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Goodbye Free Returns?

A quantitative study examining the financial effects of going from free returns to free exchange as the universal return policy

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Abstract

The digital transformation and evolving consumer behavior in the contemporary retail environment has brought significant challenges related to product returns, especially in e-commerce, where free return policies have become the competitive norm but also financially burdensome for retailers already operating with slim margins. This paper contributes to the existing literature by providing empirical evidence on the effects of offering free exchanges in the contemporary e-commerce landscape and provides a detailed analysis on new versus returning customers, deepening the understanding of the interplay of purchasing risk on different customer segments. More specifically, this study explores the financial consequences of going from free returns to free exchanges as the universal return policy by analyzing transaction data of a Swedish fashion retailer. The analysis aims to examine potential discrepancies in customer purchasing and post-purchasing behavior as a consequence of the policy shift by analyzing financial metrics, such as net order value, return rate, order volume and frequency, ultimately assessing the impact on per order contribution. The findings suggest that transitioning from free returns to exclusively offering free exchanges can mitigate return rates and enhance net contribution per order, primarily through reduced return volumes. However, the change also reveals different effects on new versus returning customers, with new customers being more substantially impacted. The results reveal a decrease in contribution per order which is reflected by reductions in order volumes ultimately indicating a higher sensitivity to no option of free returns for new customers. The study's insights underscore the potential for more restrictive return policies to mitigate the pressing issue of excessive returns without substantially damaging purchasing behavior. To combat this and align return policies with both growth ambitions and profitability, the authors propose a segmented return policy approach.

Keywords: Free Exchanges; Free Returns; Return Policies; Leniency; Profitability; E-commerce; Consumer Risk; Consumer Risk Aversion

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Definitions

Below is a list of all the frequently used terms in this research paper accompanied with each respective definition tailored to the objective of the study.

Free exchanges:

In this research paper, a revised more stringent return policy termed *free exchanges* was introduced in the fall of 2023 for a Swedish online fashion retailer. It refers to a policy whereby an exchange for a product is fully covered by the retailer, but a return is subject to a return shipping fee of 45 SEK borne by the customer.

Return Policy Leniency:

This paper refers to *return policy leniency* to describe the degree of flexibility offered to customers in terms of returning purchased items. Leniency can be described in multiple ways but in the context of this report it is connected to the monetary aspects encompassing potential associated costs and constraints related to offering less lenient return policies in the form of offering free exchanges opposed to free returns..

Wardrobing:

In this study, *wardrobing* refers to a practice where consumers purchase multiple sizes of an item or acquire an expensive item, wear it within the return time period and subsequently return it to the retailer without incurring any additional cost.

Consumer Risk and Risk Aversion:

In this paper *consumer risk aversion* refers to the tendency of individuals to prefer certainty over uncertainty, especially in the e-commerce setting where the information asymmetry is larger between the consumer and the retailer selling the products in terms of size and product quality.

Lock-in effects:

In the context of this study, *lock-in effects* refers to a scenario in which a retailer opts for refund alternatives beyond the conventional money-back guarantees or free returns, thereby binding the customer with the retailer from the moment a purchase is made. Essentially, this phenomenon aims to reduce fraudulent return behavior and foster a sense of loyalty since customers will be aware pre-purchase that they cannot return a product for free.

Return rate:

In this research paper the *return rate* refers to the average return value divided by the average order value before accounting for any associated handling or shipping costs. This yields a fraction of how much of the order value is returned on average for each order.

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1. Introduction

1.1 Background

The rapid growth of e-commerce has revolutionized the retail landscape, offering convenience, time saving and 24/7 accessibility to consumers (Retail Times, 2024), while simultaneously presenting a plethora of challenges for online retailers (Shopify, 2024). One of the most significant challenges revolves around the management and costs associated with product returns. The prevailing practice of offering free returns has become the norm in the competitive online retail market, contributing to an ever-increasing level of product returns not expected to change without action (Dailey and Ülkü, 2018). Yet, the financial strain arising from managing reverse logistics for returns, coupled with the potential for lost sales in a highly competitive service-driven market, presents a challenging dilemma for businesses to navigate.

The impact of return costs on retailers, particularly those operating in the digital sphere, cannot be overstated. According to the National Retail Federation (NRF), (2023), total sales in the U.S. retail industry amounted to $5,013 billion and returns accounted for a staggering $743 billion in losses in 2023 alone, emphasizing the financial strain that returns impose on the industry. Out of these $743 billion, $101 billion were due to fraudulent activities such as bracketing or wardrobing which means that consumers either buy many sizes of the same item or buy an expensive item, wears it within the return time window, and then returns it to the retailer. In the e-commerce setting, the ease of online shopping has also led to a substantial increase in return rates, with an estimated 17,6% or $243 billion of all products ordered online being returned (NRF, 2023). McKinsey (2021) states that, although the problem of returns is widespread in the industry, apparel retailers see the worst of it. Combining this with estimates from Statista (2023) that the global e-commerce sales will amount to more than $8,034 billion by 2027, it will imply an increasingly larger unsustainable impact on every actor’s bottom-line and the planet.

Many retailers feel obliged to accept high levels of returns and consider it a necessary evil for conducting their business. However, research shows that free returns can result in significant operational and financial challenges for retailers, eroding profit margins, which is further amplified by practitioners stating that it is logistically easier to dispose of damaged returned

goods in landfills instead of handling the return (McKinsey, 2021). Consequently, the sustainability and viability of this model is under scrutiny. This is acknowledged by companies like *ASOS* and *SSENSE* that now have started handing out life-time shopping bans to customers who overexploit the site's lenient return policies (THECUT, 2024) while other retailers, such as *H&M* and *J.Crew* now are undertaking return fees, transitioning away from the current state of free returns policies (CNN, 2023). This while still having to manage the high consumer expectations, which according to Powerreviews (2023) entails an 87% likelihood of customers avoiding shopping at a retailer without free returns. Consequently, the exclusion of free returns in one's value proposition could result in a significant challenge of both retaining and acquiring customers, as it may lead to retailers being immediately disregarded. However, it's not financially nor environmentally sustainable.

1.2 Purpose & Scope

The purpose of this paper is to shed new light on the financial consequences of exclusively offering free exchanges with returns subject to a fee in the e-commerce setting. Similar, prior research on this topic has originated from legislative amendments allowing for a higher degree of return policy flexibility. However, with online returns increasing, there are now incentives to explore less lenient return policies from both an economic and sustainability perspective. More specifically, the aim with this study is to analyze data from a Swedish fashion retailer going from free returns to exclusively offering free exchanges but with returns now being subject to a fee, following the recent developments in the industry. Consequently, we aim to explore the potential effects of the policy change on the following financial metrics:

- *the net value of order and return value (order value less return value)*
- *return rate (return value divided by order value)*
- *number of items purchased and returned*
- *proportion of orders containing a return*
- *order frequency*

In addition, we seek to understand the implications of the policy change across customer groups, by analyzing *new and returning customers* to gauge the financial implications of free exchanges as the universal return policy.

To narrow down the scope of this paper, this research is delimited in several aspects to isolate the effects of the return policy change. Firstly, the data analyzed only pertains to one Swedish online retailer, selling premium garments globally in the middle to upper level price tier. Secondly, the time period of the dataset is delimited to a period spanning between 2022-08-06 to 2024-02-06, which will be adjusted and explained further in section 3.1.1 to account for potential biases and seasonality effects in the order data. Thirdly, the analysis will only pertain to either relational values measured such as return value divided by order value (return rate) or volume. This approach ensures risk minimization of data biases arising from currency fluctuations and inflation effects while including a single metric that captures the relationship between order and return value.

1.2.1 Research Questions

As a result of the preceding sections, the research questions of this paper are the following:

- ***How does only offering free exchanges impact per order contribution?***
- ***Can we see a difference in behavior response to exclusively offering free exchanges between new and returning customers?***

1.3 Research Contribution

Previous research within this field presents a range of conceptualization and effects of free returns and lenient policies relating to consumer behavior and perceptions. However, to the best of authors' knowledge, there is a lack of research covering the actual implications of return policy shifts in terms of financial results stemming from transactional data. Studies conducted by Hjort and Lantz (2013;2016) analyze the implications on average and total contribution per order in terms of offering customers either free returns or not. While these papers analyze profitability metrics, they do so in entirely different times as global e-commerce sales have increased from $1,845 billion to $6,330 billion 2016-2024 (Statista, 2023), highlighting the shift in purchasing behavior since the studies were conducted by Hjort and Lantz. Additionally, this study will specifically examine the effects of going from free returns to free exchanges and thereby provide empirical evidence on the financial effects of free exchanges, both on an aggregate customer level and by segmenting the sales data into new and returning customers. This study subsequently delivers new insights by providing empirical evidence on the financial effects of free exchanges in the contemporary

e-commerce environment, aiming to increase the understanding of return policies and provide practical insights for practitioners.

1.4 Disposition

The following sections provide a review of the existing literature and present the theoretical foundation of our thesis centered around three themes, which the hypotheses will be formed around. Prior to uncovering our findings, the methodological perspectives and procedures are presented, explaining how the data has been extracted and filtered. Subsequently, we engage in a discussion of the results, addressing the hypotheses before presenting the discussion, limitations of our study, suggestions for future studies and a conclusion. Finally, the report will also include an AI disclaimer, explaining how it has been utilized throughout the study which will be presented in the appendix.

2. Theoretical framework

2.1 Theme 1 - Dynamics of Return Policies in E-Commerce

2.1.1 Strategic implications of return policies

Understanding and recognizing the interconnectedness of purchase and return decisions serves as the basis for exploring what optimal return policies retailers should implement. Abdulla et al., (2019) highlights the strategic importance a retailer's return policy possesses on consumer behavior and purchase decision making. Notably, most online consumers consider return policies already in the pre-purchase stage of the customer journey due to factors such as uncertainty in regards to product fit and valuation. Fit uncertainty being expressed as the likelihood that the product will not experience failure, maintain a satisfactory level of quality, or precisely align with the customer's taste and pre-purchase expectations, and valuation uncertainty being articulated as the monetary worth of the acquired product for the customer. Consequently, return policies have become an integral and expected part of a retailer's value offering. According to Rokonuzzaman et al., (2021), return policies are also typically assessed based on their leniency, a measure of the ease and convenience afforded to consumers when making returns. This since a lenient return policy drives down purchase risk and increases patronage intentions. Heiman et al., (2001) also

conclude that liberal return policies can decrease and mitigate the pre-purchase uncertainty possessed by consumers. Therefore, offering more lenient return policies can be said to be attached with additional value for the customer and reduce the information asymmetry towards the retailer. Moreover, free returns should be perceived as a promotional tool (Di Fatta et al., 2018) which can be strategically utilized as a lever to attract new customers (Hjort and Lantz, 2016). Subsequently, this is why some retailers are reluctant to change their return policies. Although returns come with high handling costs, not offering lenient return policies can reduce the value provided to customers and result in a decrease in demand (Anderson et al., 2009).

