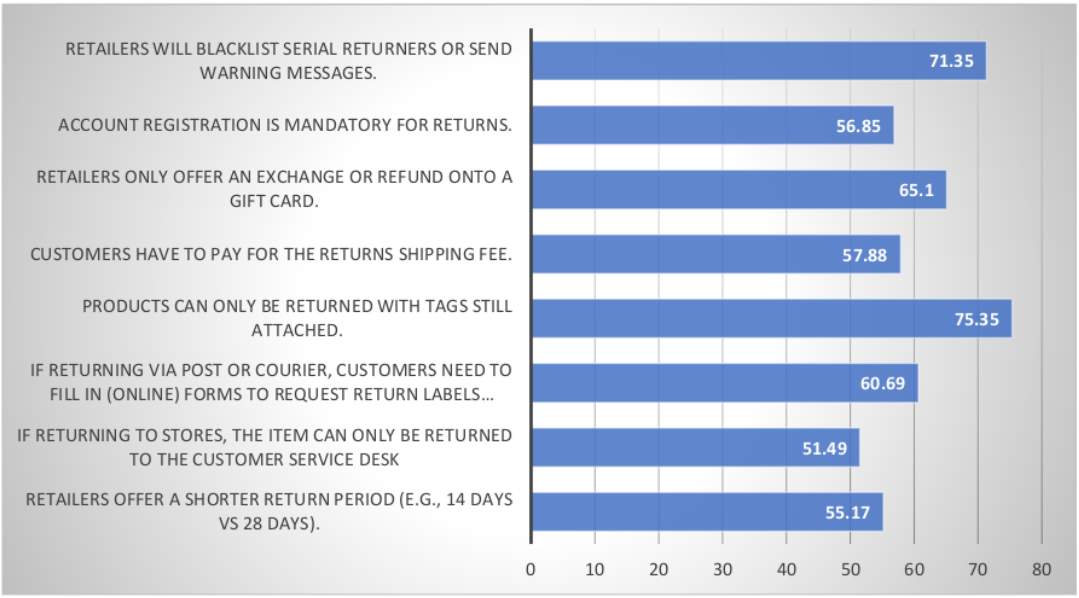

Figure 4.6: Strategies effective in order to prevent 'wardrobing' as analysed from survey responses.

We were told by E1 in interview that :

" For many things, Amazon has a 30-day return policy and will even cover the return freight. You may return your product for free if you're unsatisfied with it. At that time in 2016, there

was a process that if you are returning a product and if this is a third party seller product, not the product owned by Amazon, Amazon will only refund you if you have a receipt. If you have a receipt of a Courier with which you sent the product back, and in that case the Amazon will refund the price that you have paid for returning and as well as the price of the product.

...And the people who owned the product, they used to generate the fake receipt and send to Amazon, they used to take the money of couriers as well from Amazon."

unclear

4.4.2 Use of RFID tags

RFID tags can be used for inventory management at a warehouse. A retailer may track each item's position in real-time by adding an RFID tag to each item in its inventory. This is especially helpful for humongous marketplaces that oversee extensive and intricate inventory management systems (Dolgui and Proth, 2008). RFID tags can be useful to prevent **shoplisiting** behaviour or receipt frauds. The analysed results from survey and interview, are in consistency with Dolgui and Proth (2008) findings, also revealed that use of RFID tags can be extremely/very effective, up to 43%, (**Figure 4.7**) when it comes track the products with their unique identification.

