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Doctoral Thesis

Academic and Practical Considerations for Ecommerce Returns Management: Critical Issues and Management Approaches

Changyuan Feng

Programa de Doctorado en Ciencias Económicas y Empresariales

UNIVERSIDAD DE GRANADA

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by
Changyuan Feng

Supervisor
Prof. Francisco J. Martínez-López

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Autor: Changyuan Feng
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Abstract

E-commerce has transformed the retail industry. It plays an increasingly important role in the world economy and is seen as the engine of future global economic growth. E-commerce is characterized by high return rates. With the rise of e-commerce activities, e-commerce returns have been a common phenomenon. How online sellers manage product returns is critical to their success and the future of e-commerce. This thesis focused on three critical issues related to e-commerce returns management and studied the return management approaches as possible solutions to mitigate these issues. First, offering the consumer a satisfactory return experience is critical to an online seller's success. However, little is known about how the online return experience can be improved. This thesis examines whether providing consumers with an instant refund service can increase their satisfaction with the return experience. To obtain a comprehensive view of the outcomes of using an instant refund service, this thesis also studied the effects of an instant refund on several important consumer responses. Second, relationships with consumers are of great importance to online sellers. Online returns can detrimentally influence buyer–seller relationships. Therefore, online sellers need to know how to restore their relationship with consumers. This thesis studies how online sellers can approach the method and the fee aspects of their return shipping policy to repair the relationships. Third, the existing packed mail-based return mode used in e-commerce has a considerable negative impact on the natural environment. It is imperative to take measures to avoid its negative influence on the natural environment. On the contrary, a package-free return mode is more eco-friendly. This thesis studied key factors in green communication that affect consumers switching from mail return services to package-free return services. Three essays focusing on addressing these issues are included in this thesis. The between-subject experiments and the online survey were conducted to study the issues. The result shows that an instant refund service improves consumer online return experiences and other pivotal consumer responses. In terms of potential side-effects, instant refunds are not significantly associated with stronger product return intentions. Both using an integrated return

shipping method and offering free return shipping can lead to a better buyer–seller relationship and improve other consumer responses. No interaction effect on the consumer responses was found between the return shipping method and the return shipping fee. It has been also found that consumer dissatisfaction and mail return habit only manifested weak effects on consumers' intention to switch from mail return services to package-free return services. Green value has a much weaker impact on switching intention than service convenience. Service convenience was found to be the key factor in green communication. The theoretical contributions of this thesis on the e-commerce returns management literature were discussed. Managerially, the research findings of this thesis can help online sellers decide whether to evolve their conventional refund mode to a new instant refund mode, design their return shipping policies and promote their package-free return service, in order to mitigate the critical issues in their e-commerce returns management.

Keywords

E-commerce returns; Online return experiences; Buyer–seller relationship; Green e-commerce; Instant refund service; Return shipping policy; Package-free return mode; Return intention; Re-purchase intention

Resumen

El comercio electrónico ha transformado la industria minorista. Desempeña un papel cada vez más importante en la economía mundial y se considera el motor del futuro crecimiento económico mundial. El comercio electrónico se caracteriza por altas tasas de retorno. Con el auge de las actividades de comercio electrónico, las devoluciones de comercio electrónico han sido un fenómeno común. La forma en que los vendedores en línea gestionan las devoluciones de productos es fundamental para su éxito y el futuro del comercio electrónico. Esta tesis se centró en tres problemas críticos relacionados con la gestión de devoluciones de comercio electrónico y estudió los enfoques de gestión de devoluciones como posibles soluciones para mitigar estos problemas. En primer lugar, ofrecer al consumidor una experiencia de devolución satisfactoria es fundamental para el éxito de un vendedor en línea. Sin embargo, se sabe poco sobre cómo se puede mejorar la experiencia de devolución en línea. Esta tesis examina si brindar a los consumidores un servicio de reembolso instantáneo puede aumentar su satisfacción con la experiencia de devolución. Para obtener una visión integral de los resultados del uso de un servicio de reembolso instantáneo, esta tesis también estudió los efectos de un reembolso instantáneo en varias respuestas importantes de los consumidores. En segundo lugar, las relaciones con los consumidores son de gran importancia para los vendedores en línea. Las devoluciones en línea pueden influir negativamente en las relaciones comprador-vendedor. Por lo tanto, los vendedores en línea necesitan saber cómo restaurar su relación con los consumidores. Esta tesis estudia cómo los vendedores en línea pueden abordar el método y los aspectos de tarifa de su política de envío de devolución para reparar las relaciones. En tercer lugar, el modo de devolución basado en correo empaquetado existente que se utiliza en el comercio electrónico tiene un impacto negativo considerable en el medio ambiente natural. Es imperativo tomar medidas para evitar su influencia negativa sobre el entorno natural. Por el contrario, un modo de devolución sin paquete es más ecológico. Esta tesis estudió los factores clave en la comunicación ecológica que afectan a los consumidores que cambian de servicios de devolución de correo a servicios de devolución sin paquete. En

esta tesis se incluyen tres ensayos centrados en abordar estos temas. Los experimentos entre sujetos y la encuesta en línea se realizaron para estudiar los problemas. El resultado muestra que un servicio de reembolso instantáneo mejora las experiencias de devolución en línea de los consumidores y otras respuestas fundamentales de los consumidores. En términos de posibles efectos secundarios, los reembolsos instantáneos no están significativamente asociados con intenciones de devolución de productos más fuertes. Tanto el uso de un método de envío de devolución integrado como la oferta de envío de devolución gratuito pueden conducir a una mejor relación entre el comprador y el vendedor y mejorar las respuestas de otros consumidores. No se encontró ningún efecto de interacción en las respuestas de los consumidores entre el método de envío de devolución y la tarifa de envío de devolución. También se encontró que la insatisfacción del consumidor y el hábito de devolución de correo solo manifestaron efectos débiles en la intención de los consumidores de cambiar de los servicios de devolución de correo a los servicios de devolución sin paquete. El valor verde tiene un impacto mucho más débil en la intención de cambio que la conveniencia del servicio. Se descubrió que la conveniencia del servicio es el factor clave en la comunicación ecológica. Se discutieron las contribuciones teóricas de esta tesis sobre la literatura de gestión de devoluciones de comercio electrónico. Desde el punto de vista de la gestión, los resultados de la investigación de esta tesis pueden ayudar a los vendedores en línea a decidir si evolucionan su modo de reembolso convencional a un nuevo modo de reembolso instantáneo, diseñar sus políticas de envío de devolución y promover su servicio de devolución sin paquete, a fin de mitigar los problemas críticos en su gestión de devoluciones de comercio electrónico.

Chapter 1. General Introduction

1.1 The Role of E-commerce in the World Economy

Electronic commerce (e-commerce) has transformed the way of exchange in the past (Ikenson, 2022; Pasquali, 2023). It has largely changed how consumers behave and how companies conduct business. E-commerce can be viewed as the exchanges of products or services through computer networks by measures designed for this particular purpose (Ahi et al., 2023).

The history of e-commerce can be traced back to the last century. In 1982, Boston Computer Exchange launched the first online marketplace (Vielma, 2023). However, the influential e-commerce marketplaces like Amazon and eBay did not emerge until the 1990s (Vielma, 2023). E-commerce began to develop as the new technologies in the 1990s transformed the Internet into a commercial environment (Rosário and Raimundo, 2021).

E-commerce can provide several benefits to consumers. First, e-commerce is convenient and time-saving for consumers since it allows them to explore products and make purchases without having to travel to a bricks-and-mortar store (Jain et al., 2021). Second, e-commerce has great flexibility, as consumers may be able to shop online anytime (Urne and Aggrawal, 2016). Third, online consumers can access an enormous amount of information on products and services and a huge number of available sellers, and as a result, they can avail of extended offers in e-commerce (Rosário and Raimundo, 2021). Fourth, e-commerce allows consumers to buy and sellers to sell from anywhere in the world. Thus, more products would be available to consumers in e-commerce (Jain et al., 2021). When a product is not available in the local market, consumers may be able to find and purchase it through e-commerce.

As e-commerce evolves, it seems to be more appealing to consumers. Recommendation systems in e-commerce could recommend a particular consumer the items that are the most pertinent to the consumer (Rosário and Raimundo, 2021). Also,

customer review systems enable new consumers to see the reviews from the customers who have bought the product, which can help the new consumers make the right purchase. In addition, online sellers use increasingly cheaper and faster delivery methods to differentiate themselves from competitors in the market, which makes e-commerce more convenient and cost-saving for consumers (Tokar et al., 2021). Recently, free 2-day delivery has become common, and e-commerce giants like Amazon and Walmart are pushing toward free 1-day or even the same-day delivery (Tokar et al., 2021).

Because e-commerce provides consumers with many benefits, it could attract consumers to use it. Also, as people are accustomed to doing their daily activities on the Internet, online shopping has become popular among consumers (Tokar et al., 2021).

Although it is less than half a century since the first online marketplace was launched, e-commerce sales have been dramatically expanding, with annual worldwide e-commerce sales exceeding USD 5 trillion (Vielma, 2023). In the past years, even before the COVID-19 lockdowns, e-commerce was growing steadily and swiftly. In 2014, global retail e-commerce sales amounted to approximately USD 1.336 trillion (Chevalier, 2022). The e-commerce sales grew by 123.20% over the following years, reaching about 2.982 trillion dollars by 2018 (Chevalier, 2022). In 2018, the e-commerce sales in the U.S. were over USD 519 billion, increasing by 13.2% from the previous year and over 200% since 2010 (U.S. Census Bureau, 2020). The trend toward e-commerce has been significantly accelerated by the pandemic (Kim, 2020). In 2022, the worldwide e-commerce sales increased to USD 5.542 trillion (eMarketer, 2022). This figure is forecast to continue to grow in the coming years, reaching around USD 8.1 trillion by 2026 (Chevalier, 2022). In 2022, e-commerce sales were relatively high in the regions of Asia-Pacific, North America, and Western Europe, but relatively low in the other regions of the world (for details on e-commerce sales in the different regions, see eMarketer, 2022).

Also, e-commerce has become an indispensable part of global retail and is likely to account for a steadily growing portion of retail sales. In 2022, retail e-commerce

sales have accounted for 20.3% of overall retail sales, while they are expected to increase to 21.5% of total retail sales by 2023 and to 23.6% by 2025 (eMarketer, 2022). It was estimated that there were in total 2.56 billion digital buyers worldwide in 2022 (eMarketer, 2022). Nowadays, many U.S. consumers have been accustomed to shopping online. It is predicted that the U.S. e-commerce market will reach over USD 1.1 trillion in sales in 2023, which represents 16.4% of retail purchases in the U.S. in 2023 (Baluch and Main, 2023).

As e-commerce has grown significantly in the last few years, some e-commerce giants have emerged. In 2021, Amazon, the largest e-commerce company in the U.S. and in the world, have USD 469.82 billion in revenue (Kiniulis, 2022). JD.com and Alibaba, the two largest e-commerce companies in China, had revenues of USD 149.32 billion and USD 109.48 billion respectively in 2021 (Kiniulis, 2022). Many well-known traditional bricks-and-mortar retailers, including Walmart, have successfully integrated e-commerce into their offerings (Vielma, 2023).

It seems that e-commerce will continue to grow in the long term. On the online seller side, the improvements in everything from digital payments to supply chain and fulfillment capabilities are likely to improve the consumer online shopping experience and thus may change consumer behavior, which could further boost the growth of e-commerce (Morgan Stanley, 2022). The rise of internet usage and connectivity (especially in emerging markets), the increase in mobile device ownership, and the marketplace expansion are also driving e-commerce growth (Morgan Stanley, 2022).

To summarize, e-commerce not only has transformed the retail industry, but also plays an increasingly important role in the world economy. It is also an engine of future global economic growth.

1.2 The Status Quo of E-commerce Returns

E-commerce is characterized by massive product returns. In 2022, retail e-commerce sales worldwide amounted to USD 5.542 trillion (eMarketer, 2022). Meanwhile, at least 30% of all e-commerce orders are returned to the sellers, compared to just 8.89% of

physical store sales (Rudolph, 2016). As global e-commerce sales are forecast to continue growing over the next few years (Chevalier, 2022), it is foreseeable that e-commerce returns will keep increasing during this period. In 2021, U.S. e-commerce returns reached USD 218 billion (Appriss Retail, 2022). During the 2021 holiday season alone, online consumers returned an estimated USD 66.7 billion worth of products (CBRE, 2021). In Germany, around 1 in 4 online purchased products in 2021 ended up being returned to the retailer (Gowans, 2022). It is projected that approximately 530 million return packages with around 1.3 billion items were transported in Germany in that year (Gowans, 2022).

Different product categories have various online return rates. Among the four most purchased products in e-commerce, apparel, and consumer electronics have return rates of over 40%, while the return rates for entertainment and health/beauty products exceed 20% (Sabanoglu, 2020; Charlton and Ward, 2021). For some product categories, the return rates are much lower but still significant. About 7% of food and 5% of furniture purchased online were returned (Mayfield, 2021).

Several factors could contribute to e-commerce returns. On one hand, like consumers in bricks-and-mortar stores, online consumers may return the items just because they regret buying them. Consumers may also return the online purchased product because they found a better deal from another seller or a more appealing alternative. On the other hand, some return reasons are associated with the characteristics of e-commerce. Unlike in a traditional bricks-and-mortar store, in the e-commerce context, consumers cannot inspect products personally and physically when shopping online (Heuer et al., 2015). As a result, consumers may lack some key product information (e.g., tactile information) when evaluating a product and making a purchase decision (Flavián et al., 2016). Some technical factors like monitor display settings may cause discrepancies between the appearance of products on e-commerce sites and their actual appearance. In the e-commerce context, due to the inability to personally access products, consumers may purchase and then receive products that may not meet their pre-delivery expectations, resulting in consumer dissatisfaction with the products as

well as their product return behaviors (Heuer et al., 2015). In addition, unlike in traditional bricks-and-mortar stores, sellers and consumers in e-commerce are not in the same location. Therefore, online sellers need to mail the products to the consumers after the consumers placed the order. During an order fulfillment process, the seller may send a wrong item, and the delivery company may break it during transportation, which may also cause in product returns.

From the perspective of online consumers, they return online purchased products for different reasons. Some products are returned by consumers due to product defects such as poor product quality. Consumers also return some products due to online sellers' poor fulfillment services. For instance, consumers are very likely to return products that were damaged in transit. When the delivery is delayed, consumers may return the product because they may no longer need it. Consumers may also return the item when the online seller sent the wrong item. Notably, a considerable proportion of e-commerce returns was due to consumer satisfaction-related reasons (Li and Choudhury, 2021). Previous consumer studies have shown that these returns account for over 60% of total e-commerce returns (Narvar, 2019; Dopson, 2021). E-commerce returns can occur because the item does not fit, or the consumer does not like the product completely even though it fits very well, or simply because the consumer changed the mind (Martínez-López et al., 2022). E-commerce returns because of such reasons can be considered as satisfaction-related returns (Martínez-López et al., 2022).

Online sellers may be able to prevent e-commerce returns for the reasons related to product defects or poor fulfillment services, in order to reduce their negative impacts (Stock et al., 2006). However, consumer satisfaction-related e-commerce returns are significant now and appear to be an inevitable part of e-commerce (Yang et al., 2017; Narvar, 2019; Dopson, 2021).

In a nutshell, e-commerce returns have been a common phenomenon. They seem to always be a significant part of e-commerce.

1.3 E-commerce Returns Management

E-commerce returns management refers to the process of handling online purchased products that are returned by consumers, from a consumer initiating a return request to the online seller issuing the refund, including the online sellers' all policies and activities related to e-commerce returns, reverse logistics, gatekeeping, and avoidance (Rogers et al., 2002).

Currently, the most common option used in e-commerce to make returns is mail return (Narvar, 2017; Mazareanu, 2019). A consumer study showed that more than 70% of the respondents returned their online purchases by mail (Narvar, 2018). For sellers, the operational steps in a mail return process include receiving the return request, routing the return, receiving the return, gatekeeping, selecting the disposition for the merchandise, and then processing the refunds (Griffis et al., 2012). To mail the returned product, the consumer can drop off the item at the return locations designated by the sellers, or use pick up methods. A mail return process is performed jointly by the consumer, the transportation service provider (physically moving the item), and the seller. In some cases, online sellers cooperate with third-party bricks-and-mortar stores to use the stores as return locations, so the third-party stores may also participate in the mail return process.

With the rise of omni-channel retailing, more and more sellers enable their consumers to directly return products purchased online to their local bricks-and-mortar stores, rather than just being able to use a mail service to ship the products to the sellers' return addresses. This 'buy online, return in-store' mode allows consumers to make returns at a convenient location and time and receive immediate credit for returned products (Mahar and Wright, 2017).

For management purposes, online sellers could use return management approaches to influence the consumers. The return management approaches include return policies, return services, and other return management practices. Return policies are the rules made by the online seller for product returns. For example, previous studies have found

that online sellers could use a restrictive return policy such as a return credit policy to reduce their product returns (Martínez-López et al., 2022). Besides, Mollenkopf et al. (2007) found online sellers could improve their recovery responsiveness, increase their levels of compensation, and enhance the ease of contact to positively influence customers' perceptions of the service quality of the return transaction, in order to increase their satisfaction with the experience and intention to repurchase from them.

To conclude, online sellers can use approaches such as return policies, return services, or other return management practices for e-commerce returns management for their management purposes.

1.4 Three Critical Issues in E-commerce Returns Management

1.4.1 Improving online return experiences

It is of great importance for online sellers to offer a satisfactory return experience to their consumers. Globally, 73% of online consumers expressed that the overall returns experience has an influence on their likelihood of repurchasing from the retailer, and 68% of online consumers claimed that returns experience affects their overall perceptions of the retailer (UPS, 2019). Moreover, 95% of consumers said a negative return experience would make them less likely to purchase in the future (Cooney, 2019). On the contrary, 96% of online buyers would repurchase from an online seller based on a positive return experience (Narvar, 2018), and 95% of online returners who were satisfied with their return processes were willing to purchase from the online seller again (Narvar, 2017). Previous literature has also emphasized the importance of consumer online return experience for online sellers. Moore et al. (2020) stated that a product return encounter is a moment of truth, since consumers' experiences in return processes can influence their perceptions of the seller and future behaviors toward it. Several previous studies have revealed that offering positive online return experiences can benefit online sellers (see, e.g., Petersen and Kumar, 2010; Griffis et al., 2012; Lantz and Hjort, 2013; Janakiraman et al., 2016; Y. Wang et al., 2020). It has been emphasized that the processes of online sellers handling product returns contain some

opportunities for them to recover the original service failure (Walsh and Brylla, 2017; Abdulla et al., 2019). Therefore, online sellers should seize the service recovery opportunities presented in online return processes by offering consumers a satisfactory return experience to generate profits (Mollenkopf et al., 2007).

Although there are some concerns that good return services for improving consumers' return experience could incent product return behaviors in consumers, and thus erode the profits of online sellers, Petersen and Kumar (2010) found that a satisfactory return experience can also lead to consumers' further purchases, positive referrals, and a higher seller's profit in the long term. Therefore, providing consumers with a satisfactory return experience should be part of a returns management strategy for maximizing online sellers' profits (Petersen and Kumar, 2010).

In general, offering consumers a satisfactory return experience is critical for the success of online sellers (Rao et al., 2018; Janakiraman et al., 2016). However, over two-fifths of customers are still unsatisfied with online return processes, despite the fact that online sellers have already invested in their return service to enhance consumer return experiences (Narvar, 2017; Lazar, 2019). Considering how important the consumer online return experience is to online sellers, they should further improve the return experience for consumers.

1.4.2 Restoring buyer–seller relationships damaged by e-commerce returns

The importance of developing and maintaining enduring relationships with consumers has been widely recognized and generally agreed by the marketing literature and marketing managers (Möller and Halinen, 2000; Hennig-Thurau et al., 2002; Wong et al., 2007; Zhang and Bloemer, 2008; Gilaninia et al., 2011; Menidjel et al., 2020). Möller and Halinen (2000, p. 31) maintained that buyer–seller relationships are "the core issue in relationship marketing, and in the whole marketing discipline". In e-commerce, relationships with consumers have been viewed as critical to the success of online sellers (Barnes and Hinton, 2007; Yoon et al., 2008; Walsh et al., 2010; Verma et al., 2016; Kozlenkova et al., 2017; Nawi and Al-Mamun, 2017; Steinhoff et al., 2019;

Sihotang et al., 2020; Antwi, 2021). However, it is difficult for online sellers to develop and maintain relationships with their consumers, given that online sellers rely on Internet technology to interact with their consumers in a non-face-to-face setting (Chen et al., 2008; Verma et al., 2016; Walsh et al., 2010; Steinhoff et al., 2019). Online sellers should thus pay close attention to any situation that might harm their relationship with consumers (Walsh et al., 2010; Walsh and Brylla, 2017). It should be in the strategic interest of online sellers to take effective actions to restore buyer–seller relationships when adverse events damage the relationships (Walsh et al., 2010; Walsh and Brylla, 2017).

Online returns are a common phenomenon due to large online sales and high online return rates (Rudolph, 2016; Chevalier, 2022). Online return processes are usually painful to consumers (Stock et al., 2006). Previous literature has indicated that online returns could be conceptualized as service failures because consumers who make returns are generally unsatisfied with the initial purchase experience (Mollenkopf et al., 2007; Griffis et al., 2012; Zhou, et al., 2018). Walsh and Brylla (2017) concluded that product returns could be seen as service failures because consumers appear to view online returns as an indication of the seller's ineptness. It has been proven that online returns, which are akin to service failures, can detrimentally influence an online seller's relationship with customers (Walsh and Brylla, 2017).

It is obvious that preventing e-commerce returns can prevent their negative impacts on buyer–seller relationships. Some products purchased online are returned due to product defects (e.g., poor product quality) or poor fulfillment services (e.g., damaged product in transit or delayed delivery) (Narvar, 2019). For such product returns, online sellers should sell high-quality products and allocate their resources to improve their e-commerce order fulfillment, in order to prevent such product returns as well as their negative effects on buyer–seller relationships (Stock et al., 2006). However, online returns due to consumer satisfaction-related reasons are significant now and appear to be an inevitable part of e-commerce (Yang et al., 2017; Narvar, 2019; Dopson, 2021). It has been reported that 60% of online returns are due to consumer satisfaction-

related reasons (Narvar, 2019; Dopson, 2021). Since online consumers sacrifice physical inspections of products (Difrancesco, 2018), satisfaction-related returns will always exist, even if online sellers take more measures to reduce such returns. Therefore, as satisfaction-related returns might keep damaging buyer–seller relationships for this reason, online sellers should seize service recovery opportunities in the online return process to restore the buyer–seller relationship (Griffis et al., 2012; Walsh and Brylla, 2017; Mollenkopf et al., 2007).

However, previous consumer studies have shown that about half of customers are not satisfied with their online return processes (see: Zebra, 2019; Zebra, 2021), which indicates that the sellers failed to take the opportunities in the return processes to restore their relationship with these consumers (Rintamäki et al., 2021). Thus, it is necessary to study how online sellers can restore their relationship with consumers through return management approaches.

1.4.3 Mitigating the negative impact of e-commerce returns on the environment

The natural environment is essential for the existence of human beings and the quality of life. It underpins the economy and human society. Therefore, it is of great importance for human beings to protect the natural environment.

E-commerce returns have a huge negative environmental impact (Chaleshtari, 2022). Currently, mail return is the most common option used in e-commerce returns (Narvar, 2017; Mazareanu, 2019). It has been reported that over 70% of respondents used a mail service to return their online purchases (Narvar, 2018). Even 95% of online consumers return their consumer electronics purchased online by mail (Narvar, 2017). Consumers returning by mail need to first pack the products to ensure delivery security, and then mail the packages to the sellers' return addresses. The enormous packages and transportation involved in these mail return processes can result in global resource consumption and greenhouse gas emissions (Li et al., 2021; Ivanova, 2020).

E-commerce packaging materials that consumers may use for packing the returned products in the mail return mode include papers, envelops, cartons, cardboard, plastics,

woven bags, tapes, and fillers (Chueamuangphan et al. 2020), which generates massive package waste (Chueamuangphan et al. 2020; Escursell et al. 2021). It has been revealed that 40% of consumers bought new packages for e-commerce returns (Happy Returns, 2020). The total value of the global retail e-commerce packaging market was about USD 19.02 billion in 2019; this figure is projected to reach about USD 68.39 billion by 2030 (Research and Markets, 2021). The enormous packages consume resources on the planet, thus damaging the ecological environment. Also, return shipments can cause considerable greenhouse gas emissions, which is threatening the natural environment (Optoro, 2020). In the U.S., returns shipping in e-commerce creates 16 million metric tons of greenhouse gas emissions in total in 2020 (Optoro, 2020). In Germany, e-commerce returns in 2021 resulted in approximately 795,000 tons of CO_2 emissions (Gowans, 2022).

With the proliferation of e-commerce, the negative environmental impact of e-commerce returns has been staggering. It is imperative to take measures to mitigate the negative influence of e-commerce returns on the ecological environment. Meanwhile, it is essential to green the e-commerce returns mode for the sustainable future of e-commerce (Li et al., 2021).

1.5 Initial Analyses of the Critical Issues in E-commerce Returns Management

As previously mentioned, improving online return experiences, restoring buyer–seller relationships damaged by e-commerce returns, and mitigating the negative impact of e-commerce returns on the environment are three critical issues in e-commerce returns management. First, improving online return experiences is critical to online sellers' success. To improve consumer online return experiences, online sellers could use return services and policies that consumers expect. A consumer study has shown that consumers expect free returns, quick return and refund processes, and hassle-free returns (Callarman, 2019). According to a consumer survey for frictions in online returns, "the process took longer than I expected" and "my refund took too long" are

the top reasons that make customers disappointed (Narvar, 2017).

In e-commerce returns, refund speed is a major aspect influencing the consumer return experience among all aspects of return services (Griffis et al., 2012; Callarman, 2019). Regarding the expectations of waiting time for getting a refund credited, 72% of online customers expect a refund credit within 5 days of returning the merchandise (Callarman, 2019). However, in the conventional refund process, the consumer refund waiting time (i.e., the time it takes for a refund to be credited after the product has been shipped) accounts for a large part of the time in current refund processes (Callarman, 2019); the average time between consumers posting the return products and the online seller crediting the refund is two weeks (Bimschleger et al., 2019). This part of the refund process is the culmination of several steps, performed jointly by the delivery service provider and the retailer (Griffis et al., 2012). After the consumer returns the product to the seller, the steps that precede the issuance of refunds include delivery of the returned product, receipt of the product (with gatekeeping), selection of the disposition of the product, and then processing of the refund (Griffis et al., 2012). Therefore, it is very possible that the consumer refund waiting period—that is, the time it takes for a refund to be credited after the product has been mailed—will be longer than consumers expect (Bimschleger et al., 2019), even if the return process is successful. To conclude, low refund speed is an inherent weakness of the conventional refund process (Narvar, 2017). Even though online sellers can constantly enhance the operational capability of their current return process, it is still challenging for them to guarantee that their refund speed can meet consumer expectations. Therefore, online sellers need innovative refund approaches.

Second, it is also critical for online sellers to restore the buyer–seller relationship through online return processes. Online return is a painful process to consumers (Stock et al., 2006). A return process, especially the part of return shipping, usually entails many hassles and monetary costs among consumers (Ahsan and Rahman, 2021). In a consumer survey, when consumers were asked why online returns disappointed them, 51% of them said “it was too much of a hassle to return the package” (Narvar, 2017).

Eighty-one percent of consumers desire hassle-free return shipping (Lazar, 2018). Therefore, using a return shipping method that can reduce consumer efforts in return shipping may improve the buyer–seller relationship. Moreover, return shipping costs are said to be particularly important in online returns (Narvar, 2019). Sixty-one percent of customers reported that paying for return shipping was the most frustrating part of the return process (FedEx, 2020). In return policies, being able to send back unwanted goods for free is preferred by 85% of the consumers (Hughes, 2021). Hence, online sellers may be able to improve buyer–seller relationships by reducing the monetary return costs of consumers.

How online sellers deal with return shipping may influence their relationships with consumers (Smith, 2005). Online sellers may be able to use consumer-friendly return shipping policies to reduce the hassles and monetary costs for consumers in the return processes, in order to restore the buyer–seller relationship.

Third, mitigating the negative impact of e-commerce returns on the environment is another critical issue in e-commerce returns management. Currently, return by mail is the most common option used to return products purchased online (Narvar, 2017; Mazareanu, 2019). In such mode, returned items should be placed in e-commerce packages to ensure safe delivery, and then transported to e-commerce firms' inventory. These necessary transportation and packages in mail return mode have a huge environmental impact (Li et al., 2021).

To lessen the environmental impacts of e-commerce returns, online sellers could reduce these transportation and packages. Using eco-friendly packages may reduce packaging waste in e-commerce returns yet challenging. For example, Alibaba offered a reusable, eco-friendly cardboard box, but they cost twice as much as regular boxes (Bloomberg, 2020). Nowadays, some sellers enable their customers to buy products online and return the products directly in physical stores. Based on this 'buy online, return in-store' (BORS) strategy, a package-free return mode has been developed to mitigate the environmental impacts of e-commerce returns. In this mode, consumers can take the product they intend to return to the physical stores without packaging them.

The returned items are handled in store and transshipped in reusable boxes. In this way, the use of many packaging materials can be avoided (Li et al., 2021). Furthermore, the items are processed collectively in store and shipped in bulk for transshipment. The bulk shipment is more efficient for transporting the returned items, leading to less energy consumption as well as greenhouse gas emissions (Mui, 2018). Therefore, promoting package-free return modes could be a solution to mitigate the negative impact of e-commerce returns on the environment.

1.6 Return Management Approaches as Possible Solutions and Potential Problems related to Using Them

1.6.1 Instant refund service

Refund speed is a key factor major aspect impacting consumer online return experience (Griffis et al., 2012; Callarman, 2019), but it is difficult for online sellers using conventional refund approaches to provide consumers with a fast refund that meets the consumers' expectations (Bimschleger et al., 2019). Refund speed is the inherent weakness of conventional refund methods, as online sellers must spend a large amount of time going through the steps preceding the issuance of the refund (Griffis et al., 2012). In a conventional refund, even if the online seller could speed up the refund process by improving their operational ability, it remains difficult to meet the high expectations of consumers regarding refund speed (Callarman, 2019). Furthermore, if consumers use a third-party delivery service provider to ship the product, the delivery time also depends on the delivery service provider. Under these circumstances, it becomes more difficult for the online seller to expedite the refund process.

An instant refund service is an innovative refund approach that can expedite the refund process. This new refund service refers to reimbursing the consumers soon after they complete an online seller-specified task for an instant refund, before the online seller receives and inspects the returned product in e-commerce returns. The task could be the mailing of the returned product, or even earlier, such as initiating a return request. The online seller using an instant refund approach can issue the refund as soon as they

confirm that the consumer has completed the task for instant refund. Therefore, this approach omits the steps of the receipt and inspection of the returned product for online sellers as well as the consumer wait period from the time that the returned product is shipped to the time that the refund is issued. Using such an approach, the refund process is largely expedited.

A few online retailers have employed instant refund services. For example, under Amazon's instant refund service, when a consumer initiates a return request, Amazon issues the refund immediately. For consumers who are offered the instant refund service, Taobao and JD.com issue refunds once they have verified that the consumers have mailed the products through the shipping tracking number provided by consumers.

Compared to the conventional refund approach, the instant refund approach provides a much faster refund speed. Therefore, an instant refund service may improve consumer online return experience. However, it has been also argued that consumers could regard a delayed refund in e-retailing as justified and acceptable (Crisafulli and Singh, 2017), suggesting that an instant refund may not necessarily improve consumer online return experience. To the best of our knowledge, only one study has examined how an instant refund affects retailers' profits (Li and Shi, 2020). However, the effect of an instant refund on consumer online return experience has not been studied yet, so the effect is still unclear. Moreover, a comprehensive understanding of the outcomes of using an instant refund service is also necessary for online sellers to decide whether to introduce this new service. Notwithstanding, it is still unclear whether the use of an instant refund can lead to more favorable consumer post-purchase, pre-return and post-purchase, post-return responses.

In summary, an instant refund service can expedite the refund process, which makes it a potential solution to improve the consumer online return experience. However, its effects on consumer responses, including consumer satisfaction with the return experience, are yet to be clarified.

1.6.2 Consumer-friendly return shipping policy

Online sellers usually need to get the returned products to retrieve some value from them (Sarkis et al., 2004), especially those that are non-defective (e.g., the products that are returned for reasons related to consumer satisfaction). Mail return is the most common option used to return products in e-commerce (Narvar, 2017; Mazareanu, 2019), while return shipping is a step consumers must go through in mail returns. A return shipping process usually causes many hassles and monetary costs to consumers (Ahsan and Rahman, 2021).

Online sellers need to decide how consumers ship the returned products to them. Some online sellers request the consumers who need to return products to find and use a return shipping provided by a third-party delivery service provider and do not provide support for return shipping to consumers. In other words, return shipping is treated as a separate part of the online sellers' own return services. For example, some sellers on eBay and Taobao marketplaces use a separated return shipping method. On the other hand, some other sellers, such as Amazon and Walmart.com, enable consumers to directly arrange a return shipping on their websites to use the return shipping service provided by them. These online sellers integrated the return shipping service into their own return services.