2.1.2 Return policy impact on product quality and brand image perceptions

Following the previous sections, Rokonuzzaman et al., (2021) proposes that consumers generally adopt a total cost perspective prior to a product purchase which means considering not only the price of a product but also its quality, the service offered by the retailer and other associated costs related to, for instance, returns. These elements are prone to interplay with each other, ultimately shaping the overall perceptions of the retailer. More specifically, a lenient return policy can remove the importance of factors such as quality and price since it signals to the consumers that the evaluation of the product is less important as it can be returned anyways. Further, Wood (2001) finds that quality perceptions were higher in lenient conditions compared to restrictive conditions both before and after the product was physically examined. In addition, a lenient return policy can even strengthen the perceived quality of a product and brand (Shao et al., 2021; Bonifield et al., 2010; Janakiraman, 2016), while also serving as quality insurance especially important for lesser-known retailers (Jeng, 2017). Moreover, Pei et al., (2014) find that the reputation and competition of the online retailer moderate the relationship between the return policy depth (full or partial refund) and the consumers' perceived justice and purchase intention. Consequently, different brands may have different conditions to maximize the value derived from generous or more restrictive policies.

2.1.3 Consumer risk and policy leniency

While prior studies have concluded that lenient return policies positively impact purchase intentions, Abdulla et al., (2019) highlights the significance of considering individual and situational factors, which may result in diverse effects on the overall value consumers

attribute to retailers' return policies. These effects are according to Rokonuzzaman et al., (2021) mainly associated with the risk and perceived risk in the consumer decision-making process. More specifically, consumers in high-involvement situations, driven by high perceived risk, are more likely to value lenient return policies, especially when the price for the product is high. This is because a more lenient return policy can help remove the negative associations consumers have with high prices. More specifically, offering customers generous return options will yield an enhanced perception of quality of a product rather than it being perceived as a pure monetary sacrifice. Additionally, previous research finds that offering free returns reduces the purchase risk for the consumer since the purchase can be reversed without cost (Di Fatta et al., 2018; Constantinides, 2004; Mukhopadhyay, 2007). Suwelack et al., (2011) also finds that offering customers a money back-guarantee may reduce the anticipated regret of the purchase. Opposedly, if a retailer has a restrictive return policy, it may elicit negative emotions causing the consumer to delay or even abandon the order in favor of a competitor (Di Fatta et al., 2018). This further aligns with the psychological concept of loss aversion, where consumers prioritize risk avoidance over potential gains, influencing their decision-making in favor of retailers with lenient return policies (Rokonuzzaman et al., 2021). Moreover, less restrictive return policies signals the retailer's willingness to share the transaction risk, fostering a sense of trust, which drives loyalty and potentially repeat purchases (Oghazi et al., 2018; Santos et al., 2020). However, Jeng (2017) highlights the moderating effect of product categories on the value of return policies, suggesting that retailers can afford less lenient return policies for high-effort product categories to reduce costs. This challenges the notion that high-effort product categories, often associated with higher price, should have a higher perceived risk and thus lead to a higher valuation of return policies.

The previous sections suggest that implementing more restrictive return policies carries greater risk for the consumer, potentially also increasing the barriers to entry for new customers as offering free returns can serve as a leverage point to attract them. Hence the following hypotheses are proposed:

- **H1$_a$:** Free exchanges instead of free returns increase purchasing risk, reducing the customer's average number of *purchased* items per order.

➢ **H1b:** Free exchanges instead of free returns increase purchasing risk, reducing the number of items *purchased* more considerably for new customers than for returning.

2.2 Theme 2 - Addressing opportunistic behavior

2.2.1 Wardrobing challenges

While previous literature has shown that retailers generally tend to use lenient return policies believing that it has a greater positive effect on purchases than returns, Khouja and Hammami (2023) emphasizes the significance of considering alternative refund options beyond the monetary aspects of cash refunds or money-back guarantees. These alternative return policies have assumed greater significance due to some customers opportunistically exploiting lenient return policies for short term consumption and with the sole intent of returning the product within the retailer's return time window without incurring any additional cost. This behavior has been referred to in the literature as *"wardrobing"* and is something retailers need to account for when offering lenient return policies as it can significantly undermine profitability (Shang et al, 2017; Akturk et al., 2021). Bower and Maxham (2012) demonstrate that while retailers might be inclined to deter this return abuse behavior by imposing return fees on customers, such actions could be profitable in the short run but lead to diminished future demand for the company's product or services. This finding is also in line with Lee (2014) who found that tightening return policies may come with unintended negative effects on sales and profits. However, Khouja & Hammami (2023) finds that e-commerce retailers can afford a lenient return policy with a 100% money-back guarantee by increasing the price of the products and ordering larger quantities of stock since the customers who then retain the products end up subsidizing potential wardrobers yielding no damaging effect on the bottom line. However, since the cost of this would be borne by genuine customers making purchases with no opportunistic intentions, retailers can instead opt to raise the non-refundable fraction on returned products and reduce the product price. This shift then aims to transfer the costs to consumers who take advantage of the excessively lenient return policies provided by retailers.

2.2.2 Alternative return levers to cash refunds - mitigating fraud and lock-in effects

When setting return policies, retailers also have the option of applying non-monetary refund levers. More specifically, Khouja and Hammami (2023) argue that retailers can apply a store credit (SC) or gift card (GC) strategy to cope with the operational cost burden imposed by wardrobers. Since customers do not value cash and store credits/gift cards equivalently, it can help deter wardrobers from buying products since they are already aware pre-purchase that they will refund the product, leading to reduced costly returns and increased profitability for the retailer. With this strategy, online retailers can also continue to offer its 100% refund since the wardrobes are not able to exploit the overly generous return policy when the returns are made in SC/GC instead as the customer then is *locked in* with the retailer from the moment of purchase. Moreover, utilizing SC/GC refunds can also help mitigate the aforementioned subsidy effect, meaning that retailers can even lower their prices instead of raising them, subsequently increasing overall consumer welfare. Additionally, Shang et al. (2017) also underscores the use of partial refunds as a means to counteract wardrobers. However, Abdulla et al. (2022) find that providing customers with a return policy restricted to only exchanges or SC/GC, rather than offering a full monetary refund, can have adverse effects on the perceived value of the returns service and diminish purchase intentions. Thus, it is essential to recognize the trade-offs associated with this approach, as partial refunds may be perceived unfavorably by genuine customers who need to return a product due to a true lack of fit. Fan et al. (2022) test the introduction of a two-option return policy allowing consumers to choose between a full SC/GC refund or a partial cash refund. In situations where genuine consumers and wardrobers have varying valuations for SC/GC, the two-option return policy is suggested to outperform a single-option return policy. This is because the dual-choice approach allows the retailer to cater to the preferences of different consumer segments and capture the benefits of both return policies, deterring wardrobers and retaining valuable customers. This is achieved by having a lenient SC/GC approach for the genuine customers and a more restrictive partial refund option for the wardrobers. Further, d'Astous and Guèvremont (2008) also found that offering customers the possibility of a money refund and a product exchange yielded a better perception of the retailer than one constrained return policy. Hence, opting for a dual return policy approach can yield significant advantages both in terms of mitigating losses associated with customers who exploit return policies but also increase customer satisfaction and loyalty among the genuine customers.

Retailers opting for a SC/GC approach, partial refund strategy, or a combination of both can achieve similar lock-in effects as those associated with a free exchange approach. Also, as new customers are suggested to be particularly more sensitive to the risk associated with no free returns, we anticipate a more pronounced effect for that group. Consequently, the following hypotheses are proposed:

- **H2$_a$:** Free exchanges instead of free returns will decrease the customer's average number of *returned* items per order.
- **H2$_b$:** Free exchanges instead of free returns increase purchasing risk, reducing the number of items *returned* more considerably for new customers than for returning.

2.3 Theme 3 - Financial implications of free returns

As covered, return policy leniency moderates the risk associated with purchasing in the online setting. Hjort and Lantz (2016) study the moderating effect of return policies on profitability within the online fashion and explore how these policies influence key business metrics such as average order contribution, and total contribution per customer. The findings below shed light on the nuanced ways in which leniency in return policies can directly affect the financial health of an online retailer.

2.3.1 Effects on purchase intentions and return behavior

Research focusing on the elements influencing customers' conversion rates reveals that the impact of offering free returns is ambiguous. Di Fatta et al., (2018) examines methods in the Small and Medium Enterprise context (SME) that improve conversion rate find the effects of free returns is uncertain while broader research including all types of e-tailers in terms of size find that offering free returns can significantly improve conversion rates (Zumstein & Kotowski, 2020). However, comparing return policy leniency to different components of the return process (e.g., quality of return process), free returns is the most notable key driver to purchase intentions while also having a halo effect on other related factors such as repurchase intentions and quality of the return process (Wang et al., 2019). Consequently, lenient return policies can still yield a significant effect on purchase and repurchase intentions but should be

considered together with other promotional or service related tools to best determine potential upside in sales versus its respective associated costs.

Furthermore, findings from Lantz and Hjort (2013) indicate that lenient return policies reduce average order value and significantly impact order frequency, indicating that free returns encourage customers to make smaller but more frequent purchases. Petersen and Kumar (2010) also find that lenient return policies can yield additional positive post-purchase behavior as customer referrals increase and thus also potentially enhancing the number orders placed by each customer. This increased frequency can boost sales volume but is also found to increase the probability of returns. However, Reinartz and Kumar (2003) highlight that customers who return more can yield additional value for a retailer. However, this is only up to a certain threshold wherafter the returns become excessive and the profitability experiences a diminishing effect.

This scenario presents a multifaceted challenge for retailers: they are tasked with selecting the most impactful promotional strategies that not only enhance order volumes but also manage the complexities and logistical demands of returns without eroding profit margins. At the same time, they must cultivate customer loyalty and promote repeat business, all while minimizing the economic impacts of returns.