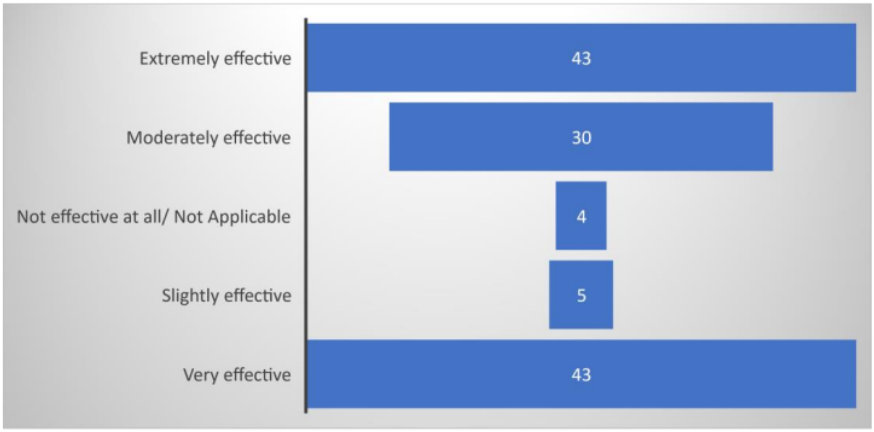

Figure 4.7: How much RFID tags could be effective in order to prevent 'shoplisting', as analysed from survey results

Additionally, our findings demonstrated that "backlisting serial returners or sending warning messages" can be up to 70.7% effective in comparison to other factors like "offering a shorter return period (ex.14 days vs 28 days)" which is only 51.4% impactful in order to prevent shoplisiting behaviour, receipt frauds or price arbitrage (**Figure 4.8**).

We were also told by E1 that :

"...I heard about this particular RFID thing, there is a unique barcode on the receipt and the product. So I feel that barcode says everything if we scan it, because everything is digital these days and nobody does the billing manually, and if the barcode does not matches, it's a red flag. So whenever we received the returned products, we easily recognised that it's a forged receipt, by scanning RFID's."

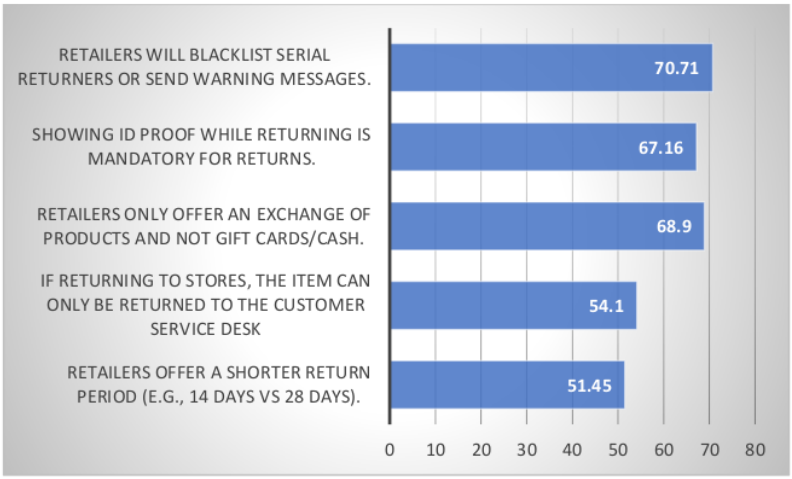

Figure 4.8: Effectiveness of strategies in order to prevent shoplisting, receipt frauds or price arbitrage, as analysed from survey responses

4.4.3 Customer Profiling & Segmentation

We found that retailers are using customer segmentation technique by dividing customers into groups based on shared characteristics, common demographics, their past purchasing history, product return history, refunds claimed till date, and other similar parameters. Once customers are segmented, it will be easy for retailers to predict whether the customer is more likely to return the product or keep the product. It can also help retailers to improve nearly any aspect of the customer experience, from product recommendations and customer service to marketing and sales. It can be an extremely powerful tool for boosting business growth as retailers can create targeted marketing campaigns that are more likely to resonate with each group. This can be achieved through machine learning algorithms, which many big marketplaces like Amazon are using these days. It's essential to gather every piece of information about your consumers, including transaction data, before putting the customer profiling strategy into practise. It will therefore be simple to find fraud indications and create a database of them, which can subsequently be used to filter orders. For example, retailers may easily disable those accounts after sending several warnings or even launch an inquiry if they discovered that a group of accounts with identical email-id patterns was routinely returning the items in a certain location. Additionally, E1 mentioned that:

"...I'm not sure about the customer end, but we as retailers can definitely identify similarities if any, in number of accounts from the customers or sellers. There are lot of things go into the data processing and after the processing, if there are some trigger points, like pattern in phone numbers, addresses, email ids, and even though they are using any type of number, any type of e-mail id, but any relationship between those entities can be easily identified by customer profiling, it will show you all the things which has been done from a single account."