Return shipping also entails a monetary cost. Most online sellers require consumers to pay for return shipping for satisfaction-related returns (Posselt et al, 2008; Zhao et al., 2020). These sellers attribute the responsibility for satisfaction-related returns to the consumers and thus employ equity-based return shipping policies to request the consumers to pay for return shipping (Bower and Maxham, 2012). For example, Tmall.com and Suning.com, the two major online retailers in China, use such return shipping policies. Some other online sellers use a very generous return shipping fee policy, offering free return shipping for all their product returns including the returns for consumer satisfaction-related reasons. For example, JD.com offer free return shipping for products sold from its self-operated stores to its loyal customers and members (Zhao et al., 2020). Retailers such as Nordstrom and Macy's online stores also

offer free return shipping for all product returns (Xu and Jackson, 2019; Abdulla et al., 2019). Amazon requests its marketplace sellers who sell products and fulfill orders by themselves to offer free return shipping for clothing, shoes, or handbags irrespective of the return reason. For the other product categories, Amazon allows the sellers to ask consumers to pay for return shipping, if products are returned due to buyer-responsible return reasons including satisfaction-related reasons.

An integrated return shipping policy is considered more consumer-friendly because such a policy could decrease consumers' efforts in arranging the return shipping in online returns. Also, a free return shipping policy should be more consumer-friendly than a fee policy due to a reduced monetary cost of the consumer. Online sellers may restore buyer–seller relationships by using these more consumer-friendly policies, since the policies could reduce the hassles and monetary costs associated with the return shipping process for consumers.

However, it should be noticed that using integrated return shipping is challenging for online sellers. To use it, the sellers must plan carefully and bear a heavier burden on their logistics (Ahsan and Rahman, 2021). Thus, online sellers need to be aware of the effects of this method on buyer–seller relationships when considering whether they should allocate their resources to provide such a service. Offering free return shipping may be effective for online sellers to improve their relationships with consumers (FedEx, 2020; Hughes, 2021), but a free policy could also raise the return costs on the sellers' side (Zhao et al., 2020). Hence, online sellers need to be clear with its effects on buyer–seller relationships (Abdulla et al., 2019). However, the effects of integrated and free return policies on buyer–seller relationships remain unknown. Online sellers also need a comprehensive understanding of the outcomes of such methods to decide whether to employ them, but the outcomes of the methods are still unclear. In addition, when online sellers design their return shipping policies, they should consider the potential interaction effects between different aspects of the policy. It is still unclear how the return shipping method and return shipping fee interact.

1.6.3 Package-free return mode

Package-free return modes allow consumers to return products purchased online directly in store without packaging them. A common return process under a package-free return mode includes the following steps. First, a consumer returns a product to in the store. The store stated here could be a brand store, a department store, or a hypermarket, as long as there is a return point for the seller inside. Second, the staff at the return point examine the returned item. Third, the online shopping platform issues the refund to the consumer. Finally, according to the staff's selection of the appropriate disposition of the products, returns are directly reintegrated into store inventory or transshipped in bulk to a given place (e.g., discount stores, charities, manufacturers, or landfills).

Package-free return mode should be a key approach to reduce the negative impact of e-commerce returns on the natural environment. In this mode, the consumers can return the products to the store without packaging them. The staff at the return point will select the appropriate disposition of the products. Some of the returns may be directly reintegrated into store inventory (Wollenburg et al., 2018), and the e-commerce return packages are saved. Some may be shipped in bulk to return warehouses, discount stores, manufacturers, landfills, or other destinations (Li et al., 2021). These products returned can be transshipped in reusable boxes, which can further reduce package waste in reverse logistics. Also, bulk shipment leads to less energy consumption and greenhouse gas emissions than one-by-one mail shipment in mail return mode, as the bulk shipment is more efficient for transporting items (Mui, 2018)

In practice, many retailers, such as New Look, Zara, and Marks & Spencer, have already provided a package-free return service that enables their customers to return the products purchased online to their bricks-and-mortar stores (Thorpe-Woods, 2020). By collaborating with return management companies like Happy Returns and Optoro, pure e-commerce companies that do not have physical stores can also launch their package-free services.

However, although the package-free return mode is expected to mitigate the environmental problems caused by e-commerce returns, online consumers' adoption of package-free returns is not satisfactory. Currently, return by mail is still the most common option used in e-commerce returns (Narvar, 2017; Mazareanu, 2019). The consumer studies have shown that over 70% of consumers used a mail service to return their online purchases (Narvar, 2018). Even though many retailers, e-commerce platforms, and return management companies have launched package-free return services, only 10% of consumers returned products in store (Ryan, 2019).

It is critical for sellers to promote the package-free return mode for more people to use it. If only a small portion of consumers use this mode, the resources invested and the efforts spent for launching this service could still be in vain. Also, if few consumers use this mode, the e-commerce returns could continue harming the natural environment. Therefore, it is necessary to study why consumers are willing to use package-free return services, so firms can optimize their strategy in promoting package-free returns.

1.7 Research Questions and Research Motivation

1.7.1 Does the use of an instant refund service improve the consumer's return experience?

An instant refund provides an efficient and consumer-friendly refund process for online returns. The refund speed in the instant refund mode is faster than in the conventional refund mode, because in the instant mode the refund is issued before the online seller receives the returned product. Given that refund speed is a key aspect of return services that influences consumer online return experience (Griffis et al., 2012; Callarman, 2019), using an instant refund may improve the return experience. However, previous research has also argued that consumers could perceive a delayed refund in e-retailing as justified and acceptable (Crisafulli and Singh, 2017). Thus, an instant refund may not necessarily improve a consumer's return experience, if it were considered that waiting some time to receive a reimbursement is necessary, as in a usual return process. It has also been noted that consumers have a perception of what constitutes a reasonable

waiting time (Katz et al., 1991; Boshoff, 1997). To date, only one recent study has studied the effect of an instant refund on the profits of retailers, using a stylized economic model (Li and Shi, 2020). Notwithstanding, it is still unclear whether the use of an instant refund can improve the consumer online return experience. If online sellers want to use instant refund services, they may need to invest in developing their instant refund services, which can cause extra costs to the sellers. It is necessary for online sellers to know the effect of instant refunds on consumer's return experience. Thus, in this thesis, I analyze the effects of instant refunds on the consumer online return experience.

By studying whether the use of an instant refund service improves the consumer's return experience, this thesis can contribute to the literature on e-commerce returns management. This thesis can also generate important practical implications for online sellers regarding their refund services.

1.7.2 What effects does an instant refund service have on consumer responses in a post-purchase, pre-return scenario and in a post-purchase, post-return scenario?

It is important for online sellers to improve consumer online return experience. An instant refund service may be a key method to improve the consumer's return experience. Despite this benefit, online sellers need a comprehensive understanding of the outcomes of using an instant refund service when considering whether to use this service for their e-commerce returns management.

Previous literature has only studied a few return services for improving consumer's post-return cognitions, affects, or behaviors, such as lenient return policy (Y. Wang et al., 2020), free return shipping policy (Bower and Maxham, 2012), and return management system (Mollenkopf et al., 2007). Oflaç (2016) studied how consumers' recovery satisfaction and repatronage intentions after online product failures are influenced by their justice perceptions of the service recovery, while procedural justice perception in the study is manipulated by the time to process return with/without feedback. Especially, Griffis et al. (2012) studied the effect of the speed

with which returns are handled and credit processed on consumers' subsequent shopping behaviors in the context of the conventional refund mode. Unlike these previous studies, this article focuses on instant refund, which is a new approach to manage refunds for online returns. Li and Shi (2020) have examined the influence of the use of an instant refund on the profits of retailers. However, to the best of our knowledge, the effects of an instant refund service on consumers' post-return cognitions, affects, or behaviors have not been analyzed yet. It is still unclear how an instant refund influences consumer post-return responses.

Furthermore, a post-purchase, pre-return scenario, in which consumers doubt that they made the right purchase decision and consider whether to return the product, should be common, given the fact that online consumers cannot physically inspect the product before purchase and considering that online returns are very common at present. While the effects of an instant refund service on consumer perceptions and behaviors in a post-purchase, pre-return scenario are still unknown. This scenario is different from a post-purchase, post-return scenario, in which consumers have already experienced the return process. To fully understand the outcomes of introducing an instant refund service, the effects of the instant refund service on consumer perceptions and behaviors in this scenario should also be examined. Until now, no study is available regarding the effects of the instant refund service on consumer responses in this scenario.

Thus, to fill these research gaps, this thesis analyzes the effects of instant refund in both a post-purchase and pre-return scenario and a post-purchase and post-return scenario. To the best of our knowledge, this research is the first attempt to examine how instant refund service influences consumer's post-return cognitions, affects, or behaviors. By providing an understanding of key aspects of the instant refund service, this thesis could contribute to the literature on e-commerce returns management. This thesis can also generate important practical implications for the refund services of online sellers.

1.7.3 Can integrated return shipping and free return shipping restore buyer–seller relationships?

A return shipping method that online sellers integrate into their return services, such as the integrated return shipping provided by Amazon and Walmart.com, could reduce consumer hassles in return shipping processes and thus may improve their relationship with consumers. However, providing integrated return shipping is a highly complex challenge that requires careful planning by sellers and increases the burden on sellers' logistics (Ahsan and Rahman, 2021). Thus, it is necessary to study the effects of this method on buyer–seller relationships to help sellers decide whether they should allocate their resources to provide such a service for restoring the buyer–seller relationship.

Providing free return shipping may lead to better buyer–seller relationships (FedEx, 2020; Hughes, 2021), but can cause higher return costs for online sellers (Zhao et al., 2020). Hence, online sellers need to determine whether a free policy is effective in improving buyer–seller relationships.

There is little research on service recovery options for product returns in previous literature (Abdulla et al., 2019). Although it is important for online sellers to retore the buyer–seller relationship damaged by online returns, there is a lack of literature on how online sellers can restore the relationship. Only a few studies have investigated the use of online return services or policies to restore buyer–seller relationships or generate more favorable relational outcomes. The previous studies have focused on the return management system (Mollenkopf et al., 2007), the speed of return processing (Griffis et al., 2012), the ease of returns (Heim and Sinha, 2001; Ramanathan, 2011; Pham and Ahammad, 2017), and the returning experience (Rintamäki et al., 2021). To the best of our knowledge, no study to date has studied the effect of return shipping policy on buyer–seller relationship. Therefore, how return shipping policy influences buyer–seller relationships remains unknown. To fill this research gap, this thesis studies how return shipping policy, including its fee and method aspects, influences buyer–seller relationships. This thesis could add new knowledge to the relationship marketing literature and the e-commerce returns management literature.

Managerially, this article may benefit online sellers. Protecting relationships with consumers who return unsatisfactory products should be in online sellers' strategic

interests (Walsh et al., 2010; Walsh and Brylla, 2017); thus, they need effective relationship marketing tactics for these consumers. Based on our research findings, sellers know whether an integrated return shipping policy and a free return shipping policy are effective for restoring their relationship with the consumers. Our research can help online sellers to decide whether they should employ and invest in these two return shipping policies for their relationship marketing.

1.7.4 Does the integrated return shipping method improve the consumer's cognitive and behavioral responses?

Online return shipping is a step that consumers must go through when returning a product purchased online by mail (Croxton et al., 2002). Online return shipping is usually a hassle for consumers (Ahsan and Rahman, 2021). A return shipping service that online sellers integrate into their return services for consumers to arrange return shipping conveniently with them may be a solution for reducing consumer hassle in online return shipping and thus may generate better consumer reactions. However, implementing integrated return shipping is challenging for online sellers (Ahsan and Rahman, 2021). Thus, sellers need a comprehensive understanding of the outcomes of using this method to decide whether to employ it.

Previous studies on return shipping policies have focused on the monetary aspects, including return shipping fees (Bower and Maxham, 2012; Hjort and Lantz, 2016; Zhao et al., 2020) and return shipping insurance (Geng et al., 2017; Li et al., 2021). However, other aspects of the return shipping policies, such as the return method aspect, have not been researched to date.

Prior studies have studied several types of product return-related consumer efforts. Some studies found that less consumer effort leads to more favorable consumers perceptions and behavioral intentions (Heim and Sinha, 2001; Mollenkopf et al., 2007; Pham and Ahammad, 2017), while others found that less consumer effort does not necessarily improve consumer responses (Heim and Field, 2007; Ramanathan, 2011). The integrated return shipping method has not yet been studied in the existing literature.

Thus, whether this method can improve consumers' perceptions and behavioral intentions is still unclear.

In order to fill these research gaps, this thesis studies the effects of an integrated return shipping method on the consumer's cognitive and behavioral responses. This research could enrich the understanding of return shipping policies, thus contributing to return management literature. Based on the research findings, sellers understand the effects of an integrated return policy on consumers' perceptions and behavioral intentions. Our research can help online sellers to decide whether they should employ and invest in an integrated return shipping method to manage their product returns.

1.7.5 Is there any interaction effect between the return shipping method and return shipping fee on consumers' responses?

A return shipping policy includes not only the cost aspect but also the method aspect. When online sellers design their return shipping policies, they need to consider the different aspects of return policies jointly. Therefore, they should take the potential interaction effects between the two aspects into their consideration.

Prior studies have examined the interaction effects between different aspects of the return policy on a consumer's product return decision (Janakiraman and Ordonez, 2012) and purchase decision (Abdulla et al., 2022). However, no study to date has investigated the interaction effects between different return policy factors on consumer satisfaction, repurchase intention, or consumer perceptions. The interaction effects between the method and fee aspects of return shipping policy on consumer responses have not yet been studied. This thesis approaches these research gaps by studying the interaction effect between the return shipping method and return shipping fee on consumer satisfaction, repurchase intention, and consumer perceptions. This thesis could enrich the knowledge on the interaction effects between different return policy factors, thus contributing to the e-commerce returns management literature.

Managerially, based on the research findings of this thesis, online sellers know how they should simultaneously design the method and fee aspects of their return

policies to generate better consumer responses.

1.7.6 What are the key factors in green communication that contribute to consumers switching from mail return services to package-free return services?

Package-free return mode has a high green value. This mode should be a key measure to reduce the negative impact of e-commerce returns on the natural environment. However, as previously mentioned, consumers' adoption of the package-free return mode is low. If only a small portion of consumers use this mode, e-commerce returns could continue to have a huge impact on the natural environment. The resources the sellers invested and the efforts they spent for launching this service would be wasted. Therefore, it is critical for sellers to promote the package-free return mode for more people to use it.

However, mail return is still the most common way to return an online purchase (Narvar, 2017; Mazareanu, 2019), while consumers' adoption of the package-free return mode is low (Ryan, 2019). One strategy to promote the package-free return mode may be to advocate its green value to make consumers switch to it (Ecobahn, 2020). Also, green switching behavior may be not only triggered by ecological factors (Li et al., 2021), but also by other factors such as functional and economic factors (Koller et al., 2011). This thesis studies the key factors in green communication that contribute to consumers switching from mail return services to package-free return services.

Most studies related to green returns management have been conducted from an operations perspective and have focused on the optimization of the operation efficiency and outcomes, such as optimizing reverse logistics (Budak, 2020), refining the reverse logistics system (Ramos et al., 2014), or improving the supply chain network (Masudin et al., 2021). However, a burning issue of package-free return mode is that consumers' current adoption of this mode is quite low (Ryan, 2019). Therefore, beyond improving operation efficiency and outcomes, it is critical to adopt a marketing perspective to recognize the "selling point(s)" of the green return service to promote it (Li et al., 2021). The factors influencing consumers to switch from a non-green return service to a green

return service need to be studied.

Previous studies on returners' channel-shifting behavior claimed that companies could use monetary costs of mail returns to online consumers to push them toward returning in store (Wollenburg et al., 2018; Nageswaran et al., 2020). Previous literature has also investigated the factors impacting consumers' green behaviors or cross-channel behaviors, including environmental benefits (Hazen et al., 2017; Perez-Castillo and Vera-Martinez, 2021) and the individual's inertia (S. Wang et al., 2020). However, some other factors, such as dissatisfaction with refund speed and return service convenience, have not been addressed yet. By studying whether and how these two factors influence consumers' switch intentions from a non-green return service to a green return service, this thesis can fill this research gap and enrich the knowledge of consumer switching behavior and green communication.

Managerially, based on our research findings, e-commerce companies wanting to promote their package-free returns can recognize key factors that contribute to consumers switching from mail return services to package-free return services. They can then optimize their strategy accordingly in promoting package-free returns.

1.8 Information on the Three Articles Included in This Thesis

I have written three articles to address the six research questions above. The three articles have been published in three JCR-ranked journals, including Journal of Retailing and Consumer Services, Electronic Commerce Research and Applications, and Journal of Theoretical and Applied Electronic Commerce Research. This thesis is a compilation of the three articles. More information about the articles, including the author information, is provided below. I have been granted the right to include the following articles in this thesis.

1. Martínez-López, F. J., Feng, C., Li, Y., & López-López, D. (2022). Using instant refunds to improve online return experiences. *Journal of Retailing and Consumer*

Services, 68, 103067. https://doi.org/10.1016/j.jretconser.2022.103067

Status: Published

JCR Journal Journal Impact Factor (JCR 2021): 10.972

JCR Category: Business *in SSCI edition*

Category Rank: 16/154 Category Quartile: Q1

2. Martínez-López, F. J., Feng, C., Li, Y., & Mata, M. S. (2022). Restoring the buyer–seller relationship through online return shipping: The role of return shipping method and return shipping fee. *Electronic Commerce Research and Applications, 54*, 101170. https://doi.org/10.1016/j.elerap.2022.101170

Status: Published

JCR Journal Journal Impact Factor (JCR 2021): 5.622

JCR Category: Business *in SSCI edition*

Category Rank: 66/154 Category Quartile: Q2

3. Li, Y., Martínez-López, F. J., Feng, C., & Chen, Y. (2022). Green communication for more package-free e-commerce returns. *Journal of Theoretical and Applied Electronic Commerce Research, 17*(4), 1450-1472. https://doi.org/10.3390/jtaer17040073

Status: Published

JCR Journal Journal Impact Factor (JCR 2021): 5.318

JCR Category: Business *in SSCI edition*

Category Rank: 70/154 Category Quartile: Q2

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Chapter 2. Using Instant Refunds to Improve Online Return Experiences

2.1 Introduction

E-commerce is characterized by large product returns. In 2019—the last full year before the outbreak of the COVID-19 pandemic would alter the usual commercial activity on the internet—retail e-commerce sales worldwide amounted to USD 3.53 trillion (Clement, 2020); this figure is expected to be even higher, with the increase in online shopping due to the pandemic. Around 30% of online sales end up being returned, compared to just 8.89% of bricks-and-mortar sales (Rudolph, 2016). Online returns have become common, due to the high number of sales and return rates associated with e-commerce. Online return rates vary among product categories. Among the four most popular online shopping categories worldwide, the return rates for apparel and consumer electronics are over 40%, while the return rates for entertainment and health/beauty products are 21% and 22%, respectively (Sabanoglu, 2020; Charlton and Ward, 2021). Some other products have lower but still significant return rates; the online return rates for furniture and food were 5% and 7%, respectively (Mayfield, 2021).

It is important for online sellers to offer a positive return experience to their consumers. The return experience can determine consumer retention (UPS, 2019; Signifyd, 2020; Narvar, 2018, 2021), and can drive key consumer relational outcomes (e.g., satisfaction, WOM, and loyalty) (Rintamäki et al., 2021). These consumer outcomes are essential to the success of an online seller (Verma et al., 2016; Walsh and Brylla, 2017; Antwi, 2021). Moreover, online sellers can achieve a competitive advantage by differentiating themselves from competitors through a superior return service performance and experience (Mollenkopf et al., 2011; Hjort et al., 2019). Some studies have found that online sellers can gain benefits from positive online return experiences (see, e.g., Petersen and Kumar, 2010; Griffis et al., 2012; Lantz and Hjort,

2013; Janakiraman et al., 2016; Wang et al., 2020). Several studies have pointed out that the return processes of online sellers provide them with service recovery opportunities for the original service failure; hence, sellers should offer consumers a satisfactory return experience to seize these opportunities and generate profits (Mollenkopf et al., 2007; Walsh and Brylla, 2017; Abdulla et al., 2019). To summarize, improving the online return service to offer consumers a satisfactory return experience is critical to the success of online sellers (Janakiraman et al., 2016; Rao et al., 2018). However, although online sellers have already invested into their return service to improve the return experience of consumers, more than two-fifths of customers remain unsatisfied with online return processes (Narvar, 2017; Lazar, 2019; Zebra, 2021). Given the importance of the online return experience in the relationship between consumers and online sellers, there is still room for improvement.

Among all aspects of online return services, refund speed is a major aspect influencing the consumer return experience (Griffis et al., 2012; Callarman, 2019). Slow refund speed is an inherent weakness of the current refund process (Narvar, 2017; Ahsan and Rahman, 2021). After the consumer returns the product to the seller, the steps that precede the issuance of refunds include delivery of returned products, receipt of the return, selection of the appropriate disposition of the merchandise, and then processing of the refund (Griffis et al., 2012). As a result, the consumer refund waiting time (i.e., the time it takes for a refund to be credited after the product has been shipped) is very likely to be longer than consumers expect (Bimschleger et al., 2019), even in a successful return process. Considering that it is difficult for online sellers to ensure a fast refund that meets consumer expectations, even if they keep improving the operational capability of their current return process, innovative refund approaches are needed.

An instant refund provides an efficient refund process for online returns. With an instant refund service, the refund is issued before the online seller receives the returned product; thus, the refund speed is faster than the conventional refund mode. Hence, an instant refund may improve the consumer's return experience. However, consumers

may also perceive a delayed refund in e-retailing as justified and acceptable (Crisafulli and Singh, 2017), suggesting that an instant refund may not necessarily improve a consumer's return experience. To the best of our knowledge, only one recent study has examined the influence of the use of an instant refund on the profits of retailers, using a stylized economic model (Li and Shi, 2020). Hence, it is still unclear whether the use of an instant refund improves the consumer's return experience. Moreover, online sellers need a comprehensive understanding of the outcomes of using an instant refund service when considering its introduction. However, the effects of an instant refund service on consumers are yet to be analyzed. In order to understand the impact of an instant refund service on consumers' online return experience, we conducted two studies: one study analyzed the effects of an instant refund service on consumer responses in a post-purchase pre-return scenario; the other analyzed the effects of instant refunds on a set of key variables in a post-purchase post-return scenario, including satisfaction with the online return experience.

The remainder of this article is structured as follows: First, instant refund services and how they differ from conventional refund services are described in detail. Second, we introduce the theoretical background of this article. Next, we discuss the hypotheses on the effects of the use of an instant refund service on consumer responses in the post-purchase, pre-return scenario. Two experiments for study 1 and an additional study for testing these hypotheses are described, and the results are presented. Then, we discuss another set of hypotheses regarding the effects of the use of an instant refund service on consumer responses in the post-purchase, post-return scenario, including consumer satisfaction with the online return experience, and describe study 2 and its results. Finally, we describe this article's theoretical and practical contributions, and close it by discussing limitations and potential research opportunities.

2.2 Background

2.2.1 Instant refund

An instant refund service is used for returns by mail, the most common option used to

return products purchased online (Narvar, 2017; Mazareanu, 2019). It refers to reimbursing a consumer soon after he or she completes an online seller-specified task for the instant refund, before the seller receives and checks the returned item. In a conventional refund approach, the online seller must wait for the arrival of the returned product to their premises. They also take time to verify and inspect the products, in order to confirm the legitimacy of the return, select the appropriate disposition of the products, and then process the refunds (Griffis et al., 2012). Therefore, the steps that are necessary before the online seller's issuance of the refund cause the refund process to take a long time. By contrast, in an instant refund approach, the online seller should issue the refund as soon as they confirm that the consumer has completed a specified task. They can proceed to reimbursing once it has been confirmed that the consumer has sent the returned product, or even before, depending on the seller's specific instant refund procedure. For example, under Amazon's instant refund service, Amazon issues the refund immediately when a consumer initiates the return request, and the consumer needs to post the item within 30 days. For consumers who are offered the instant refund service, Taobao and JD.com issue refunds once they have confirmed that the returns have been sent out, through the shipping tracking number. In this article, we focus on the interaction between the consumer and online seller, while how the bank or third-party payment platform processes the refund after the refund is credited by the online sellers is not within the scope of this study. Thus, in this article, following previous research, a refund process is regarded to start with a customer-originated contact made with the online seller for making a return, and ends with the online seller issuing a refund to the consumer (Griffis et al., 2012).

Compared to conventional refunds, instant refunds have three notable features. First, the consumer wait period—that is, from the time that the returned product is shipped to the time that the refund is issued—is omitted; thus, the refund speed is fast. The refund speed is the inherent weakness of conventional refund methods, even when expedited through improving operational ability, as online sellers have a series of steps before issuing a refund (Griffis et al., 2012; Callarman, 2019). Second, instant refunds

change the online sellers' examination of the adequacy of the returned goods, as the sellers reimburse the consumer before they receive the returned item. In a conventional refund process, online sellers make the refund decision based on the physical inspection of the returned product (Narvar, 2017). Third, instant refunds reduce the uncertainty regarding the timing of the refund, because the refund is issued once a (usually simple and fast) required task is completed. Conventional refunds have a more complex process and entail additional ambiguous timeframes (e.g., within 14 days of the receipt of the product).

In summary, instant refunds are a new method to reimburse online returns. They aim to deliver a better return service to consumers, but their effects on consumer responses to the online seller are yet to be clarified.

2.2.2 Instant refund from the procedural justice perspective

An instant refund may improve consumer satisfaction with the online return experience, as well as affecting other important responses in a post-return scenario. The notion of procedural justice is employed to predict and explain the effects of instant refunds in this article.

Although many dimensions of a service process might be important in determining consumer reactions to a service experience, consumer judgments of procedural justice have received much attention in service delivery research (Lind and Tyler, 1988). Procedural justice, in an online return context, can be regarded as consumer judgments of policies and procedures of the online return process. The notion of procedural justice has been applied in the marketing literature extensively, in order to understand how consumers respond to service delivery processes and service recovery processes (see, e.g., Maxham and Netemeyer, 2002, 2003; Homburg and Fürst, 2005). Particularly, procedural justice has been used in several product return studies to provide insights into online return services (Mollenkopf et al., 2007; Griffis et al., 2012; Pei et al., 2014).

Timing or speed of completing a procedure has been identified as an element of a procedure influencing the procedural justice perceptions of consumers, which suggests

that a fair procedure should be carried out in a timely manner or with high speed (Tax et al., 1998; Groth and Gilliland, 2001; del Río-Lanza et al., 2009). Chebat and Slusarczyk (2005) deemed timing to be the central attribute of procedural justice. Namkung et al. (2009) and Nikbin et al. (2016) have defined procedural fairness as the timeliness and efficiency of a service system. In a conventional return process, the consumer must go through a long period, between the time that a good is returned and the time that the refund is credited. By using an instant refund, online sellers can considerably expedite the refund process. Therefore, as previous studies on procedural justice have suggested, consumers could have a higher procedural justice perception when using an instant refund service.

In summary, procedural justice provides insights into the effects of instant refunds. This article draws upon the notion of procedural justice to predict and explain consumer satisfaction and other important responses under a post-return scenario.

2.3 The Effects of Instant Refunds in a Post-Purchase, Pre-Return Scenario

2.3.1 Hypotheses

When consumers receive online-purchased products, they check these products to assess whether they made a right purchase. Some consumers may doubt that they made a right purchase decision, and might consider whether to return the product. This comprises what is called the post-purchase, pre-return scenario herein.

The enhancement of service quality is viewed as a key to corporate success and a competitive advantage for online sellers (Zeithaml et al., 1996; Kuo et al., 2009). How online sellers deal with returns plays a crucial role in the formation of the overall service quality perception of consumers (Collier and Bienstock, 2006; Zemblytė, 2015). Consumers need online sellers to provide them with a high-quality return service for them to deal with possible returns, even though the returns may not occur (Miller et al., 2000; Zemblytė, 2015). Therefore, online sellers should inform the consumer of the

return services to be provided to the consumer, if the products are returned.

Perceived return service quality refers to a consumer's judgment of the superiority or inferiority of the return service provided by an online seller (Parasuraman et al., 1988). In a post-purchase, pre-return scenario, consumers are able to judge an online seller's return service quality based on the information about what return services will be provided to them if they decide to return a product. As an instant refund service omits the waiting period between the time that the returned product is shipped and the time that the refund is issued, the refund speed of an instant refund service is faster than that of a conventional refund service. Previous literature has identified service recovery quality attributes related to time or speed, such as recovery responsiveness (Parasuraman et al., 2005; Mollenkopf et al., 2007), response speed (Smith et al., 1999), and promptness (Valenzuela et al., 2005). In the context of online returns, consumers are very likely to take the refund speed into consideration when they evaluate the return service quality. Considering consumer desires for obtaining refunds quickly (Callarman, 2019), a faster refund speed may result in a better evaluation of return service quality. Thus, we propose the following hypothesis:

H1: *Consumers who are provided with an instant refund service (vs. not provided with an instant refund service) perceive higher (vs. lower) return service quality.*

A refund process—the process of a consumer initiating a return request to the online seller issuing the refund—can be viewed as a service recovery process (Griffis et al., 2012). A consumer's need for control during the refund process is strengthened, because the loss of control following the original service failure motivates consumers to regain control through the service recovery process (Guo et al., 2016; Joosten et al., 2017; Le et al., 2022). In e-commerce situations, consumers' desire for control can be strong, because using the internet as a delivery medium may cause the consumer to perceive a lack of control over the service (Kolesar and Galbraith, 2000). As consumers highly value control over service recovery processes, online sellers could obtain a competitive advantage by enhancing the sense of consumer control over the refund

process (Guo et al., 2016).

In a post-purchase, pre-return scenario, perceived control refers to the degree of control that a consumer feels over the potential refund process (Manganari et al., 2014). Consumers can have a sense of control when they are able to predict and understand a service process, even if they have little actual control over the process (Noone et al., 2012; Guo et al., 2016; Whang et al., 2021). Therefore, consumer perceived control can be achieved by receiving information about the service process, which serves to increase the predictability of the process and enhance certainty (Joosten et al., 2017). Li and Ma (2022) argued that the information that consumers acquired from the service provider could influence consumers' perceptions of control. In a conventional refund process, consumers may simply be informed of an ambiguous and estimated refund time, due to the complexity of conventional refund processes. By contrast, in an instant refund process, the refund time is certain to the consumer, as they will be refunded instantly once they complete the required task. By reducing the refund time uncertainty, an instant refund process seems to be more predictable to consumers than a conventional refund process, which may result in a stronger sense of control over the instant refund process. Therefore, we propose the following hypothesis:

H2: *Consumers who are provided (vs. not provided) with an instant refund service will perceive more (vs. less) control over the refund process.*

Handling returned products is costly for online sellers in many cases. Thus, online sellers should be cautious of the exacerbation of consumer return behaviors as a result of introducing superior return services. An instant refund service, as a superior return service, may be an incentive for consumers to return products.

Intention to return the product is defined as a consumer's estimated likelihood that they may return a product previously purchased online to the seller, in exchange for money or an equivalent (Maity and Arnold, 2013). Product return costs consist of monetary and non-monetary costs (Anderson et al., 2009). The non-monetary costs of returning an item include the psychological cost of waiting during the refund process

(Hogreve et al., 2017). Osuna (1985) defined the psychological cost of waiting as the psychological stress accumulated during the waiting period. Consumers may anticipate that they would feel stressful during the waiting period between the time that a good is returned and the time that a refund is credited, as online consumers are often anxious about the prospect of returning an item (Narvar, 2017). Therefore, the waiting period in a conventional refund process may cause a psychological cost of waiting for consumers. By contrast, an instant refund service omits the refund wait period for the consumer; thus, the psychological cost of waiting will unlikely be incurred under an instant refund process. In comparison to conventional refund services, instant refund services seem to be associated with lower non-monetary costs of returning items, as well as lower overall return costs. When consumers can return a product to correct their original purchase failure with a low return cost, they are likely to have stronger product return intentions, compared to when the return cost is high (Wood, 2001; Zhou and Hinz, 2016; Lin et al., 2020). We thus propose the following hypothesis:

H3: *Consumers who are provided with an instant refund service (vs. not provided with an instant refund service) show stronger (vs. weaker) intention to return the product.*

The hypotheses above are depicted in Figure 1.

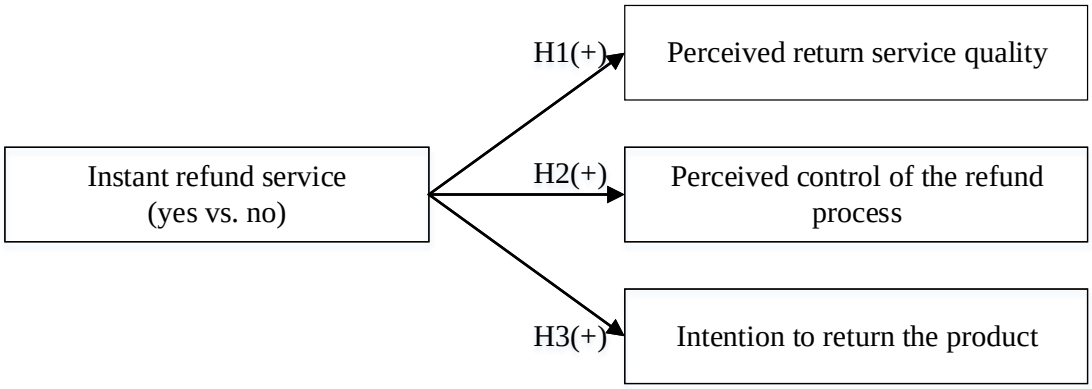

Figure 1. Study 1's research hypotheses.