However, prior research seems to have some commonalities, namely that *free returns tend to increase return volume* and *purchase frequency through increased purchase intention*. The effect is again hypothesized to be larger for new customers because of the inherent higher degree of purchasing risk of a first-time purchase. Accordingly, the following hypotheses have been formulated:

- **H3$_a$:** Free exchanges instead of free returns will decrease the proportion of orders containing a return.
- **H3$_b$:** Free exchanges instead of free returns will reduce the proportion of orders containing a return more considerably for new customers than for returning customers.
- **H4:** Free exchanges instead of free returns will reduce order frequency.

2.3.2 Effects on profitability and customer value

Previous studies examine the effects of return policies on the total contribution per customer, which reflects the overall profitability that each customer brings to the retailer. Findings from Lantz and Hjort (2013) suggest that free returns have a negative relationship on sales in terms of average order value (AOV), while simultaneously increasing the returns that accompany it, significantly offsetting per order margins and decreasing profitability per order. However, it is important to recognize that it may serve as a necessary tool to acquire new customers and thereby increase order volumes. This paradox underscores the value of customer acquisition, suggesting an evident trade-off between attracting new customers and whether the incremental benefits outweigh the costs associated with handling their returns and decreased per order profitability. Additionally, Petersen and Kumar (2015) emphasize the importance of considering the long-term relationships with customers, particularly highlighting how lenient return policies can lead to an increase in customer value through enhanced contributions over time. This insight underscores that returns should not be viewed merely as a cost but as an opportunity to mitigate customer risk and thereby boost Customer Lifetime Value (CLV), consequently fostering loyalty and repeat purchases. Hence, Petersen and Kumar (2015) find that a free return policy can be profitable undertaken, if managed strategically. Moreover, Rokonuzzaman et al., (2020) posits that opportunistic and unethical product return behavior may not significantly impact retailers since technological advancements have enabled tracking of unusual frequency of returns thereby mitigating the negative bottom-line effects related to abusing the system. Ketzenberg et al (2013) demonstrate that even the most basic use of today's machine learning methods can yield significant profits by mitigating losses attributable to returns. Nevertheless, from a pure economical standpoint, evidence found indicates that there is no financial reason beyond attracting new customers to offer free returns universally, since customers who enjoy free returns are less profitable if they are either returners and repeat customers or both (Hjort and Lantz, 2016). Despite this, the theoretical evidence advocating for partial refunds instead of full refunds often deviate from the practical decisions undertaken (Shang, 2017).

Consequently, the subsequent hypotheses are formulated to assess whether less lenient return policies in terms of free exchanges opposed to free returns enhances contribution per order

and to determine if the observation in theme 1 that new customers' being more affected persists in this context:

- **H5a:** Free exchanges instead of free returns will decrease the return rate and increase per order contribution.
- **H5b:** Free exchanges instead of free returns will decrease the return rate and increase per order contribution more considerably for new customers than for returning.

3. Methodology

3.1 Data collection

To address the existing ambiguities around the impacts of implementing policies aligned with theoretical recommendations, such as offering partial refunds, this study aims to validate these theories through the analysis of primary data of a Swedish fashion retailer predominantly selling to male customers in Europe and North America (figure 5, section 3.1.2).

3.1.1 Data preparation

The dataset of this quantitative study comprises online transaction and return data spanning from September 6th 2022 to February 6th 2024. Further, the primary objective is to examine the impact of the company's transition from offering free returns and exchanges to implementing a policy exclusively offering free exchanges. After the policy change, a shift that occurred on September 6th 2023, returns are now subject to a fee of 45 SEK. To assess the impact of the policy change, the analysis will concern sales and return behavior data from September 6th 2022 to February 6th 2023, comparing it with the corresponding five-month period one year later, from September 6th 2023 to February 6th 2024. The dataset has been filtered in this way for two reasons. First, in order to realize the net value of each order (sales less returns), data beyond February 6th 2024 was excluded to avoid order values not being fully realized as there was a 30-day return time window and the data was extracted on the 7th of March. Secondly, the objective is to compare equivalent time periods across the two years to mitigate potential seasonality effects associated with major holidays that could influence or

create biases in the results. Therefore, the period between February 7th 2023 to September 6th 2024 was excluded to only include year over year (YoY) analysis.

For the continuation of this report, the period between September 6th 2022 and February 6th 2023 will be referred to as **period 1** where the firm *offered free returns*. The latter period spanning from September 6th 2023 to February 6th 2024 will be referred to as **period 2** during which the firm *only offered free exchanges* and returns were subject to the fee stated above. Finally, store sales and internal employee orders were excluded to solely analyze the effects on external customer data.

3.1.2 Summary statistics

Order/Return Values & Purchased/Returned Items in Period 1 & Period 2

The subsequent section will provide a detailed description of the dataset. Following the filtration process outlined in the preceding section, the resulting output yields *36,191* orders in period 1 and *40,734* orders in period 2. Moreover, total order values amounted to *75,612 KSEK* in period 1 while period 2 counted to *85,348 KSEK*. The return value for period 1 was *25,182 KSEK* and period 2 showed *26,730 KSEK*. Finally, the number of purchased and returned items was *76,363* and *22,800* for period 1 and *85,541* and *24,033* for period 2 respectively.

Building on the explanation in the previous section concerning data preparation to account for seasonality effects, Figure 1 depicts order values and number of items purchased compared over period 1 and period 2. Further, illustrated in figure 2 is a YoY comparison of returned order value and returned number of items over period 1 and period 2.

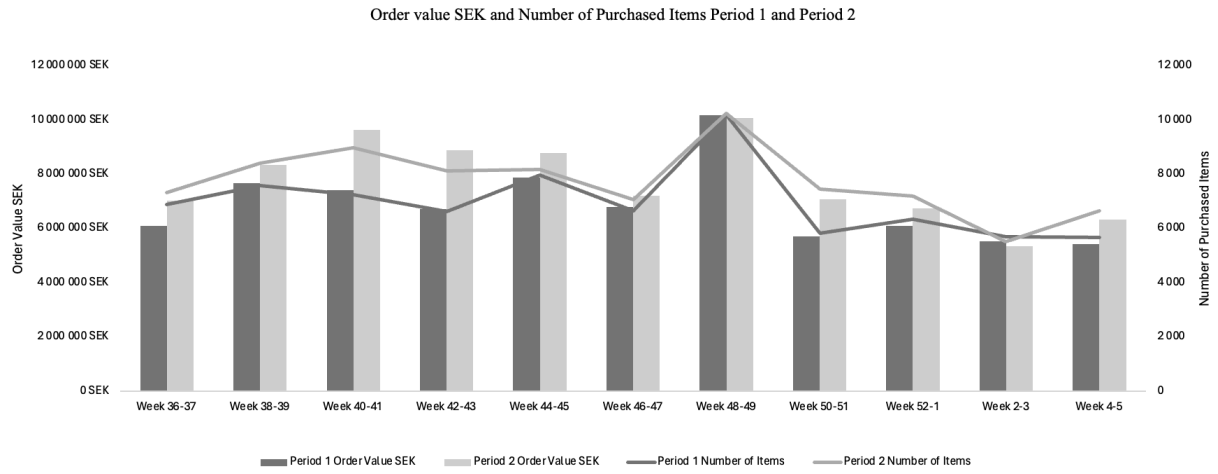

Figure 1: YoY comparison showing Order Values in SEK and Number of Purchased Items.

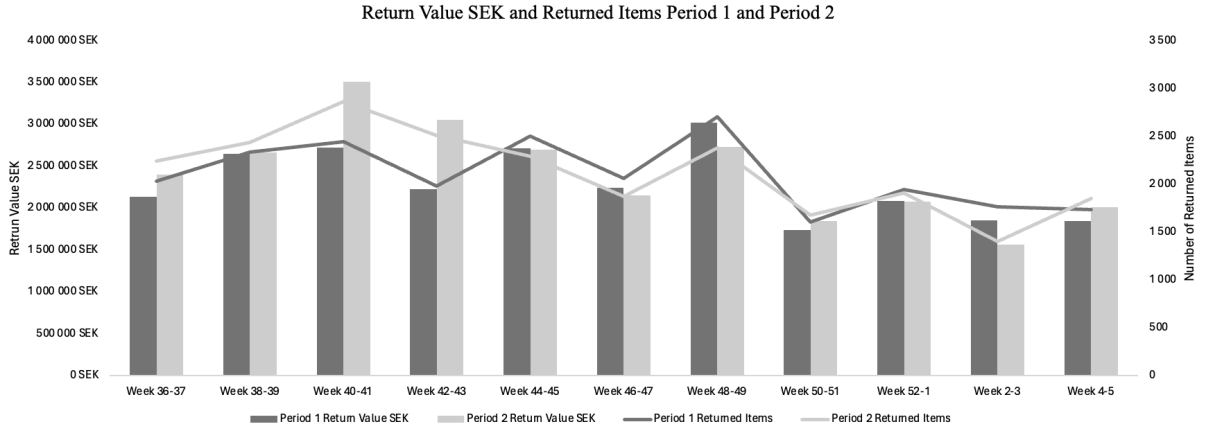

Figure 2: YoY comparison showing Return Values in SEK and Number of Returned Items.

New vs Returning Customers in Period 1 & Period 2

The dataset also includes a column labeled "customer status" to differentiate between new and returning customers. Returning customers are identified by having a previous customer ID from a prior order, whereas new customers are denoted by a unique customer ID appearing for the first time. This distinction is depicted in Figure 3 showing the split of new and returning customers in each period. Notably the proportion of new customers to returning ones grows in period 2 after the policy change.

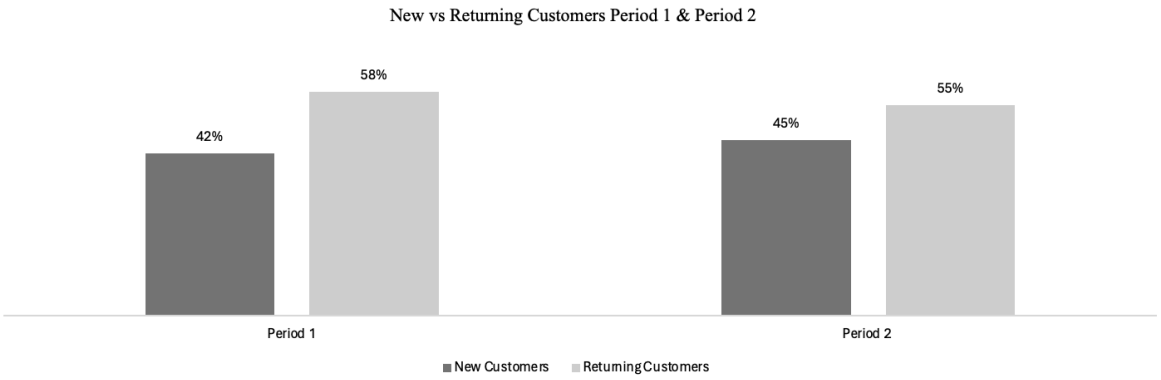

Figure 3: Share of New vs Returning Customers Period 1 & Period 2.