This implies that there can be few key indicators that can be used to profile customers and segment them into groups. Those indicators could be customer's geographic location, transaction history, IP address, e-mail address, phone number. Retailers

may more readily detect prospective fraudsters and take action to stop them from creating losses by profiling clients and grouping them into groups. For example:

"...but the retailers are also getting smarter day by day, majority of the retailers does this customer profiling, which helps them identifying if the customer is making multiple accounts or not because there is always a pattern in similar accounts, for example, if you want to create 100 accounts with 100 email ID's that are fake, there will be definitely a pattern so that you don't forget them, pattern maybe like your name and a number, your name and a different number, your name and another different number. Machine learning algorithm can identify by calculating the similarity index of anything like e-mail ID, phone number. It can be recognised using a single algorithm. Some marketplaces have already developed such kind of systems, which can establish a relation, if a customer makes multiple accounts and try to do suspicious activities from those accounts." **(E2)**

4.4.4 Cooperate with law enforcement

Our interview results showed that merchants are using the legislation in conjunction with their internal fraud detection team to track down customers who have tried to return fake goods. They are also cooperating with law enforcement in their investigation as this helped retailers to prevent future incidents of product return frauds and to hold the responsible parties accountable without harming any innocent customers. This can be achieved by using analysis results from data analytics team of any organization, who analyses the transaction data thoroughly. Civil recovery helped retailers to reduce the likelihood to return the products in future because it is a strong financial deterrent to consumers. We were also told by E2:

"...There is no fool proof method till date to stop product return frauds as fraudsters are becoming tech savvy too, they are getting adaptive to new techniques to execute the scams through various channels. However, in some scenarios, civil recovery enables the retailers to overcome such issues and minimize the financial repercussions, provided they have strong database as an evidence to fight against fraudsters."

Therefore, it is essential that any organization's fraud detection staff properly analyse transaction data so that it may be used in the future to stop frauds and keep loyal customers.

*"...the application can be filed on the basis that the customer has stolen products or told lies or both. Anyone working for the customer may have engaged in the retail fraud, knowingly or unknowingly – so if, for instance, a shop employee uses a loyalty card to purchase things on discount for his personal use and then takes them out of the store, then in this case the shop has the right to pursue the customer under civil recovery."***(E2)**

Hence, it's in contradiction to popular belief that civil recovery is only employed when customer leaves the shop without paying for items, but it can also be used for cases of theft from the retail store. Our research also showed that major marketplaces are using the services of RAC (Retailers Against Crime), a non-profit organisation that gives retailers a platform to fight crime by offering specialised legal assistance. For example, our interviewee E1 told that:

"...Retailers can actually recover the costs of retail crimes, including the loss of profit, theft, damage, and even the cost of additional security measures that have been required as a result of such crimes, with the help of customer service team and fraud detection team working in coordination with RAC."

4.4.5 Proper management of return items and staff training

The value of establishing a separate return counter in enhancing the customer experience cannot be understated as it will help the retailers to lessen consumer angst and prevent revenue losses by keeping an eye to detail. Additionally, our respondents noted how crucial it is to inform staff members about the several kinds of return fraud that are typical and how to recognise them. The staff could be provided training on following pointers:

(a) Require a receipt: It can be helpful for trained employees to stop fraud by asking consumers to provide a receipt or other evidence of purchase before allowing them to return an item. This is due to the fact that buyers will find it more challenging to return things they did not really buy from your retail markets. This strategy can be very useful to prevent "shoplisting" behaviour or "receipt frauds" or even "Price arbitrage" fraud. Our interview respondent E2 gave an example of how customers try to claim refund by sending fake product to retailers:

"...Say for example you have bought a T-shirt. You liked the T-shirt but you had a similar looking T-shirt which you don't like. So what will you do in order to claim refund ; you'll send that similar looking T-shirt to me claiming that it's the original product I bought. They'll try to manipulate that thing and they'll just try to attach their product and they'll send it back to the warehouse, but then while inspecting the quality, we can check whether that's the actual product we sent or not. The other tactic which customers do is Wherein they might have received the product already and even, being a retailer, we will also have a status that the product has been delivered to the customer but the customer will call up helpdesk and lie to the customer care executive that he has not actually received the physical product and they'll try to claim a refund."

(b) Inspecting the returned items: Employees should be able to spot any indications of fraud, such as damage that was not there when the item was first acquired, by carefully scrutinising returned goods. E2 also mentioned in the interview:

"...I have received this product. But when I'm inspecting the quality I get to know that the price tag is missing and it also looks like it has been worn one or two times as I can see some of the visible usage marks, I'll take that shrinkage into my inventory, which means that I'm telling that I have got this article but it's useless. It's not scalable, so I'll put it into a different storage location, which means very, very null. It will be dumped it in our storage location which is not fit for good sale. So that's generally termed as damage storage location. So there we just dump it and so that's a loss for our distribution centre. I wouldn't say this as fraud but customers generally tend to damage the product. This is from the inventory perspective."

(c) Keeping records: Keeping track of all returns can be helpful for employees in identifying fraud tendencies and locating consumers who seek to return things they did not buy from their shop. Our interviewee E2 gave an example of how keeping records of customers can be useful in identifying fraudsters:

"...Track the number of frauds they have done, their ID's, their purchasing history along with the refunds claimed till date. If you see any trigger point, something like refunds worth is more than purchasing worth, then there are high chances that the customer is a fraudster. You can also define a similarity index. You know using latest algorithms you can actually find similarities between customers and you can predict whether he's a fraudster or not."

(d) Use of security tags: Using security tags on items can help to deter customers from attempting to return items that they did not purchase, as they will be unable to remove the tags without damaging the item. Adopting such measures can be extremely helpful in reducing the "wardrobing" behaviour of consumers. As when we asked about the use of tags to one of our interviewee, E2 told that:

"...The company will assign every product with a unique number or a tag. OK, so for example this phone will have one particular product ID, maybe a laptop might have another particular ID. So we just call it as unique ID which is usually assigned to all products. So what happens is most of the customers, they will damage that ID or they will remove that, detach it from the product which they're not supposed to do, and they will send it back to the warehouse. So that is something which is not acceptable because from a warehouse perspective that inventory goes into my loss, because any product that cannot be identified will be a loss for me."

4.4.6 Adding a restocking fee

Restocking fees, essentially the sum of money that a store charges for taking back products, for products like luxury devices and attire made for special events will be a significant obstacle for many scammers. This implies that customer will only get back a percentage of the purchase price and not the full refund. One of our interview respondent E2 described that:

"*…I know that eBay charges a restocking fee on higher end items like electronics, jewellery, or designer clothing. Consider a seller of formal attire, this product type have a high return rate since customers have discovered that they can purchase, wear it once, then return it within 30 days. If the item is deemed to be in the same condition as when it was sent to the buyer, the seller can simply resell it at the return counter during inspection. However, if any signs of usage are visible on item or if its damaged, the seller might not be able to sell it again or will need to invest time and money in cleaning or repairing the item to make it marketable. Consequently, the consumer will be assessed a restocking fee."*

Furthermore, implementing a restocking fee idea also has the benefit of considerably lowering the number of product returns as it pays the cost of handling returns, which includes repacking and sending the item back to the store, at the expense of the consumer itself. It also encourages customers to be certain of their purchases. For example:

"...if a customer is not sure about their purchases, and if they are aware that there will be a restocking fee on this particular product, it will definitely discourage the customers from buying the product, and if they buy the product, there are high chances that they will not return the product." **(E2)**

On the contrary, there can be disadvantages to this policy as it may be annoying and frustrating for many customers who may feel that they are being penalised for honest returns. This can adversely damage the relationship between the both parties. Sometimes, it can also add to administration burden on the retailer to process and refund different amounts of restocking fees to multiple customers, depending upon the original price of product and signs of usage, etc.