2.3.2 Study 1

2.3.2.1 Method

Participants and procedure. In study 1, a one-factor (instant refund service: yes vs. no) between-subject scenario experiment was conducted using online panel data.

We hired an online survey company, Wjx.cn, to recruit 250 valid Chinese online consumers who had online purchase experience in the previous three months and the experience of returning online purchases by mail in the previous year as participants for the experiment. These respondents accessed a link sent by the company to complete the experiment online. A required sample size of 192 was calculated using the G*Power software with usual parameters (i.e., statistical test: one-way ANOVA; effect size f = 0.25; alpha error probability = 0.01; power = 0.8; number of groups = 2). We planned to obtain a valid sample of 250 respondents, in order to exceed the sample size requirements. To ensure that we had valid respondents in our sample, we added a control question at the end of the questionnaires to identify invalid respondents. The question involved when the respondents would get their refunds if they returned a product in various scenarios. The answer was explicitly shown in the scenarios; thus, those who submitted the wrong answer did not understand the experimental materials and, hence, were considered as invalid. Only those who correctly answered the control question were kept in our sample.

We decided to recruit online consumers having experience with returning online purchases by mail, in order to ensure that the participants were familiar with online return and refund processes, and were able to understand the scenarios shown in the experimental materials. Likewise, we decided to conduct the experiment in China for two reasons. First, China is the largest e-commerce market in the world, which is also growing rapidly (Skeldon, 2021). Second, some online sellers in China already provide instant refund services to consumers (e.g., some Taobao sellers and JD.com); thus, Chinese online consumers should be familiar with instant refund services and may have a good understanding of such a service.

We randomly assigned participants to each experimental cell. We also balanced the number of the participants in each cell (i.e., 125 valid participants per cell; see Deutskens et al., 2006). Except for the refund service, the other stimuli for the two experimental cells were designed to be identical. The treatments that participants received are presented in Appendix A.

Before the experiment, the respondents were asked to use their computers to complete the questionnaire. We also informed the respondents that they should read the experimental materials carefully and answer the questions intuitively. When the respondents completed the questionnaire and submitted it, the invalid participants were not included in our sample and were not paid. The valid respondents were kept in our sample and rewarded with about USD 1.1, as agreed before the experiment. We kept recruiting respondents until we had enough valid respondents for each cell. Finally, a total of 408 respondents completed the survey, 250 of which were valid.

Among all of the respondents in the sample of study 1, 56.8% were female; 18% of respondents were 18–25 years old, 30% were 26–30 years old, 41.2% were 31–40 years old, 8% were 41–50 years old, and 2.8% were older than 50 years old.

Experimental material. As we intended to investigate consumer responses in post-purchase, pre-return scenarios, we developed such scenarios for the experiment. All respondents were exposed to the following scenario: they purchased a coat online and felt like returning it after receiving the product, so they needed to check the return policy of the online store to help them to make the return decision.

We chose the coat as the product for our experiment as clothing is the most purchased product in e-commerce (Sabanoglu, 2020), and has the highest return rate among other product categories (Narvar, 2017; Narvar, 2018). Taobao is the biggest online marketplace in China (Buchholz, 2021). On the Taobao web page for the product category of coats, Taobao shows the price range of most purchased coats on its marketplace. The price of 529 yuan is in the price range, and such a price is common and realistic for a coat; thus, this price was chosen for the coat in the study.

The way in which the online seller processes refunds was shown to the respondents. For the conventional refund service, we adapted the usual way in which online sellers process their refund; in China, seven calendar days is the usual time limit used by online sellers to issue a refund after receiving the product. The online stores of many world-renowned brands in China (e.g., Gucci, Adidas, Levi's, Huawei, Xiaomi) declare that a refund will be issued to their consumers within seven calendar days upon the receipt of the returns. Therefore, the time for online sellers to inspect returns and process refunds in our experiment was set to be within seven calendar days. At present, various instant refund methods are used worldwide. The specific instant refund method used in our experiment was that the online seller would issue the refund to the consumer once the consumer informs the online seller that the product has been already shipped, by filling in the tracking number of the delivery on the online seller's return page. This method is commonly used by leading e-commerce companies in China, such as Taobao and JD.com. Therefore, we adapted this instant refund method for our experiment.

Measures. We adapted the validated scales used in previous research for dependent variables. We also carried out a manipulation check, in order to find out whether the refund speed under the instant refund service was perceived as faster than the speed under the conventional refund service. The details of all scales used are given in Appendix B.

2.3.2.2 Results

Scale reliability and validity. As in previous consumer behavior studies (e.g., Zhu et al., 2007; Chen et al., 2012; Martínez-López et al., 2019), before using ANOVA, dependent variables were measured using multi-item scales; then, their reliability was assessed in order to justify working with average values. We used AMOS 22.0 to run a confirmatory factor analysis for the measurement model. The goodness-of-fit indices were satisfactory: Chi Square/df = 1.774, RMSEA = 0.056, TLI = 0.980. The factor loading of each item with its construct ranged between 0.774 and 0.933, in agreement with the range of factor loadings suggested by Bagozzi and Yi (1988). Both the Cronbach's alpha and Composite Reliability (CR) of three variables were over 0.7,

showing a satisfactory internal consistency and reliability. The Average Variance Extracted (AVE) of each variable was much greater than 0.5, indicating a satisfactory convergent validity (for greater detail on cut-off values and reliability analyses, see Martínez-López et al., 2013). These satisfactory results indicate that the constructs were correctly measured. As ANOVA works with one-item variables, we replaced each multi-item variable with a one-item variable by calculating the average value of all item scores of the variable.

Manipulation check. Results of the independent samples t-test showed that the refund speed of the instant refund service was perceived to be significantly faster than the speed of the conventional refund service in the experiment ($M_{instant} = 5.824$, $M_{conventional} = 4.224$, $p < 0.001$).

Hypothesis testing. ANOVA is one of the main tools for the statistical analysis of experiments (Arias-Castro et al., 2011), used to compare groups by analyzing groups' means for dependent variables (Delacre et al., 2019). As this study had one experimental factor with two levels (i.e., two groups; instant refund service: yes vs. no), we used one-way ANOVA to test the hypotheses. In terms of return service quality, the results showed that participants perceived the return service quality to be higher when they were provided an instant refund service ($M_{instant} = 5.944$, $M_{conventional} = 5.608$, $F = 7.279$, $p < 0.01$). Therefore, H1 was supported. Furthermore, as expected, the instant refund service made participants feel that they had more control over the refund process ($M_{instant} = 5.112$, $M_{conventional} = 4.496$, $F = 13.824$, $p < 0.001$). Thus, H2 was also supported. In H3, we predicted that the instant refund service would increase consumer return intention; however, we found no significant difference in return intention between the two groups ($M_{instant} = 5.997$, $M_{conventional} = 5.845$, $F = 1.164$, $p = 0.282$). Thus, H3 was rejected.

2.3.3 Additional study

In study 1, in contrast to hypothesis H3, there was no significant difference in return intention between the two groups, even though the participants did perceive the refund

speed of the instant mode to be faster than that of the conventional mode in the experiment. A possible explanation for this insignificant difference is that, although respondents in the conventional refund service group had to wait for a period of time for their refunds after the product was shipped, the respondents considered that the waiting period in the portrayed scenario and corresponding psychological cost were tolerable when making the return. To examine whether H3 can be supported when the refund speed of the conventional refund service is slower than in the original formulation of this study, we conducted an additional study.

2.3.3.1 Method

In an additional study, we replaced 7 days with 14 days as the time limit in the treatment for the conventional refund service cell. Although a seven-day time limit is commonly seen in China, some online sellers in China (e.g., Zara, Thom Browne, and Canon) declare that they will take as long as 14 days to refund their consumers. Apart from changing 7 days to 14 days, we kept the rest of the experimental stimuli the same for the conventional refund cell in study 1.

For this particular variable, we conducted a one-factor (instant refund: yes vs. no) between-subject scenario experiment using online panel data from Wjx.cn. As we had already collected the consumer return intention data for the instant refund cell, we only needed 125 valid respondents for the conventional refund cell. Thus, respondents who met the same requirements for the experiment in study 1 were recruited. The validity of the respondents in the additional study was also controlled. A total of 194 respondents participated in the survey, and we obtained 125 valid respondents, as planned.

We used the same return intention scale for the additional study. Additionally, as in the experiment for study 1, perceptions of the refund speed were measured and the demographic information of respondents was collected. Among the respondents in the sample for the additional study, 56.8% were female; 23.2% of respondents were younger than 25 years old, 23.6% were 26–30 years old, 44.8% were 31–40 years old,

5.2% were 41–50 years old, and 3.2% were older than 50 years old.

2.3.3.2 Results

The results of the independent samples t-test showed that the refund speed of the instant refund service was perceived as being significantly faster than that of the conventional refund service in the experiment ($M_{instant} = 5.824$, $M_{conventional} = 2.480$, $p < 0.001$). Even though we employed a longer time to refund for the conventional refund service, there was still no significant difference in return intention between the two groups ($M_{instant} = 5.997$, $M_{conventional} = 5.773$, $F = 2.171$, $p = 0.142$). Thus, H3 was still rejected in the additional study.

2.4 The Effects of Instant Refunds in a Post-Purchase, Post-Return Scenario

2.4.1 Hypotheses

After online-purchased products are received by consumers, some are returned. As mentioned above, offering the consumer a satisfactory return experience is critical for the success of an online seller (Ramanathan, 2011; Janakiraman et al., 2016; Rao et al., 2018). Thus, we included consumer satisfaction with the online return experience as a dependent variable to capture the overall evaluation of the return experience, and investigated the impact of the instant refund process on consumer satisfaction with the online return experience. Furthermore, beyond consumer satisfaction, we are also interested in the effects of instant refunds on consumer's control perception, return service quality perception, perceived relationship quality with the online seller, online return anxiety, and re-purchase intention in the post-return scenario. By studying the effects of instant refunds on these consumer responses, a comprehensive understanding of instant refunds may be reached.

Consumer return service quality perceptions can derive from their experiences with an online seller's return process. When consumers go through an instant refund process, they can receive their refund much sooner. In a service recovery context, such

as the online return context, the time or speed of a recovery process plays an important role in the formation of service recovery quality perception (see, e.g., Smith et al., 1999; Parasuraman et al., 2005; Valenzuela et al., 2005). From the consumer's perspective, the time or speed of an online refund process reflects how promptly and effectively the online seller handles their refund request and satisfies their refund needs. Therefore, if the return services provided by the online seller include an instant refund service, the quality of the overall return service is likely to be perceived as high. We thus propose the following hypothesis:

H4: *Consumers using (vs. not using) an instant refund service perceive a higher (vs. lower) return service quality.*

In a post-purchase, post-return scenario, perceived control refers to the amount of control a consumer feels that they had during the refund process (Dabholkar and Sheng, 2009). Product returns are viewed by consumers as a difficult process (Stock et al., 2006). Control perception can increase consumers' psychological comfort (Li and Ma, 2022) and can contribute to a positive service experience (Noone, 2008). Cognitive control, which is a consumer's perception of whether they are able to understand and predict a forthcoming service encounter, has been considered an important component of consumer-perceived control (Hajli and Lin, 2016). In a service recovery situation, service providers can increase consumers' cognitive control by providing adequate information regarding the service recovery, such as the exact time that the service recovery will take (Joosten et al., 2017). As a conventional refund process includes more steps and is more complex, online sellers are less capable to anticipate the exact timing of the refund, and the length of the refund process for consumers is uncertain. In contrast, in an instant refund process, the refund is issued to consumers once they complete the instant refund task; thus, there is no uncertain waiting period. Therefore, consumers who use an instant refund service should have stronger cognitive control over the refund process, which may result in a higher overall perception of control. The following hypothesis is proposed:

H5: *Consumers using (vs. not using) an instant refund service perceive more (vs. less) control of the refund process.*

For online sellers, it is important but difficult to create and nurture relationships with consumers (Walsh et al., 2010; Steinhoff et al., 2019; Antwi, 2021). Product return events can negatively influence the relationship between online sellers and consumers (Walsh and Brylla, 2017). Here, we sustain that an instant refund service can be used as a service recovery measure to create better seller–buyer relationships.

Perceived relationship quality with the online seller refers to a consumer's assessment of the strength of their relationship with the online seller (Sun, 2010). It has been conceptualized as a higher-order construct that consists of trust and relationship satisfaction (Sun, 2010; Taylor et al., 2018). With an instant refund service, the speed of the refund process can be much faster. Thus, consumers may perceive that such a refund process has more procedural fairness (Tax et al., 1998). Fairness plays a central role in an exchange relationship (Nguyen and Simkin, 2012). Compared to consumers who receive a conventional refund service, consumers who are offered an instant refund service could feel that the way they are treated in refund process is fairer and, so, they may be more satisfied with their exchange relationship with the seller (Giovanis et al., 2015). Additionally, from the consumer's perspective, a fair refund process can reflect the online seller's care about consumer welfare and good intentions, which may increase consumer trust in the online seller (Nikbin et al., 2016). Previous research has found that fairness perceptions are positively associated with relationship quality (Clark et al., 2009; Giovanis et al., 2015; Nikbin et al., 2016; Chi et al., 2020). Therefore, we propose the following hypothesis:

H6: *Consumers who use instant refund service (vs. not used instant refund service) perceive higher (vs. lower) relationship quality with the online seller.*

Satisfaction with the online return experience refers to a consumer's overall subjective evaluation of the online return experience (Westbrook, 1980). Refund speed

is a major factor that influences the online return experience for the consumer (Griffis et al., 2012; Callarman, 2019), while slow refund speed is an inherent weakness of conventional refund processes. By omitting activities such as receipt and inspection of the product in the refund process, online sellers who use instant refund services can issue the refund to consumers much faster. The notion of procedural fairness can be used to predict the effect of instant refunds on consumer satisfaction with the online return experience. Procedural fairness captures people's judgments regarding to what extent the procedures and social processes that are used to arrive at the outcomes are just and fair (e.g., Maxham and Netemeyer, 2002.; Griffis et al., 2012). Previous literature has suggested that a service recovery process with a high speed or that is carried out in a timely manner could be considered to have a high procedural fairness (see, e.g., Mollenkopf et al., 2007; Griffis et al., 2012), and procedural justice has been shown to be a precursor of consumer satisfaction with the service recovery experience (see, e.g., Maxham and Netemeyer, 2003; Homburg and Fürst, 2005). In the online return context, if consumers deem the procedures and policies that they experience in the return process to be unfair to them, they are likely to be unsatisfied with the return experience. Online sellers may be able to enhance consumer perceptions of procedural fairness by offering an instant refund service, which, in turn, may result in a higher level of consumer satisfaction with the online return experience. Therefore, we propose the following hypothesis:

H7: *Consumers who use an instant refund service (vs. not using instant refund services) feel more satisfied (vs. less satisfied) with the online return experience.*

The emotional part of an online shopping experience is important (Cachero-Martínez and Vázquez-Casielles, 2021). As anxiety is a negative emotional experience, consumers prefer to avoid experiencing anxiety. Anxiety about not receiving a refund refers to the feeling of nervousness or tension that a consumer experiences in the refund process, which arises from the consumer's imagination of not receiving a refund from the online seller during the refund process (Akkawanitcha and Patterson, 2017; Saprikis

et al., 2018). The online refund process is often a stressful situation for consumers as they have to face uncertainty regarding receiving the refund; thus, they are likely to feel anxious during the refund process. After a failure experience with an online seller, a consumer could doubt the credibility of the online seller and have less trust in them (Hsieh, 2013). If the online seller denies the return unreasonably or charges unreasonable fees, the consumer could suffer monetary losses. According to an online survey, consumers are often anxious about the prospect of making an online return (Narvar, 2017). Previous research has determined the signaling effects of lenient return policies on online seller quality and service quality in a pre-purchase context (Zhang et al., 2017). In an online return context, an instant refund policy may be able to carry signals of the online seller's quality, in addition to the seller's return service quality. Through these signals, consumers may have more confidence in receiving a fair return outcome from the online seller. Therefore, these signals may help customers overcome worry and anxiety regarding the anticipation of negative outcomes of the online return.

H8: *Consumers using (vs. not using) an instant refund service have lower anxiety (vs. higher anxiety) about not receiving the refund of a returned product.*

Re-purchase intention refers to the subjective probability that an individual will continue to purchase products from the online seller in the future (Chiu et al., 2009). Online sellers should be concerned about consumer re-purchase intentions, as they have a direct influence on their profits (Saleh, 2015). Previous studies have suggested that how online sellers deal with returns could influence the subsequent behaviors of consumers (Mollenkopf et al., 2007; Javed and Wu, 2020; Wang et al., 2020). In particular, Griffis et al. (2012) found that the refund speed of conventional refund processes can influence the future purchase actions of customers. Consumers who use an instant refund service are likely to appreciate the seller's efforts to provide superior service and be more satisfied with the return experience; thus, they may generate subsequent reciprocal appreciation of the seller (Javed and Wu, 2020). Therefore, these consumers could have stronger re-purchase intention.

H9: *Consumers using (vs. not using) an instant refund service show stronger (vs. weaker) intention to re-purchase from the online seller.*

The hypotheses above are depicted in Figure 2.

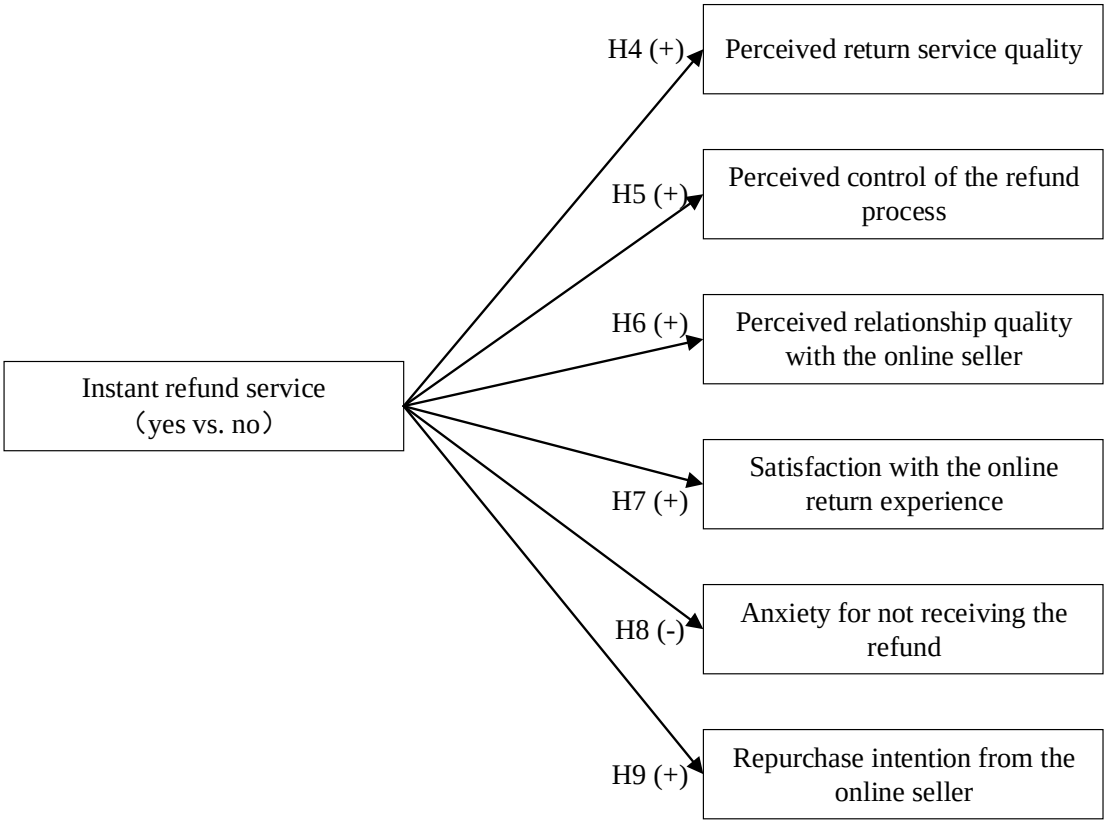

Figure 2. Study 2's research hypotheses.

2.4.2 Study 2

2.4.2.1 Method

Participants and procedure. For study 2, a one-factor (instant refund: yes vs. no) between-subject scenario experiment was conducted using online panel data. In line with study 1, we followed the same procedure to conduct this experiment. For this experiment, we recruited a new sample of 250 valid Chinese respondents who met the same requirements as in study 1. The control question used to identify invalid

respondents was when the respondents would receive their refunds in the return scenarios shown to them.

We randomly assigned the new respondents to each experimental cell and balanced the number of respondents in each cell (i.e., 125 valid participants per cell). Except for the refund service, the other stimuli for the two experimental cells were designed to be identical. The treatments received by participants are presented in Appendix A. When the respondents completed the questionnaire and submitted it, only the valid respondents—that is, those who answered the control question correctly—were kept in our sample and rewarded with about USD 1.1, as agreed. We kept recruiting respondents until we had enough valid respondents for each cell.

A total of 416 respondents participated in the survey, 250 of which were valid. Among all of the respondents in study 2, 50.8% were female; 19.6% of respondents were 18–25 years old, 30.4% were 26–30 years old, 39.2% were 31–40 years old, 8.4% were 41–50 years old, and 2.4% were older than 50 years old.

Experimental material. In study 2, we focused on the post-purchase, post-return scenario, in which consumers had already completed the refund process. Therefore, in addition to the refund time declared by the seller, the actual refund time taken by the online seller was also needed. On average, Amazon China usually takes around five days from the moment that the product is shipped by consumers to the moment of refunding them. Hence, according to the usual refund time informed by Amazon China on its website, we chose five days as the actual refund time under the conventional refund service for the experiment. The respondents in the instant refund group were refunded immediately, after they had filled in the tracking number on the return page. We maintained the product and the online seller's declaration about issuing the refund in study 1 for the same reasons.

Measures. We adapted the validated scales used in previous research for the dependent variables. The scale for manipulation checking used in study 1 was also applied for the manipulation check in study 2. The details are provided in Appendix B.

2.4.2.2 Results

Scale reliability and validity. The goodness-of-fit of the measurement model was acceptable: Chi Square/df = 1.779, RMSEA = 0.056, and TLI = 0.963. The factor loading of each item with its construct ranged between 0.760 to 0.929, in agreement with the range of factor loadings suggested by Bagozzi and Yi (1988). Both the Cronbach's alpha and Composite Reliability (CR) of all variables exceeded 0.7, indicating satisfactory internal consistency and reliability. The Average Variance Extracted (AVE) of each variable was much greater than 0.5, reflecting a good convergent validity. These results suggested that the variables were appropriately measured. Thus, we replaced the multi-item variables with one-item variables (by calculating the mean value of the items), and then applied the mean value in the ANOVAs to test the hypotheses.

Manipulation check. The result of the independent samples t-test showed that the refund speed of the instant refund service was perceived as significantly faster than the speed of the conventional refund service in the experiment ($M_{instant}$ = 6.176, $M_{conventional}$ = 4.272, $p < 0.001$).

Hypothesis testing. One-way ANOVAs were conducted to test the hypotheses. The results showed that instant refund service had a significant influence on consumer-perceived service quality in the post-purchase, post-return scenario ($M_{instant}$ = 6.187, $M_{conventional}$ = 5.453, F = 35.260, $p < 0.001$). Thus, H4 was supported. After consumers had completed the refund process, consumers who received an instant refund felt more in control of the refund process than those who received a conventional refund service ($M_{instant}$ = 5.040, $M_{conventional}$ = 4.008, F = 32.353, $p < 0.001$). Therefore, H5 was also supported. We also found that the instant refund service significantly affected consumer perceptions of relationship quality with the online seller ($M_{instant}$ = 5.922, $M_{conventional}$ = 5.236, F = 29.701, $p < 0.001$), in support of H6. We proposed that using an instant refund service may improve the consumer's overall online return experience. We found that consumers who received an instant refund (vs. those who did not) felt more satisfied (vs. less satisfied) with the online return experience ($M_{instant}$ = 5.694,

$M_{conventional}$ = 5.068, F = 20.588, $p < 0.001$). Thus, H7 was validated. A significant and negative effect of instant refund service on consumer anxiety (for not receiving the refund) was observed ($M_{instant}$ = 3.460, $M_{conventional}$ = 4.006, F = 8.153, $p < 0.01$), indicating that H8 was supported. Furthermore, H9 was also supported, as the instant refund service exerted a significant effect on consumer re-purchase intention from the online seller ($M_{instant}$ = 5.757, $M_{conventional}$ = 5.131, F = 16.429, $p < 0.001$). Generally speaking, the instant refund service had significant effects on all six variables in study 2, as hypothesized.

2.5 Theoretical Discussion and Managerial Implications

2.5.1 Theoretical discussion

This article has several theoretical contributions. First, this article contributes to the literature on the improvement of the consumer online return experience. Consumer satisfaction with the online return experience captures a consumer's overall subjective evaluation of the online return experience, from a consumer-centric view. Although consumer online return experience has been highlighted in prior studies (see, e.g., Petersen and Kumar, 2010; Lantz and Hjort, 2013; Janakiraman et al., 2016; Abdulla et al., 2019; Wang et al., 2020), only one recent study has studied consumer online return experiences (Rintamäki et al., 2021); this study identified monetary costs, convenience, stress, and guilt as factors affecting consumer perceptions of the return experience. Ertekin (2018) investigated consumer satisfaction with an in-store return experience. However, the strategies for improving the in-store return experience may differ from those for improving the online return experience, as the two return contexts are different. An in-store return process involves an intense buyer–seller interaction and can be completed in a short time period, while an online return process lacks personal interaction and takes a much longer time to complete (Ertekin, 2018). In this article, we focused on mitigating a key pain point of online returns to consumers—the slow speed of current refund processes—in order to improve the online return experience for consumers. Our research revealed that using an instant refund service can have a

positive influence on consumer satisfaction with the online return experience, which adds new knowledge to the literature on consumer online return experience improvement.

Second, our research also contributes to the literature on how online sellers can seize opportunities in returns handling to restore seller–buyer relationships. Previous research has found that product returns detrimentally affect consumer relationships with the online seller (Walsh and Brylla, 2017), while online sellers may be able to restore this relationship through the provision of superior return services. A few studies have studied the use of return services for restoring the seller–buyer relationship (e.g.: Pham and Ahammad, 2017; Javed and Wu, 2020; Espinosa et al., 2021; Rintamäki et al., 2021), but no studies to date have focused on the effect of the refund service on the buyer–seller relationship. Our research found that the use of an instant refund service provides a useful approach for the online seller to repair their relationships with consumers after online returns occur, thus contributing to the existing knowledge about how online sellers can restore seller–buyer relationships through return processing.

Third, previous studies have proposed several return services for improving consumer post-return responses (see, e.g., Wang et al., 2020; Javed and Wu, 2020; Javed et al., 2020), but the potential side-effects of using these return services on return intention have not yet been studied. In this article, we hypothesized that implementing an instant refund service may lead to higher consumer return intention, as an instant refund service omits the dreaded consumer wait period between the time that a good is returned and the time that a refund is credited (Mannes, 2016) and, as such, could reduce the psychological costs of waiting during the refund process. Unexpectedly, through study 1 and its additional study, we found that consumers did not show any significant difference in return intentions when they were exposed to an instant refund vs. a 7-day refund, or when exposed to an instant refund vs. a 14-day refund (extended time in the additional study). A possible explanation for this effect is that consumers are strongly motivated to return the product to correct the original purchase failure. In order to return the product, they are willing to wait for a long time to receive the refund and bear the

psychological cost of waiting during the refund process, even though they may have an unpleasant return experience. Intuitively, if a consumer predicts the return experience to be more favorable, they would have a stronger intention to return the product (Wood, 2001); however, our findings suggested that an instant refund service does not necessarily lead to higher return intention.

Fourth, our research considered perceived control over the refund process and online return anxiety, which have not been researched to date. Dailey and Ülkü (2018) studied perceived control with performing a product return behavior, but no study has analyzed the consumer's sense of control over a refund process. Our research fills this research gap by revealing that the use of an instant refund increased consumer-perceived control over the refund process in both the post-purchase, pre-return scenario and the post-purchase, post-return scenario. Furthermore, previous studies have considered consumer anxiety during online purchasing (e.g., Nagar, 2016; Nagar and Gandotra, 2016), as well as post-purchase dissonance, which is a construct germane to anxiety (Lee, 2015; Li and Choudhury, 2021). However, to the best of our knowledge, no research has yet investigated online return anxiety. This article approaches this gap by revealing that the use of an instant refund process can lower the online return anxiety of consumers.

Fifth, service quality is a key concept in marketing literature; however, the existing research related to the quality of the return service is rather inadequate. Prior studies on return service quality have documented the dimensions of return service quality (Mollenkopf et al., 2007), as well as the relationship between return policy leniency and the return service quality perception of consumers (Wang et al., 2020; Abdulla et al., 2022). In contrast to the prior studies, our research focused on how consumer perceptions of return service quality can be influenced by the refund service. We found that consumers who used an instant refund service or those who were informed that an instant refund service was available perceived a higher return service quality.

To summarize, this article contributes to the return management literature in three ways. First and foremost, although prior literature has stressed the importance of

consumer return experience for online sellers (see, e.g., Petersen and Kumar, 2010; Griffis et al., 2012; Lantz and Hjort, 2013; Janakiraman et al., 2016; Abdulla et al., 2019; Wang et al., 2020), little is known regarding how online sellers can improve their consumer return experience (Rintamäki et al., 2021). Our research helps fill this research gap, by revealing that an instant refund can significantly improve the online return experience for the consumer. In addition, some studies on refunds have studied the time constraints for consumers to return the item for a refund (e.g., Lysenko-Ryba et al., 2022; Chang and Yang, 2022) and the optimal decision on a money-back guarantee policy (e.g., Zhang et al., 2019). In contrast, we studied an instant refund service as related to refund speed. Prior literature has studied the effect of refund speed-related factors and strategies on the subsequent behaviors of consumers (Griffis et al., 2012; Oflaç, 2016; Serravalle et al., 2022), but the effects of refund speed-related factors or strategies on the other key variables in the return management literature are unknown. By discovering the relationships between instant refunds and the key variables established in the return management literature (e.g., perceived return service quality, perceived relationship quality, and product return intention), and by discovering the relationships between instant refunds and new constructs that are highly relevant to the e-commerce return context (including consumer satisfaction with the return experience, perceived control of the refund process, and online return anxiety), our research contributes to understanding the role of refund speed in return management. Furthermore, prior studies have not yet investigated the side-effects of using superior return services (see, e.g., Wang et al., 2020; Javed and Wu, 2020; Javed et al., 2020). Intuitively, a superior return service, such as an instant refund service, should be associated with a stronger product return intention (Wood, 2001). Interestingly, our research revealed that an instant refund service does not necessarily lead to higher return intention. However, it should also be acknowledged that this could be a consequence of the research data, which were not behavioral data but survey-based data; in a real purchase situation, instant refunds could lead to consumer misbehavior that survey methods are unable to capture.

2.5.2 Managerial implications

There are some practical implications for online sellers, in terms of their return management. A satisfactory return experience for consumers is key to an online seller's success (Janakiraman et al., 2016; Rao et al., 2018); thus, online sellers should improve their online return services to provide consumers with a satisfactory return experience. In this research, we found that using an instant refund service to handle refunds can, indeed, result in a higher consumer satisfaction with the online return experience. In terms of emotional experience, we found that the use of an instant refund can reduce consumer anxiety in the online return process. Our findings indicate that the use of an instant refund service can provide a useful approach to improve the online return experience; thus, employing an instant refund service to handle refunds should be very appealing to online sellers.

Online returns generally damage seller–buyer relationships (Walsh and Brylla, 2017); thus, a key challenge for online sellers in return handling is how to seize the opportunities in the online return process to restore the seller–buyer relationship. We found that using an instant refund service can effectively improve the returner's perceptions of relationship quality with the seller, which indicates that the use of an instant refund service is a useful approach for online sellers in their relationship marketing for online returners.

Given that around 30% of online sales end up being returned (Rudolph, 2016), whether consumers who have returned products to an online seller re-purchase from the seller could have a great impact on the sales and profits of the seller. We found that the use of an instant refund service can significantly increase consumer re-purchase intention. This finding suggests that online sellers can use such a service to improve consumer re-purchase intention, which could benefit them in terms of sales and profits.

In practice, online sellers may be afraid of using an instant refund, as they consider that such a service could be very costly to them. On the one hand, online sellers are usually wary of offering superior return services, as consumers are more likely to make

returns when such services are provided (Wood, 2001). In our research, it was found that the use of an instant refund did not significantly increase consumer return intention. Therefore, online sellers do not need to fear that the use of an instant refund service will noticeably increase their return rates and costs related to processing returns, and thus can be more confident in using instant refund services in their return management practices. On the other hand, online sellers need to invest in the improvement of their return services, which can incur extra costs for the sellers (Mollenkopf et al., 2007). We suggest that adapting an instant refund service may not mean a higher cost for the online seller. In a conventional refund process, it could be costly for online sellers to improve or maintain their refund speed, considering that the costs of fast delivery and employing many workers to process returns could be high. However, if they adapt an instant return process, such costs for improving or maintaining their refund speed under the conventional refund process are not necessary. With an instant refund service, online sellers can refund consumers once they complete the instant refund activity, following which they can process the returns and refunds without worrying about time and with lower costs.