Share of Customers in Period 1 & Period 2

Moreover, coherent with the tests that will be conducted in this study, figure 4 displays the split between the amount of customers in period 1 and period 2. Each customer was identified by extracting each unique customer ID from the two periods. From this it can be observed that the proportion of unique customers in period 2 was higher compared to period 1.

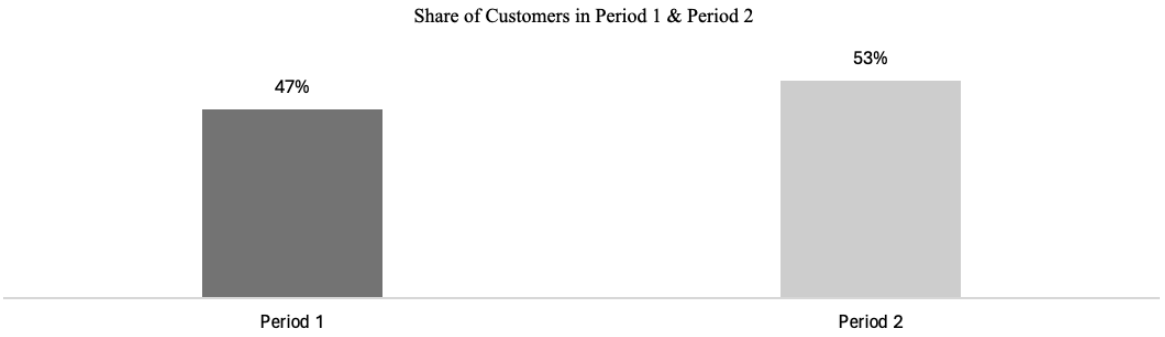

Figure 4: Share of Customers in Period 1 & Period 2

Market split

Finally, it was mentioned that the Swedish online fashion retailers analyzed in this paper have a majority share of sales in Europe and North America. To provide a more granular overview of the split between the different markets, figure 5 visualizes the percentage distribution of the total *76,925* orders.

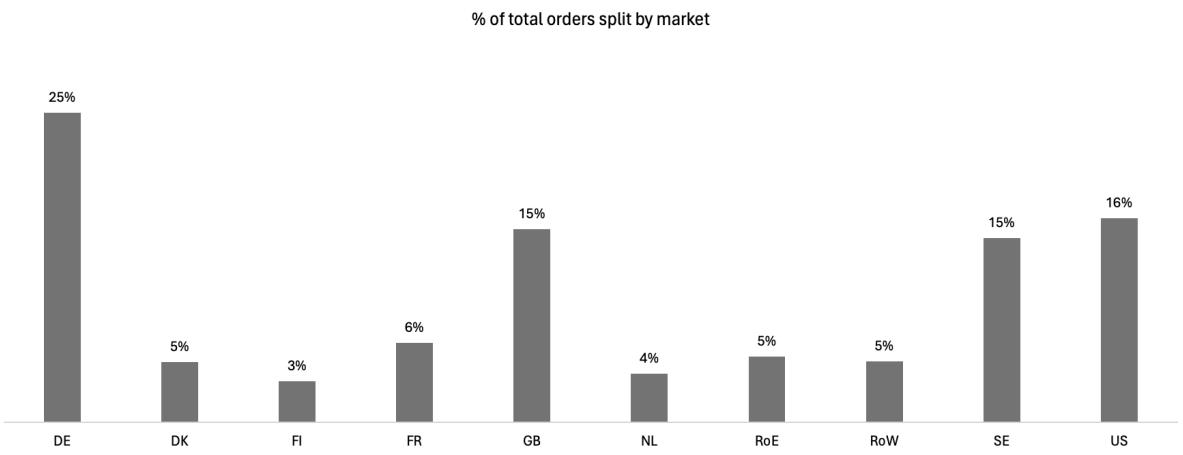

Figure 5: Percentage of total orders split by market

3.2 Research method

Mean comparisons (Independent sample t-tests & One-Way ANOVA tests)

The research method that will be employed in this study will be based on the above described primary data collected from a Swedish fashion retailer. More specifically, the tests that will be conducted will aim to uncover significant changes among the five financial metrics displayed in table 6 of going from free returns (period 1) to free exchanges (period 2). We aim to uncover these potential differences through independent sample t-tests to determine whether significant differences exist between period 1 and period 2 and one-way ANOVA tests to compare means across the two time periods for new and returning customers *(see Appendix A Table 21 for mean acronym definitions)*.

Hypothesis	Metric
1.	*Number of purchased items per order*
2.	*Number of returned items per order*
3.	*Proportion of orders containing a return*
4.	*Order Frequency (average number of orders per customer)*
5.	*Return rate (return value per order divided by order value per order)*

Table 6: Metrics tested in the independent sample t-tests and one-way ANOVA tests

While the independent sample t-tests compares the effect before and after the policy change, the one-way ANOVA test is utilized to extend the analysis further by categorizing new and

returning customers per period using a matrix consisting of two binary variables to generate four new unique combinations of customer groups. The first binary variable is a *new vs returning customer variable* which categorizes customers based on their purchase history. Here, rows with a value of 1 represent a first order (new customer) and will be assigned a value of 1, whereas rows with a value greater than 1 signify a repeat purchase (returning customer) and will be assigned a value of 0. The second binary variable is the *time period* where all rows being connected to period 1 will be assigned a value of 0, and all rows assigned to period 2 will be denoted a value of 1. Using this output, a new variable will be computed in SPSS and be denoted: *"New vs Returning in P1 vs P2"* where the formula is:

New vs Returning in P1 vs P2 = New vs Returning binary variable + (Time period binary variable * 10)

Figure 7: Formula for creating the Matrix

Subsequently, this formula will generate four new combinations in the additional column created in the data set with the new groups displayed in figure 8. The objective is then to use these four combinations to conduct mean comparisons between the groups specified below and also illustrated with the arrows in figure 8. From this we aim to analyze potential differences across or within the various groups and the two time periods. One-way ANOVA Sheffe is specifically utilized as the groups are of unequal size.

- ➢ Returning Customers in Period 1 **(00)** vs Returning Customers in Period 2 **(10)**
- ➢ New Customers in Period in Period 1 **(01)** vs New Customers in Period 2 **(11)**
- ➢ Returning Customers in Period 1 **(00)** vs Customers in Period 1 **(01)**
- ➢ Returning Customers in Period 1 **(10)** vs Customer in Period 2 **(11)**

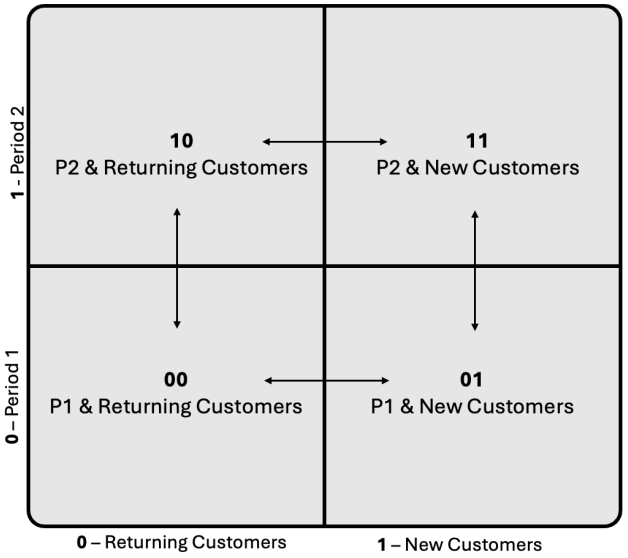

Figure 8: Matrix with Period 1 & 2 and New & Returning Customers

Regression analysis

Finally, a multiple linear regression model will be deployed to complement the independent sample-tests and one-way ANOVA tests. This will be used to validate the previous results and serve as guidance for determining the relative strength of the independent variables on the outcome variable. The regression analysis and the choice of variables described below has been inspired by Hjort and Lantz (2016) as their paper also analyzes transaction data of an e-commerce retailer, albeit on a customer basis rather than on a per order basis as is the case in this paper.

With previous in mind, the dependent outcome variable in the regression in this study will be a new computed variable. This variable is *Net Value Per Order* and is calculated as the *Average Order Value* subtracted by the *Average Return Value*, capturing the realized value of each sale after potential returns, thereby proving a comprehensive measure of contribution per order. This is also similar to Hjort and Lantz (2016) who have total and average contribution per customer. Moreover, the independent variables in the regression is also of similar character as Hjort and Lantz (2016) and will include:

- *Time period variable* (free returns (0) vs free exchanges (1))
- *Purchase behavior variable* (no return (0) vs has returned (1))
- *Customer type variable* (returning customers (0) vs new customers (1))

Additionally, previous literature by Lantz and Hjort (2013) proposed capturing the interaction effects between the independent variables which is also emphasized in the author's study from 2016. As the aim in this paper is also to compare the effects between new and returning customers before and after the policy shift, an additional interaction variable will thus be added. This variable will be calculated based on the time period and customer type binary variables, enabling the comparison of two binary variables across different time periods and customer groups. The current customer type binary variable will only yield an output on an aggregated level between new and returning customers but the interaction variable will produce results that capture new customers with free exchanges compared to returning customers with free exchanges. Subsequently, the regression that will be conducted will be the following:

$$\textbf{Net Value Per Order} = \beta 0 + \beta 1\textbf{Time Period} + \beta 2\textbf{Purchase Behaviour} + \beta 3\textbf{Customer Type} + \beta 4(\textbf{Time Period x Customer Type}) + \varepsilon$$

3.3 Data analysis

As outlined in the previous section, the independent t-test that will be employed in the study will enable us to uncover potential differences between period 1 and period 2. Our significance tests were one-sided, reflecting the specificity of the hypothesis presented in the background (i.e., that the mean proportions of one group is larger or smaller than the other) (Ludbrook J, 2013). The significance threshold in this study will be set at $p<0.05$ due to its long-standing acceptance within science as a conventional standard for determining statistical significance (Alifieris, 2020).