Chapter 5: Discussion

5.1 Overview

With reference to our findings from the literature review section, the statistical results of survey and interview responses will be discussed in this chapter to address the research objectives. We will compare our findings with the existing research findings and discuss any deviations or consistencies, if any.

5.2 Comparison of our findings with extant research findings

Our study found that product returns fraud is a major problem for retailers as described by interviewees E1 and E2, with an estimated loss of $2.9 billion annually (Janakiraman et al., 2016). Rintamäki et al. (2021) also found that the problem is growing, with the number of incidents of product returns fraud increasing by 20% each year. Our study discovered a number of variables that contribute to this issue, including the frequent electronic processing of returns, which makes it challenging to confirm the validity of the return. Additionally, our interview respondent E2 mentioned that many stores lack rules to stop fraud and that return policies are sometimes hazy or difficult to understand. This outcome was shown to be consistent with findings of Ren et al. (2021).

Our study identified few of the uncommon product return frauds which are executing currently in retail industry. Additionally, we also found through our analysis of survey data, that wardrobing is the most common retail fraud (37% of all the frauds mentioned in survey) which is also in consistency with the findings of Shang et al. (2017). A research report by the National Retail Federation (2014) found that wardrobing affected 72.7% of stores in 2014, a considerable rise of more than 17% from the year before. This has a major impact on the estimated $10.9 billion in store losses each year brought on by return fraud (Shang et al., 2017). Cross retail return is another common fraud (23%), followed by wardrobing as analysed in our survey data. Price arbitrage constituted 21%, bricking constituted 10%, Triangulation fraud constituted 6% and shoplisting constituted 3% of all the frauds (according to survey results). We questioned survey respondents and interviewees about the variables that affect product returns, and we discovered that 78% of customers returned the goods because it no longer satisfies their needs. This suggests that there's a chance the product was used a couple of times before being returned. On factors affecting fraudulent returns, one of our survey respondent said,

"...I don't think there is anything you can really do to deter dishonest returns without punishing honest customers. I was once refused a return because I hadn't opened the product until the day after it arrived and was told that I had probably work the item out so they wouldn't accept it back despite being in the original packaging."

Whereas other survey respondent mentioned that:
"...There should be no return allowed on discounted material and there should be separate return kiosks and return outlets. Even if dishonest returns are done with a monetary intent, can be curbed with penal repercussions."

Subsequently, the study conducted by The Retail Equation (Speights, 2013), found that return fraud occurs when a customer returns a product when it doesn't fulfil their requirements , or when they return a product that is not in the same condition as when it was purchased. We found this finding in consistency with our survey responses as well. Return fraud may also happen when a customer buys something with a fake or stolen credit card, then sends it back for a refund. For example, In our research, we discovered the triangulation fraud type, which employs the same method of buying products using stolen credit cards and then returning them for a refund. Additionally, our interviewee E1 mentioned that mostly return frauds are often committed by organized crime groups, which has further increased in recent years. Even the National Retail Federation research (Finklea, 2011) showed that 43% of merchants feel that organised retail crime has grown over the past year.

We also identified few of the strategies from retailers standpoint to overcome these frauds. For example, retailers can implement return policies that are more difficult for criminals to exploit. Additionally, retailers can require customers to present identification when returning a product (receipt etc). Using unique product identifiers or RFID tags was found up to 43% effective while trying to track the products. However, Roussos (2006) research showed that RFID's could be the most effective method to track the products, is in contradiction with our research findings. For example, One of our survey respondent mentioned that:

"...Consumers or shall I call them fraudsters, have become really very smart when it comes to scam the businesses. People easily steal RFID tags enabled products by bringing in their own foil-lined bags which are alarm-proof."