For online sellers who have difficulty in speeding up their conventional refund process, an instant refund service appears to be more attractive. For instance, when using a conventional refund process, overseas online sellers generally take a long time to issue refunds, due to the long time required for shipment and complicated customs clearance procedures. These online sellers are likely unable to speed up their refund process to a great extent by improving the operational performance of their conventional refund process; however, an instant refund service may enable these online sellers to expedite their refund process.

Instant refund services could be used for special shopping events, such as Black Friday or Christmas shopping season sales. The amount of returns spike dramatically following these events; thus, online sellers are under more pressure to process returns and refunds than usual (Optoro, 2020). It is difficult for online sellers who employ a conventional refund process to maintain a fast refund speed for such returns. This

problem can be solved by using an instant refund service. With such a service, the online seller can ensure a fast refund speed by refunding consumers before the receipt of the returned product, following which the sellers can reasonably organize their returns processing, according their operational capabilities. Therefore, online sellers can deal with the challenge of handling a large amount of returns after shopping events by using an instant refund service.

At present, there are several ways for online sellers to implement instant refund services in practice. A direct way is to offer an instant refund service from the online seller themself. They can also implement instant refund services with the help of online marketplaces that provide sellers with such services, such as JD.com, Taobao, and Pinduoduo. Their support includes (but is not limited to) instant refund systems, policies to deter opportunistic consumer behaviors related to instant refund services, and reserving funds for instant refunds provided by marketplaces. Moreover, online sellers can also co-operate with e-commerce return companies (e.g., Returnly or Optoro) to implement an instant refund service. Online sellers should choose the most appropriate of these methods for themselves to implement instant refund services, based on their specific details.

2.6 Limitations and Future Research

To study the effects of the instant refund service in the experiments, the respondents needed to be exposed to a specific instant refund service. Therefore, a specific instant refund service was chosen for our experiment, which is commonly seen in Chinese e-commerce and used by major Chinese e-commerce companies. However, different types of instant refund services exist. Instant refund services vary in instant refund activities and refund method (e.g., cash and store credit). The instant refund service we used in the experiment does not represent all types of instant refund services. Future studies can investigate the impact of using other types of instant refund services on consumer responses and may compare their findings with ours.

We used 529 yuan as the product price for the experiment. The refund amount may

play a role in the consumer's reaction to the instant refund service. The use of an instant refund service may not significantly improve the consumer response when the price of the returned product is low, as the consumer may not be as concerned about a small amount to be refunded. Future studies can investigate whether or how product prices moderate the effect of using an instant refund service on consumer responses.

In this article, we focused on the use of an instant refund on the consumer online return experience, re-purchase intention, and other responses, while instant refund services call for more research. Instant refund services may be able to serve other purposes for online sellers. For example, future research can investigate whether an instant refund service can improve consumer responses in a pre-purchase scenario, such as stronger purchase intention, higher trust, lower risk perception, etc. Additionally, the gatekeeping of an instant refund process is not as strict as that of a conventional refund process. Thus, future research can study whether the use of an instant refund service might lead to a higher incidence of fraudulent returns; if so, approaching how online sellers could fight such fraudulent returns within an instant refund process would be needed.

In summary, there are still more research opportunities related to instant refunds that are open to further work.

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Appendix A. Stimulus Materials

Study 1 and Additional Study

Please, imagine you spent 529 yuan on buying a coat on an online store. After receiving the product, you try it on and you feel like returning it. Therefore, you want to check the return policy of the online store to help you to make the decision. You go to the return policy web page of the online store, and find the way that the online seller process refunds shown on the page:

"We hope you are completely satisfied with the products in your order. However, should you wish to return one or more of the items purchased from us, you could return them to us, in their original condition (i.e., new, unworn, unwashed, and unaltered merchandise with all internal garment tags), within 30 calendar days from the date of your original receipt. We will gladly accept your returns.

To return an item, please mail the item to the return address we provide to you. You can go to your purchase records on our website and click the return button, then we will send a delivery carrier to your place to pick it up. Then a tracking number will be provided to you by the carrier.

[*This paragraph was only shown to the respondents in the instant refund cell.*] We offer an instant refund service to you. After mailing the item, you can fill in the tracking number of the delivery on our return page. Once you fill in the tracking number, we will issue the refund to you instantly.

[*This paragraph was only shown to the respondents in the conventional refund cell.*] Transit time for the item to arrive our storehouse depends on your location. Once we receive the item, we will inspect and process it. Refunds will be processed within [7 (for Study 1)/ 14 (for Additional Study)] calendar days of the receipt of your return.

All refunds are issued to the original form of payment. If you made the payment with credit/debit card, you may need to wait additional days for your bank to post the refund on your bank account. If the original form of payment is not available, please

contact Customer Service."

The coat you purchased is eligible to be returned according to the online seller's return policy. Now you are considering how to deal with the coat.

Study 2

Please, imagine you were going through the following refund process.

You spent 529 yuan on buying a coat on an online store. After received the coat, you decided to return it to the online store to get your money back. Therefore, you initiated a return request to the online store. The online seller reminded you:

"Please mail the item to the return address we provide to you. You can go to your purchase records on our website and click the return button, then we will send a delivery carrier to your place to pick it up. Then a tracking number will be provided to you by the carrier.

[*This paragraph was only shown to the respondents in the conventional refund cell.*] Transit time for the item to arrive our storehouse depends on your location. Once we receive the item, we will inspect and process it. Refunds will be processed within 7 calendar days of the receipt of your return.

[*This paragraph was only shown to the respondents in the instant refund cell.*] We offer an instant refund service to you. After mailing the item, you can fill in the tracking number of the delivery on our return page. Once you fill in the tracking number, we will issue the refund to you instantly.

All refunds are issued to the original form of payment. If you made the payment with credit/debit card, you may need to wait additional days for your bank to post the refund on your bank account. If the original form of payment is not available, please contact Customer Service."

Following the online seller's instructions, you went to your purchase records on the online store and click the return button. On the next day a delivery carrier went to your place and picked the item up.

[*This paragraph was only shown to the respondents in the conventional refund cell.*] Then you informed the online seller that you had posted the product and sent the tracking number of the package to the online seller. You waited for your refund and checked the refund progress on the return page of the online store from time to time. On the 5th day after you posted the product, you found the online seller credited your refund**.**

[*This paragraph was only shown to the respondents in the instant refund cell.*] Then you filled in the tracking number of the package on the return page. As soon as you filled in the tracking number, the return page showed that the online seller already credited your refund.

Appendix B. Scales

Scales for study 1

Manipulation check

(From 1 to 7, 7-point scale)

How fast do you think the refund process of this online seller is?

Not fast at all/very fast

Perceived return service quality (Adapted from Wakefield and Blodgett, 1999)

(From 1 to 7, 7-point scale)

The online seller's return service quality is ____.

1. Poor/excellent
2. Much worse/much better than expected
3. Not at all what it should be/is just as it should be

Perceived control of the refund process (Adapted from Manganari et al., 2014)

(1: strongly disagree, 7: strongly agree)

1. I feel I have control over the refund process.
2. This online seller allow me to control the refund process.
3. I feel in control of the refund process.

Intention to return the product (Adapted from Maity and Arnold, 2013)

(From 1 to 7, 7-point scale)

Please rate your intention to return the product.

1. Unlikely/Likely
2. Impossible/Possible
3. Improbable/Probable

Scales for study 2

Manipulation check

(From 1 to 7, 7-point scale)

How fast do you think the refund process of this online seller was?

Not fast at all/ very fast

Perceived return service quality (Adapted from Wakefield and Blodgett, 1999)

(From 1 to 7, 7-point scale)

The online seller's return service quality is ____.

1. Poor/excellent
2. Much worse/much better than expected
3. not at all what it should be/is just as it should be

Perceived control of the refund process (Adapted from Manganari et al., 2014)

(1: strongly disagree, 7: strongly agree)

1. I felt I had control over the refund process.
2. This online seller allowed me to control the refund process.
3. During the refund process, I felt in control.

Perceived relationship quality with the online seller (Adapted from Wang and Ha, 2011)

(1: strongly disagree, 7: strongly agree)

1. I am satisfied with the relationship I have with the online seller.
2. This online seller gives me a feeling of trust.
3. I have trust in this online seller.
4. This online seller gives me a trustworthy impression.

Satisfaction with the online return experience (Adapted from Chang et al., 2015)

(1: strongly disagree, 7: strongly agree)

How do you feel about this online return experience?

1. Very dissatisfied/Very satisfied
2. Very displeased/Very pleased
3. Very frustrated/Very contented

4. Absolutely terrible/Absolutely delighted

Anxiety for not receiving the refund (Adapted from Menon and Dubé, 2007)

(1: not at all, 7: very much so)

Once the refund process is started with the online seller…

1. How ANXIOUS should you feel about not receiving the refund?
2. How WORRIED should you feel about not receiving the refund?
3. How NERVOUS should you feel about not receiving the refund?
4. How TENSE should you feel about not receiving the refund?

Repurchase intention from the online seller (Adapted from Shin et al., 2013)

(1: strongly disagree, 7: strongly agree)

1. I would like to buy products from this online seller once more.
2. I would like to buy products continuously from this online seller.
3. Next time I would like to buy products from this online seller.

Chapter 3. Restoring the Buyer–Seller Relationship through Online Return Shipping: The Role of Return Shipping Method and Return Shipping Fee

3.1 Introduction

Relationships with consumers are critical to the success of online sellers (e.g., Verma et al., 2016; Antwi, 2021), but developing and maintaining relationships with consumers is difficult in a non-face-to-face setting (e.g., Chen et al., 2008; Steinhoff et al., 2019). Online sellers should thus pay close attention to any situation that might harm their relationship with consumers (Walsh et al., 2010).

Online returns are a common phenomenon. Retail e-commerce sales worldwide are predicted to grow to USD 6.54 trillion in 2022 (Clement, 2020). Meanwhile, at least 30% of all e-commerce orders are ultimately returned (Rudolph, 2016). Previous studies indicated that online returns could be conceptualized as service failures because consumers who return products are generally not satisfied with the initial purchase experience (Mollenkopf et al., 2007; Griffis et al., 2012; Zhou, et al., 2018). It was previously demonstrated that online returns can detrimentally influence an online seller's relationship with customers (Walsh and Brylla, 2017). For online returns due to product defects or poor fulfillment services, online sellers could prevent such returns as well as their negative effects on buyer–seller relationships (Stock et al., 2006). However, online returns due to consumer satisfaction-related reasons are significant and appear to be an inevitable part of e-commerce (Yang et al., 2017; Narvar, 2019; Dopson, 2021). Such returns could, therefore, continue to damage buyer–seller relationships. Thus, online sellers should seize service recovery opportunities in the online return process to restore the buyer–seller relationship (Griffis et al., 2012; Walsh and Brylla, 2017; Mollenkopf et al., 2007). Because consumer satisfaction is viewed as a key component of relationship quality (Zhang et al., 2011) and also an important relational outcome (Odekerken-Schröder et al., 2003), in this study, we pay special

attention to consumer satisfaction with the online seller among the various indicators in the buyer–seller relationship.

According to previous consumer studies, around half of customers are unsatisfied with online return processes (see: Zebra, 2019 and 2021), which indicates that online sellers have failed to restore their relationship with these consumers (Rintamäki et al., 2021). A return shipping process usually entails many hassles and monetary costs among consumers (Ahsan and Rahman, 2021). Some online sellers, such as those on eBay and Taobao, request that consumers who need to return products find and use a third-party delivery service provider. This type of separated return shipping involves many hassles for consumers. A return shipping service that online sellers integrate into their return services, such as the integrated return shipping provided by Amazon and Walmart.com, could represent a potential solution for reducing consumer hassle and may generate better consumer reactions. However, providing integrated return shipping is a highly complex challenge that requires careful planning among sellers and increases the burden on sellers' logistics (Ahsan and Rahman, 2021). Thus, it is necessary to study the effects of this method on buyer–seller relationships to help sellers decide whether they should allocate their resources to provide such a service.

Providing free return shipping may also improve buyer–seller relationships (FedEx, 2020; Hughes, 2021), but could raise the operational costs of product returns on the sellers' side (Zhao et al., 2020). Hence, online sellers need to determine whether a free policy is effective in improving buyer–seller relationships (Abdulla et al., 2019). To the best of our knowledge, no study to date has examined the effect of integrated return shipping and free return shipping on buyer–seller relationships, which leads to our first research question: Can integrated return shipping and free return shipping restore buyer–seller relationships?

Implementing integrated return shipping is challenging for online sellers (Ahsan and Rahman, 2021). Thus, sellers need a comprehensive understanding of the outcomes of such a method to decide whether to employ it. Integrated return shipping could reduce consumer efforts related to return shipping arrangements. Prior studies have

explored several types of consumer efforts related to product returns. Some studies found that less consumer effort can improve consumers perceptions and behavioral intentions (Heim and Sinha, 2001; Mollenkopf et al., 2007; Pham and Ahammad, 2017), while others found that less consumer effort is not necessarily associated with more favorable consumer responses (Heim and Field, 2007; Ramanathan, 2011). The integrated return shipping method has not yet been studied. Thus, whether this method can improve consumers' perceptions and behavioral intentions is still unclear. This factor leads to our second research question: Does the integrated return shipping method improve the consumer's cognitive and behavioral responses?

Certainly, when online sellers design their return shipping policies, they should consider the potential interaction effects between different aspects of the policy. Although few studies have examined the interaction effects between different aspects of return policy on a consumer's product return decision (Janakiraman and Ordóñez, 2012) and purchase decision (Abdulla et al., 2022), no study has investigated the interaction effects between different return policy factors on consumer satisfaction, repurchase intention, or consumer perceptions. This background leads to our third and final research question: Is there any interaction effect between the return shipping method and return shipping fee on consumers' responses? If so, how do these factors interact?

To answer these research questions, we studied the effects of the return shipping method and return shipping fee on consumer fairness and value perceptions of return shipping policies, the benevolence perceptions of the seller, satisfaction with the seller, and repurchase intentions. This article is organized as follows. First, we present a discussion on different types of existing return shipping policies in terms of the method and costs and review the relevant literature. Then, we discuss our hypotheses. Next, we describe our experimental study, its main methodological aspects, and its results. Last, we describe this article's contributions to theory and practice, and conclude the article by discussing limitations and potential research opportunities.

3.2 Background: A Literature Review

Academics have paid attention to the impacts of return policies and services on several consumer responses, such as purchase intention and decision (e.g., Rokonuzzaman et al., 2020; Shao et al., 2021; Abdulla et al., 2022), return or keep intention and behavior (e.g., Wood, 2001; Janakiraman and Ordóñez, 2012; Chang and Yang, 2022), buyer–seller relationships (e.g., Mollenkopf et al., 2007; Pham and Ahammad, 2017; Rintamäki et al., 2021), and post-return buying behavior (e.g., Griffis et al., 2012; Wang et al, 2020; Tandon and Manohar, 2020). Janakiraman et al. (2016) conducted a meta-analysis focusing on the effects of return policy leniency on consumer purchase and return decisions and found that leniency increases purchase more than returns.

In the current literature, few studies have investigated the use of online return services or polices to restore buyer–seller relationships or generate more favorable relational outcomes. These studies have explored return management systems (Mollenkopf et al., 2007), the speed of return processing (Griffis et al., 2012), the ease of returns (Heim and Sinha, 2001; Ramanathan, 2011; Pham and Ahammad, 2017), and the returning experience (Rintamäki et al., 2021). No study to date has examined the effects of the return shipping method and return shipping fee on buyer–seller relationships. Because the return shipping method and return shipping fee are the two factors we focus on, we next introduce the existing practices related to these factors and review the literature relevant to them. For the sake of clarity, we present the content of the two factors separately in the following two subsections. At the end, we summarize the expected contributions of our study to the literature.

3.2.1 Return shipping method

Returned products due to consumer satisfaction-related reasons are non-defective products; thus, online sellers usually require such products to be shipped back to retrieve some value from them (Sarkis et al., 2004). Online sellers may need to decide how consumers should ship the product back to them. Some online sellers, such as those on eBay and Taobao, do not provide return shipping services to consumers and request

that consumers who need to return products find and use a third-party delivery service provider. In other words, these sellers separate the return shipping from their own return services. On the contrary, some other sellers, such as Amazon and Walmart.com, integrate return shipping into their return services. These online sellers enable consumers to directly arrange return on their websites and use the shipping service provided by them. For instance, consumers who need to return products to Walmart.com can schedule a date for pickup on Walmart's website, and the product will be picked up and shipped by its delivery partner FedEx (Valinsky, 2020). They can also select the "Drop off at FedEx" option on Walmart's website and bring the product to a FedEx location to ship it (Valinsky, 2020). In this article, return shipping method refers to the method that online sellers request their consumers use to ship returned products.

Compared to integrated return shipping, separated return shipping has less logistical complexity for online sellers because they do not need to take care of the return shipping with a separated method (Ahsan and Rahman, 2021). However, separated return shipping entails more work for consumers. With a separated method, consumers have to engage in an information-seeking process, which entails effort to search for, evaluate, and select qualified third-party delivery companies. A separated return shipping method also involves more communication-related tasks from the consumer's side, such as communication with the logistics company about the requirements for shipping the product and sending sellers the shipping information. Due to these efforts, a separated return shipping method is an inconvenience for consumers.

An integrated return shipping policy might reduce the above-mentioned inconvenience. In fact, this could be critical for successful service experiences when consumers return products (Mollenkopf et al., 2007; Mostert et al., 2017). With integrated return shipping, consumers do not need to find a third-party delivery company, thus eliminating information-searching efforts. Additionally, integrated return shipping should be professional and qualified in terms of delivering the product due to the seller's deep knowledge about its own product (Doong et al., 2008).

Therefore, in this arrangement, consumers do not have to communicate their requirements for shipping the products. Moreover, because the agent in charge of the integrated return shipping either belongs to the online seller or cooperates with the seller, information on the return shipping can be directly transmitted from the agent to the online seller without the need for consumers to relay such information (Bienstock et al., 2011; Röllecke et al., 2018).

An online return procedure consists of several necessary steps an online consumer must take in order to return a product to the online seller, involving accessing the return process (i.e., acquiring return authorization and finding out return policies and procedures), preparing the package (i.e., preparing the packaging materials and packaging the product), arranging the return shipping, and physically bringing the product to a logistics site (Nguyen et al., 2018; Ramanathan, 2011; Mollenkopf et al., 2007). Each step requires consumer efforts. In essence, integrated return shipping should reduce consumers' efforts associated with arranging the shipping for online returns. Among all online return studies that take consumer efforts into consideration, some investigate the effects of the overall ease of return (Heim and Sinha, 2001; Heim and Field, 2007; Ramanathan, 2011; Pham and Ahammad, 2017). Other studies focus on consumer efforts in specific steps of the return procedure, such as accessing the return process (Smith, 2005; Heim and Field, 2007; Janakiraman and Ordóñez, 2012) and preparing the package and entering it into the seller's return system (Mollenkopf et al., 2007). How consumers efforts to deal with return shipping influence their responses has not yet been investigated.

Although some studies demonstrated that ease of returns and less consumer effort in returns can positively influence seller–buyer relationships and relational outcomes (Heim and Sinha, 2001; Mollenkopf et al.; 2007; Pham and Ahammad, 2017), others found that easier returns or less consumer effort in returns do not necessarily lead to more favorable consumer responses (Heim and Field, 2007; Ramanathan, 2011). Until now, there is no evidence showing that decreasing consumer efforts in arranging return shipping by using an online seller's integrated return shipping can benefit seller–buyer

relationships and improve consumers' responses towards sellers.

3.2.2 Return shipping fee

Shipping a product purchased online to return it has a cost. For satisfaction-related returns, online sellers can either provide free return shipping by bearing return shipping costs themselves, or they can request that consumers pay for return shipping. Although some online sellers offer free return shipping for satisfaction-related returns, most online sellers employ a fee return policy that requires consumer to pay for such returns (Posselt et al, 2008; Zhao et al., 2020). A fee return shipping policy is instituted based on an online seller's normative assumptions; i.e., retailers attribute the responsibility for the return and thus employ equity-based return shipping policies. If the retailer deems itself responsible for taking care of the return (e.g., online returns due to poor product quality or damage incurred in transit), the retailer absorbs the return fee; if the retailer attributes the return to the consumers (e.g., online returns due to consumer satisfaction-related reasons), the consumers should pay for return shipping (Bower and Maxham, 2012). Some online sellers have adopted a free return shipping policy, which is a consumer-friendly return policy intended to build better relationships with their consumers and pursue more favorable relational outcomes (Xu and Jackson, 2019). To offer free return shipping, online sellers pay for the return shipping instead of the consumers, which will generate extra costs for the online sellers.

Previous research studied the effects of several monetary cost-related factors in product returns on seller–buyer relationships and relationship outcomes. These factors include a full refund policy (Pei et al., 2014), a channel's monetary costs (Xu and Jackson, 2019), and financial compensation for returns (Mollenkopf et al., 2007). To the best of our knowledge, previous studies have not explored the effects of a return shipping fee on seller–buyer relationships or relational outcomes.

Previous studies on return shipping fees have focused on the influence of such costs on online sellers' profits or consumer purchase behaviors. Hjort and Lantz (2016) found that customers who enjoyed free return shipping generated a significantly lower

contribution to retailers than the average consumer contribution. Thus, they argued that free return shipping may not benefit retailers in terms of profitability (Hjort and Lantz, 2016). However, Bower and Maxham (2012) suggested that toughening return shipping fee policies may be shortsighted because such strategies appear to negatively influence post-return customer spending at a retailer. Furthermore, Zhao et al. (2020) found that the optimal return shipping fee policy is related to the actual quantity of returns and the proportion of non-defective returns. Therefore, a free return shipping policy does not necessarily reduce online sellers' profits. In this work, we study the effect of free return shipping for satisfaction-related returns on consumer satisfaction with the online seller, repurchase intention, and other consumer responses.

In sum, this article is meaningful to the field for several reasons. First, although the prior literature has investigated the ways in which a few return services or return service attributes can restore buyer–seller relationships or generate more favorable relational outcomes (e.g., Mollenkopf et al., 2007; Griffis et al., 2012; Rintamäki et al., 2021), to the best of our knowledge, our research is the first attempt to unveil how return shipping policy influences buyer–seller relationships. Second, prior studies on return shipping policies mainly focused on monetary aspects, including return shipping fees (Bower and Maxham, 2012; Hjort and Lantz, 2016; Zhao et al., 2020) and return shipping insurance (Geng et al., 2017; Li et al., 2021). However, other aspects of return shipping policy have not been researched to date. Our work approaches this research gap by studying the effects of the return shipping method on consumer responses. Finally, although academics have called for research on the effects of interactions between different aspects of return policy (Janakiraman et al., 2016; Abdulla et al., 2019), few studies have examined the relevant interaction effects. In particular, previous studies have examined the interaction effects between different aspects of return policy on consumer purchase intentions (Abdulla et al., 2022) and product return decisions (Janakiraman and Ordóñez, 2012). Our research instead focuses on consumer satisfaction, repurchase intention, and several pivotal consumer perceptions. Therefore, our work extends knowledge on the interaction effect between different aspects of

return policies.

3.3 Hypotheses

This article studies how return shipping policies influence a set of important cognitive, affective, and behavioral responses among consumers. Following the traditional sequence of effects in consumer behavior studies, first, we discuss the hypotheses related to the dependent variables for consumer perception (i.e., perceived fairness, perceived value, and perceived benevolence); consumer affect (i.e., satisfaction); and, lastly, behavioral intention (i.e., repurchase intention).

Satisfaction-related returns result from an online seller's failure to satisfy consumers, and usually cause unnecessary monetary loss and inconvenience to consumers (Mollenkopf et al., 2007; Walsh and Brylla, 2017). In any service failure encounters, as in the case of online returns, responsible organizations need to develop ethical recovery strategies to avoid perceived unfairness by consumers (Siu et al., 2013). Wang et al. (2020) suggested that to reduce consumers' perceptions of unfairness, online sellers should avoid return management practices that put consumers at a disadvantage. Consumers' fairness perceptions in online returns are proven to be important antecedents of consumer behavior (Bower and Maxham, 2012; Pei et al., 2014; Wang et al, 2020). Since every consumer who returns by mail will go through a return shipping process, online sellers should be conscious of fairness issues in dealing with return shipping and establish a fair return shipping policy.

Perceived fairness of a return shipping policy refers to the consumer's judgment of whether the rules made by the online seller for return shipping are fair and reasonable (Pei et al., 2014). Prior return policy research has demonstrated that leniency in a return policy is positively related to consumers' fairness perceptions of that policy (Wang et al., 2020). Consumer effort leniency was also shown to be a key dimension of return policy leniency (Abdulla et al., 2019; Gäthke et al., 2022; Abdulla et al., 2022). Online sellers are able to manipulate their effort leniency to differentiate their return policies from those of other sellers (Chang and Yang, 2022). Return policies that are designed

to require less effort on the side of the consumer are considered more lenient (Janakiraman et al., 2016). When an online seller employs a separated return shipping method, consumers have to expend significant effort to ship the item when returning it. These consumers may then perceive the seller's return shipping policy as less lenient and, therefore, regard such a policy as less fair. On the other hand, when an integrated return shipping is provided, consumers do not need to expend as much effort to ship the items, as integrated return shipping reduces consumer effort in arranging return shipping. Therefore, under this model, consumers may regard the online seller's approach to return shipping as more convenient and lenient, which may lead to higher fairness perceptions of the return shipping policy.

H1: *An integrated return shipping method (vs. a separated return shipping method) makes consumers perceive an online seller's return shipping policy as more fair (vs. more unfair).*

A return shipping fee could drive up consumer inputs in return shipping in terms of monetary costs. Previous research has investigated the effects of monetary costs in online returns on consumer fairness perceptions. Bower and Maxham (2012) found that customers deem free return shipping as fairer than fee return shipping, regardless of blame attributions. Pei et al. (2014) concluded that a full return policy is considered fairer than a partial return policy. If consumers are provided with free return shipping, the return requires less monetary input. As a result, consumers may perceive the return shipping policy as more fair. Thus,

H2: *Offering free return shipping (vs. requesting consumers to pay for return shipping) makes consumers perceive that the online seller's return shipping policy is more fair (vs. more unfair).*

Perceived value is regarded as one of the most powerful forces in today's marketplace and is an underlying source of competitive advantage (Floh et al., 2014). Online retailers should focus on the strategically important goal of creating customer's

value perceptions of return policies, and invest in their return process and thoughtfully craft return policies. When consumers return products to online sellers, consumers' perceived value of return policies have been found to directly influence their loyalty to the seller (see Mollenkopf et al., 2007). Therefore, it is essential for online sellers to increase the value of their return policies. Because return shipping policy is a part of return policy (Bonifield et al., 2010), online sellers should increase the value of their return shipping policy in order to increase the overall value of the return policy.

Perceived value of the return shipping policy refers to a consumer's assessment of the net benefit associated with the online seller's return shipping policy (Jeng, 2017). Consumers' value perceptions are formed based on their considerations of a tradeoff between the benefits and the costs (Zeithaml, 1988). Consumers' perceived value of the return shipping policy may be influenced by the costs and the benefits of using the return shipping policy (Mollenkopf et al., 2007). When consumers are provided with free return shipping, their monetary costs associated with return shipping will be reduced. Monetary cost is a component of the overall cost generated by using a seller's service (Chang et al., 2009). A lower monetary cost of using the policy may decrease the overall cost of using it in a consumer's mind. As a result, they are likely to regard the return shipping policy with free return shipping as more valuable due to its lower cost.

H3: *Offering free return shipping (vs. requesting consumers to pay for return shipping) makes the return shipping policy more valuable (vs. less valuable) to consumers.*

A return shipping process generally entails some level of consumer effort (Shang et al., 2017). An integrated return shipping method makes the return shipping process easier and more convenient to consumers, because consumers do not need to put much effort into arranging return shipping (Seiders et al., 2007). Greater convenience of the return shipping process brought about by integrated return shipping may make consumers regard such a policy as more beneficial to them (Gao and Waechter, 2017),

which could result in higher perceived value of the policy. Prior research has suggested that an e-retailer's high-quality service recoveries can enhance a customer's perceptions of value drawn from return offerings (Mollenkopf et al., 2007). Thus,

H4: *An integrated return shipping method (vs. a separated return shipping method) makes the return shipping policy more valuable (vs. less valuable) to consumers.*

Since consumers are already unsatisfied with their purchase, it should be appreciated when an online seller shows benevolence during online returns. Benevolence means interpersonal care and concern for helping consumers to solve problems in the online return process separate from profit motives (Toufaily et al., 2013; Lin, 2011), i.e., an online seller's goodwill in the seller–buyer exchange relationship beyond the explicit contract-level relationship (Chong et al., 2003). Benevolence plays a central role in building trust, and it can reduce the risk perception of the relationship, foster affective commitment, and exert a positive impact on consumers' attitude towards online sellers (Chong et al., 2003; Toufaily et al., 2013; N'Goala, 2007; Lin, 2011). Benevolence perceptions can produce subsequent reciprocal behaviors from customers and even lead to extra-role behaviors such as positive word-of-mouth or suggestions for service improvements (Bove et al., 2009). Therefore, online sellers should carry out their service recovery approaches in online returns to build a benevolent image to consumers.

Perceived benevolence of the online seller refers to the extent to which an online seller is believed to intend to benefit customers, beyond profit motives (Bhattacherjee, 2002). Previous research has suggested that online sellers can use high-quality reverse logistics programs to shape the corporate image (Smith, 2005). The interactions between the online seller and consumer can increase the consumer's knowledge about the benevolence of the online seller (Chen and Dhillon, 2003). During the interaction, consumers can judge the seller's benevolence based on the cues sent by the seller (Hauswald and Hack, 2013); the cues could be offering support to consumers (Hauswald and Hack, 2013). Providing integrated return shipping may serve as such a

cue, because this approach reduces consumer efforts in return shipping and needs an online seller's extra investments. Consumers may perceive that online sellers who provide integrated return shipping have good intentions towards them beyond their self-interest, and thus view such sellers as being benevolent. Thus,

H5: *An integrated return shipping method (vs. a separated return shipping method) makes consumers perceive the online seller as more benevolent (vs. less benevolent).*

Free return shipping may also lead consumers to perceive the online seller as benevolent. Monetary compensation can offset a consumer's loss due to the service failure, and offering compensation means the company has to sacrifice some profit in order to remedy the consumer's loss (Xie and Peng, 2009). Such organizational initiatives may be able to convey corporate concern for consumer interest rather than self-interest in problem solving (Xie and Peng, 2009). Consumers may perceive satisfaction-related returns as service failures (Walsh and Brylla, 2017) and thus may think that it should be the online seller's responsibility to pay for return shipping costs. If consumers are asked to pay for the return shipping, they may view the online seller as exploitative. Therefore,

H6: *Offering free return shipping (vs. requesting consumers to pay for return shipping) makes consumers perceive the online seller as more benevolent (vs. less benevolent).*

Customer satisfaction has been described as both the ultimate goal of the market economy and the key outcome of the marketing process (Boshoff, 1997). It is also a key indicator of the buyer–seller relationship (Zhang and Bloemer, 2008; Zhang et al., 2011). Online returns undermine consumer satisfaction with the online seller (Walsh and Brylla, 2017). The process of handling returns entails service recovery opportunities for initial service failure; thus, online sellers should seize the service recovery opportunities to return dissatisfied customers to a state of satisfaction and

maintain a high-quality relationship with consumers (Boshoff, 1997).

Satisfaction with an online seller refers to a consumer's overall evaluation of the online seller based on their experience (Zhang and Bloemer, 2008). Such satisfaction will be continually updated based on recent experiences with the seller and the resulting level of satisfaction (Walsh and Brylla, 2017). Service encounters with an online seller provide consumers with new experiences to reassess their satisfaction (Smith and Bolton, 1998). Product returns are akin to service failures, which can detrimentally affect a consumer's general satisfaction with a retailer (Walsh and Brylla, 2017). However, sellers might restore consumer satisfaction through superior service recovery performance. If consumers receive appropriate service recovery, they can have a satisfactory experience after a service failure and thus add positive new information to assess their satisfaction with the firm (Siu et al., 2013). In such a way, consumer satisfaction with the firm could be restored (Siu et al., 2013).

Financial compensation has been regarded as a primary service recovery approach for online returns (Mollenkopf et al., 2007). Previous service recovery research has found that offering financial compensation for service failure can restore consumer satisfaction (Vázquez-Casielles et al., 2012). Rintamäki et al. (2021) found that monetary costs of the return process are a significant factor influencing a consumer's perceptions of the return experience, which in turn influences consumer satisfaction with the retailer. Consumers who return products due to satisfaction-related reasons usually need to pay for return shipping (Posselt et al, 2008; Zhao et al., 2020). In turn, free return shipping provided by the online seller can be seen as a form of financial compensation for any monetary loss related to return shipping (Chen and Zhou, 2014). Thus, this recovery approach is likely to add positive new information to the consumer's satisfaction judgment (Smith and Bolton, 1998). When free return shipping is provided, the consumer may have more satisfaction with the online seller (Vázquez-Casielles et al., 2012). Therefore,

H7: *Offering free return shipping (vs. requesting consumers to pay for the return*

shipping) should give consumers more satisfaction (vs. less satisfaction) with the online seller.