4. Results & Analysis

This section outlines the results of the study. It consists of descriptive statistics of the variables that will be tested, mean comparisons in terms of independent sample t-tests to perform tests on the entire data set and one-way ANOVA-tests to analyze potential discrepancies between new and returning customers in response to the shift from free returns to free exchanges. The mean comparison tests will be conducted according to the key metrics outlined in table 5 section 3.2 and the explanation to the mean acronyms is provided in table 8 section 3.3. All One-Way ANOVA tests in the following sections revealed significance with

a $p<0.001$ (see Appendix B). Finally, the regression described above is conducted to validate and extend the findings from the mean comparisons.

4.1 Descriptive Statistics

The below table gives a visual representation of the metrics that will be tested in the independent sample t-tests and one-way ANOVA tests conducted in the below sections 4.2 and 4.3.

Financial Metrics	Period 1	N	Period 2	N
Average Order Value	2 089,26 SEK	36191	2 095,26 SEK	40734
Average Return Value	695,80 SEK	36191	656,22 SEK	40734
Average Net Value	1 393,46 SEK	36191	1 439,04 SEK	40734
Average Number of Purchased Items	2.11	36191	2.10	40734
Average Number of Returned Items	0.63	36191	0.59	40734
Average Return Rate (return value divided by order value)	26.4%	36191	24.9%	40734
Average Order Frequency	1.28	28325	1.25	32577

Table 9: Descriptive Statistics

4.2 Policy effects on items ordered and returned

The following section presents the results connected to theme 1 and 2. More specifically, it answers hypotheses 1 and 2 tied to consumer risk and opportunistic behavior. The outcomes below encompass both independent sample t-tests and one-way ANOVAs where the segmentation on new and returning customers is calculated according to the matrix outlined in section 3.2.

First, it was hypothesized that the change from free returns would reduce the *number of purchased items per order* for customers. The results reveal that the difference in number of purchased items across periods was deemed insignificant (M_{PIP1} =2.11, M_{PIP2} =2.10, p=0.139), thereby **rejecting H1a**. (Table 10)

Comparing the effects of new versus returning customers in *number of purchased items per order*, new customers experienced a significant decrease (M_{NEWPP1} =1.95, M_{NEWPP2} =1.89,

p=0.030) whereas returning customers remained at similar levels (M_{RETPP1} =2.23, M_{RETPP2} =2.27, p=0.113) (Table 11). These results **support H1b** that newer customers are more considerably affected by the increased purchase risk. Additionally, returning customers purchased significantly more products per order across both periods. (Table 12).

Moreover, the *number of returned items* were tested across the two periods. Here, it was hypothesized that free exchanges only would decrease the customers' number of returned items per order. The results found **support for H2a** as it was shown that customers in period 2 returned significantly less than those in period 1 (M_{RIP1} =0.63, M_{RIP2} =0,59, p<0.001).

Finally, tests were conducted on the *average number of returned items per order for new and returning customers*. Here it was found that new customers, similar to the tests on number of purchased items per order, experienced a significant decrease post the policy change (M_{NEWRP1} =0.66, M_{NEWP2} =0.6, p<0.001) while returning customers didn't (M_{RETRP1} =0.6, M_{RETRP2} =0.57, p=0.075) (Table 11). Moreover, period 1 displayed a significant difference between returning and new customers (M_{RETRP1} =0.6, M_{NEWRP1} =0.66, p<0.001) whereas the difference diminished after the policy change between the two groups (M_{RETRP2} =0.57, M_{NEWRP2} =0.60, p=0.089) (Table 12), implying that the policy change affected the new customers more considerably, decreasing the average number of returns to the levels of returning customers. Hence, **H2b is supported.**

Table 10: Independent Sample T-test
Mean Comparison between Period 1 & 2 in number of returned & purchased items

	Period 1 (n=36191)		**Period 2** (n=40734)		**Independent Sample T-test** (n=76925)	
Variable	**Mean**	**SD**	**Mean**	**SD**	**t-value**	**p-value**
Number of Purchased Items per order	2.11	1.671	2.10	1.663	1.085	0.139
Number of Returned Items per order	0.63	1.269	0.59	1.224	4.583	<0.001***

Note: Significance at *p < 0.10, **p < 0.05, and ***p < 0.001.

Table 11: One-Way ANOVA
Mean comparison of same customer groups in different periods for number of purchased and returned items

	Period 1		Period 2		One-Way ANOVA
Variable	**N**	**Mean**	**N**	**Mean**	**Sig. Between Groups**
New Customers Number of Purchased Items	15203	1.95	18514	1.89	0.03***
Returning Customers Number of Purchased Items	20988	2.23	22220	2.27	0.113
New Customers Number of Returned Items	15203	0.66	18514	0.60	<0.001***
Returning Customers Number of Returned Items	20988	0.60	22220	0.57	0.075*

Note: Significance at *p < 0.10, **p < 0.05, and ***p < 0.001.

Table 12: One-Way ANOVA
Mean comparison of different customer groups in the same time period for number of purchased and returned items

	Returning Customers		New Customers		One-Way ANOVA
Variable	**N**	**Mean**	**N**	**Mean**	**Sig. Between Groups**
Period 1 Number of Purchased Items	15203	2.23	18514	1.95	<0.001***
Period 2 Number of Purchased Items	20988	2.27	22220	1.89	<0.001***
Period 1 Number of Returned Items	15203	0.60	18514	0.66	<0.001***
Period 2 Number of Returned Items	20988	0.57	22220	0.60	0.089*

Note: Significance at *p < 0.10, **p < 0.05, and ***p < 0.001.

4.3 Effects on proportion of orders containing a return, order frequency and return rate

The following analysis concerns the results and analysis of theme 3, addressing hypotheses 3, 4 and 5. Again, the results consist of both independent sample t-tests and one-way ANOVA tests, where the segments were computed with the matrix described in section 3.2.

To address H3a, an additional independent sample t-test was conducted, uncovering *how many orders within each period that contained a return*. The results entails that the proportion of orders containing returns reduced significantly after the policy change (M_{PP1} =0.336, M_{PP2} =0.317, p<0.001), **supporting H3a** that offering free exchanges exclusively, will decrease the order-return volume relationship. (Table 13)

Furthermore, both the *returning and new customer segments* experienced a significant decrease in *proportions of orders containing returns* (M_{RETP1} =0.324, M_{RETP2} =0.308, p=0.005)(M_{NEWP1} =0.352, M_{NEWP2} =0.328, p<0.001) (Table 14). Comparing new and returning customers, the former group have significantly higher proportions of returns relative to returning customers in both periods (M_{RETP1} =0.324, M_{NEWP1} =0.352, p<0.001)(M_{RETP2} =0.308, M_{NEWP2} =0.328, p<0.001) (Table 15). Although both groups experienced a significant decrease in return proportions, the lower p-value and higher effect size suggests a slightly more pronounced effect for new customers. This **supports H3b,** revealing that the free exchange policy reduced return proportions more considerably for new customers than for returning customers.

Moreover, the effects on *return rates* revealed statistically significant differences across period 1 and period 2 (M_{RRVOP1} =0.264, M_{RROVP2} =0.249, p=0.001). Again indicating that going away from free returns positively affects contribution per order with a larger share of the ordered value being realized instead of being returned. Consequently, **H5a is supported**. (Table 13) Additionally, the potential *return rate* effect was also tested on *new versus returning customers*, revealing a significant decrease in the metric for both groups, meaning that a larger share of sales per order is realized for both segments. The effect size was however, more pronounced for new customers, also indicated by the lower p-value ($M_{RETRRP1}$ =0.246, $M_{RETRRP2}$ =0.231, p=0.005)($M_{NEWRRP1}$ =0.289, $M_{NEWRRP2}$ =0.271, p=0.003). Therefore,

H5b is supported showing that the policy shift decreased the return rate per order more considerably for new customers than for returning ones, albeit slightly. (Table 16)

Finally, to complement the per order profitability analysis with an element capturing potential loyalty patterns, an independent sample t-test was conducted on order frequency. The results reveal a significant difference before and after the policy change (M_{OFP1} =1.28, M_{OFP2} =1.25, p<0.001), **supporting H4**, indicating that the average amount of orders per customer decreased post the policy change. It should be noted that the number of observations differ in this test compared to the other tests conducted on an aggregated level as the results here were obtained from the number of unique customers in each period opposed to the number of orders. (Table 17).

Table 13: Independent Sample T-test
Mean Comparison between Period 1 & 2 in return rate (SEK) and the proportion of orders containing a return

	Period 1 (n=36191)		**Period 2** (n=40734)		**Independent Sample T-test** (n=76925)	
Variable	**Mean**	**SD**	**Mean**	**SD**	**t-value**	**p-value**
Return Rate	0.264	0.417	0.249	0.43	4.714	<0.001***
Proportion of orders containing a return	0.336	0.472	0.317	0.465	5.570	<0.001***

Note: Significance at *p < 0.10, **p < 0.05, and ***p < 0.001.

Table 14: One-Way ANOVA
Mean comparison of return rate for the same customer groups in different periods

	Period 1		**Period 2**		**One-Way ANOVA**
Variable	**N**	**Mean**	**N**	**Mean**	**Sig. Between Groups**
New Customers Proportion of orders containing a return	15203	0.352	18514	0.328	<0.001***
Returning Customers Proportion of orders containing a return	20988	0.324	22220	0.308	0.005***

Note: Significance at *p < 0.10, **p < 0.05, and ***p < 0.001.

Table 15: One-Way ANOVA

Mean comparison of proportion of orders containing a return for different customer groups in the same period

	Returning Customers		New Customers		One-Way ANOVA
Variable	**N**	**Mean**	**N**	**Mean**	**Sig. Between Groups**
Period 1 Proportion of orders containing a return	20988	0.324	15203	0.352	<0.001***
Period 2 Proportion of orders containing a return	22220	0.308	18514	0.328	<0.001***

Note: Significance at *p < 0.10, **p < 0.05, and ***p < 0.001.

Table 16: One-Way ANOVA
Mean comparison displaying return rate between Period 1 & 2 and New & Returning Customers

	Period 1		Period 2		One-Way ANOVA
Variable	**N**	**Mean**	**N**	**Mean**	**Sig. Between Groups**
New Customers Return Rate	15201	0.289	18512	0.271	0.003***
Returning Customers Return Rate	20971	0.246	22204	0.231	0.005***

Note: Significance at *p < 0.10, **p < 0.05, and ***p < 0.001.

Table 17: Independent Sample T-test
Mean Comparison between Period 1 & 2 in average order frequency per customer

	Period 1 (n=28325)		Period 2 (n=32577)		Independent Sample T-test (n=60902)	
Variable	**Mean**	**SD**	**Mean**	**SD**	**t-value**	**p-value**
Number of orders per customer	1.28	0.737	1.25	0.736	4.567	<0.001***

Note: Significance at *p < 0.10, **p < 0.05, and ***p < 0.001.