This clearly explains that implementation of RFID tags is not the fool proof solution to overcome product return scams. Customer segmentation may be another method for locating customers who are likely to commit fraud. Retailers may better target their marketing and sales efforts by knowing who their consumers are and what they often buy and return. They may also find chances to upsell and cross-sell goods and services by using consumer segmentation. Our interviewee also E2 mentioned that could help retailers in improving customer service with increased customer loyalty. The results of Chen et al.(2012) study, which asserts that customer segmentation has allowed online retailers to treat each customer as an individual with a personalised understanding of each customer and to build upon customer-centric business intelligence, are consistent with the findings of our study.

Tibben-Lembke and Rogers (2002) suggest that finding return scams may sometime require proper employee training and return item handling. We found the results through our discussions with retail industry experts is coherent with their research. We learned how crucial it is to inform consumers about the return policy, properly train staff members on it, check returned goods, maintain track of all returned inventory, and take appropriate action against serial returners. Retailers can also collaborate with law enforcement to look into product return fraud incidents and bring criminal charges against those responsible fraudsters. Interviewees told us that both potential fraudsters and those who have already committed fraud can be investigated and brought to justice with the aid of law enforcement. Data analytics or anti-fraud team in coordination with law enforcement can also give fraud victims information and services to aid in their financial recovery. We pointed out that this result is consistent with

Collins (2006) research on how law enforcement may assist in the investigation and prosecution of cases of fraudulent product returns.

We also found that adding a restocking fee can discourage consumers to return the products in damaged or used condition. Difrancesco and Huchzermeier (2020) also concluded that businesses that charge restocking fees should work harder to improve the perceived value of their products by consumers. In other words, customers will accept a restocking fee if they believe an online purchase to be of higher quality than one made in a physical store.

Chapter 6: Conclusion

6.1 Overview

The study on various forms of product return frauds is succinctly summarised in this chapter, along with the strategic steps that retailers should take to stop these frauds and avoid negative financial effects on their businesses. The study's shortcomings are also highlighted, along with suggestions for further research.

6.2 Summary of the study

Through our study and literature review we observed that product return fraud can be expensive for many retailers and it can be very challenging at the same time to identify such frauds and adopt policies to get rid of them. From a retailer's perspective, it is vital to be aware of the many forms of product return frauds and to ensure that the hired personnel has received the necessary training on it. Extant literature (for ex, Davis et al., 1998b; Harris, 2010; Piron and Young, 2000) on product return frauds identifies only few of the most common frauds existing in the retail industry. However in order to achieve **RO1**, the researcher, through interviews and survey, found new methods through which these fraudsters execute scams, which are listed in ***Table 4***, which further contributed to the research gaps. The study also presents a classification of these frauds on the basis of mode of return, either online or offline.

Additionally, we identified a few significant factors from the perspective of the customers for why they are returning the goods. As a result of **RO2**, our investigation revealed that around 78% of total respondents returned the items as it does not meet their demands or fulfils the requirement anymore. Nearly half of the population also confirmed that they returned the products as it does not matches the descriptions given by the merchants on their websites (52%) or the product was delivered defective (57%). We also discovered that certain extremely large marketplaces, such as Amazon or eBay, are more customer-focused and adhere to highly lenient return policies, which encourages customers to purposefully take advantage of and abuse such return policies. This was also confirmed by one of our interviewee E2. Furthermore, Interviewee E1 told us that slack payment policies may be the cause of several return scams because customers may choose simple EMI payments, or pay later alternatives, interest free loans while purchasing the merchandise.