Online returns require consumer efforts to complete additional tasks. Arranging return shipping is one of the tasks that consumers could have to deal with to return a product. An integrated return shipping method is a service recovery approach for reducing consumer efforts in arranging return shipping. Previous research has suggested that online sellers' long-term relationships with consumers are linked to their high-quality reverse logistics programs (Smith, 2005). When integrated return shipping is provided, consumers are likely to have a more satisfactory return experience due to less efforts in organizing return shipping. A satisfactory return experience could restore a consumer's overall satisfaction after service failure (Rintamäki et al., 2021). It has been found that decreasing levels of customer effort to carry out the return will result in higher levels of satisfaction with the return process (Mollenkopf et al., 2007), which may improve the overall satisfaction with the seller. Pham and Ahammad (2017) found that ease of returning a product is one of the most significant contributors to online customer satisfaction, while ease of return in their study is closely related to consumer efforts in returning products. Thus,

H8: *An integrated return method (vs. a separated return method) should give consumers more satisfaction (vs. less satisfaction) with the online seller.*

Consumer repurchase behavior is a behavioral outcome that online sellers appreciate, and it has a direct influence on online sellers' profits (Gupta and Kim, 2007; Zhou et al., 2009; Matute et al., 2016). A basic principle of developing seller–buyer relationships is to create repurchase intention (Herjanto and Amin, 2020). Intention to repurchase from the online seller refers to the subjective probability that an individual will continue to purchase products from the online seller in the future (Chiu et al., 2009). An integrated return shipping service reduces consumer efforts in return shipping (Pham and Ahammad, 2017). Recent studies have found that lenient return policies are positively associated with consumer repurchase intention (Wang et al., 2020; Tandon

and Manohar, 2020). Javed and Wu (2020) also found an online consumer's perceptions of post-delivery services, such as returns, affect their repurchase intention from the e-retailer. Mollenkopf et al. (2007) found both higher service recovery quality and less consumer efforts in return processes can promote consumer loyalty. Considering that repurchase intention is a manifestation of consumer loyalty (Zhang et al., 2011), integrated return shipping and free return shipping should enhance consumer repurchase intention. Pham and Ahammad (2017) found that ease of return is one of the most significant factors ultimately influencing consumer repurchase intention. Therefore,

H9: *An integrated return shipping method (vs. separated return shipping method) should result in higher (vs. lower) consumer intention to repurchase from the online seller.*

A free return shipping service is used by online sellers to compensate for a consumer's monetary loss due to return shipping. Such a service recovery approach may enhance consumer satisfaction with the seller (Vázquez-Casielles et al., 2012). Bower and Maxham (2012) found that consumers who paid a return shipping fee decreased their post-return spending at the same retailer, while in contrast, consumers who experienced free return shipping considerably increased their post-return spending. Thus,

H10: *Free return shipping (vs. fee-based return shipping) should result in higher (vs. lower) consumer intentions to repurchase from the online seller.*

Finally, there may be an interaction effect between the return shipping method and return shipping fee. In the best-case scenario of providing integrated and free return shipping, consumers are likely to have the most positive beliefs and the highest repurchase intention. In contrast, in the worst-case scenario in which consumers must organize and pay for return shipping by themselves, consumers may have the most negative beliefs and tend to not purchase from the seller again. Furthermore, integrated

return shipping may exacerbate the expected negative effect of fee return shipping on perceived fairness. It has been found that product returns, which are akin to service failures, will detrimentally affect consumer satisfaction with the online seller (Walsh and Brylla, 2017). Previous studies have argued that relationship factors may influence consumers' responses to return services (Mollenkopf et al., 2007; Hess et al., 2003). When consumers are provided with integrated return shipping rather than separated return shipping, they must pay the return shipping fee to the online seller or its delivery partner. In this case, consumer dissatisfaction with the online seller may lead to less acceptance of paying the return shipping fee to the seller or its partner. As a result, integrated return shipping may make consumers feel that fee return shipping is a more unfair practice.

In addition, integrated return shipping may also intensify the expected negative effect of fee return shipping on the perceived benevolence of the online seller. Consumers usually draw inferences about motives behind firms' actions and their attribution of the motives impacts their evaluations of the firm (Foreh and Grier, 2003). In a fee and separated return shipping scenario, consumers would attribute the fee policy to the seller's cost-covering motive, because the fee is paid to a third-party delivery service provider (Schindler et al., 2005). However, in a fee and integrated return shipping scenario, consumers must pay the fee to the online seller or its delivery partner. Consumers may be skeptical of such a shipping charge and may view it as a way for the seller to make additional profits (Chatterjee, 2011; Koukova et al., 2012; Pan et al., 2013). In this scenario, a fee policy may be considered as a seller's strategy to make additional profits rather than simply as a way to cover its return shipping costs (Schindler et al., 2005). When attributing a fee policy to the seller's profit-making motive in comparison to their cost-covering motive, consumers may have a lower benevolence perception of the online seller (Schindler et al., 2005). Therefore, an integrated return shipping method is likely to worsen the expected negative effect of a fee policy on consumers' benevolence perceptions due to consumers' inferences of the online seller's profit-making motives.

Previous literature has suggested that the more money consumers spend, the more they want to gain (Lin, 2013). In the return shipping context, when a return shipping policy requires consumer to pay for return shipping rather than providing free return shipping, consumers may expect more benefits from the other aspects of the return shipping policy. Understanding that perceived benefit as a subjective element (Zeithaml, 1988), a higher expectation of benefit may result in a consumer's lower subjective assessment of the benefit they receive from integrated return shipping. As a result, requiring consumers to pay for return shipping should undermine the expected positive effect of integrated return shipping on perceived value of return shipping policy. In sum, consumers who need to pay for return shipping are likely to have low satisfaction with integrated return shipping, because such a service recovery approach may not meet their high expectations for the return shipping service. In contrast, when consumers are provided with free return shipping, they may have higher satisfaction with integrated return shipping due to their low expectations. Therefore, in comparison with those who are provided with free return shipping, consumers who need to pay for return shipping are likely to be less satisfied with integrated return shipping. Their lower satisfaction with integrated return shipping may lead to lower satisfaction with the online seller (Smith and Bolton, 1998), which in turn lowers their intention to repurchase from the seller (Pham and Ahammad, 2017). Thus,

H11: *There is an interaction effect between return shipping method and return shipping fee on (a) perceived fairness of the return shipping policy, (b) perceived value of the return shipping policy, (c) perceived benevolence of the online seller, (d) satisfaction with the online seller, and (e) intention to repurchase from the online seller.*

The hypotheses detailed above are depicted in Figure 1.

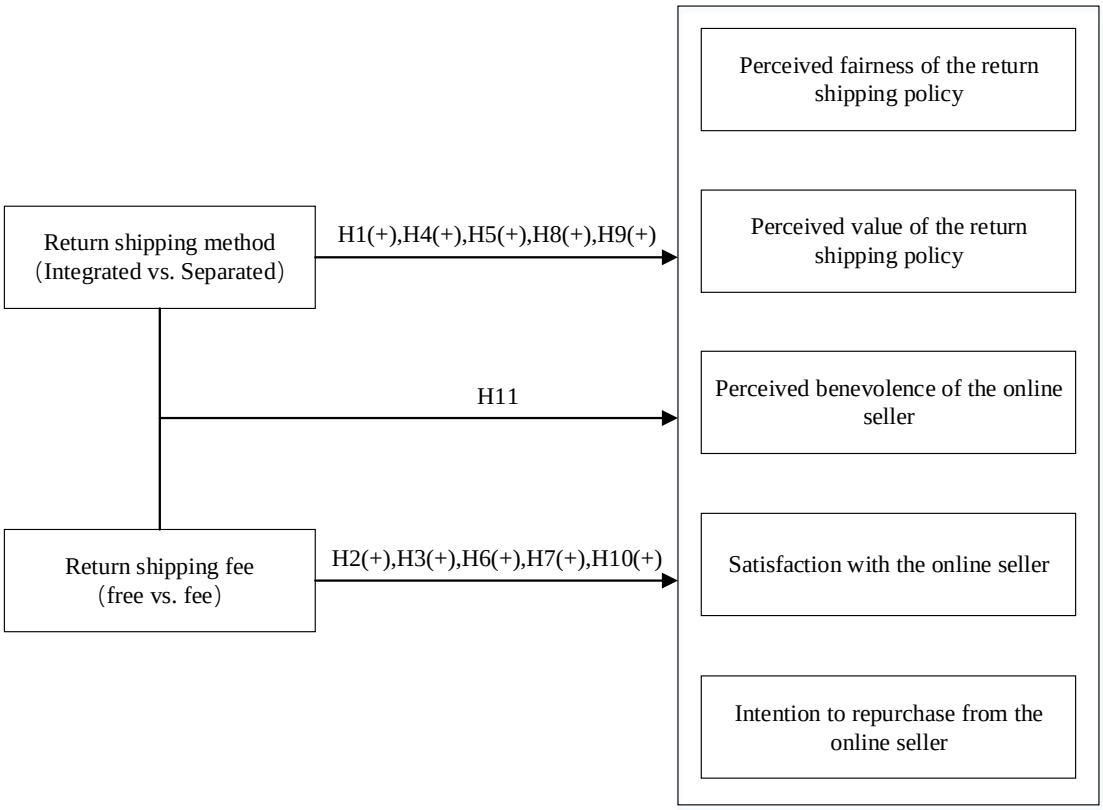

Figure 1. Research hypotheses.

3.4 Methods

3.4.1 Research participants and procedure

We designed a two-factor (integrated return shipping vs. separated return shipping; free return shipping vs. fee return shipping), between-subject experiment to conduct this study.

We consulted an online survey company, Wjx.cn, to recruit 320 valid Chinese online consumers who had experience in online purchasing and returning online purchases by mail in the past six months. These respondents accessed a link sent by the company to complete the experiment online. We recruited respondents with online purchase and return experience to ensure that the respondents were familiar with online return shipping and could understand our experimental materials. The required sample size was calculated by G*Power software, using usual parameters (i.e., statistical test,

ANOVA: fixed effects, special, main effects, and interactions; effect size f = 0.25; alpha error probability = 0.01; power = 0.8; numerator d.f. = 1; number of groups = 4). The output of the software showed that a minimum sample size of 191 was required to fulfill these parameters; our sample size of 320 exceeded this.

To ensure that we had valid respondents in our sample, we added two control questions at the end of the questionnaires related to the two experimental factors to verify the validity of the respondents. The control questions involved whether they need to find and deal with a delivery company to ship the laptop and whether the online seller offers free return shipping to them in various scenarios. Respondents who did not answer both questions correctly did not understand our experimental materials, and, thus, they were considered as invalid. Only those who correctly answered both questions were kept in our sample. We decided to conduct this experiment in China, because China is the largest e-commerce market in the world and is growing rapidly (Skeldon, 2021). All participants recruited for the experiment were Chinese, from various areas in the country.

We randomly assigned participants to each experimental cell and balanced the number of the participants in each cell (i.e., 80 valid participants per cell; see Deutskens et al., 2006). Participants in each cell were exposed to the respective scenarios; the treatments that participants received are presented in Appendix A. All respondents were asked to use their computer to complete the questionnaires and we also informed the respondents that they should read the experimental materials carefully and answer the questions intuitively. When the respondents completed the questionnaire and submitted it, those which were valid were kept in our sample, and rewarded with about USD 1.5. The invalid participants were not included in our sample and were not paid. We kept recruiting respondents until we had enough valid respondents for each cell. A total of 518 respondents completed the survey, 320 of which were valid.

Among the subjects in our sample, 55.9% were female, 16.3% were 18–25 years old, 31.6% were 26–30 years old, 41.3% were 31–40 years old, 8.4% were 41–50 years old, and 2.5% were older than 50 years old.

3.4.2 Experimental material

All respondents were exposed to the scenarios in which they decided to return a laptop purchased online because they were not satisfied with it, and they were asked to ship the product to the online seller following the seller's return policy. Our research purpose is to improve the relationship between online sellers and consumers who return products due to satisfaction-related reasons; thus, the return reason in the scenarios was that the consumers were not satisfied with the laptop. A laptop was selected as the experimental product for three reasons. First, electronics are one of the most purchased product categories online (Sabanoglu, 2020), and also one of the product categories with the highest online return rates (Mazareanu, 2018). Second, consumers are familiar with laptops, because laptops are commonly used in daily life (Statista Research Department, 2021). Third, a laptop has integrated features and capabilities in the same device, thus offering extensive diversity in its application areas such as business, education, and entertainment (Grand View Research, 2018). Therefore, it is realistic for people with different backgrounds (e.g., age, education, gender) to buy a laptop.

When consumers return an online-purchased product by mail, online sellers determine the shipping method that the consumers should use to ship the product back to them. In separated return shipping scenarios, consumers were asked to find a third-party delivery company by themselves and deal with the return shipping process. The respondents were told that the delivery company they find should be able to transport the laptop appropriately. In integrated return shipping scenarios, consumers were asked to directly arrange return shipping with the online seller. When providing integrated return shipping, an online seller should design reasonable return options for consumers to physically enter the product into its return logistics. Both drop off and pickup options would be used by consumers to return laptops, so the online seller provided both options in the integrated scenarios.

In terms of return shipping fees, online sellers can either charge a return fee or have a free return policy. In the fee return shipping scenarios in our study, the online seller requested that consumers pay for return shipping for satisfaction-related returns.

In free return shipping scenarios, the online seller supported return shipping costs by themselves. In the free and separated return shipping scenario, the respondents were told that the return shipping fee to be reimbursed should not be higher than the regular shipping fees that main delivery companies charge from their locations. Such a limit is common practice. Without such a limit, consumers may be inefficient in selecting an appropriate delivery company and choose an expensive one, which could cause additional costs for the online seller.

3.4.3 Measures

We adapted validated scales from previous research to measure the dependent variables in this study. The details of the scales can be seen in Appendix B.

3.5 Results

3.5.1 Scale reliability and validity

To assess whether the constructs in the study were correctly measured by the corresponding scales, we used AMOS 22.0 to run a confirmatory factor analysis for the measurement model. The goodness of fit indices were satisfactory: Chi-squared/df = 1.655, RMSEA = 0.045, TLI = 0.987. The factor loading of each item with its construct ranges between 0.813 and 0.945, which meets the range of factor loadings suggested by Bagozzi and Yi (1988). Both the Cronbach's alpha and composite reliability (CR) of five variables were over 0.7 (see Table 1), showing a satisfactory internal consistency and reliability.

The average variance extracted (AVE) of each variable was much greater than 0.5, indicating satisfactory convergent validity (for greater detail on cut-off values and reliability analyses, see Martínez-López et al., 2013). These satisfactory results indicate that the constructs were correctly measured. As ANOVA works with one-item variables, once it checked the above, following the usual procedure here, each multi-item variable was replaced for average values.

Table 1. Loading, alpha, AVE, and CR values of constructs.

	Loading	Alpha	AVE	CR
Perceived fairness		0.949	0.862	0.949
Fairness1	0.945			
Fairness2	0.895			
Fairness3	0.945			
Perceived value		0.940	0.840	0.940
Value1	0.918			
Value2	0.905			
Value3	0.926			
Perceived benevolence		0.945	0.777	0.946
Benevolence1	0.907			
Benevolence2	0.900			
Benevolence3	0.813			
Benevolence4	0.881			
Benevolence5	0.902			
Satisfaction		0.941	0.845	0.943
Satisfaction1	0.901			
Satisfaction2	0.932			
Satisfaction3	0.925			
Repurchase intention		0.958	0.885	0.958
Repurchase1	0.941			
Repurchase2	0.937			
Repurchase3	0.944			

3.5.2 Hypotheses testing

This study has two experimental factors considering interaction effects, and therefore, two-way, full factorial ANOVAs were employed to test the hypotheses.

Perceived fairness of the return shipping policy. The result showed that the treatment of the integrated return shipping had a significant positive effect on perceived fairness of the return shipping policy ($F = 15.345$, p-value < 0.01). In an integrated return shipping scenario, consumers perceived that the online seller's return shipping policy was more fair ($M_{integrated} = 5.813 > M_{separated} = 5.242$). Therefore, H1 was supported. In the scenarios including a return shipping fee, the results showed that the free return shipping had a significant positive effect on perceived fairness ($F = 48.676$, p-value < 0.01). In a free return shipping scenario, consumers perceived that the return shipping policy was more fair ($M_{free} = 6.035 > M_{fee} = 5.019$). Therefore, H2 was supported. However, no interaction effect on perceived fairness was found ($F = 0.641$, p-value $= 0.424$).

Perceived value of the return shipping policy. The result showed that free return shipping had a significant positive effect on perceived value ($F = 99.679$, p-value < 0.01). In a free return shipping scenario, consumers perceived a higher value of the return shipping policy ($M_{free} = 5.833 > M_{fee} = 4.435$). Therefore, H3 was supported. Regarding the return shipping method, an integrated return shipping policy had a significant positive effect on consumer perceived value of the return shipping policy ($F = 31.801$, p-value < 0.01). In an integrated return shipping scenario, consumers perceived the value of the return shipping policy as higher ($M_{integrated} = 5.529 > M_{separated} = 4.740$). Therefore, H4 was supported. However, no interaction effect between two factors on perceived value was found ($F = 1.180$, p-value = 0.278).

Perceived benevolence of the online seller. The result showed that an integrated return shipping policy had a significant and positive influence on consumer-perceived benevolence of the online seller ($F = 43.286$, p-value < 0.01). In an integrated return shipping scenario, consumers perceived the online seller as more benevolent ($M_{integrated} = 5.225 > M_{separated} = 4.380$). Therefore, H5 was supported. As for the factor of return shipping fee, free return shipping had a significant and positive influence on perceived benevolence ($F = 120.095$, p-value < 0.01). In a free return shipping scenario, consumers perceived the online seller as more benevolent ($M_{free} = 5.506 > M_{fee} = 4.099$). Therefore, H6 was supported. No interaction effect on perceived benevolence was found ($F = 0.319$, p-value = 0.573).

Satisfaction with the online seller. The result showed that free return shipping had a significant and positive effect on consumer satisfaction ($F = 103.781$, p-value < 0.01). In a free return shipping scenario, consumers felt more satisfied with the online seller ($M_{free} = 5.737 > M_{fee} = 4.277$). Therefore, H7 was supported. In terms of return shipping method, an integrated return shipping policy had a significant and positive effect on consumer satisfaction ($F = 33.286$, p-value < 0.01). In an integrated return shipping scenario, consumers felt more satisfied with the online seller ($M_{integrated} = 5.421 > M_{separated} = 4.594$). Therefore, H8 was supported. However, no interaction effect on consumer satisfaction was found ($F = 0.735$, p-value = 0.392).

Intention to repurchase from the online seller. The result showed that an integrated return shipping policy had a significant and positive effect on repurchase intention ($F = 29.467$, p-value < 0.01). In an integrated return shipping scenario, consumers showed a stronger repurchase intention ($M_{integrated} = 5.592 > M_{separated} = 4.758$). Therefore, H9 was supported. Regrading return shipping fee, free return shipping had a significant and positive influence on repurchase intention ($F = 89.213$, p-value < 0.01). In a free return shipping scenario, consumers had a stronger repurchase intention ($M_{free} = 5.900 > M_{fee} = 4.450$). Therefore, H10 was supported. No interaction effect between two factors on repurchase intention was found ($F = 1.179$, p-value = 0.278).

In sum, all hypothesized main effects of two factors were supported, but no interaction effects between two factors on the dependent variables were found (see Table 2).

Table 2. Hypotheses testing.

Hypotheses	Results
H1: Return shipping method → Perceived fairness	Supported
H2: Return shipping fee → Perceived fairness	Supported
H3: Return shipping fee → Perceived value	Supported
H4: Return shipping method → Perceived value	Supported
H5: Return shipping method → Perceived benevolence	Supported
H6: Return shipping fee → Perceived benevolence	Supported
H7: Return shipping fee → Satisfaction	Supported
H8: Return shipping method → Satisfaction	Supported
H9: Return shipping method → Intention to repurchase	Supported
H10: Return shipping fee →Intention to repurchase	Supported
H11: Interaction effects	Rejected

3.6 Theoretical Discussion

This article offers several theoretical contributions. First, our research shows that a consumer-friendly return shipping policy is an effective relationship marketing strategy for online sellers. Some prior studies have examined product return management in traditional bricks-and-mortar stores (e.g., Huppertz, 2007; Ertekin, 2018). However,

online returns have distinct differences with product returns in physical stores in terms of communication between seller and consumer, the return process, consumer efforts required to make a return, and reverse logistics activities (Ahsan and Rahman, 2021). These differences increase the difficulty and complexity in managing online returns compared to offline returns (Ahsan and Rahman, 2021). A significant difference between online and offline returns is that the seller and buyer in an online return context are not in the same location. Thus, an item to be returned in an online shopping context needs to be shipped from the consumer to the seller. For this reason, the present research is different from prior studies focused on offline returns because return shipping is specific to the online return context. Moreover, although prior literature has studied the effects of a few return services and return service attributes on buyer–seller relationships and relational outcomes (Mollenkopf et al., 2007; Griffis et al., 2012; Heim and Sinha, 2001; Ramanathan, 2011; Pham and Ahammad, 2017), whether, and how, online sellers can use return shipping policies for relationship marketing has not yet been studied. Our research fills this gap by indicating that the use of integrated return shipping and free return shipping can restore buyer–seller relationships.

More specifically, prior studies on return shipping fees have discussed the value of free return shipping to online sellers from the perspective of profitability and have drawn inconclusive conclusions (Bower and Maxham, 2012; Hjort and Lantz, 2016; Zhao et al., 2020). Our research offers new insight into the value of a free return shipping policy for online sellers by revealing the positive influence of such policies on consumer satisfaction, which is key to buyer–seller relationship quality and an online seller's long-term success (Hennig-Thurau et al., 2002; Zhang and Bloemer, 2008; Zhang et al., 2011). Although a fee return shipping policy is cost-effective for online sellers (Bower and Maxham, 2012), our research indicates that it could be worthwhile for online sellers to invest in a free return policy for their relationship marketing and long-term success. Prior studies on return shipping policies have mainly focused on monetary factors (e.g., Zhao et al., 2020; Li et al., 2021). However, other aspects of return shipping policy are absent from current discourse, and as such, the effects of such

aspects on buyer–seller relationships are unknown. Our research found that an integrated return shipping method can reduce the consumer effort needed to arrange return shipping, thereby improving consumer satisfaction.

Second, our research indicates that integrated return shipping can improve consumer perceptions of the online seller and its return shipping policy, as well as strengthen consumer repurchase intentions. Integrated return shipping is an approach used by online sellers to reduce the consumer effort needed to arrange return shipping. Some prior studies have demonstrated that easier returns and less return effort can positively influence consumers' perceptions and behavioral intentions (Mollenkopf et al., 2007; Heim and Sinha, 2001; Pham and Ahammad, 2017), while others found that easier returns or less return effort do not necessarily lead to more favorable consumer responses (Heim and Field, 2007; Ramanathan, 2011). These different conclusions about the effects of consumer efforts may be due to the nuances related to consumer effort-related factors in prior studies. Mollenkopf et al. (2007) focused on consumer efforts to pack and ship items, while Pham and Ahammad (2017) studied the ease of the entire return process. Heim and Sinha (2001) considered ease of cancellation as part of ease of return, while Heim and Field (2007) and Ramanathan (2011) considered ease of refund as part of ease of return. In this article, we focused on integrated return shipping, which is related to a decrease in the consumer effort needed to arrange return shipping. Our research indicates that integrated return shipping can improve consumer perceptions and strengthen consumer repurchase intention, which adds new knowledge to the literature on return shipping policy.

Third, our results show that there was no interaction effect between the method and the fee on consumer perceived value, satisfaction, and repurchase intention. This result could be because consumers who pay a return shipping fee do not expect greater benefits from the other aspects of the return shipping policy. In an original service context, consumers regard a service fee as the amount of money they sacrifice to obtain a service (Zeithaml, 1988). Therefore, a higher service fee could lead to a higher expectation of benefits from the service among consumers (Lin, 2013). However,

consumers may not consider a return shipping fee to be a kind of service fee. Consumers are likely to regard product returns as service failures and thus consider that the seller is responsible for the return (Walsh and Brylla, 2017). As a result, consumers could view paying a return shipping fee as a monetary loss caused by the seller's unreasonable fee policy (Bower and Maxham, 2012). When consumers experience repeated failures (i.e., product returns and paying return shipping fees), they can lose their confidence in the seller's services and thus not have high expectations for benefits from the other aspects of the return shipping policy (Hess et al., 2003).

Our result also showed that there was no interaction between the two factors on fairness perception. Previously, product returns were found to detrimentally affect consumer satisfaction with online sellers (Walsh and Brylla, 2017), while we found that integrated return shipping could significantly restore consumer satisfaction (see H8). Therefore, since a buyer–seller relationship damaged by previous service failures can be restored to some extent via integrated return shipping, paying the return shipping fee to the online seller or its delivery partner seems to be acceptable to consumers. This result may explain why an integrated return shipping policy did not cause a consumer to perceive paying for the return shipping fee as more unfair.

Moreover, contradicting our hypothesis, no interaction effect on perceived benevolence was found. A reasonable explanation is that, in a fee and integrated return shipping scenario, consumers could attribute the fee policy to a seller's need to cover costs rather than make extra profit. Previous literature has argued that the amount of a fee charged by a seller can affect consumers' inferences about the seller's motives (Cheema, 2008; Pan et al., 2013). When an online seller charges a reasonable fee, consumers may infer that the online seller charges for integrated return shipping only for cost-covering reasons.

Fourth, consumers' perceived value is a pivotal construct in marketing literature (Dodds, 1991; Floh et al., 2014), but the perceived value of return shipping policy has not yet been studied. Prior literature has studied how sellers can add value to their return policies (Mollenkopf et al., 2007; Jeng, 2017), which is different from our focus on the

value of return shipping policies. As such, how online sellers can develop return shipping policies that are valuable to consumers has not been explored. The present article fills this theoretical gap by indicating that both free return shipping and integrated return shipping can cause consumers to perceive a return shipping policy as more valuable.

Fifth, prior studies have investigated the influential factors of consumers' perceived benevolence of an online seller at the pre-transaction stage (e.g., Zhou and Tian, 2010; Park et al., 2012; McKnight et al., 2002) and transaction stage (e.g., Hwang, 2009; Hung et al., 2012). However, factors impacting consumer benevolence perceptions in online returns have not yet been investigated. Although it is difficult for a customer to conceive that an online seller is benevolent towards him/her in general (Toufaily et al., 2013), we found that both integrated return shipping and free return shipping can provide evidence of the benevolence of sellers and thus help sellers build a more benevolent image.

To summarize, our research contributes to the current literature in four ways. First and foremost, prior literature has investigated the use of few return services or return service attributes to restore buyer–seller relationships or generate more favorable relational outcomes, including return management systems (Mollenkopf et al., 2007), the speed of returns processing (Griffis et al., 2012), the ease of returns (Heim and Sinha, 2001; Ramanathan, 2011; Pham and Ahammad, 2017), and the returning experience (Rintamäki et al., 2021). Our research reveals that free return shipping and integrated return shipping can effectively restore the buyer–seller relationship damaged by online returns, thus adding new knowledge to the relationship marketing literature. In addition, prior literature on return shipping policy has mainly focused on monetary aspects (Bower and Maxham, 2012; Hjort and Lantz, 2016; Zhao et al., 2020; Geng et al., 2017; Li et al., 2021). Our research demonstrates that an integrated return shipping policy in comparison to a separated one leads to more favorable consumer responses towards the policy and the seller. Furthermore, to the best of our knowledge, our research is the first to examine the interaction effects between different aspects of return

policy on buyer–seller relationships, repurchase intentions, and consumer perceptions. We found that the effects between the two studied factors on consumer responses were not interactive but additive, which indicates that online sellers charging for superior return services does not necessarily weaken the positive effects of those services on consumer responses. Finally, in the existing literature on return shipping, consumer perceived value, perceived benevolence, and satisfaction are pivotal variables but remain unstudied. Our research determined the relationships between return shipping policies and these variables, thus providing deeper insight into return shipping policy.

3.7 Practical Implications

Restoring buyer–seller relationships damaged by online returns is critical to the success of online sellers. In this research, we found that consumer-friendly return shipping policies, such as an integrated return shipping policy and a free return shipping policy, are very effective to improve the buyer–seller relationship. Thus, it should be appealing for online sellers to employ these approaches in their relationship marketing.

In comparison to an integrated return shipping policy, a separated policy is the easier way for online sellers to deal with return shipping. However, our findings remind online sellers that the inconvenience to consumers of using a separated return shipping could result in relatively low satisfaction and weak repurchase intentions. In contrast, an integrated policy removes many of the frictions during the return shipping process for consumers, such as the hassles related to finding qualified third-party delivery companies and communications with the delivery service provider and the online seller. Consumers who are provided with integrated return shipping have more satisfaction with the online seller and stronger repurchase intentions. Therefore, for online sellers wishing to restore their relationship with the consumers and increase consumers' repurchases, integrated return shipping is an important approach.

An integrated return shipping can be fulfilled either by online sellers' self-run logistics or a delivery partner. Online sellers who plan to use self-run logistics should establish physical infrastructure such as transport or return locations, as well as

information systems for monitoring the progress of return shipping. Building a self-run logistics system is costly. Most online sellers, especially small- and medium-sized ones, could implement integrated return shipping by establishing a partnership with a return service provider, such as an online marketplace that provides integrated return shipping support (e.g., Amazon or JD.com), a delivery company (e.g., UPS or FedEx), or a return management company (e.g., Happy Returns). Furthermore, the online sellers need to provide an interface on their websites for consumers to arrange return shipping with them. On the interface, they should clearly instruct their consumers how to use the integrated return shipping. To make it convenient for consumers to make an appointment for pickup, online sellers may need to design an ease-of-use interface in which consumers can fill in the necessary information for pickup. For consumers who use a drop off method, online sellers could put a map displaying their return locations and show the business hours of the return locations, so the consumers can easily locate the return locations and go to them at the right time.

A fee return shipping policy is cost-effective to online sellers, which motivates them to employ such a shipping policy (Bower and Maxham, 2012). Although a fee policy is equity-based and adopted by most online sellers, our research suggests that using a fee policy to deal with online returns might be shortsighted. We found that a free return shipping policy can lead to a better buyer–seller relationship, which benefits the long-term success of online sellers and helps facilitate consumers' future purchases, thereby increasing sales. Therefore, an online seller could view the return shipping costs it may bear as investments in relationship marketing and sales growth. Our findings suggest that online sellers should reevaluate their return shipping fee policy and make new policy decisions, not only considering the cost of a free return policy, but also the impacts of a free return policy on their relationship with consumers and future sales.

Online sellers can use several ways to offer free return shipping. For example, sellers can simply waive the return shipping fee when using self-run logistics systems. In cases where online sellers use a return shipping service provided by a delivery service partner, they can directly pay the return shipping fee to their partners (e.g., by

sending a pre-paid label to the consumer or asking them to choose a "delivery fee to be collected" option) or ask consumers to pay the return shipping fee first and reimburse the consumer later. Online sellers can also buy return freight insurance for their consumers. If a consumer returns an insured product, the insurance company instead of the online seller will compensate the consumer for the return shipping fee (see Fan and Chen, 2020).

Our research found that fee return shipping does not undermine the positive effect of integrated return shipping on consumer responses. Therefore, online sellers can be confident to use an integrated return shipping policy and a fee return shipping policy, which can lead to favorable consumer responses and also control the return costs. However, when an integrated policy and a free return policy are used together, the return shipping policy can produce the best consumer responses. Considering the significant and positive influence of an integrated and free return shipping policy on buyer–seller relationships and consumers' repurchases, the use of such a policy may be very appealing to online sellers.

3.8 Limitations and Future Research

To study the effects of a return shipping policy in the experiment, respondents should be exposed to an experimental scenario in which they need to ship a product to the online seller to return it. In this work, we selected a laptop as the experimental product. However, a laptop cannot represent all product categories. Products vary in terms of the difficulty of arranging return shipping or the cost of return shipping. For instance, there are big differences between shipping a fridge or a pair of shoes in terms of the hassle of arranging return shipping and the return shipping fee. Future studies can investigate whether and how product categories moderate the effect of return shipping policy on consumer responses.

We found that integrated return shipping and free return shipping can improve consumer satisfaction and repurchase intentions, but we did not investigate potential side effects of these approaches. Because the return shipping is free to consumers under

a free return policy and convenient to them with an integrated policy, these approaches may lead to more legitimate and opportunistic product return behaviors. More online returns will lead to a loss of profit for online sellers; thus, it is worth studying such potential side effects. Future studies could examine the effects of a return shipping policy on consumer return behaviors to generate a more comprehensive understanding.

This research studied only two levels of each experimental factor. Future research could work on more levels of the factors by considering other potential return shipping methods with different levels of consumer effort and more types of return shipping fee policies with different monetary costs. Future studies could also analyze the specific ways that return shipping methods or return shipping fees influence consumer responses. In this way, a deeper insight into the relationship between return shipping policies and consumer responses could be developed. In terms of the dependent variables, we applied several important constructs found in the return management literature as the dependent variables in this study; however, the relationships among these variables were not explored. It would be interesting to investigate the relationships among consumers' product-return-related cognitive, affective, and behavioral responses in future studies.

In this article, we focused on integrated return shipping and free return shipping. Given that online returns are very common now and damage buyer–seller relationships, it would be meaningful to explore more return policies or services to improve such relationships. Future research could also compare the effectiveness of various consumer-friendly return policies and superior services (e.g., integrated return shipping and free return shipping) to restore the buyer–seller relationship. Such research could identify which approaches have stronger positive effects on the buyer–seller relationship, thus helping online sellers determine the priorities for improving their return management.