4.4 Net sales value per order effects

To validate and complement the previous findings in the paper, table 18 presents the results from the regression described in section 3.2 where the dependent target variable is Net Value per order (Order Value less Return Value). All independent explanatory variables showed significance in explaining the dependent variable. First, orders placed in period 2 with free

exchanges opposed to period 1 with free returns generated a significantly higher net value per order (B = 74.73, p<0.001). Second, not accounting for the effects of the policy change, orders that had returned an item also experienced significantly lower contribution per order compared to those orders that did not have any products returned (B = -906.28, p<0.001). Third, for new customers, net value per order was significantly lower than for returning customers on an aggregated level, again, not factoring in the effects of the new policy (B = -318.94, p<0.001). Finally, the output from the regression models also shows that new customers have a significantly lower net value per order if the order was also placed under the free exchange policy (B = -77.89, p<0.001). Notably, the negative coefficient of the interaction shows that the effect of new consumers is even more negative than in the first period. More specifically, the coefficients from the interaction variable and the customer type variable should be summed up to obtain the total effect of the policy change on new customers in period 2. This yields a Beta of -396.77, indicating that new customers become even more unprofitable under the new policy. The analysis of the Variance Influence Factor (VIF) further indicates no multicollinearity issues in the regression model as all VIF-values are within acceptable levels.

Table 18: Regression Analysis on outcome variable Net Value per order (in SEK)

	B	SE	t	p	VIF
(Constant)	1831.63	9.40	194.84	<0.001	
Time Period	74.73	12.33	-6.06	<0.001	1.776
Purchase Behavior	-906.28	9.86	-91.90	<0.001	1.001
Customer Type	-318.94	13.65	-23.37	<0.001	2.149
Time Period x Customer Type	-77.83	18.67	-4.17	<0.001	2.987

F=2542.564 (p<0.001) R2=0.117

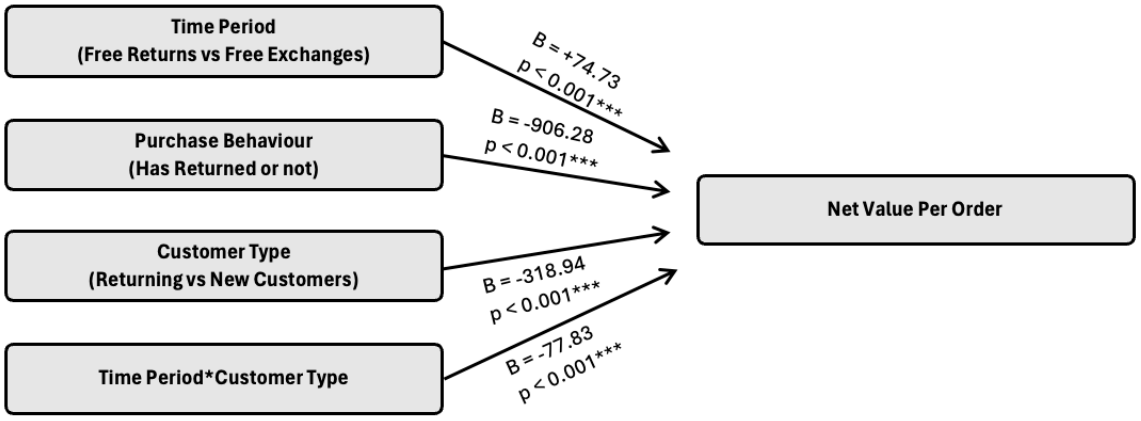

Figure 19: Visualization of the regression analysis on the outcome variable Net Value per order (SEK)

4.5 Hypothesis Summary

The following table presents a summary of the hypothesis formulated in the theoretical background and the corresponding results presented in section 4.2 and 4.3 showing if it is supported or rejected. For results displaying two p-values, the first one is associated with new customers while the second one concerns returning customers. Note that hypothesis with two p-values below 0.05 is deemed supported because of differences in effect size, outlined in section 4.3. The summary table only pertains to the mean comparisons as the regression was utilized to complement the findings and show the relative strength on the outcome variable of net value per order.

Hypotheses		**Results**
H1a	Free exchanges instead of free returns increase purchasing risk, reducing the customer's average number of purchased items per order.	Rejected *(p=0.139)*
H1b	Free exchanges instead of free returns increase purchasing risk, reducing the number of items purchased more significantly for new customers than for returning.	Supported *(p=0.030 vs p=0.113)*
H2a	Free exchanges instead of free returns will decrease the customer's average number of returned items per order.	Supported *(p<0.001)*

H2b	Free exchanges instead of free returns increase purchasing risk, reducing the number of items returned more considerably for new customers than for returning.	Supported *(p<0.001 vs p=0.075)*
H3a	Free exchanges instead of free returns will decrease the proportion of orders containing a return.	Supported *(p<0.001)*
H3b	Free exchanges instead of free returns will reduce the proportion of orders containing a return more considerably for new customers than for returning customers.	Supported *(p<0.001 vs p=0.005)*
H4	Free exchanges instead of free returns will decrease order frequency.	Supported *(p<0.001)*
H5a	Free exchanges instead of free returns will decrease the return rate and increase contribution per order.	Supported *(p<0.001)*
H5b	Free exchanges instead of free returns will decrease the return rate and increase contribution per order more considerably for new customers than for returning.	Supported *(p=0.003 vs p=0.005)*

Note: Significance at *p < 0.10, **p < 0.05, and ***p < 0.001.

Table 20: Hypothesis Test Summary

5. Discussion

5.1 Theoretical Implications

Previous literature on this topic has primarily conducted studies on the effects of various types of lenient return policies on consumer behavioral intentions. Although Hjort and Lantz (2013;2016) provide more nuance by analyzing profitability metrics on transactional data, it is worth noting that their studies were conducted in a different time period. Moreover, neither their studies, nor any other existing literature have, to the best of the authors' knowledge, examined the financial effects of offering free exchanges versus free returns. Therefore, given the growth and increase in the competitive landscape within e-commerce coupled with evolving consumer demands and companies efforts of deterring wardrobers and opportunistic consumer behavior, this paper aims to provide novel insights and implications for managers in the contemporary retail environment. Specifically, it aims to provide guidance in how to set optimal return policies and if the distinction between new and returning customers is a factor to consider.

5.1.1 The effect on per order contribution of offering free exchanges

The following theoretical discussion pertains to the aggregate results of this paper, meaning on the total effects of all customers. Consistent with previous research conducted by Hjort and Lantz (2016), our study validates that per order contribution (net sales value) increases with the implementation of a free exchange-only return policy. This is also reflected by the significant decrease in return rate and the decrease in the proportion of orders containing a return, suggesting that offering free returns may not be strategically advantageous from a pure financial perspective as it is shown not to offset the negative financial aspects tied to product returns on a per order basis.

While previous studies have emphasized the strategic importance in terms of retailer's total value offering of having more lenient return policies (Abdulla et al., 2019), the results from this study diverge from this perspective. The findings from this study suggest that by offering free exchanges and removing the option for customers to return for free, the number of purchased items per order still remains stable. Hence, these results provide an additional dimension to findings from previous research suggesting that lenient return policies will reduce purchasing risk (Di Fatta et al., 2018) (Rokunnuzaman, 2020), and stimulate purchase intention, as customers are able to return the products at no additional cost (Karl et al., 2022) (Janakiraman et al., 2016).

Additionally, the results reveal a significant decrease in the average number of returned items and the proportion of orders containing a return during the period of exclusively offering free exchanges, yielding positive net volume effects. Research conducted by Petersen and Kumar (2010) finds that both purchases and returns decrease with less lenient return policies. The results of this study partially supports these findings as the volume of returns on a per order basis decreases without the free return option while the number of purchased items, as mentioned, remained constant. This could partly be explained by the fact that a free exchange-only policy is argued to achieve comparable *lock-in effects* as a SC/GC policy approach. When customers only are permitted to exchange items for free, they become encouraged to be more selective in their initial purchases, thereby reducing subsequent returns due to the additional imposed fee. This aligns with findings from Khouja and Hammani (2023), suggesting that retailers can afford less lenient return policies with

alternative refund options such as SC/GC. Moreover, the improved per order contribution effects resulting from the suggested *lock-in effect* further enables retailers to mitigate opportunistic return behavior. More specifically, by shifting from free returns to free exchanges, it addresses the pressing issue of *wardrobing* since the findings demonstrate that returns decrease and the average contribution is enhanced. This is also in line with Bower and Maxam (2012) who finds that return fees imposed on customers, if undertaken, could be profitable in the short-term.

Finally, previous research also proposes that lenient return policies can create enhanced value derived from customer loyalty and increased order frequency, counteracting the negative financial aspects on a per order basis related to free returns (Griffis et al., 2012; Lantz and Hjort, 2013). The present study reveals that the order frequency per customer decreased with the free exchange-only policy, indicating that conversion and loyalty may be harmed with more stringent policies. Consequently, the results present a potential trade-off between order volumes and profits per order.

5.1.2 The difference between new and returning customers on per order contribution when exclusively offering free exchanges

This section outlines the per order contribution effects and observed differences in behavior among new versus returning customers. On an aggregated level, before accounting for the impact of the policy change, it is shown that new customers have a lower average net value per order compared to returning customers, consistent with findings from Hjort and Lantz (2016). Although, going from free returns to free exchanges decreases the *return rate* and *proportion of orders containing a return* more considerably for new customers compared to returning customers, new customers are shown to generate even lower realized net sales per order compared to returning customers after the policy shift. This suggests that new customers become even less profitable, or *more unprofitable*, with a free exchange return policy.

As alluded to in the previous section, the impact of removing free returns was notably larger for new customers in terms of order and return volume. Specifically, although the correlation between purchases and returns did not align with previous findings from Petersen and Kumar (2010) on an aggregate level (section 5.1.1), it appears to be in line with behavior observed

among new customers in this study as both purchased and returned items on a per order basis decreased. This implies that new customers are more inclined to consider the additional risk imposed by stricter return policies given that they are less familiar with the company. This further aligns with findings from prior research which argues for lenient return policies to be used as a promotional tool to offset the negative effects imposed by the new customers compared to returning ones (Rokonuzzaman, 2021) (Hjort and Lantz, 2016). Subsequently, as it is shown that new customers' contribution decreases with a more stringent policy, it could be argued that there is a financial incentive for retailers to still operate with lenient free return policies. Conversely, returning customers appear less affected by the policy change, reflected by the unchanged levels of purchased and returned items per order across the two policies. What is particularly notable is that although new customers had a significantly higher number of returned items per order during the free returns policy, they reached similar levels as that of returning customers showing no significance between the two groups after the free exchange policy was implemented. Hence, the order behavior in terms of volume did not affect returning customers despite return rates decreasing while new customers were affected. A possible explanation to this can be that returning customers return cheaper products and keep the more expensive ones, meaning that less basket value is returned.