Our study also proposed few strategies (**RO3**) for retailers to overcome such product return frauds and prevent them from financial losses and other administration chaos. We also observed that a lot of large merchants employ cutting-edge technology, such the usage of RFID tags (43% effective as analysed by survey responses) and machine learning algorithms, to categorise their consumers into like-minded groups, which proved helpful in distinguishing between consumers and fraudsters, to some extent. Even establishing specialised fraud detection and data analytics teams within the company aids merchants in reducing fraud because the data gathered may be utilised as proof when choosing the civil recovery path. This outcome was also found to be consistent with by Shah and Okeke (2011) research findings. It was noteworthy from interviews that many retailers have "no questions asked" return policies to draw in and keep new consumers, but the long-term effects of accepting returns in any situation

might cause retailers to lose money. This finding was also in consistency with the research results of Janakiraman et al. (2016). Instead, retailers might adopt a "no receipt, no return" policy to cut down on these scams. The quantity of product returns that every retailer experiences is also impacted by the strictness of the return policy. According to the findings of our survey, "items can only be returned with tags still attached" is 75% effective, and "retailers will ban serial returners or will send warning messages" is 71% effective when designing any return policy. This indicates that return personnel should be adequately educated and pay close attention to detail when accepting the returned products and inspecting them for any evidence of usage. Subsequently, retailers may treat repeat returners harshly. Interviewee E2 also suggested that charging a restocking fee could be one of the way to discourage customers from returning a product. But if the customer has a valid cause to return the item, they could find it inconvenient to be required to pay a restocking charge. It is worth noting that restocking fees are generally not refunds and may not be credited back to the customer's account.

While conducting this research, we also discovered a few drawbacks, including the fact that it might be challenging to identify and analyse product return fraud because it varies so widely between retailers. Retailers could have to cover the cost of the returned goods, it can be expensive for them, having an effect on both their profit margin and consumer happiness. It might even potentially damage the retailer's reputation and online presence, if the fraud is not quickly resolved. Fraudulent product returns can also put retailers in legal trouble since they could be charged with breaking consumer protection laws.

To conclude, product returns are an inevitable aspect of conducting business, but there are strategies to reduce their negative effects on the marketplace. We can make the return process as simple as possible by having a clearly defined return policy, training the staff on how to handle returns, using advanced technologies to track products and monitor returns, conducting regular audits of return activity, and customer relationship management by advising them to save their receipts if they intent to return products later. Knowing your consumers well is very crucial as their unusual buying patterns might sometimes be a sign that fraud is about to occur.

6.3 Limitations and Future Direction

Despite of interesting findings and new fraud types, there are several limitations to this study. We noted from interviews that medium to small sized retailers are not technologically competent enough to adopt high tech solutions, which results in the majority of frauds going unreported, making it challenging to provide a precise picture of the prevalence of these frauds in the industry. The first issue was that the sample size for quantitative data collected through survey was somewhat small (due to time constraint), which could have made it harder to find statistically significant responses. If the respondents are dishonest in their answers on their product return behaviours, the research may be vulnerable to self-reporting bias. We propose that for future studies, it would be helpful to look over a longer time period to locate any trends or patterns in shopping and product returns behaviour of consumers. Also, in our analysis we observed that 53% or responses collected from survey were from India, 33% from United Kingdom and 12% from China, which may also limit its generalizability of findings to other populations. We propose that future studies should concentrate on

using a longitudinal design with a bigger sample size. Furthermore, the information was gathered by a self-drafted questionnaire and a survey, which might have memory bias. The study's capacity to pinpoint every element that contributes to fraudulent product returns may be constrained. We propose that it would be beneficial to look at data from multiple sources, face to face interviews with retailers, to see if there are any differences. The use of RFIDs was mentioned in our study showed that its only 43% effective which contradicts Roussos (2006) research and hence there is still room for additional in-depth research on this topic, including a look at its drawbacks and other undesirable outcomes. We suggest that future research might benefit from examining the costs and expenses associated with putting these high-tech solutions in place and how these costs may be modified as a component of restocking fees to be levied against repeat returners.

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Appendices

Interview Questions Examples

- Please tell me about your experiences about return frauds. What are the various types of frauds you have witnessed so far?
- What do you think are some of the techniques that fraudsters use to commit product return fraud? And how do you identify them?
- What are some of the red flags that may indicate product return fraud?
- What are the consequences of product return fraud? Are you likely to make amendments in the return policies? If yes, what changes would you do?
- What strategies have you taken so far to overcome such frauds?