In this work, we found that a consumer-friendly return shipping policy can be an effective approach to restore the buyer–seller relationship. However, with the rise of omni-channel retailing, some products purchased online could be directly returned to

sellers' bricks-and-mortar stores instead of being shipped to the appropriate return addresses. Thus, return-shipping-based approaches cannot be used in these returns. Therefore, further research could study the strategies for sellers to nurture their relationship with consumers when consumers use 'buy online and return in store' services.

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Appendix A. Stimulus Materials

Please imagine you have purchased a laptop on an online shopping website a few days ago. Now you receive the delivery.

You open the package to check the laptop. The laptop is not broken. You turn on the laptop and try it. The laptop is working well. Although you think it is an acceptable purchase for you, you are not completely satisfied with it. Therefore, you decide to return it.

You initiate the return request to the online seller. The online seller approves your return request and provides the return address to you. The online seller informs you how to ship the laptop back:

[*All respondents can see text above*]

[*The following four paragraphs were shown to the respondents in the integrated and free return shipping scenario*]

"According to our return shipping policy, we will arrange the return shipping for you to make your return easier, so you do not have to deal with a delivery company by yourself. We offer free return shipping to our customers, regardless of the reason for the return. Therefore, we will take care of the return shipping fee, not having any extra cost for you.

You can use either the pickup method or the drop off method provided by us:

1. If you use our pickup method, now or later on, you should make an appointment with us for the time and the place to pick up the product at your place. We will send a delivery carrier to pick up the product at the appointed place at the appointed time. Please ensure that you or someone else will hand over the product to the carrier and show the carrier the return address. You do not need to pay the carrier.

2. If you prefer our drop off method, you should return the product to our

designated return location near you. You can take the product to any drop off location and show the staff the return address to ship it. You do not need to pay anything to the staff there."

[*The following four paragraphs were shown to the respondents in the integrated and fee return shipping scenario*]

"According to our return shipping policy, we will arrange the return shipping for you to make your return easier, so you do not have to deal with a delivery company by yourself. We offer free return shipping if the return is the result of mistakes of ours, including the following: (1) the item was damaged in transit, (2) the item was defective, or (3) we shipped the wrong item. If return is not the result of our mistake, the customer would need to pay a return shipping fee. Therefore, in your case, you would need to pay a return shipping fee.

You can use either the pickup method or the drop off method provided by us:

1. If you use our pickup method, now or later on, you should make an appointment with us for the time and the place to pick up the product at your place. We will send a delivery carrier to pick up the product at the appointed place at the appointed time. Please ensure that you or someone else will hand over the product to the carrier and show the carrier the return address. A reasonable fee will be charged for the return shipping service. The specific fee depends on your location. The return shipping fee will be directly deducted from the refund when we would refund you, so you do not need to pay the carrier.

2. If you prefer our drop off method, you should return the product to our designated return location near you. You can take the product to any drop off location and show the staff the return address to ship it. You need to pay the return shipping fee when you ship the product at the drop off location."

[*The following four paragraphs were shown to the respondents in the separated*

and free return shipping scenario]

"According to our return shipping policy, you need to find and deal with a delivery company to ship the product to the return address we provide to you. In this case, we do not guarantee that we will receive your returned item, or that the item will not be damaged in transit. So, please ensure that the delivery company you deal with is able to transport the laptop appropriately. Have also in mind that we offer free return shipping to our customers, regardless of the reason for the return. Therefore, we will cover the return shipping fee for you.

You can use either the pickup method or the drop off method provided by a delivery company:

1. If you use a pickup method provided by a delivery company, you should find the way to make an appointment with the delivery company for pickup and the return shipping fee the company will charge. Then, you make an appointment to pick up the product and show the carrier the return address. You should pay the return shipping fee first, and attach the scanned proof of your return shipping fee payment to your open return ticket on your user account on our website. We will add the return shipping fee to the amount we should refund you. However, please be aware that the return shipping fee to be reimbursed will not be higher than the regular shipping fees that main delivery companies charge from your location; in order to know what these fees are, please add your zip code in the field "maximum return fees to be covered".

2. If you use a drop off method provided by a delivery company, you should take the product to the shipping location and show the staff the return address to ship it. You should pay the return shipping fee first, and attach the scanned proof of your return shipping fee payment to your open return ticket on your user account on our website. We will add the return shipping fee to the amount we should refund you, up to the regular shipping fees that main delivery companies charge from your location; same policy as indicated above applies here."

[*The following four paragraphs were shown to the respondents in the separated and fee return shipping scenario*]

"According to our return shipping policy, you need to find and deal with a delivery company to ship the product to the return address we provide to you. In this case, we do not guarantee that we will receive your returned item, or that the item will not be damaged in transit. So, please ensure that the delivery company you deal with is able to transport the laptop appropriately. We offer free return shipping if the return is the result of mistakes of ours, including the following: (1) the item was damaged in transit, (2) the item was defective, or (3) we shipped the wrong item. If return is not the result of our mistake, the customer must to pay the return shipping fee. Therefore, in your case, you would need to pay a return shipping fee.

You can use either the pickup method or the drop off method provided by a delivery company:

1. If you use a pickup method provided by a delivery company, you should find the way to make an appointment with the delivery company for pickup and the return shipping fee the company will charge. Then, make an appointment to pick up the product and show the carrier the return address. You need to pay the return shipping fee.

2. If you use a drop off method provided by a delivery company, you should take the product to the shipping location you find and show the staff the return address to ship it. You need to pay the return shipping fee."

Appendix B. Scales

Perceived fairness of the return shipping policy (Adapted from Campbell, 2007)

(From 1 to 7, 7-point scale)

I think that the online seller's return shipping policy is ____ .

1. Unfair/Fair
2. Wrong/Right
3. Unreasonable/Reasonable

Perceived value of the return shipping policy (Adapted from Jeng, 2017)

(From 1 to 7, 7-point scale)

Adapted scale:

The return shipping policy of the online seller is ____ .

1. Extremely not beneficial to me/Extremely beneficial to me
2. Worthless/Valuable
3. Useless to me/Useful to me

Perceived benevolence of the online seller (Adapted from Schlosser et al., 2006)

(1: strongly disagree, 7: strongly agree)

1. The online seller seems very concerned about my welfare.
2. My needs and desires appear to be important to the online seller.
3. It doesn't seem that the online seller would knowingly do anything to hurt me.
4. The online seller seems to really look out for what is important to me.
5. The online seller appears to go out of their way to help me.

Satisfaction with the online seller (Adapted from Zhu et al., 2016)

(1: strongly disagree, 7: strongly agree)

1. From this experience with the online seller, I'd feel satisfied with the online seller.
2. From this experience with the online seller, I'd feel pleased with the online seller.

3. From this experience with the online seller, I'd feel happy with the online seller.

Intention to repurchase from the online seller (Adapted from Shin et al., 2013)

(1: strongly disagree, 7: strongly agree)

1. I would like to buy products from this online seller in the future.

2. I would like to buy products continuously from this online seller.

3. Next time, I would like to buy products from this online seller.

Chapter 4. Green Communication for More Package-Free E-commerce Returns

4.1 Introduction

Product returns, an issue enhanced by e-commerce, has been a growing problem for the environment (Frei et al.,2020). It is necessary to make the existing e-commerce returns mode, which is based on a packed mail service, more environmentally friendly. E-commerce packaging material includes papers, envelops, cardboard, plastics, woven bags, tapes, and fillers (Chueamuangphanet al., 2020), generating massive package waste (Chueamuangphanet al., 2020; Escursell et al., 2021). Furthermore, even if an item was previously in a good condition, when consumers pack it for mailing, the return shipping process can damage it (Calma, 2019). Sometimes, trashing returned items is the most cost-effective way to handle returns, instead of spending money for them to be cleaned, refurbished, and put back up for sale (Calma, 2019). The cost of returning an item to the supply chain is usually high (Ram, 2016). For example, in the UK, it costs between USD 3.31 and 11.04 to pick up and deliver a coat ordered online, and it costs double or triple on the way back (see Ram, 2016). As a consequence, with the proliferation of e-commerce, the negative impact of returns on the environment has been staggering: in total, returned items are worth USD 428 billion, 5.8 billion lbs of which end up in landfills, with 16 million metric tons of greenhouse gas emissions resulting from returns shipments (Optoro, 2020). Greening the e-commerce returns mode is essential for the sustainable future of e-commerce (Li et al., 2021).

The package-free return mode has thus been developed to make e-commerce returns more environmentally friendly and reduce e-commerce packaging in return shipments. (Notably, not all “package-free” returns are actually package-free. Recently, Amazon offered a convenient return service allowing consumers to return purchased products to a local courier without packing items up. The courier will then pack returns for return shipment. Obviously, this type of “package-free” return is not in our research scope. We focused on those package-free returns that will be directly examined in store. Additionally, the term “package-free returns” in our study lies at the interface between consumers and stores. It is possible that stores could need to transship nonresalable

products in boxes to a destination like a manufactory for refurbishment or reworking.) It relies on the BORS (buy online, return in-store) strategy. Under this model, returns are usually made following this procedure: (1) a consumer returns an item to a return point in "store" (e.g., department stores, brand stores, and hypermarkets) without packing it; (2) staff examine the returned item; (3) the e-shopping platform will refund the consumer; (4) returns are transshipped in bulk to a given place (e.g., discount stores, charities, manufacturers, or landfills) (see Li et al., 2021). Figures 1 and 2 show the packed mail return mode and the package-free return mode, respectively.

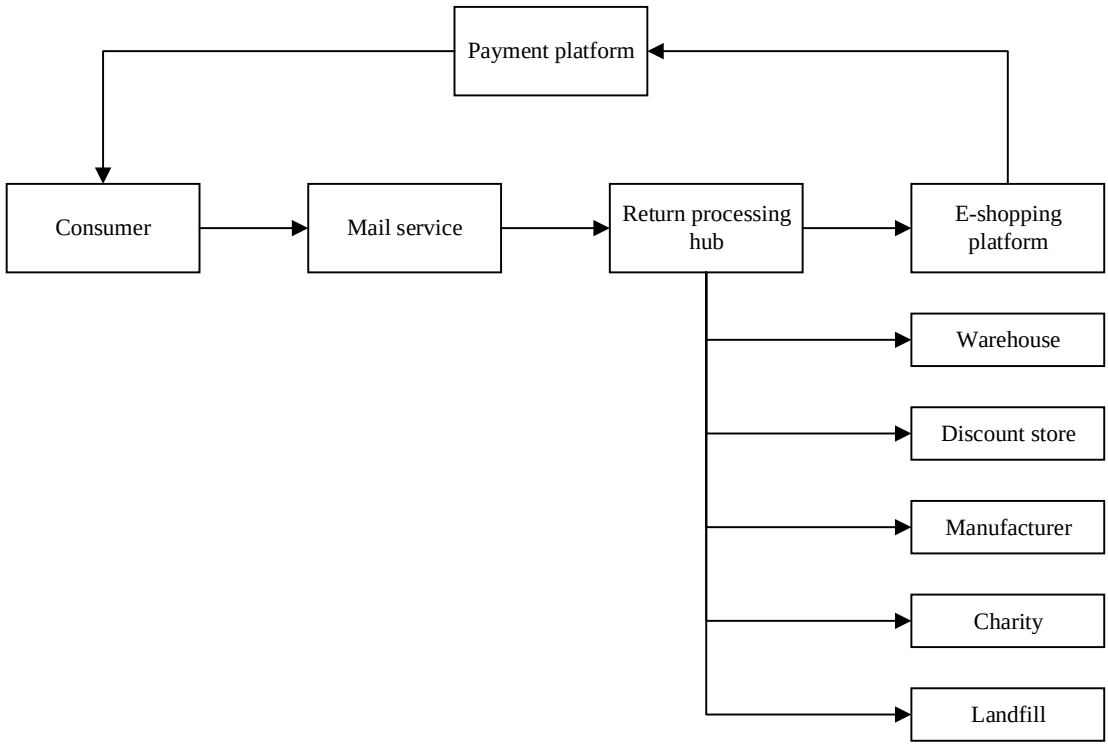

Figure 1. Mail return mode.

In the case of the former, returns have to be shipped to the return processing hub for examination and then transshipped to a destination. This troublesome process explains why it is so costly for an item to be returned into the supply chain. The distinguishing features of the latter are that consumers can return items without packing them, and the handling of returns is advanced in the workflow. Returns are processed earlier in the package-free return mode as a result of collecting returns in store. Based on the results of the return examination, returns can be directly reintegrated into store

inventory (Wollenburg et al., 2018) or shipped to destinations such as discount stores, manufacturers, and landfills (Li et al., 2021). The green value of the package-free return service is not just avoiding return packaging materials, but returned items are shipped in bulk for transshipment. As returned items are collectively handled in store, reverse logistics can use reusable boxes to transship returned items. The bulk shipment, compared to previously one-by-one mail shipment, is more efficient for transporting returned items, saves energy consumption, and reduces greenhouse gas emissions in transportation (Mui, 2018).

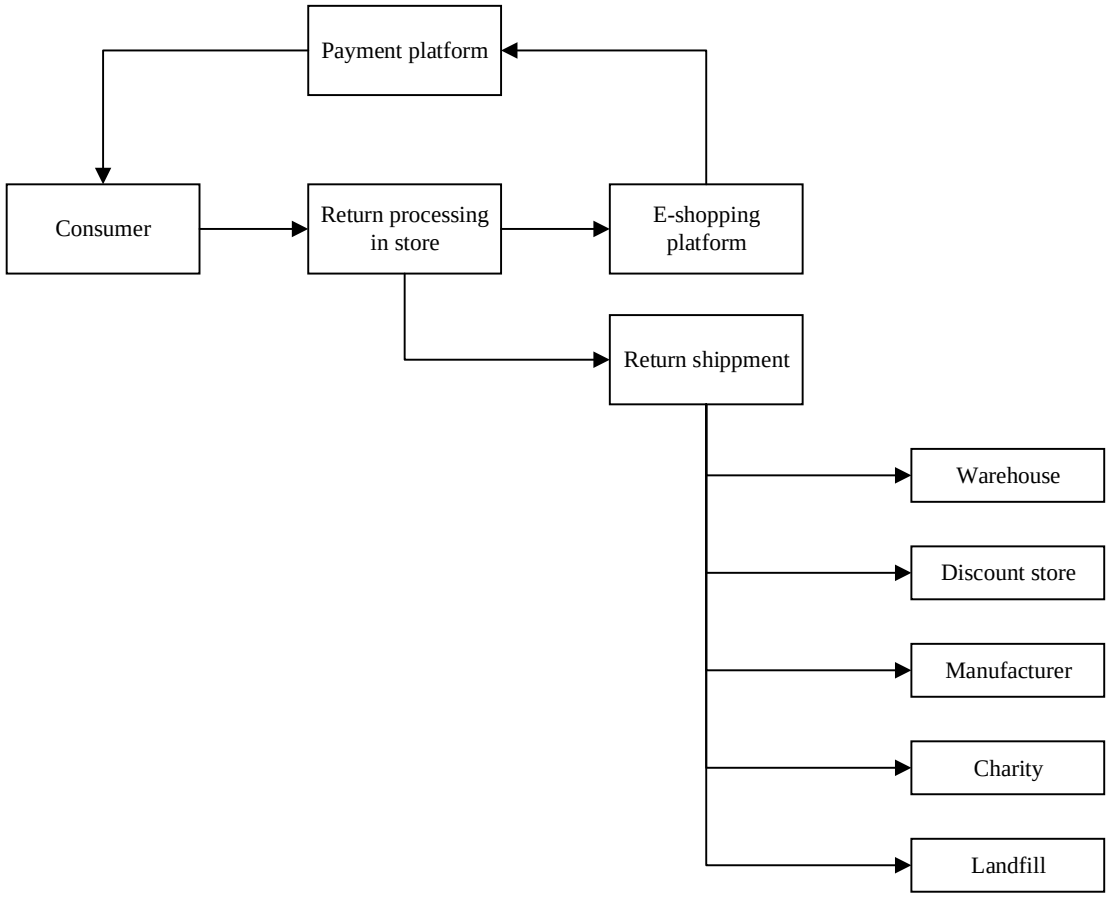

Figure 2. Package-free return mode.

In practice, many retailers, such as New Look, Zara, and Marks & Spencer, do offer a package-free in-store return service for online purchases (Thorpe-Woods, 2020). Pure e-commerce companies without a store presence can also implement this package-free program by partnering with returns management companies such as Happy Returns

and Optoro. Happy Returns launched a package-free returns program for the return of online purchases, with over 2000 return points, using reusable boxes for transshipping returns. This program can help reduce the cardboard waste that has been responsible for the deforestation of over 1 billion trees (Thorpe-Woods, 2020), reduce greenhouse gas emissions (a 0.12 pound reduction in greenhouse gas emission per returned item) (Mui, 2018), and save massive amounts of packaging materials, such as fillers, tapes, and plastics (Li et al., 2021). The green value is not the sole benefit of the package-free return mode. The package-free returns program can help e-commerce firms cut down return-related costs by around one-fifth (Happy Returns, 2020). The store channel offers a higher salvage value for e-commerce returns than the online channel (Nageswaran et al., 2020). Returning in store does not only enhance consumer convenience and satisfaction, but also gives the store a chance to cross-sell and up-sell during a consumer's patronage (Zhang et al., 2010). Existing research has indicated that the BORS strategy can achieve a win–win outcome (He et al., 2020); consumers can enjoy the return service without paying for a return shipment, and firms make higher profits by adopting this strategy (He et al., 2020).

However, mail is still the most common way to return an online purchase (Narvar, 2018). In a recent survey, over 70% of respondents used a mail service to return their online purchases (Narvar, 2018). Research shows that only 10% of consumers returned products in store (Ryan, 2019). This percentage is not compelling, considering that many retailers, e-commerce platforms, and return management companies have launched package-free return services. The planning of a package-free return program requires firms to build a massive return network, which involves considerable expenditure, so firms need to be prudent in decision-making (Li et al., 2021). One strategy may be to communicate the green value of the package-free return service and encourage consumers to switch to returning items directly in store (Ecobahn. 2020). The communication that a retailer offers regarding a green return service can help them gain consumer loyalty and can encourage green return behavior (Dabija et al., 2018). However, green switching behavior is not just triggered by ecological factors (Li et al., 2021). Studying green value and how it works with other factors, such as functional and economic factors, can offer a more profound understanding of pro-environmental behavior (Koller et al., 2011). The push–pull–mooring (PPM) framework has been used to reveal consumers' green switching intention (see Hazen et al., 2017; Sajjad et al.,

2020a and 2020b; Wang et al., 2020; Perez-Castillo and Vera-Martinez, 2021). As this framework does not mandate fixed push, pull, or mooring factors (Bhattacharyya and Thakre, 2021), it is necessary to identify more PPM factors relevant to the e-commerce return context. Accordingly, in this study, this framework will be used to predict consumers' intentions to switch from a non-green mail return service to a green package-free return service.

It is necessary and meaningful to study the predictors of online consumers' switching to a green return service from a marketing perspective. First, most relevant studies have been performed from an operations perspective, but this study instead explores the return issue from a marketing perspective to identify key predictors of consumer switching. Existing studies have studied issues related to optimizing operation efficacy and outcomes, such as optimizing reverse logistics (Budak, 2020), refining the reverse logistics system (Ramos et al., 2014), or improving the supply chain network (Masudin et al., 2021). However, as mentioned previously, the current rate of adoption of green return services is not satisfactory. Therefore, a marketing perspective must be adopted to recognize the "selling point(s)" of the green return service to encourage more consumers to use it (Li et al., 2021). It is necessary to study factors influencing consumers to switch from a non-green return service to a green return service.

Second, as shown in Appendix A, this study also investigates interesting factors that have not been previously addressed. These factors can further enrich the knowledge of consumer switching behavior and green communication, which have attracted much attention from researchers. The cross-channel literature primarily discusses returners' channel-shifting behavior and argues that companies could use monetary return costs (e.g., consumers have to pay a shipping fee for the mail service to make returns) to sway consumers' choice and push them toward returning online purchases in store (Wollenburg et al., 2018; Nageswaran et al., 2020). However, as previously mentioned, consumers' green switching intention could be related to ecological, functional, and economic factors. We have extensively reviewed more of the literature beyond just the e-commerce returns literature using the PPM framework to predict green behavior or cross-channel behavior (see Appendix A). The perceived green value in our model is similar to the environmental benefits mentioned by Hazen et al. (2017) and Perez-Castillo and Vera-Martinez (2021) and the mail return habit in our model is related to

the inertia studied by Wang et al. (2020). However, dissatisfaction with refund speed, dissatisfaction with return cost, and return service convenience have not been addressed by previous research.

Finally, managerially speaking, our research is beneficial to e-commerce companies wanting to promote their package-free returns. On the basis of our research findings, e-commerce companies can recognize key factors in green communication and thus improve the effectiveness of their green marketing campaign.

The article is organized as follows. First, on the basis of a review of the relevant literature, we clarify the PPM framework to be used in this study, initially analyzing what factors could influence consumer switching and developing relevant hypotheses. Second, the study's methodology is introduced. Third, hypotheses are tested and research findings are discussed. Finally, based on our research findings, we conclude with theoretical contributions, managerial implications, and our study's limitations, providing future research directions.

4.2 Theoretical Background

4.2.1 Push–pull–mooring framework

The push and pull factors in the PPM framework come from Ravenstein's "Laws of Migration" (Bansal et al., 2005). Originally, the PPM framework was widely used in migration research to explain why people migrate from one place to another. Bogue (1977) offered a detailed explanation of the push and pull factors in this framework: some migrants are "pushed" out of their place of origin by a set of negative factors that make continued residence unfavorable, whilst others are induced to leave ("pulled" out) by the attractive aspects of the destination. The push–pull components lead to migration behavior after a migrant considers the external forces and interprets their influence on his/her wellbeing (Bogue, 1977). The negative factors at the origin are labeled "push" variables and the positive factors at the destination are labeled "pull" variables (Bansal et al., 2005). However, the push–pull theory cannot explain some phenomena in migration. For example, even though people could reap more benefits from moving to a place with higher salaries, they may ultimately decide not to move due to social ties. This factor, influencing people to act in ways other than they ordinarily would, is labeled a "mooring" (Moon, 1995). The push–pull factors are presumably decided by

external forces or conditions and are out of the control of the individual (Moon, 1995). In other words, mooring factors are more related to individuals. Individual-specific factors, such as inertia or habit, have been deemed mooring factors that could impede a person's switching intention (Wang et al., 2020). The merit of the PPM framework lies in its addressing of individual switching intentions from multiple perspectives (Fu, 2011), encompassing external and internal factors. Recently, the PPM framework has been widely applied in green behavior research to explain why individuals switch from a non-green mode to a green mode (see Hazen et al., 2017; Sajjad et al., 2020a and 2020b; Wang et al., 2020; Perez-Castillo and Vera-Martinez, 2021). In the context of the present study, returning packed products is a non-green return mode, whilst pursuing a package-free return mode is greener. The PPM framework is adopted to explore which factor has a greater impact on online consumers' switching from the non-green return mode to the green mode.

In this section, an analysis is conducted to identify the push and pull factors, contributing to switching intention. In the mail return mode (see Figure 1), consumers need to properly pack the returned item for the mail service to ship it back to the return processing hub. In this process, consumers pay a shipping fee for an item to be shipped back. The return cost is a pain point for consumers, and is associated with higher negative responses (Bower and Maxham, 2012). According to a recent survey, 61% of consumers stated that paying for return shipping was frustrating when making returns (FedEx, 2020). Retailers impose a return cost to avoid excessive returns (Janakiraman et al., 2016), and this is common in today's business practice. For example, Taobao buyers must pay a return shipping fee for returns, unless they have bought return insurance or the sellers have guaranteed a refund for the fee. Therefore, consumers' dissatisfaction with return cost is a push factor. When the return processing hub has accepted the returned item, the e-shopping platform will launch their refund process via the payment platform. The consumer only receives the refund after the wire transfer has been completed. The refund speed is slow, as this return procedure entails several steps. Consumers may wait up to six weeks to be refunded (Bimschleger et al, 2019). Therefore, in the eyes of consumers, another pain point in the mail return mode is that consumers have to wait for a long time to get the refund. When consumers have to endure a lengthy wait to receive their refunds because of the company's procedures, they could become dissatisfied, regardless of whether they ultimately receive their

refund (Maxham and Netemeyer, 2003). This analysis is congruent with a prior survey. According to a global survey of 3519 consumers in the US, UK, France, Germany, and Australia who had made an e-commerce return, dissatisfaction with refund speed was the major complaint (Ryan, 2019). In the present study, consumers' dissatisfaction with refund speed and the return cost involved in the mail return mode are viewed as the push factors.

There are more advantages to the package-free return mode. In the package-free return mode (see Figure 2), consumers must carry the item to a return point in store (such as in malls, brand stores, hypermarkets, convenience stores, etc.) (Li et al., 2021). When the item is accepted by the return point, the consumer is told that their return request has been approved and they will receive their refund after the wire transfer has been completed by the payment platform. This return procedure is simple and convenient, because return processing is brought forward in the flow. Therefore, the first benefit of the package-free return service is its convenience.

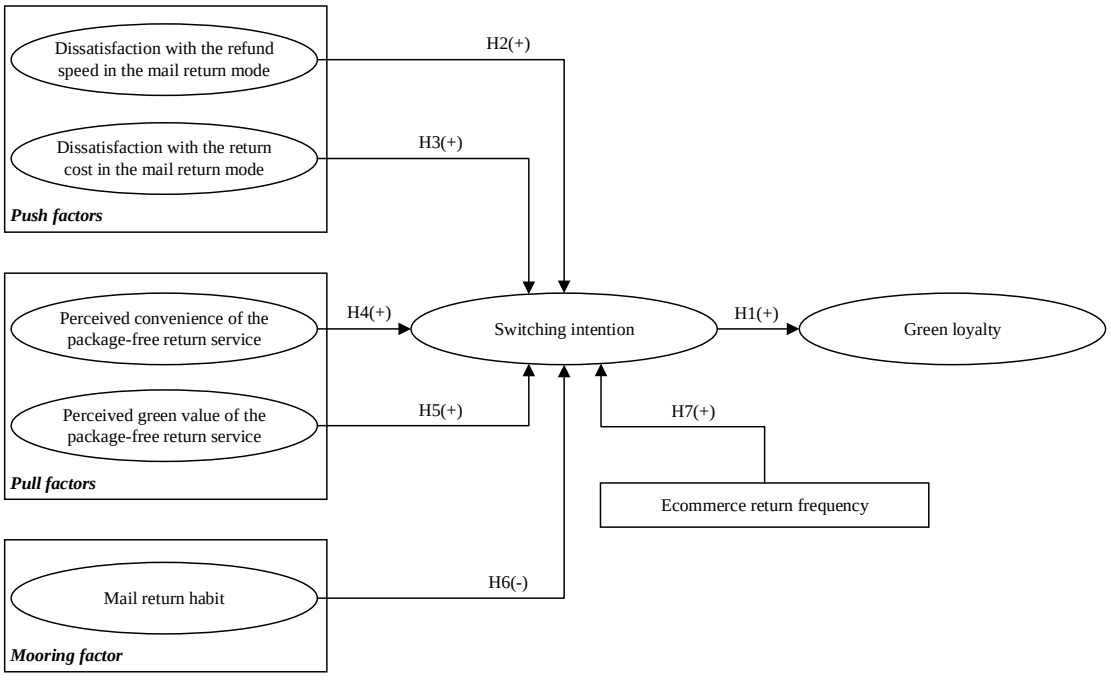

Figure 3. Research model.

Additionally, the green value here lies not only in avoiding return packaging materials, but the returned item can be shipped in bulk to a given place (Li et al., 2021).

In contrast, the mail return mode is much less efficient because here, returned items are shipped individually. The green value of the package-free return service has been acknowledged by the existing literature (see Mui, 2018; Leblanc, 2019; Thorpe-Woods, 2020; Li et al., 2021). Therefore, the second benefit of the package-free return service is its green value. In the present study, consumers' perception of the convenience of the package-free return service, and the perceived green value, are viewed as the two pull factors.

Below, we will develop hypotheses by developing the PPM framework and performing a literature review, wherein we will discuss why a mooring factor (mail return habit) and a control variable (e-commerce return frequency) should also be included in our model. A graphic presentation of our research mode is depicted in Figure 3.

4.2.2 Hypotheses

4.2.2.1 The consequence of switching intention: Green loyalty

Consumer switching and consumer loyalty are often viewed as two negatively related variables (Wu et al., 2018). However, in the present study, switching intention is defined as switching from a non-green return service to a green return service, which is distinguished from the intention regarding switching between different suppliers or brands. The loyalty referred to in the article is a specific consumer perception. Green loyalty refers to the extent to which a consumer is willing to conduct loyalty behaviors such as recommendations and repeat purchases with an eco-friendly firm (Jang et al., 2015). This loyalty stresses the role of the e-shopping platform's green image as different from the consumer loyalty derived from more aspects (e.g., economic value, novelty value, emotional value, etc.) (Xu et al., 2021). As these two constructs are different from previous ones, it is necessary to explore the novel relationship between switching and green loyalty.

Implementing green value in business practice has been considered by many firms, as the protection of the environment is crucial to modern business (Dabija et al., 2018). A firm's pro-environmental stance optimizes its perceived value in meeting consumers' needs and ultimately helps establish ongoing consumer loyalty (Dabija et al., 2018). Switching to a package-free return service allows consumers to return online purchases

without packaging. This service can meet consumers' needs related to returning products and protecting the environment. An outperforming service leads to higher consumer loyalty because the service can more effectively meet consumer needs (Kamdjoug et al., 2021). Therefore:

> **H1:** *Consumers who intend to switch to the greener package-free return service are more likely to show higher levels of loyalty to the eco-friendly e-shopping platform.*

4.2.2.2 Push factors: Dissatisfaction with the refund speed and the return cost in the mail return mode

Dissatisfaction refers to a consumer's negative affective response to the discrepancy between what is delivered and what is expected (Walsh and Brylla, 2017). The positive association between dissatisfaction and switching intention/behavior has been documented in the existing literature (see Bhattacherjee et al., 2012; Xu et al., 2014; Hino and Levy, 2016; Um and Lau, 2018). Bhattacherjee et al. (2012) revealed that dissatisfaction with the current product or service is predictive of switching behavior. Hino and Levy (**2016**) proved that, in a retail setting, dissatisfaction manifested a positive impact on consumers' store switching intention. Moreover, dissatisfaction has been deemed a crucial push factor in the PPM framework. On the basis of the PPM framework, Xu et al. (2014) found that social networking service users' dissatisfaction with their current SNS is positively related to their intentions to switch. Kuo (2020) argued that dissatisfaction with the quality of a mobile payment service platform acts as a push effect that drives users away from that platform.

Two dissatisfaction factors are studied here. Consumers could be dissatisfied with the refund speed and the return cost associated with the mail return mode. In the mail return mode, consumers are required to wait up to six weeks (Bimschleger et al, 2019) because it takes time for the seller to receive and examine the product and approve the return request. Contrarily, in the package-free return mode, consumers are refunded sooner because the seller can accept and examine the returned product in store (Li et al., 2021). The package-free return service can thus be deemed a better service in terms of its return and refund procedure. Previous literature has primarily discussed returners' return channel shifting behavior and argued that companies could use the monetary

return cost (e.g., consumers have to pay a shipping fee for the mail service to make returns) to sway consumers' choice and push them to return online purchases in store (Wollenburg et al., 2018; Nageswaran et al., 2020). The costs (shipping fees, for example) associated with the mail return service should be factored into the consumers' choice of return service. Price theory implies that if a service is offered for free, it will usually encounter higher demand than a non-free service (Lantz and Hjort, 2013). The package-free return service thus seems to be superior to the mail return service, since the cost of shipping items back is saved. Consumers tend to manifest a switching intention when they have been made aware of a better service (Bhattacherjee et al., 2012). Therefore:

H2: *Dissatisfaction with the refund speed in the mail return mode is positively related to intention to switch to a package-free return service;*

H3: *Dissatisfaction with the return cost in the mail return mode is positively related to intention to switch to a package-free return service.*

4.2.2.3 Pull factor: Perceived convenience of the package-free return service

Service convenience has been deemed "a concept of anything that can be done with ease and minimal effort" (Kaura, 2013: p. 20). In this study, perceived convenience refers to consumers' perception concerning the minimal effort and easiness of a package-free return service. The offering of an e-commerce return service gives the e-shopping platform an opportunity to remedy its relationship with consumers who are forced to carry an unwanted product (Mollenkopf et al., 2007). Consumers' negative experiences can be nullified and reduced via positive service encounters during a smooth, easy, and effortless return process (Jain et al., 2015). E-commerce returns could involve much effort, such as filling out an online return form, preparing the product for return shipment, packing products properly for mail, and printing out the return label (Mollenkopf et al., 2007). However, the package-free returns approach is much easier. Consumers can return items directly in store without packing them up (Li et al., 2021). The convenience of the return service is thus a pull factor because the easiness of an e-commerce return is considered to be positively associated with consumer satisfaction (Jain et al., 2015). Service convenience provides the means for reducing the time and effort associated with the acquisition and consumption of a service (Colwell et al.,

2008). Saving time and effort is highly valued by consumers when choosing and consuming a service (Roy et al., 2016). Post-purchase service convenience makes consumers more satisfied, and has a significant impact on behavioral intention (Kumar et al., 2020). Prior research has also indicated that convenience is a significant pull factor in determining users' behavioral intention in the PPM framework (Handarkho and Harjoseputro, 2020). Based on the above discussion, a package-free return service with greater convenience could more effectively satisfy consumers than a mail return service with lower convenience, prompting consumers to switch to the more convenient return service. Thus:

H4: *The perceived convenience of the package-free return service is positively related to intention to switch to the package-free return service.*

4.2.2.4 Perceived green value

Research reveals that pro-environment behavior is simultaneously driven by economic and environmental benefits (Hamzah and Tanwir, 2021). Perceived green value plays a crucial role in today's pro-environmental business world (Chen and Chang, 2012). The construct is defined as the consumers' overall assessment of a service concerning its perceived environmental and sustainable advantages (Chi et al., 2021). As the environment deteriorates, consumers are paying more attention to the green value of a service (Huang et al., 2020). The green value of a service benefits consumers through reductions in both environmental harm and natural resource expenditure (Hamzah and Tanwir, 2021). The greenness of a service is a sign of service quality, and should be factored into consumers' decision-making process (Jiang and Kim, 2015). It has been found that environmental benefits are a pull factor, and are positively associated with switching intention (Hazen et al., 2017).