5.2 Managerial Implications

Based on the findings of this paper, practitioners within (fashion) e-commerce can gain multiple insights. For one, retailers can increase per order contribution by only offering free exchanges as revealed by the increased realized sales value per order after the policy implementation. Our results showcase that, on the aggregate level, the number of purchased items doesn’t significantly change, while the number of returned items reduces significantly. Consequently, retailers can adopt a return policy strategy where they offer free exchanges exclusively as it is shown to result in higher realized sales value per order, crucial for the already slim margins in e-commerce. In addition, our findings reveal that the proportion of orders containing a return are reduced. This implies that retailers not only can reduce the associated handling costs and shipping fees but also their overall environmental impact, ultimately enhancing contribution per order and mitigating carbon footprint. Notably, the results reveal a positive effect on contribution per order, even before accounting for the reduction of associated costs of the return. Hence, incorporating both the effects of customer

behavior with the reductions of costs, the net contribution effect can be even larger than revealed in this paper.

However, all customer groups aren't identical and contribution per order may not be the primary metric of success for a firm with growth ambitions. Retailers should recognize that new customers can experience a more considerable change in purchase behavior compared to returning customers. Returning customers did not experience any significant change in purchase or post-purchase behavior with stable levels in the number of purchased and returned items across both policy types. With this in consideration, retailers can anticipate an increased contribution per order for returning customers but new customers becoming even more unprofitable after the policy shift. This since new customers are argued to be borne by additional risk, as reflected by their tendency to purchase fewer products. Therefore, organizations should consider adopting a segmented return policy approach to encourage purchases for new customers while mitigating the financial and environmental costs of returns. This could, for instance, be achieved by offering first time customers a free return voucher for their first order, utilizing the potential long-term benefits of reducing purchasing risk for new customers while allowing the firm to capture the higher realized value for returning customers. This way, firms facilitate growth by mitigating the barrier to purchase for new customers and increasing the likelihood of converting the segment to returning and more profitable customers in the long run.

5.3 Limitations & Suggestions for Future Research

The findings of this study pertains to the contribution per order on a total level and on new versus returning customers after shifting to the free exchange-only policy. The study also included tests on order frequency with the aim of capturing loyalty patterns. However, because the data only spans five months, it may provide a too short window to accurately capture the real repeat purchasing behavior suggesting a limitation to the insight provided in the results of this report. Thus, to comprehensively analyze the impact of moving away from free returns, additional research could investigate a longer time period and also incorporate other metrics of customer loyalty such as Net Promoter Score (NPS), Repeat Purchase Rate (RPR), Customer Lifetime Value (CLV) or any other measure that is deemed appropriate to capture loyalty aspects.

Moreover, as the study analyzes a Swedish online fashion retailer operating selling clothes in multiple countries in Europe and North America, one limitation of this thesis is the potential differences across markets that are not currently accounted for. There could be different inflation levels and purchase behavior across customers in different countries which could impact the generalizability of the findings.

Further, our study predominantly concerns male customers from one specific retailer. Extending this research and conducting a similar experiment at a female dominant retailer or both could provide a more holistic understanding of the dynamics at play. This could provide further guidance to practitioners in how to set optimal return policies and if such policies should be adapted to the type of collection customers shop.

Another limitation to this paper is that the dependent variable net value per order used in the regression model will always per definition be positive. Consequently, this can generate skewness and heteroscedasticity which can significantly impact and bias the interpretation of the results.

A further limitation of this paper is the absence of certain control variables that could cause omitted variable biases in the interpretability of the results. Although considering all potential factors can be difficult, the regression could have included purchased items per order or returned items per order to provide a more comprehensive understanding of the factors influencing net value per order. The previously mentioned effects of inflation and sales promotions or marketing efforts could also have potentially influenced the results.

Finally, although this study provides valuable insights for both academics and practitioners, it is vital to recognize that there can be multiple factors influencing the financial metrics analyzed in this paper other than the policy change itself. Hence, more research is required to further validate the results of this study. Future studies could examine the roles of economic fluctuations on consumers' budget constraints, the dynamics of the competitive landscape and how other retailer’s return policies might influence an inherent policy shift. Additionally, this paper has analyzed an online Swedish fashion retailer in the middle- to upper-range price tier. Capturing other moderating variables such as product quality and brand image perceptions on the financial metrics examined in this paper would add further depth and nuance to the findings and extend the applicability of the insights across different types of retailers.

5.4 Conclusion

This study has investigated the effects on multiple financial metrics of a Swedish online fashion retailer going from free returns and exchanges to a return policy exclusively offering free exchanges. Empirical evidence is found showcasing that per order contribution significantly increases by going away from free returns as the universal return policy. Breaking the effects down in the key drivers analyzed on an aggregate level: the number of returned items per order, return rate, proportion of orders containing a return and order frequency all significantly decreased while the number of purchased items per order remained stable with both policy types. Consequently, it was found that retailers can improve per order contribution, simply through the behavioral change of the customers now bearing the return costs, even without accounting for the additional savings stemming from the reduction of shipping and handling costs. However, a universally applicable return policy for all customers may not be the most optimal solution to reduce fraudulent returns while simultaneously ensuring profitability and attracting new customers. With this understanding, we also conclude that retailers should adopt a tailored return policy approach to reducing risk for first time purchases of new customers, potentially facilitating their transition into more profitable, returning customers.

Bibliography

Abdulla, H., Abbey, J. D., & Ketzenberg, M. (2022). How consumers value retailer's return policy leniency levers: An empirical investigation. Production and Operations Management, 31(4), 1719–1733. https://doi.org/10.1111/POMS.13640

Abdulla, H., Ketzenberg, M., & Abbey, J. D. (2019). Taking stock of consumer returns: A review and classification of the literature. Journal of Operations Management, 65(6), 560–605. https://doi.org/10.1002/JOOM.1047

Akturk, M. S., Ketzenberg, M., & Yıldız, B. (2021). Managing consumer returns with technology-enabled countermeasures. Omega, 102, 102337. https://doi.org/10.1016/J.OMEGA.2020.102337

Alifieris, C. E., Souferi-Chronopoulou, E., Trafalis, D. T., & Arvelakis, A. (2020). The arbitrary magic of p<0.05: Beyond statistics. JBUON, 25(2), 588–593.

Anderson, E. T., Hansen, K., & Simester, D. (2009). The option value of returns: Theory and empirical evidence. Marketing Science, 28(3), 405–423. https://doi.org/10.1287/MKSC.1080.0430/SUPPL_FILE/MKSC.1080.0430-SM-TECHNICAL_APPENDIX.PDF

Bonifield, C., Cole, C., & Schultz, R. L. (2010). Product returns on the Internet: A case of mixed signals? *Journal of Business Research*, *63*(9–10), 1058–1065. https://doi.org/10.1016/J.JBUSRES.2008.12.009

Bower, A. B., & Maxham, J. G. (2012). Return Shipping Policies of Online Retailers: Normative Assumptions and the Long-Term Consequences of Fee and Free Returns. Https://Doi.Org/10.1509/Jm.10.0419, 76(5), 110–124. https://doi.org/10.1509/JM.10.0419

CNN (2023). *Free returns are going away.* Available at: https://edition.cnn.com/2023/12/26/business/returns-shopping-gifts-charge/index.html (Accessed: 05-02-24)

Constantinides, E. (2004). Influencing the online consumer's behavior: The Web experience. *Internet Research*, *14*(2), 111–126. https://doi.org/10.1108/10662240410530835

Dailey, L. C., & Ülkü, M. A. (2018). Retailers beware: On denied product returns and consumer behavior. *Journal of Business Research*, *86*, 202–209. https://doi.org/10.1016/j.jbusres.2018.01.064

d'Astous, A., & Guèvremont, A. (2008). Effects of retailer post-purchase guarantee policies on consumer perceptions with the moderating influence of financial risk and product complexity. *Journal of Retailing and Consumer Services*, *15*(4), 306–314. https://doi.org/10.1016/J.JRETCONSER.2007.06.005

di Fatta, D., Patton, D., & Viglia, G. (2018). The determinants of conversion rates in SME e-commerce websites. *Journal of Retailing and Consumer Services*, *41*, 161–168. https://doi.org/10.1016/J.JRETCONSER.2017.12.008

Fan, H., Khouja, M., & Zhou, J. (2022). Design of win-win return policies for online retailers. *European Journal of Operational Research*, *301*(2), 675–693. https://doi.org/10.1016/J.EJOR.2021.11.030

Griffis, S. E., Rao, S., Goldsby, T. J., & Niranjan, T. T. (2012). The customer consequences of returns in online retailing: An empirical analysis. *Journal of Operations Management*, *30*(4), 282–294. https://doi.org/10.1016/J.JOM.2012.02.002

Heiman, A., McWilliams, B., & Zilberman, D. (2001). Demonstrations and money-back guarantees: market mechanisms to reduce uncertainty. *Journal of Business Research*, *54*(1), 71–84. https://doi.org/10.1016/S0148-2963(00)00181-8

Hjort, K., & Lantz, B. (2016). The impact of returns policies on profitability: A fashion e-commerce case. *Journal of Business Research*, *69*(11), 4980–4985. https://doi.org/10.1016/J.JBUSRES.2016.04.064

Janakiraman, N., Syrdal, H. A., & Freling, R. (2016). The Effect of Return Policy Leniency on Consumer Purchase and Return Decisions: A Meta-analytic Review. *Journal of Retailing*, *92*(2), 226–235. https://doi.org/10.1016/J.JRETAI.2015.11.002

Jeng, S. P. (2017). Increasing customer purchase intention through product return policies: The pivotal impacts of retailer brand familiarity and product categories. *Journal of Retailing and Consumer Services*, *39*, 182–189. https://doi.org/10.1016/j.jretconser.2017.08.013

Karl, D., Vornberger, K., & Asdecker, B. (2022). Return Policy Leniency Impacting Customers' Purchase Intention-A Viable Strategy for E-Tailers. Available at: https://proceedings.emac-online.org/pdfs/R2022-111790.pdf