In the context of our study, package-free return services can benefit consumers by reducing the number of packages for return shipments. When e-commerce returns are collected from the return points, the staff can handle the returns in store, or transship them in bulk to discount stores or a warehouse, making the return shipment more efficient and eco-friendly. Existing studies have revealed that, if e-commerce returns were to be switched to package-free returns, greenhouse gas emissions can be reduced (Mui, 2018), deforestation can be avoided (Thorpe-Woods, 2020), and massive

amounts of plastic bags, fillers, and tape can be saved (Li et al., 2021). Hence, the package-free return service is more attractive for consumers than the mail return service because of its greenness, pulling consumers to switch to it. Existing studies have also shown that perceived green value is positively related to consumers' green behavior or behavioral intention in other research settings (see Chen and Chang, 2012; Huang et al., 2020; Chi et al., 2021; Hamzah and Tanwir, 2021). Thus:

H5: *The perceived green value of the package-free return service is positively related to intention to switch to it.*

4.2.2.5 Mooring factor: Mail return habit

Habit denotes an individual's customary way of acting (Ouellette and Wood, 1998). Habit reflects "the automatic behavior tendencies developed during the past history of the individual" (Limayem et al., 2001: p. 277). Accordingly, in the present study, habit is defined as consumers' automatic behavioral tendencies related to using a mail service to return online purchases. When a particular behavior is routinized, habit becomes a predictor of switching intention (Marseto et al., 2019). As previously mentioned, returning unwanted online purchases by mail is a habit for the majority of online consumers. Habits can become barriers in an individual's switching process (Woisetschläger et al., 2011), having benefited consumers in the past and been reinforced by behavior (Ouellette and Wood, 1998), they eventually form "rules of thumb". Furthermore, these "rules of thumb" can replace deliberate analysis in the individual's switching decision process (Ek and Söderholm, 2008). As a consequence, consumers enact habitual behaviors as the path of least effort (Amoroso et al., 2021). The cognitive inertia incurred by habit means that consumers will continue to use the incumbent service even if it might not be the best one (Amoroso et al., 2021). In the context of switching shopping modes, habit was deemed a mooring factor influencing consumers' switching intention (Marseto et al., 2019). In a mobile payment setting, habit is positively related to consumers' "stickiness" with a particular behavior (Amoroso et al., 2021). Based on the above discussion:

H6: *The mail return habit is negatively related to intention to switch to the package-free return service.*

4.2.2.6 The role of e-commerce return frequency

E-commerce return frequency is defined as the number of e-commerce returns that a consumer makes during a period. The recurrence of past behavior is different from habit (Lankton et al., 2010; Sommer, 2011) because not every behavior that is performed many times becomes a habit (Ajzen, 2002; Sommer, 2011). In the present study, e-commerce return frequency refers to the number of e-commerce returns made during a recent period, encompassing mail returns and in-store returns, whilst mail return habit refers solely to the automatic choice of using mail to return items. They are thus two different constructs. Consumers show different patterns regarding return frequency, ranging from occasional returners to heavy returners (Foscht et al., 2013). Product return frequency influences consumers' consumption behavior and retail companies' return-related practices (Foscht et al., 2013). Consumers who made more returns in the past have a higher probability of making future returns (Shang et al., 2019). With respect to the present study's focus, consumers with different return-frequency behaviors could respond differently to the green return mode. For example, the motivation to switch to a greener return mode in consumers who barely ever make returns could be weak because they would not actually be saving many packages. The value of package-free returns is thus limited for infrequent returners. Therefore, the potential impact of return frequency should be controlled when the PPM framework is used to predict consumer switching behavior.

Service-dominant logic can be applied to explain the role of return frequency (Vargo and Lusch, 2004). According to this logic, the green return service is a vehicle for consumers to co-produce value; service value is not defined in terms of *exchange value* but is instead perceived and determined by the consumer in terms of *value-in-use* (Vargo and Lusch, 2004). Therefore, in the eyes of the consumer, value is created when the service is used to meet their needs (Grönroos and Voima, 2013).

Infrequent returners barely return online purchases. Consequently, they could not have established value perceptions regarding return services they used in the past. However, frequent returners have to deal with many more returns and often use return services. The positive aspects of the package-free return service are thus more valuable in the eyes of consumers who frequently make returns because the value of the package-free return service is more sufficiently co-created by such consumers (Vargo and Lusch,

2004; Grönroos and Voima, 2013). Therefore, it may be more likely for consumers who make more frequent returns to switch to a greener, more convenient return service. Prior research also found that past behavior significantly predicts pro-environmental behavior (Novoradovskaya et al., 2020), and frequency of past behavior has a positive influence on pro-environmental intention (Han et al., 2018). On this basis, we formed the hypothesis below:

H7: *E-commerce return frequency is positively related to intention to switch to the package-free return service.*

4.3 Method

4.3.1 Respondents and procedure

A scenario-based survey was conducted online in China. Chinese online markets are useful for consumer studies. China's e-retail sales in 2020 reached USD 1.64 trillion, which is over double the value from 2016 (USD 0.72 trillion) (see Department of E-commerce, 2021). As of December 2020, the number of online shoppers in China surpassed 780 million, accounting for 79.1% of all internet users in China (see Department of E-commerce, 2021).

First, a professional online survey platform, Wenjuanxing, was employed to collect data. The online platform has completed over 40,000 sampling services and has special expertise in gathering data online. Second, as this study mainly focused on consumers who return online purchases, the survey platform was only required to recruit online consumers with e-commerce return experience. This was the criterion for inclusion. Third, to obtain valid responses, several measures were taken to deal with the misrepresentation issue that arises in the anonymous online environment, as mentioned by Wessling et al. (2017). In the online survey, respondents were reminded to offer intuitive answers. Several measures recommended by Wessling and her co-authors were adopted, as follows: give each respondent a clear completion time (7 min) at the beginning of the survey; quickly approve the respondents' work and offer a fair reward (around USD 1.12); state that the respondents' personal data are protected and only used for academic purposes; and offer contact information for respondents (see Wessling et al., 2017). Fourth, the respondents filled out the survey using the online

platform. A sample with 665 valid observations was collected. The respondents' demographic information is shown in Table 1. The male/female ratio and the age distribution agreed with the results from previous research into online Chinese consumers (Cui et al., 2016).

Table 1. Demographic information.

		Number	Percentage
Sex	Male	240	36.1
	Female	425	63.9
	Total	665	100.0
Age	<18	3	0.5
	18–25	167	25.1
	26–30	194	29.2
	31–40	244	36.7
	41–50	40	6.0
	51–60	14	2.1
	>60	3	0.5
	Total	665	100.0
E-commerce returns in recent three months	0	47	7.1
	1–3	431	64.8
	4–6	117	17.6
	7–10	41	6.2
	≥11	29	4.4
	Total	665	100.0

4.3.2 The survey scenario

As previously mentioned, consumers' adoption of the package-free return service is low. Most consumers do not have detailed, specific knowledge about green return services. As such, it is favorable to design a survey scenario that offers background information about the green return service. This approach has been applied in previous research on e-commerce (e.g., Martínez-López et al., 2021) and service (e.g., Wolter et al., 2019). The scenario-based method is suitable for our research as the scenario creates

a controlled situation (Wolter et al., 2019) that precludes noise factors, such as the reputation of the shopping platform and the product category. The scenario can be seen in Appendix B. A fictitious e-shopping platform, Pingfeng, was used to avoid the potential extraneous effects related to using a known, real platform. The returned item in the scenario was a pair of shoes. This product category has been studied in prior product return research (see Russo and Cardinali, 2012). The return rate of shoes purchased over the internet is around 20–35% (Pump, 2017), which is relevant to our e-commerce return context. Furthermore, consumers' choice of return service is inevitably affected by the ease of access of each. For example, when the return effort is too high (e.g., carrying a heavy desk to a store by hand) or the travel distance is too great (e.g., traveling two hours to a store to return an item), consumers would prefer to use the mail return service, involving a courier picking up the item from the consumer's location. It is not appropriate to suggest a package-free return service when the return effort involved is too high or the travel distance is too long. Therefore, in the scenario, we specifically informed respondents that there was a return point in a store near their home.

The designed scenario is relevant to our research purpose. Realistic return management practices were considered when designing the scenario. The information concerning both the mail return service and the package-free return service was simultaneously presented. The information related to the mail return service and the package-free return service was adapted from information about Amazon's return management practice for the sake of realism. The ecological outcomes of the package-free return service were adapted from existing research (see Mui, 2018; Li et al., 2021). Furthermore, the negative aspects (the push factors) of the mail return service and the positive aspects (the pull factors) of the package-free return service were included in the information. Finally, we observed how consumers' switching intentions were influenced by push, pull, and mooring factors.

4.3.3 Measurements

Apart from e-commerce return frequency, all the measurements were adapted from previous measures employed in existing research. The items, measurement approaches, and references can be seen in Appendix C. Concerning e-commerce return frequency, the respondents were told to indicate the number of e-commerce returns they had made

in the last three months (from 0 to over 11). This approach was also adopted in previous research measuring the frequency of past behavior (see Zhang, 2015). Concerning the measurement of dissatisfaction with the return cost in the mail return mode, the return cost is the shipping fee that consumers pay for a courier to pick up the items from their location. The return shipping fee is a common feature of China's major e-commerce platforms, such as Taobao and Pinduoduo.

4.3.4 Statistical analysis

Covariance-based structural equation modeling (CB-SEM) and partial least square structural equation modeling (PLS-SEM) are the two most widely applied SEM methods. CB-SEM was chosen for two reasons. PLS-SEM is preferred for developing theory, whilst CB-SEM is suitable for theory testing and confirmation (Hair et al., 2011). The present study seeks to confirm the hypothesized relationships based on the PPM framework and other relevant theories. CB-SEM is preferable over PLS-SEM in terms of parameter consistency and parameter accuracy when the sample size exceeds 250 observations (Reinartz et al., 2009). The present study had 665 observations, which is far beyond the threshold. The Mplus software was employed in the structural equation modeling analysis. The estimation method MLMV (maximum likelihood parameter estimates with standard errors and a mean- and variance-adjusted chi-square test statistic) was used to analyze the data. This method is robust to nonnormal data (Muthén and Muthén, 2017). The SPSS software was used to calculate Cronbach's α and detect the severity of common method variance.

4.4 Results

4.4.1 Scale validity and reliability

First, a CFA (confirmatory factor analysis) was conducted to confirm each scale's construct validity. An initial measurement model was constructed. One item of perceived green value (VP1) and one item of habit (HA1) were removed because of their low factor loading in the measurement model. The measurement model was then constructed without these two items. The model showed a very good fit: $\chi^2/df = 2.014$, RMSEA (root mean square error of approximation) = 0.039 and CFI (comparative fit index) = 0.964. The $\chi 2/df$ ratio is acceptable when smaller than 5 (Ho et al., 2011). The

CFI value should be greater than 0.9 (Zhang et al., 2020). The RMSEA should be smaller than 0.06 (Hu and Bentler, 1998).

Table 2. Factor loadings, Cronbach's α, AVE, and CR.

	SW	LO	RM	CM	CP	VP	HA
SW1	0.830						
SW2	0.816						
SW3	0.854						
SW4	0.778						
LO1		0.767					
LO2		0.845					
LO3		0.778					
RM1			0.898				
RM2			0.928				
RM3			0.865				
CM1				0.832			
CM2				0.833			
CM3				0.919			
CP1					0.662		
CP2					0.592		
CP3					0.741		
CP4					0.697		
VP2						0.803	
VP3						0.848	
HA2							0.800
HA3							0.789
HA4							0.868
HA5							0.793
HA6							0.822
AVE	0.672	0.636	0.805	0.744	0.456	0.682	0.664
CR	0.891	0.839	0.925	0.897	0.769	0.811	0.908
α	0.890	0.838	0.925	0.895	0.764	0.810	0.907

SW: switching intention; LO: loyalty; RM: dissatisfaction with the refund time in the mail return mode; CM: dissatisfaction with return cost in the mail return mode; CP: perceived convenience of package-free return service; VP: perceived green value of package-free return service; HA: mail return habit.

Second, it recommended to report CR (construct reliability), Cronbach's α, and AVE (average variance extracted) to assess the reliability of measurement (Martínez-López et al., 2013), so they were reported in Table 2. The values of AVE, CR, and Cronbach's α were above the conventional cutoffs (AVE > 0.5; CR ≥ 0.7; Cronbach's α ≥ 0.7; these cutoffs can be seen in Martínez-López et al., 2013). Although CP's AVE was 0.456, which is slightly lower than the 0.5 cutoff, its CR and Cronbach's α coefficient were good, implying CP's adequate convergent validity.

Finally, we adopted the approach suggested by Martínez-López et al. (2013) to examine the discriminant validity. As depicted in Table 3, the square root of the AVE for every construct in our study was greater than the maximal correlation between each construct and the rest of the constructs. Therefore, it was not risky to assume discriminant validity in our study.

Table 3. Discriminant validity.

	SW	LO	RM	CM	CP	VP	HA
SW	**0.820**						
LO	0.376	**0.797**					
RM	0.237	0.050	**0.897**				
CM	0.161	0.106	0.422	**0.863**			
CP	0.576	0.621	0.230	0.192	**0.675**		
VP	0.445	0.548	0.250	0.265	0.609	**0.826**	
HA	−0.033	−0.023	−0.053	−0.011	0.015	0.046	**0.815**

The bold values along the diagonal line are the square root of the AVE for the construct in the respective column. Below the diagonal line are the standardized correlation coefficients between constructs. A negative sign indicates that the two constructs are negatively related. SW: switching intention; LO: loyalty; RM: dissatisfaction with the refund time in the mail return mode; CM: dissatisfaction with return cost in the mail return mode; CP: perceived convenience of package-free return service; VP: perceived green value of package-free return service; HA: mail return habit.

Additionally, the Harman's single factor test was employed to detect the severity of common method variance. The dimension reduction function in SPSS was used to extract one factor from all the measurement items. The total variance extracted by this factor was 23.94%, which is much smaller than the recommended 50% cutoff (see

Fuller et al., 2016). Based on this analysis, common method bias was unlikely to be a serious concern for the present study.

4.4.2 Hypothesis testing

A structural model encompassing all hypothesized relationships was constructed. The model's fit was satisfactory: $\chi^2/df = 2.402$, RMSEA = 0.046, and CFI = 0.945. The R-square of switching intention was 0.387 (S.E. = 0.038, $p < 0.001$). The R-square of loyalty was 0.171 (S.E. = 0.031, $p < 0.001$). The results of hypothesis testing are shown in Table 4.

Table 4. The result of hypothesis testing.

Hypothesis	Standardized Estimate	*p*-Value	Result
H1: SW→LO	0.413	***	Support
H2: RM→SW	0.086	*	Support
H3: CM→SW	−0.006	0.881	Not supported
H4: CP→SW	0.490	***	Support
H5: VP→SW	0.149	*	Support
H6: HA→SW	−0.041	0.206	Not supported
H7: RF→SW	0.073	*	Support

***: *p*-value < 0.001; *: *p*-value < 0.05; SW: switching intention; LO: loyalty; RM: dissatisfaction with the refund time in the mail return mode; CM: dissatisfaction with return cost in the mail return mode; CP: perceived convenience of package-free return service; VP: perceived green value of package-free return service; HA: mail return habit; RF: return frequency.

A significant positive influence of switching intention on loyalty was found (standardized estimate = 0.413, $p < 0.001$). H1 was thus supported. A significant positive influence of dissatisfaction with refund speed on switching intention was found (standardized estimate = 0.086, $p < 0.05$). H2 was thus supported. No significant influence of dissatisfaction with return cost on switching intention was found (standardized estimate = −0.006, $p = 0.881$). H3 was thus not supported. A significant positive influence of perceived convenience on switching intention was found (standardized estimate = 0.490, $p < 0.001$). H4 was thus supported. A significant positive influence of perceived value on switching intention was found (standardized

estimate = 0.149, $p < 0.05$). H5 was thus supported. No significant influence of habit on switching intention was found (standardized estimate = −0.041, $p = 0.206$). H6 was thus not supported. Finally, a significant positive influence of return frequency on switching intention was found (standardized estimate = 0.073, $p < 0.05$). H7 was thus supported. In general, the effects of push factors were weaker than those of their counterpart pull factors. The effect of one push factor, dissatisfaction with return cost, was insignificant. The effects of pull factors were strongest when used in the PPM framework to predict switching intention. Surprisingly, the mooring factor of habit did not show a significant relationship with switching intention. It is meaningful to include the control variable, return frequency, in the model, because this variable was found to have a significant, though small effect.

4.5 Discussion

4.5.1 Theoretical discussion

The negative relationship between consumer switching and green loyalty has been documented in previous research (see Wu et al., 2018). However, a positive association between green switching and green loyalty was found in this study. This is primarily because the definition of switching intention in the present study was different from that in previous research. Previous research focused on switching brands or suppliers, whilst the switching intention in the present study involved shifting from a non-green service to a green service, both of which are offered by the same platform. The positive relationship between this switching intention and green loyalty shows that consumers who indicate an intention to switch to a green return service should be more loyal to the given e-shopping platform.

From a green marketing perspective, our study offers new insights into green communication and the PPM framework and reveals the effects of factors that have not been addressed by prior research.

First, green value is an important aspect in the communication of service value to consumers, but its effect is not dominant in green communication related to package-free returns. In the literature, green value has been deemed a key factor in communicating value to consumers, and elicits greater green behaviors or behavioral intentions in consumers (Chen and Chang, 2012; Chi et al., 2021; Hamzah and Tanwir,

2021). However, this effect of green value was not as large as the effect of perceived convenience. This finding is congruent with prior green communication research, which argues that green communication becomes more effective when green value and functional value are simultaneously conveyed (Jiang and Kim, 2015).

Second, return service convenience, which is a key functional attribute of package-free return services, is a dominant factor in green communication related to package-free returns. Convenience is taken as a pull factor in the PPM framework and elicits greater behavioral intention in consumers (Handarkho and Harjoseputro, 2020). However, a relatively weaker effect of perceived convenience was documented in Handarkho and Harjoseputro's article (see Handarkho and Harjoseputro, 2020). That said, in the present study, the effect of perceived convenience was strongest when compared to the other factors. This might be explained by the different research context. The effect of convenience in the PPM framework was examined previously by Handarkho and Harjoseputro in the context of mobile payments. Our e-commerce returns context is rather different. The payment service arises at the point in the consumers' purchase journey at which they have not yet completed the purchase. The return service arises in the consumers' post-purchase journey, at which point they have received the product and want to return it (Robertson et al., 2020). The consumers' mindsets in the two situations are completely different because of the different circumstances. Therefore, the different effects of perceived convenience in this context are to be expected.

Third, marketers should be cautious about the effectiveness of "pain point" marketing in green communication related to package-free returns. Although the significant effect of one push factor was found (H2), our study reveals that the effects of push factors were relatively weaker than the effects of pull factors. This implies that consumers are mostly attracted to switch by the green service, rather than being forced to switch because of the negative aspects of the non-green service. The PPM framework has been applied in green communication and in research predicting consumers' pro-environmental behavior. There was no conclusive result regarding the effects of push factors. Research has indicated that push factors are very predictive of consumer switching in a circular economy context (Hazen et al., 2017), but other studies have found that push factors are not so predictive in pro-environmental contexts (Sajjad et al., 2020a and 2020b; Wang et al., 2020; Perez-Castillo and Vera-Martinez, 2021) or in

cross-channel settings (Haridasan et al., 2021). Our study helps determine the effects of push factors in predicting consumer switching in an e-commerce return context. Additional discussion is needed regarding the statistical non-significance of the "dissatisfaction with return cost→switching path" coefficient. This feeling of dissatisfaction may not be sufficiently strong for a consumer to abandon the easy mail return service (Ejdys and Gulc, 2020). Despite the fact that monetary return cost has been suggested in previous research to steer online consumers toward the offline return channel (Wollenburg et al., 2018; Nageswaran et al., 2020), only a very weak effect of consumers' dissatisfaction with cost was discovered in our study. This finding indicates that consumers' switching intentions are not driven by a cost-saving motive, but by other factors instead. This echoes the idea mentioned at the beginning of this article: consumers' green behavior may not be motivated by economic- or cost-related factors alone.

Fourth, habit was deemed a factor predictive of switching intention, but the influence of this could vary in different contexts. In existing PPM research, habit is a mooring factor predictive of switching intention (Marseto et al., 2019). However, in our study, the effect of the mail return habit on switching intention was quite weak. This finding encourages the rethinking of the PPM framework related to migration research. Originally, the PPM framework was used to predict individuals' migration behavior (Bogue, 1977). Mooring factors have been included in the framework as switching barriers to better predict migration behavior (Moon, 1995). However, migration is quite different from service switching. Migration decisions are much harder than service switching because migrants may have to "burn the bridge" with the past and rebuild their social connections in a new place. Based on our study's results, both the mail return service and the package-free return service can facilitate consumers' needs to return online purchases. There were no "penalties" when consumers chose the less favorable mail return service. Hence, the weak effect of habit in the present study is expected.

Finally, it is necessary to include potential control variables in the PPM framework. A significant positive effect of e-commerce return frequency on switching intention was found in our study. This significant effect indicates that the PPM framework can be extended and further optimized. The original PPM framework does not consider factors beyond the push, pull, and mooring factors. In reality, factors such as behavioral

frequency should be considered. The service-dominant logic argues that service value is created in a "*value-in-use*" context (Vargo and Lusch, 2004). The more frequently a service is used, the more valuable it becomes for consumers. Therefore, the frequency of service use can also be predictive of service switching intention. However, to the best of our knowledge, no attempts have been made so far to extend the PPM framework by applying the service-dominant logic. Our research demonstrates that the PPM framework can be extended by adding the factor of behavior frequency.

Our research adds value to green communication and the PPM framework. It updates existing knowledge concerning the role of consumer dissatisfaction, perceived green value, and perceived convenience of return service in green communication. This study also explains why the mooring factor of habit fails to predict switching intention. It has uncovered the imperfectness of the original PPM framework and shown how this framework can be extended by considering the frequency of past behavior.

4.5.2 Managerial implications

This study is helpful to e-commerce companies wanting to promote their package-free return service. First, companies need to know that encouraging consumers to switch to a green service can benefit them by increasing consumers' green loyalty. Our findings imply that green communication not only prompts pro-environmental behavioral intention, but also creates *green business value*, from which companies can reap long-term benefits.

Second, return service convenience should be prioritized in green communication; the green value of the service comes second. On the basis of our empirical results, it is clear that service convenience is most influential in green communication; companies should thus focus on this "selling point". For example, on the return policy webpage, the convenience of the return service should be highlighted so consumers notice it more easily. The green value of the service can be mentioned at a lower priority. For example, the pro-environmental outcomes of the service can be mentioned after the convenient return process. Marketers should be cautious about the effects of push factor or pain point marketing in green communication, as our study has indicated that the effectiveness of such pain point marketing could be relatively low.

Third, habit-changing initiatives are not recommended when advocating for more package-free returns. Habit-changing initiatives or interventions are commonplace in

marketing campaigns (Tadajewski, 2019). However, based on our finding, the mooring effect of habit on switching intention is very weak. Companies cannot simply repeat their normal practices in marketing campaigns. The e-commerce return service is just one component of the entire value proposition of e-commerce. Companies can focus on other aspects when promoting the green return service.

Finally, additional attention should be paid to consumers with different return frequency behaviors. Even though the effect of e-commerce return frequency on switching was small, it was found to be significant in our study. Therefore, companies may need to pay additional attention to consumers with different return frequency behaviors. Previous research has indicated that consumers with higher return frequency behaviors could provide more profits than consumers who barely ever make returns (Abbey et al., 2018). Companies may need to increase the accessibility and usability of the green return service for frequent returners. For example, on the basis of return data, package-free return points can be assigned to communities with many frequent returners.

4.6 Future Research Directions and Limitations

On the basis of an analysis of the package-free turn mode, we have considered push factors most relevant to the package-free return service. However, other potential factors may also be considered to nudge consumers to switch to the green return service. The in-store benefits of package-free returns were not included in our model because such benefits, such as in-store exchanges or try-ons, are uncertain. For example, omnichannel retailers such as Zara allow consumers to return online purchases in store, but on their return policy webpage, they do not guarantee that all returned items can be exchanged for products in the store. Future research might study how in-store benefits, as a push factor, influence consumers to switch.

The return procedure used in our survey scenario is based on current return management practice. It relies on store associates examining and processing returns. As mentioned previously, the accessibility of the package-free return service is the key to growing this business. In the future, the proliferation of return technology can enable further developments in the e-commerce return model. For example, Happy Returns have created a self-service return solution for retailers to address the pain point of physical stores relying on manpower (Leblanc, 2019). Consumers no longer need to

wait in a line for store associates to process their returns and instead use a self-service return kiosk to return their items themselves (Leblanc, 2019). Hence, future return behavior research could examine the antecedents of green switching in a context in which frontier return technology is adopted.

China is a country with a huge population from various cultural and regional backgrounds. Therefore, our research sample may not be sufficient to represent all kinds of Chinese consumers with various consumption behaviors. Future research targeting a specific segment of Chinese consumers (e.g., consumers from rural regions) can re-examine the variable relationships found in our study.

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Appendix A. Relevant Studies Using PPM Framework

Author(s)	Switching from A to B	Push Factor(s)	Pull Factor(s)	Mooring Factor(s)
Hazen et al. (2017)	From purchasing new products to purchasing remanufactured products.	Price	Government incentive Environmental benefits	Attitude
Sajjad et al. (2020a)	From motorized vehicles to electric vehicles	Environmental quality Strict regulative environment	Alternative attractiveness Supportive normative environment	Self-efficacy Willingness to pay for electric vehicles
Sajjad et al. (2020b)	From motorized vehicles to green vehicles	Smog knowledge Smog health risk Regulative environment	Alternative attractiveness Normative environment	Self-efficacy Switching cost
Wang et al. (2020)	From private vehicles to green vehicles	Perceived environmental threats Perceived inconvenience	Green transport policies and campaigns Green transport system	Inertia
Widodo et al. (2020)	From online channel to offline channel	Financial risk Performance risk Psychological risk	Environment quality Service quality Need for touch	Internet experience
Haridasan et al. (2021)	From one channel to an alternative channel	Extent of external information search Product fit uncertainty Purchase involvement	Alternative attractiveness	Multi-channel self-efficacy Switching costs
Perez-Castillo and Vera-Martinez (2021)	From purchasing new products to purchasing remanufactured products.	Higher price of brand new products	Government incentives Environmental benefit	Attitude toward remanufactured products Green purchase behavior
The authors of the present study	From mail return service to package-free return service	Dissatisfaction with the refund speed in the mail return mode Dissatisfaction with the return cost in the mail return mode	Perceived convenience of the package-free return service Perceived green value of the package-free return service	Mail return habit

Appendix B. Scenario for Survey

Imagine you find a pair of shoes on an e-shopping platform, Pingfeng. You buy it. After being delivered home, you are dissatisfied with it and then you want to return it and get the money back. The e-shopping platform informs you that they add an alternative return service, Package-Free Returns, to the existing Return by Mail service. The content of the two services can be seen below:

Appendix B.1. Return by Mail

If this return option is chosen, a courier will be sent to your place to pick up the product. Pingfeng reminds you that returned items must be well-packaged. If the returned product was not deemed as resalable (including damages caused by shipment), your return could be denied by the e-commerce platform. Since it takes time for the shipment sector to pick up and deliver the item and the e-shopping platform needs time to receive and process the item and return the money, it takes around 2 weeks for the e-shopping platform to make the reimbursement.

Appendix B.2. Package-Free Returns

If this return option is chosen, the e-shopping platform indicates that it has a return point in a store near to your home. The platform will send you a QR code; then you can directly bring this code and the product to the return point without packing it up, and your return will be examined by an associate and then your return is completed. You do not need to pay any fee for returning the item. When the return is accepted on the spot, the e-shopping platform immediately makes the reimbursement for you. Pingfeng states that if all of their returns are made via the package-free return option, massive delivery packages are reduced, and the greenhouse gas emissions reduction amounts to 54.4 tons and 6596 trees are saved per year (see Mui, 2018; Li et al., 2021).

Appendix C. Measurements

Dissatisfaction with the refund speed in the mail return mode (adapted from Fan et al., 2020)

(All items are measured from 1: strongly disagree, to 7: strongly agree.)

In the mail return mode, since it takes time for the shipment sector to pick up and deliver the item and the e-shopping platform needs time to receive and process the item and return the money, it takes 2–6 weeks for the e-shopping platform to make the reimbursement. To which extent you are dissatisfied with the refund speed?

1. I feel unhappy about the refund speed in the mail return mode.
2. I am not pleased with the refund speed in the mail return mode.
3. I am not satisfied with the refund speed in the mail return mode.

Dissatisfaction with the return cost in the mail return mode (adapted from Fan et al., 2020)

(All items are measured from 1: strongly disagree, to 7: strongly agree.)

In the mail return mode, if the e-shopping platform (Pingfeng) told you that you need to pay a shipping fee for the return shipment when you choose the mail return option, to which extent you are dissatisfied with paying the shipping fee?

1. I feel unhappy about paying the shipping fee for mail returns.
2. I am not pleased with paying the shipping fee for mail returns.
3. I am not satisfied with paying the shipping fee for mail returns.

Perceived convenience of the package-free return service (adapted from Chung and Shin, 2010)

(All items are measured from 1: strongly disagree, to 7: strongly agree.)

1. The package-free return service is very convenient to use.
2. It does not take much time to make a package-free return.
3. This e-shopping platform (Pingfeng) provides ease procedures of making package-free returns.

4. A first-time returner could use the package-free return service without much help.

Perceived green value of the package-free return service (adapted from Pahlevi and Suhartanto, 2020)

(All items are measured from 1: strongly disagree, to 7: strongly agree.)

1. The package-free return service provides more benefit than the cost (returning items to the return point takes time and effort) of getting it [Dropped].

2. The package-free return service pays more attention to the natural environment than the mail return service.

3. The package-free return service is more beneficial to the natural environment than the mail return service.

Mail return habit (adapted from Klöckner and Blöbaum, 2010)

(All items are measured from 1: strongly disagree, to 7: strongly agree.)

When I return products bought online, returning by mail is something that…

1. … gives me a strange feeling when I do not return items by mail [Dropped].

2. … I do totally automatically.

3. … I do without thinking about it.

4. … is part of my routine to process returns.

5. … is typical for me to make returns.

6. … does not require any deliberation.

Switching intention (adapted from Oliver and Bearden, 1985)

Semantic scale (point 1 to point 7).

In the past, you use the mail return service to return items bought from Pingfeng. It is _____ that I would switch from the mail return service to the package-free return service when I plan to return purchases from the e-shopping platform.

1. Unlikely/Likely

2. Improbable/Probable

3. Impossible/Possible

4. Uncertain/Certain

Green loyalty (Adapted from Jang et al., 2015)

(All items are measured from 1: strongly disagree, to 7: strongly agree.)

1. I would recommend this e-shopping platform to my friends or others because it is environmentally friendly.

2. I would like to come back to shop on this e-shopping platform in the near future because it is environmentally friendly.

3. This e-shopping platform shop would be my first choice over other e-shopping platforms because it is environmentally friendly.

E-commerce return frequency

How many e-commerce returns you made in recent three months?

1. 0

2. 1–3

3. 4–6

4. 7–10

5. ≥11

Chapter 5. General Conclusion

5.1 General Theoretical Implications

5.1.1 The effects of the use of an instant refund service on consumer responses in a post-purchase, pre-return scenario and in a post-purchase, post-return scenario

In order to study whether an instant refund can improve consumer return experience and how an instant refund influences a set of key variables in the return management literature, two one-factor (instant refund service: yes vs. no) between-subject scenario experiments were conducted: one experiment (with an additional related experiment) was conducted for the pre-return scenario, and another was conducted for the post-return scenario. In the study on the effects of instant refund in the post-purchase, pre-return scenario, perceived return service quality, perceived control of the refund process, and intention to return the product were included as dependent variables. In the study on the effects of instant refund in the post-purchase, post-return scenario, we studied six dependent variables, including perceived return service quality, perceived control of the refund process, perceived relationship quality with the online seller, satisfaction with the online return experience, anxiety for not receiving the refund, and repurchase intention from the online seller. Consumer satisfaction with the online return experience was used to capture consumers' overall evaluation of the return experience. It has been found that instant refund service can generate many favorable outcomes in both a post-purchase and pre-return scenario and a post-purchase and post-return scenario. Unexpectedly, regarding potential side effects, instant refund service has no significant effect on consumers' return intention. A summary of scenarios, refund services, and key findings across studies can be seen in Table 1.