Ketzenberg, M. E., Abbey, J. D., Heim, G. R., & Kumar, S. (2020). Assessing customer return behaviors through data analytics. Journal of Operations Management, 66(6), 622–645. https://doi.org/10.1002/JOOM.1086

Khouja, M., & Hammami, R. (2023). Optimizing price, order quantity, and return policy in the presence of consumer opportunistic behavior for online retailers. *European Journal of Operational Research*, *309*(2), 683–703. https://doi.org/10.1016/J.EJOR.2023.01.035

Lantz, B., & Hjort, K. (2013). Real e-customer behavioural responses to free delivery and free returns. *Electronic Commerce Research*, *13*(2), 183–198. https://doi.org/10.1007/S10660-013-9125-

Lee, D. H. (2015). An Alternative Explanation of Consumer Product Returns from the Postpurchase Dissonance and Ecological Marketing Perspectives. Psychology & Marketing, 32(1), 49–64. https://doi.org/10.1002/MAR.20757

Ludbrook, J. (2013). Should we use one-sided or two-sided P values in tests of significance? *Clinical and Experimental Pharmacology & Physiology*, *40*(6), 357–361. https://doi.org/10.1111/1440-1681.12086

McKinsey (2021). *Returning to order: Improving returns management for apparel companies.* Available at: https://www.mckinsey.com/industries/retail/our-insights/returning-to-order-improving-returns-management-for-apparel-companies (Accessed: 24/04-24)

Mukhopadhyay, S. K., & Setaputra, R. (2007). A dynamic model for optimal design quality and return policies. *European Journal of Operational Research*, *180*(3), 1144–1154. https://doi.org/10.1016/J.EJOR.2006.05.016

National Retail Federation (2023). *2023 Consumer Returns in the Retail Industry.* Available at: https://cdn.nrf.com/sites/default/files/2024-01/2023%20Consumer%20Returns%20in%20the%20Retail%20Industry.pdf (Accessed: 15/03-24)

Oghazi, P., Karlsson, S., Hellström, D., & Hjort, K. (2018). Online purchase return policy leniency and purchase decision: Mediating role of consumer trust. *Journal of Retailing and Consumer Services*, *41*, 190–200. https://doi.org/10.1016/J.JRETCONSER.2017.12.007

Pei, Z., Paswan, A., & Yan, R. (2014). E-tailer's return policy, consumer's perception of return policy fairness and purchase intention. *Journal of Retailing and Consumer Services*, *21*(3), 249–257. https://doi.org/10.1016/J.JRETCONSER.2014.01.004

Petersen, J. A., & Kumar, V. (2010). Can Product Returns Make You Money? MIT Sloan Management Review; Cambridge Vol. 51, Iss. 3, (Spring 2010): 85-89. https://www.proquest.com/docview/224958221?sourcetype=Scholarly%20Journals

Petersen, J. A., & Kumar, V. (2015). Perceived risk, product returns, and optimal resource allocation: Evidence from a field experiment. *Journal of Marketing Research*, *52*(2), 268–285. https://doi.org/10.1509/jmr.14.0174

Powerreviews (2023). *Why Do Shoppers Return Purchases, and How Can Brands and Retailers Reduce Returns.* Available at: https://www.powerreviews.com/reduce-returns/ (Accessed: 06/05-24)

Reinartz, W. J., & Kumar, V. (2003). The impact of customer relationship characteristics on profitable lifetime duration. Journal of Marketing, 67(1), 77–99. https://doi.org/10.1509/JMKG.67.1.77.18589

Retail Times (2024). *E-commerce vs. brick and mortar: pros and cons.* Available at: https://retailtimes.co.uk/e-commerce-vs-brick-and-mortar-pros-and-cons/ (Accessed: 08/05-24)

Rokonuzzaman, M., Iyer, P., & Harun, A. (2021). Return policy, No joke: An investigation into the impact of a retailer's return policy on consumers' decision making. *Journal of Retailing and Consumer Services*, *59*, 102346. https://doi.org/10.1016/J.JRETCONSER.2020.102346

Santos, G. R. dos, Koromyslova, E., Santos, G. R. dos, & Koromyslova, E. (2020). A Review on Returnless Refunds in E-Commerce Retailing: Sales through Leniency. *IBusiness*, *12*(2), 69–80. https://doi.org/10.4236/IB.2020.122005

Shang, G., Ghosh, B. P., & Galbreth, M. R. (2017). Optimal Retail Return Policies with Wardrobing. *Production and Operations Management*, *26*(7), 1315–1332. https://doi.org/10.1111/POMS.12690

Shang, G., Pekgün, P., Ferguson, M., & Galbreth, M. (2017). How much do online consumers really value free product returns? Evidence from eBay. *Journal of Operations Management*, *53–56*, 45–62. https://doi.org/10.1016/J.JOM.2017.07.001

Shao, B., Cheng, Z., Wan, L., & Yue, J. (2021). The impact of cross border E-tailer's return policy on consumer's purchase intention. *Journal of Retailing and Consumer Services*, *59*, 102367. https://doi.org/10.1016/J.JRETCONSER.2020.102367

Shopify (2024). *13 Ecommerce Challenges and How To Overcome Them.* Available at: https://www.shopify.com/blog/ecommerce-challenges (Accessed: 07/05-24)

Statista (2023). *Retail e-commerce sales worldwide from 2014 to 2027.* Available at: https://www.statista.com/statistics/379046/worldwide-retail-e-commerce-sales/ (Accessed: 15/03-24)

Suwelack, T., Hogreve, J., & Hoyer, W. D. (2011). Understanding Money-Back Guarantees: Cognitive, Affective, and Behavioral Outcomes. *Journal of Retailing*, *87*(4), 462–478. https://doi.org/10.1016/J.JRETAI.2011.09.002

THECUT (2024). *You Could Get Banned for Abusing ASOS, SSENSE Return Policy*. Available at: https://www.thecut.com/article/asos-ssense-return-policies-online-shopping-bans.html (Accessed: 06/05-24)

Wang, Y., Anderson, J., Joo, S. J., & Huscroft, J. R. (2019). The leniency of return policy and consumers' repurchase intention in online retailing. *Industrial Management and Data Systems*, *120*(1), 21–39. https://doi.org/10.1108/IMDS-01-2019-0016

Wood, S. L. (2001). Remote purchase environments: The influence of return policy leniency on two-stage decision processes. *Journal of Marketing Research*, *38*(2), 157–169. https://doi.org/10.1509/jmkr.38.2.157.18847

Zumstein, D., & Kotowski, W. (2020). SUCCESS FACTORS OF E-COMMERCE – DRIVERS OF THE CONVERSION RATE AND BASKET VALUE. 43–50. https://doi.org/10.33965/ES2020_202005L006

Appendix A: Mean Acronyms in the independent sample-test and One-Way ANOVA test

Hypothesis	Metric	MVariable	Definition
1	Purchased Items	MPIP1 MPIP2	Mean of Purchased Items Period 1 & Period 2
1	Purchased Items	MNEWPP1 MNEWPP2	Mean of New Customers' Purchased Items in Period 1 & Period 2
1	Purchased Items	MRETPP1 MRETPP2	Mean of Returning Customers' Purchased Items in Period 1 & Period 2
2	Returned Items	MRIP1 MRIP2	Mean of Returned Items Period 1 & Period 2
2	Returned Items	MNEWRP1 MNEWRP2	Mean of New Customers' Returned Items in Period 1 & Period 2
2	Returned Items	MRETRP1 MRETRP2	Mean of Returning Customers' Returned Items in Period 1 & Period 2
3	Proportion of orders containing a return	MPP1 MPP2	Mean of Proportion of orders containing a return Period 1 & Period 2
4	Order Frequency	MOFP1 MOFP2	Mean of Order Frequency Period 1 & Period 2
5	Return Rate	MRROVP1 MRROVP2	Mean of Return Rate Order Value Period 1 & Period 2
5	Return Rate	MNEWRRP1 MNEWRRP2	Mean of New Customers' Return Rate in Period 1 & Period 2
5	Return Rate	MRETRRP1 MRETRRP2	Mean of Returning Customers' Return Rate in Period 1 & Period 2

Table 21: Consolidated Definitions of Mean Acronyms for Each Variable Tested

Appendix B: Expanded Tables of One-Way ANOVA-tests

(i.) Expanded One-Way ANOVA-table for Number of Purchased Items

Number of Purchased Items	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2118.142	3	706.047	256.616	<0.001***
Within Groups	211638.836	76921	2.751		
Total	213756.978	76924			

Note: Significance at *p < 0.10, **p < 0.05, and ***p < 0.001.

(ii.) Expanded One-Way ANOVA-table for Number of Returned Items

Number of Returned Items	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	72.025	3	24.008	15.479	<0.001***
Within Groups	119303.147	76921	1.551		
Total	119375.172	76924			

Note: Significance at *p < 0.10, **p < 0.05, and ***p < 0.001.

(iii.) Expanded One-Way ANOVA-table for Return Rate

Return Rate	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	34.882	3	11.627	65.043	<0.001***
Within Groups	13744.085	76884	0.179		
Total	13778.967	76887			

Note: Significance at *p < 0.10, **p < 0.05, and ***p < 0.001.

(iiii.) Expanded One-Way ANOVA-table for Proportion of orders containing a return

Proportion of orders containing a return	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18.049	3	6.016	27.416	<0.001***
Within Groups	16879.850	76921	0.219		
Total	16897.899	76924			

Note: Significance at *p < 0.10, **p < 0.05, and ***p < 0.001.

AI Disclaimer

What AI tools have been used and how.

In this paper, Chat GPT 4 and 3.5 has been utilized as a grammar tool. No text, data, sources or any other form of content has been produced by Chat GPT or any other Artificial Intelligence tool. Instead, it has solely been utilized for suggestions for better use of words and phrasing. The produced output from Chat GPT has not been included in the paper, but has been utilized as inspiration by the authors to improve the text.

In what ways have these tools contributed to increasing the quality of the thesis?

With the help of providing new suggestions for synonyms of frequently used terms and formulating new ways of structuring sentences, Chat GPT has subsequently facilitated the coherence and flow of the text throughout the paper, ultimately providing the reader with a more clear and structured report.

What potential risks were found using AI and what measures were taken to reduce these risks?

As the sole use-case of AI in this paper has been linguistic improvements, the authors have mitigated the risk of discrediting the paper as their own work by not including any output in the paper, but solely taking inspiration for improvements.

What are the insights gained from using AI tools in the thesis writing process?

Utilizing Chat GPT as a grammar tool has provided and given the authors new perspectives on how to structure and formulate sentences and how substituting frequently used terms can help reduce repetitiveness throughout the text.