These studies in the thesis on instant refund contribute to the return management literature in several ways.

Table 1. Summary of studies on instant refunds.

Study	Scenario	Refund services	Key findings
Study 1	A post-purchase, pre-return scenario	For the instant group, the online seller will issue the refund once the consumer informs the online seller that the product has been shipped. For the conventional group, the online seller declares that the refund will be issued to the consumers within 7 calendar days upon the receipt of the return.	An instant refund service can increase consumer-perceived return service quality and perceived control over the refund process. An instant refund service will not increase consumer return intention.
Additional study	A post-purchase, pre-return scenario	For the instant group, the online seller will issue the refund once the consumer informs the online seller that the product has been shipped. For the conventional group, the online seller promises a 14-day time limit of issuing the refund after receiving the product.	Consumers who are provided with an instant refund service do not have significantly stronger return intentions, even compared to those who are informed that the online seller provides a conventional refund service that could take as long as 14 days to process the returned product and refunds.
Study 2	A post-purchase, post-return scenario	For the instant group, the online seller credits the refund as soon as the consumer fills in the tracking number on the return page. For the conventional group, the consumer is refunded by the online seller on the 5th day after posting the product.	An instant refund can improve consumer control perception of the refund process, return service quality perception, and relationship quality perception. Such service increases consumer satisfaction with the online return experience, reduces online return anxiety, and leads to stronger consumer re-purchase intentions.

First, improving consumer online return experience should be a critical issue in e-commerce returns management. Prior literature has stressed the importance of consumer return experience for online sellers (see, e.g., Petersen and Kumar, 2010; Griffis et al., 2012; Lantz and Hjort, 2013; Janakiraman et al., 2016; Abdulla et al., 2019; Y. Wang et al., 2020). However, only one study has studied the factors influencing consumer perceptions of the online return experience, including monetary costs, convenience, stress, and guilt (Rintamäki et al., 2021). This thesis studied the use of an instant refund service that can expedite the refund process. This thesis revealed that using an instant refund service leads to higher consumer satisfaction with the online return experience, which adds new knowledge to the literature on the improvement of consumer online return experience.

Second, prior research has shown that buyer–seller relationship is negatively impacted by product returns (Walsh and Brylla, 2017); however, by providing superior return services, online sellers may be able to restore the relationship. Prior studies have studied the use of return services for restoring seller-buyer relationship. These studies have investigated consumer's perception of the return service (Javed and Wu, 2020), consumer returning experience (Rintamäki et al., 2021), the ease of return (Pham and Ahammad, 2017), and the creativity of return processors of a firm (Espinosa et al., 2021). No studies to date have focused on the use of the refund service to repair buyer–seller relationships. This thesis has found that using an instant refund service can restore buyer–seller relationships damaged by online returns, which contributes to the literature on how online sellers seize the opportunities in return handling to restore buyer–seller relationships.

Third, prior studies on superior return services have not examined the side-effects of using those superior return services (see, e.g., Y. Wang et al., 2020; Javed and Wu, 2020; Javed et al., 2020). Intuitively, a superior return service (e.g., an instant refund service) should be associated with a stronger product return intention (Wood, 2001). However, this thesis revealed that an instant refund service does not necessarily lead to higher return intention, suggesting that superior return services that can improve return

experience do not necessarily lead to higher return intention. This thesis provides new insights into the potential side-effects of using superior return services.

Fourth, this thesis approached perceived control over the refund process and online return anxiety, which have not been researched in previous literature. Previous service recovery literature generally agreed that service providers should endow consumers with a sense of control over the service recovery process (Guo et al., 2016; Chang, 2008). Previous research has studied perceived control over performing a product return behavior (Dailey and Ülkü, 2018), but no study has analyzed consumers' sense of control over a refund process. Also, the e-commerce literature has recognized online consumer anxiety as a pivotal emotional part of the online shopping experience. Previous literature has studied consumer anxiety during online purchasing (e.g., Nagar, 2016; Nagar and Gandotra, 2016), as well as post-purchase dissonance which is a construct highly relevant to consumer anxiety (Lee, 2015; Li and Choudhury, 2021). However, no research has yet investigated online return anxiety. The present article approaches this gap by revealing that instant refund can lower consumer online return anxiety. These studies on instant refund filled these research gaps by revealing that instant refund can increase consumer perceived control over the refund process in both a pre-return scenario and a post-return scenario and mitigate consumer anxiety during online returns.

Last, prior studies on return service quality have investigated the dimensions of return service quality (Mollenkopf et al., 2007), and the relationship between return policy leniency and consumer's return service quality perception (Y. Wang et al., 2020). Different from the prior studies, our research has focused on how the refund service affects consumer perceptions of return service quality. In addition, Mollenkopf et al. (2007) and Y. Wang et al. (2020) targeted the consumers who had experienced return services provided by the sellers. While in this article, apart from studying perceived return service quality in a post-return scenario, we also investigated how instant refund service affects consumers' perceptions of return service quality without experiencing such service. We found that even if consumers did not return the product yet, just

informing them that an instant refund service is provided to them can also improve their return service quality perceptions. By revealing the effect of instant refund service on return service quality perception in the two scenarios, this article contributes to the understanding of the formation of return service quality perceptions and the research on how online sellers can improve their return service quality.

5.1.2 The effects of return shipping method and return shipping fee on consumer responses

In order to study how the method and fee aspects of return shipping policies influence buyer–seller relationships and other key consumer cognitive and behavioral responses, a two-factor (integrated return shipping vs. separated return shipping; free return shipping vs. fee return shipping), between-subject experiment was conducted. Because consumer satisfaction has been regarded as a key indicator of buyer–seller relationship quality (Zhang and Bloemer, 2008; Zhang et al., 2011; Sabiote and Román, 2009) and also an important relational outcome (Walsh and Brylla, 2017; Ramsey and Sohi, 1997; Odekerken-Schröder et al., 2003; Clark and Melancon, 2013; Walsh et al., 2012), I pay special attention to consumer satisfaction among all indicators of a buyer–seller relationship in this thesis and include it as a dependent variable. Consumer perceived fairness of the return shipping policy, perceived value of the return shipping policy, perceived benevolence of the seller, and repurchase intention are all key variables in studies on return shipping policies. Therefore, these four key variables are also included as dependent variables. It has been found that both using an integrated return shipping policy and offering free return shipping can lead to a better relationship between online sellers and consumers. It was also found that both approaches can cause consumers to perceive the return shipping policy as fairer and more valuable, have them consider the online seller as more benevolent, and lead to stronger repurchase intentions. No interaction effect was found between the two factors.

The study on return shipping policy in this thesis has several theoretical contributions.

First, there is a lack of literature on how the return services or policies influence buyer–seller relationships or consumer relational outcomes (Rintamäki et al., 2021). Prior literature has only studied the effect of few return services and return service attributes on buyer–seller relationships or relational outcomes, such as the return management system (Mollenkopf et al., 2007), the speed of returns processing (Griffis et al., 2012), the ease of return (Heim and Sinha, 2001; Ramanathan, 2011; Pham and Ahammad, 2017) and the returning experience (Rintamäki et al., 2021). Return shipping is a step that consumers must go through when they return the product by mail and it entails many frictions to consumers, however, whether and how online sellers can use return shipping policy for relationship marketing have not yet been studied. Our research fills this research gap by revealing that a consumer-friendly return shipping policy is an effective relationship marketing strategy for online sellers, thus contributing to both the e-commerce returns management literature and the relationship marketing literature.

This thesis has studied the monetary and fee aspects of return shipping policy. Prior studies have examined the effects of the monetary factors in the return process on buyer–seller relationships or relational outcomes, such as financial compensation offered by online sellers (Mollenkopf et al, 2007) and the overall monetary cost of return process (Rintamäki et al., 2021), whereas no studies have focused on the effects of return shipping fee on buyer–seller relationships. A fee return shipping policy under which consumers should pay for return shipping of satisfaction-related returns is a usual way to deal with the return shipping fee, because such a policy is considered as cost-effective to online sellers and seems to be reasonable to consumers (Bower and Maxham, 2012). Whereas our research indicates that a free return shipping policy is a useful relationship marketing approach, thus it could be worthwhile for online sellers to invest in a free policy for their relationship marketing and long-term success. Prior studies on return shipping policies have addressed their monetary aspects (e.g., Zhao et al., 2020; Li et al., 2021), but no study has focused on the method aspect of return shipping policy. Our research revealed that using the consumer-friendly, integrated

return shipping method can improve consumer satisfaction with the seller.

Second, prior studies have investigated several online return efforts-related factors on buyer–seller relationships or relational outcomes, such as the overall ease of return (Heim and Sinha, 2001; Heim and Field, 2007; Ramanathan, 2011; Pham and Ahammad, 2017), the level of effort to prepare and physically enter the products into the Internet retailer's return system (Mollenkopf et al., 2007), and whether to require consumers to ask for details about return policies (Heim and Field, 2007). However, no studies to date have investigated the effect of consumer efforts to arrange return shipping, which is the type of consumer efforts we have focused in this thesis, on buy-seller relationships or relational outcomes. These prior relevant studies have reached different conclusions about the effects of consumer efforts. Some studies have proved that ease of return and less return efforts can positively influence seller-buyer relationships or relational outcomes (Mollenkopf et al., 2007; Heim and Sinha, 2001; Pham and Ahammad, 2017), while others found that easier returns or less return efforts do not necessarily lead to more favorable consumer responses (Heim and Field, 2007; Ramanathan, 2011). Our research revealed that an integrated return shipping for reducing consumer efforts to arrange return shipping can improve consumer satisfaction, which enriches the knowledge regarding the influence of consumer efforts in returns on buyer–seller relationships.

Third, prior studies on return shipping policy have mainly focused on its monetary aspects, including return shipping fee (Bower and Maxham, 2012; Hjort and Lantz, 2016; Zhao et al., 2020) and return shipping insurance (Geng et al., 2017; Li et al., 2021). However, other aspects of return shipping policy are absent from current disclosure, and as such, their effects on consumer perceptions and behavioral intentions are unknown. This article helps to plug this research gap by investigating the outcomes of return shipping methods. Our research indicates that an integrated return shipping policy can increase consumer satisfaction, strengthen consumer repurchase intentions and improve their perceptions of the online seller and its return shipping policy. These findings on return shipping method enrich the existing knowledge on return shipping

policy.

Fourth, prior studies on return shipping fee have primarily focused on its effects on consumer post-return purchase behaviors or online sellers' profits (Bower and Maxham, 2012; Hjort and Lantz, 2016; Zhao et al., 2020). Bower and Maxham (2012) have also studied how return shipping fee policy influences consumer fairness perception and regret. While thesis investigated several different but crucial variables, including consumer perceived value, perceived benevolence, and satisfaction. It has been found that a free return shipping can add value to return shipping policy and make consumers perceive the seller as more benevolent. Especially, a free policy can increase consumer satisfaction with the online seller, which is key to buyer–seller relationship quality and online seller's long-term success (Hennig-Thurau et al., 2002; Zhang and Bloemer, 2008; Zhang et al., 2011; Sabiote and Román, 2009). The current literature has discussed the value of free return shipping to online sellers from the perspective of their profitability, and has drawn inconclusive conclusions (Bower and Maxham, 2012; Hjort and Lantz, 2016; Zhao et al., 2020). While our research adds new insight into the value of a free return shipping policy to online sellers by revealing its positive influence on consumer satisfaction and the other key responses.

Fifth, the findings have shown that there was no interaction effect between the return shipping method and the return shipping fee on the consumer responses. Prior literature on return services has not yet studied the interaction effects between the provision of a return service and the corresponding fee of the service on consumer responses. This thesis revealed that charging consumers for an integrated return shipping service does not undermine the positive effect of the service on consumer responses, indicating that online sellers charging for a superior return shipping service do not necessarily weaken the positive effects of the service on consumer responses.

Sixth, consumer perceived value is a pivotal construct in the marketing literature (Dodds, 1991; Floh et al., 2014), but perceived value of return shipping policy has not yet been studied. As such, how online sellers can conduct valuable return shipping policies for consumers has not been explored. Prior literature has studied how sellers

can add value for the return policies (Mollenkopf et al., 2007; Jeng, 2017), which is different from our focus on the value of return shipping policies. This article has approached this theoretical gap by discovering the relationships between the two components of return shipping policy and perceived value of the return shipping policy. It has been concluded that both free return shipping and integrated return shipping can make consumers perceive the return shipping policy as more valuable.

Finally, prior studies have investigated the influential factors of consumer perceived benevolence of the online seller at a pre-transaction stage (e.g., Zhou and Tian, 2010; Park et al., 2012; McKnight et al., 2002), and a transaction stage (e.g., Hwang, 2009; Hung et al., 2012). However, factors impacting consumer benevolence perceptions in online returns have not yet been investigated. This article helps to plug this gap by revealing that a free return shipping and an integrated return shipping have a positive influence on perceived benevolence. In addition, prior studies have found the provision of financial compensation in service recovery process can be perceived by consumers as a benevolent gesture in service settings (Okimoto, 2008; Gasparotto et al., 2018). Although it is difficult for a customer to conceive that an online seller has benevolence towards him in general (Toufaily et al., 2013), we have found that the positive effect of financial compensation on perceived benevolence is also valid in the e-commerce context. In addition, prior service recovery literature has investigated tactics for firms to improve consumers' benevolence perceptions of online sellers during service recovery process (e.g., Okimoto, 2008; Gasparotto et al., 2018), whereas to the best of our knowledge, no studies have investigated the influence of tactics for reducing consumer efforts in service recovery on consumer perceived benevolence. The new relationship found between integrated return shipping and perceived benevolence indicates that using tactics to reduce consumer efforts in service recovery process can provide evidence of benevolence of firms, and thus help firms to build a more benevolent image in front of consumers.

5.1.3 The key factors influencing consumers to switch from mail return services to package-free return services

In order to identify key factors in green communication that contribute to consumers switching from mail return services to package-free return services, the PPM framework was adopted to predict online consumers' switching from the non-green return mode to the green mode, and a scenario-based online survey was conducted for this study. It has been found that push factors (consumer dissatisfaction) and a mooring factor (mail return habit) have only weak effects on consumer switching intention. In terms of pull factors (service convenience and green value), this study found that green value has a much weaker impact on switching intention than service convenience. It was discovered that the key factor in green communication was service convenience.

Wu et al. (2018) have studied the relationship between green loyalty and consumer intention to switch to other companies and found that green loyalty to the company is negatively associated with consumer intention to switch to other companies. Different from the previous study, this thesis investigated the relationship between green loyalty and consumer intention to switch from the seller's non-green service to its green service and found that consumer intention to switch from the seller's non-green service to its green service has a positive influence on consumer loyalty to the seller.

The study on package-free returns mode in this thesis adds value to green communication and the PPM framework. First, in the previous literature, green value has been considered as a key factor in communicating value to consumers and elicits consumers' greater green behaviors or behavioral intentions (Chen and Chang, 2012; Chi et al., 2021; Hamzah and Tanwir, 2021). However, this study has found that the effect of green value on switching intention was not as strong as the effect of service convenience. This finding suggests that green communication could be more successful when green value is conveyed combined with functional value, which is in line with previous literature (Jiang and Kim, 2015).

Second, previous research has studied convenience as a pull factor in the PPM framework and found it has a relatively weak effect on consumer behavioral intention (Handarkho and Harjoseputro, 2020). However, perceived convenience was found to have the strongest effect among all the factors in the present study. This may be because

the research context in this study is different from the previous study. Handarkho and Harjoseputro (2020) examined the effect of convenience in the mobile payments context in which consumers have not yet completed the purchase. The present study examined the effect of convenience in the e-commerce returns context in which consumers have received the product and want to return it (Robertson et al., 2020). The different contexts may lead to the consumers' different mindsets, which may in turn result in the different effects of perceived convenience.

Third, the prior studies on green communication and consumer pro-environmental behavior using the PPM framework have drawn inconclusive conclusions. Prior research has indicated that push factors are very predictive of consumer switching in a circular economy context (Hazen et al., 2017), but other studies have found that push factors are not very predictive in pro-environmental contexts (Perez-Castillo and Vera-Martinez, 2021; Sajjad et al., 2020a and 2020b; S. Wang et al., 2020). Our study reveals that the effects of push factors were relatively weaker than the effects of pull factors, although the effect of one push factor, dissatisfaction with the refund speed, was found to be significant. This study contributes to the understanding of the role of push factors in predicting consumer switching in an e-commerce return context. Although monetary return cost has been suggested in previous research to steer online consumers toward the offline return channel (Wollenburg et al., 2018; Nageswaran et al., 2020), this study only found a very weak effect of consumers' dissatisfaction with return cost. This may be because dissatisfaction with return cost may not be sufficiently strong for a consumer to abandon the easy mail return service (Ejdys and Gulc, 2020). This finding indicates that consumers' switching intentions are not driven by a cost-saving motive.

Finally, the original PPM framework only considers the push, pull, and mooring factors. This thesis included e-commerce return frequency as a control variable and found it has a significant positive effect on switching intention. Previous research has claimed that service value is created in a "value-in-use" context (Vargo and Lusch, 2004). When a consumer uses a service more frequently, the service becomes more valuable to the consumer. Therefore, the frequency of service use may predict service

switching intention. This thesis suggests that the PPM framework can be extended and further optimized by adding the factor of behavior frequency.

5.2 General Practical Implications

5.2.1 Improving online return experiences by offering an instant refund service

On the basis of our research findings, online sellers can recognize the effectiveness of instant refund services for improving consumer online return experience, thus helping them decide whether to convert their conventional refund mode to an instant mode.

A satisfactory return experience for consumers is a key to the success of online sellers (Rao et al., 2018; Janakiraman et al., 2016), thus online sellers should improve their online return services to offer consumers a satisfactory return experience. In this thesis, we have found that using an instant refund service to handle refunds can indeed result in higher consumer satisfaction with the online return experience. In terms of emotional experience, it has been found that instant refund can reduce consumer anxiety in online return process. Our findings indicate that instant refund service is a useful approach to improving consumer online return experience. Therefore, this approach should be attractive to online sellers.

Despite the significant benefit on consumer return experience, online sellers may still be hesitant to employ instant refund method because they are afraid of the possible high costs caused by it. On one hand, online sellers are usually wary of offering superior return services, because consumers are likely to make more returns when they are provided with such services (Wood, 2001). This thesis has found that the use of instant refund will not significantly increase consumer return intention. Therefore, online sellers do not need to fear that the use of instant refund service will significantly raise their return rates and their return costs, and thus they can be more confident to use instant refund service in their return management practices. On the other hand, investing in superior return services usually cause extra costs to the sellers (Mollenkopf et al., 2007). Therefore, online sellers may not be willing to and not be able to spend these additional costs. We suggest that adopting instant refund service may not raise

return costs to online sellers. Given that the costs of fast delivery and employing many workers to process returns could be high, it could be costly for online sellers to improve or maintain their refund speed in a conventional refund process. By contrast, online sellers' costs for ensuring relatively fast refund speed in the conventional refund process could be saved, if they adopt an instant refund method and process returns and refunds unhurriedly with lower costs.

An instant refund service seems more appealing to online sellers who find it difficult to expedite their conventional return process, such as overseas online sellers. Following shopping events, such as the Black Friday sale or the Christmas shopping season, online returns usually increase dramatically, imposing more pressure on online sellers to handle returns and refunds than usual (Optoro, 2020). Online sellers who use a conventional refund process may be unable to maintain a usual refund speed for these returns. They could use an instant refund service to solve this problem.

5.2.2 Using instant refunds to enhance consumer responses

In addition to offering consumers a satisfactory return experience, using an instant refund service can benefit online sellers in other ways.

This thesis is of interest to online sellers who intend to cultivate their relationship with returners. Online returns are likely to damage buyer–seller relationship (Walsh and Brylla, 2017). In a consumer study of online returns in 2018 among 3,519 online consumers, every respondent made at least one return in the year (Narvar, 2019). About 30% of all items purchased online were returned by consumers. (Rudolph, 2016). Therefore, a seller may have a high proportion of consumers returning products to them, and online sellers' relationship with these consumers could be impacted by online returns. Therefore, a key challenge for online sellers in return handling is how to seize the opportunities in online return process to restore buyer–seller relationship. In this thesis, it has been found that using an instant refund service can significantly improve the returner's perceptions of relationship quality with the seller. This finding indicates that an instant refund service is a useful approach for online sellers to repair their

relationship with the consumers who make returns. Online sellers can use it for their relationship marketing in online return events to restore their relationship with returners, in order to achieve long-term success.

Given that an online seller may have a high proportion of consumers returning products to them (Rudolph, 2016; Narvar, 2019), whether consumers who have returned products to an online seller repurchase from it could have a great impact on its sales and profits. This thesis found that using instant refund services can significantly increase consumer repurchase intention. This finding suggests that online sellers can use such a service to strengthen consumer repurchase intention, which could benefit them in terms of sales and profits.

This thesis has also found that instant refund services can improve consumers' perceptions of control over the refund process and return service quality without significantly affecting consumer return intention in the post-purchase and pre-return scenario. Therefore, when an instant refund is offered, the online sellers could take some actions to draw consumers' attention to this service before purchase, to make consumers consider its return service quality as high and feel more in control of the possible refund process.

5.2.3 Employing an integrated return shipping policy and a free return shipping policy for relationship marketing and sales growth

Consumer satisfaction-related online returns are very significant now and appear to remain an inevitable part of e-commerce (Yang et al., 2017), thus these returns are likely to keep damaging buyer–seller relationships (Walsh and Brylla, 2017). Because relationships with consumers are critical to the success of online sellers (Nawi and Al-Mamun, 2017; Steinhoff et al., 2019; Sihotang et al., 2020; Antwi, 2021), online sellers need effective approaches to restore and maintain the relationship damaged by consumer satisfaction-related returns. In this thesis, consumer-friendly return shipping policies, such as an integrated return shipping policy and a free return shipping policy, were found very effective to improve the buyer–seller relationship. It has also been

found that using consumer-friendly return shipping policies can increase consumer repurchase intention. Based on these findings, online sellers can recognize the effectiveness of integrated return shipping and free return shipping for relationship marketing and sales growth, thus helping them decide their return shipping policies.

Although it should be easy for online sellers to use a separated return shipping policy, the frictions during consumers using it could cause low satisfaction and weak repurchase intentions. By contrast, an integrated return shipping policy removes many of the frictions related to return shipping arrangement for consumers (e.g., hassles related to finding a qualified third-party delivery company and communications with the delivery service provider and the online seller), making the return shipping easy to consumers. This thesis indicates that using an integrated return shipping policy can restore buyer–seller relationships and increase consumers' repurchases for online sellers. Therefore, considering these benefits, it should be interesting for online sellers to use an integrated return shipping policy for their e-commerce returns management. Online sellers who want to use an integrated policy need their own return shipping services and an interface on their websites for consumers to arrange the return shipping with them. To implement integrated shipping, online sellers can either establish and use their own self-run logistics or cooperate with a delivery partner. On the interface for using integrated return shipping, online sellers should clearly instruct their consumers how to use it.

A fee return shipping policy is cost-effective to online sellers (Bower and Maxham, 2012), but this thesis found that consumers who pay for return shipping have relatively low satisfaction and weak repurchase intention. By contrast, I found that a free return shipping policy can result in a better buyer–seller relationship, which benefits the long-term success of online sellers. I also found that a free return shipping policy also can facilitate consumers' repurchases, thereby increasing sales. Therefore, return shipping costs borne by online sellers may be viewed as investments for their relationship marketing and for sales growth. This thesis suggests that online sellers should reevaluate their return shipping fee policy and make the policy decision, taking not only

the cost of using a free policy but also its significant positive impacts on their relationship with consumers and future sales.

This thesis found that requesting consumers to pay for return shipping (i.e., a fee return shipping policy) does not undermine the positive effect of integrated return shipping on the consumer responses. Therefore, online sellers could be confident to use integrated return shipping and request consumers to pay for it, which can improve consumer responses and also control the return costs. However, the combination of an integrated policy and a free policy can produce the best consumer responses. Therefore, using an integrated and free return shipping policy should be appealing to online sellers.

5.2.4 Taking effective measures to promote package-free return services

Based on the findings of this thesis, the companies who use package-free return services can understand why they should and how they can promote their package-free return service.

First, the findings indicate that online sellers can increase consumers' green loyalty through green communication for prompting package-free service and thus reap long-term benefits. In addition to green value, green communication also creates business value for online sellers. Therefore, this thesis can help the companies decide whether they should invest resources in green communication for prompting package-free service. This thesis may also help companies that are hesitant to implement package-free return mode to make the decision.

Second, return service convenience should be prioritized in green communication; the green value of the service comes second. On the basis of our empirical results, it is clear that service convenience is most influential in green communication; companies should thus focus on this "selling point". For example, on the return policy webpage, the convenience of the return service should be highlighted so consumers notice it more easily. The green value of the service can be mentioned at a lower priority. For example, the pro-environmental outcomes of the service can be mentioned after the convenient return process. Marketers should be cautious about the effects of push factor or pain

point marketing in green communication, as our study has indicated that the effectiveness of such pain point marketing could be relatively low.

Second, promoting return service convenience should have the highest priority in green communication; communicating the green value of the service should come second. The results of this study show that service convenience has the largest influence in green communication. Therefore, communicating this benefit should be the focus of companies. Marketers can communicate the green value at a lower priority. For example, the pro-environmental outcomes of the service can be mentioned after the convenient return process.

Third, the results have shown that the two push factors, consumer dissatisfaction with the refund speed and dissatisfaction with the return cost in the mail return mode only manifested weak effects on switching intention, indicating that it may not be effective to communicate such pain points for promoting more consumers to use it. Marketers should be cautious about the low effectiveness of the push factors in their green communication.

Fourth, habit-changing initiatives or interventions are common in marketing campaigns (Tadajewski, 2019), but this thesis found that the mooring effect of habit on switching intention is rather weak. Hence, habit-changing initiatives or interventions are not recommended when promoting package-free return services.

Last, this thesis found that the effect of e-commerce return frequency on switching intention was small but still significant. Also, previous research has indicated that consumers who return products more frequently could provide more profits than consumers who barely ever make returns (Abbey et al., 2018). Therefore, companies may need to pay additional attention to consumers with higher return frequency behaviors and increase the accessibility and usability of the green return service for them.

5.3 Future Research Directions

5.3.1 Exploring more approaches to mitigate the issues in e-commerce returns management

This thesis analyzes the three issues in e-commerce returns management, and studies several return management approaches to mitigate these issues. Considering that these issues are critical for the future of e-commerce, and these issues are not likely to be fully solved by the return management approaches presented in the thesis, it would be meaningful to explore more approaches to mitigate the issues in the future research.

This thesis studies the use of instant refunds, which can expedite the refund process, in order to improve consumer online return experience. Future research could examine the other management approaches to improve consumer online return experience. For instance, future research could investigate whether and how online sellers can use AI-powered chatbots that can instantly respond to consumers who initial refund requests or ask questions to improve the consumer online return experience. Also, this thesis focuses on improving consumer experience in mail returns. Nowadays, some retailers have enabled their consumers to directly return products purchased online to sellers' bricks-and-mortar stores instead of being shipped to the appropriate return addresses. Thus, return-shipping-based approaches cannot be used in these returns. Therefore, further research could study the superior service and more consumer-friendly policies for sellers to improve consumer return experience when consumers use 'buy online and return in-store' services.

This thesis studies the use of an integrated return shipping policy and a free policy to restore the buyer–seller relationship. An integrated return shipping policy can reduce consumer efforts related to return shipping arrangements. However, there are other types of consumer efforts in the online return process. For instance, consumers usually need to take efforts to accessing the return process (Smith, 2005; Heim and Field, 2007; Janakiraman and Ordóñez, 2012), preparing the package, and entering it into the seller's return system (Mollenkopf et al.,2007). Future research could work on other return

management approaches to reduce these different types of consumer efforts, in order to restore the buyer–seller relationship. A free return shipping policy reduces consumers' monetary costs associated with return shipping. This thesis studies the use of a free return shipping policy for satisfaction-related returns. While this thesis did not approach how online sellers restore their relationship with consumers who return the product due to product defects or poor services. Future research could study return management approaches to restore the buyer–seller relationship in the scenarios where consumers return products due to product defects or poor services. In addition, this thesis focuses on restoring the buyer–seller relationship when consumers use mail return services, but did not study how to improve the buyer–seller relationship when consumers use 'buy online, return in-store' services. Therefore, future research could study the strategies for sellers to nurture their relationship with consumers when consumers use a return method other than mail returns.

A package-free return mode may be a solution to mitigate negative the impact of e-commerce returns on the natural environment. This thesis identifies key factors in green communication that contribute to consumers switching from mail return services to package-free return services, which can help e-commerce companies promote their package-free returns. Future research might study return management approaches that can provide in-store benefits and the approaches that can address the pain point of product returns in physical stores, in order to nudge consumers to switch to the green return service. A direct way to mitigate the negative environmental impact of e-commerce returns is reducing e-commerce returns. Future research could study how online sellers could reduce e-commerce returns, in order to mitigate their negative impact on the natural environment.

The potential side effects of the approaches in the future studies should not be ignored when considering their introduction. The superior return services and consumer-friendly return policies that could improve consumer online return experience or restore the buyer–seller relationship may have side effects. For instance, the gatekeeping of an instant refund process is not as strict as that of a conventional

refund process, and therefore, the use of an instant refund service might lead to a higher incidence of fraudulent returns. The return shipping is free to consumers under a free return policy and convenient to them with an integrated policy, thus these approaches may lead to more legitimate and opportunistic product return behaviors. If restrictive return policies are employed to reduce e-commerce returns as well as their negative environmental impact, online sellers may find that the restrictive policies could also reduce consumer purchases. Future studies could study the side effects of the return management approaches they proposed to generate a more comprehensive understanding of the approaches.

Future research could compare the effectiveness of the various consumer-friendly return policies and superior services they proposed to mitigate the issues in e-commerce returns with the approaches in this thesis. Such research could identify which approaches are more effective to mitigate the issue, thus helping online sellers determine the priorities for improving their return management.

Future studies could examine the effects of interactions among the return management approaches for improving different aspects of return process. It is worth studying the interaction effects, because, through such studies, online sellers can know the best combinations of the return management approaches.

5.3.2 Examining the effects of return management approaches on other important consumer responses

In order to mitigate the three critical issues in e-commerce returns management, this thesis studies the use of instant refund service, consumer-friendly return shipping policy and package-free return mode to improve the critical consumer responses related to the issues. Also, to generate a comprehensive understanding of instant refund service and consumer-friendly return shipping policy, this thesis studies their effects on a set of key consumer responses. However, return management approaches may influence many other important consumer responses.

This thesis focused on the use of instant refund on consumer responses in a post-

purchase, pre-return scenario and in a post-purchase, post-return scenario, while this thesis did not study the effects of instant refund service on consumers' responses in other scenarios. For example, future research can investigate the effects of instant refund service on consumer responses in a pre-purchase scenario, such as consumer purchase intention, trust, perceived risk, etc. By doing such research, it could be understood whether online sellers can benefit from instant refund service in a pre-purchase scenario, which could influence their decisions on the adoption of the service. Online sellers could also know whether an instant refund service can be used for increasing consumer purchases or enhancing consumer trust. Also, the gatekeeping of an instant refund process may be not strict. Thus, future research can study whether the use of instant refund service leads to more fraudulent product returns. If so, it should be meaningful to study how online sellers could fight fraudulent returns when an instant refund service is used.

This thesis studies the use of integrated return shipping and free return shipping to improve important consumer perceptions, satisfaction, and repurchase intentions. It would be meaningful to study the effects of both approaches on consumer purchase intention, in order to understand whether online sellers can benefit from more consumer purchases by using these approaches. Also, this thesis did not investigate the potential side effects of these approaches. These approaches may lead to more legitimate and opportunistic product return behaviors, because a free return shipping policy makes the return shipping free to consumers and an integrated policy makes the return shipping convenient to them. More online returns will cause a loss of profit for online sellers. Therefore, it is worth studying such potential side effects of using these two policies. In addition, future research can investigate whether using these approaches improve consumer word-of-mouth behaviors. Future studies could examine the effects of a return shipping policy on more consumer behaviors to generate a more comprehensive understanding.

A package-free return mode may be a solution to mitigate negative impact of e-commerce returns on the natural environment. This thesis investigates the factors

influencing consumers to switch from mail return services to package-free return services. which can help sellers to promote their package-free returns. Future research could examine the effect of a package-free return mode on consumer purchase behavior, return behavior, in-store exchange behavior, repurchase behavior, etc. By examining these effects, a more comprehensive understanding of the outcomes of using the package-free return mode can be achieved.

In a nutshell, there are still more research opportunities related to the effects of the return management approaches in this thesis open to further work.

5.3.3 Establishing boundary conditions of the effects of the return management approaches on consumer responses

In this thesis, the experiments are conducted to study the effects of instant refund service and consumer-friendly policies on consumer responses. In the studies on the effects of instant refunds, 529 yuan is used as the product price for the experiment. Since we studied the refund service, the amount of refund seems to play a role in consumer reactions to instant refund service. Under the condition that consumers return products with a very low the price, the use of an instant refund service may not significantly improve the consumer response, as the consumer may not be as concerned about a small amount of money to be refunded. Future studies can investigate whether product price is a boundary condition for the instant refund service to be effective.

To study the effects of a return shipping policy in the experiment, respondents were exposed to an experimental scenario in which they need to ship a product to the online seller to return it. In this work, we selected a laptop as the experimental product. Notably, a laptop cannot represent all product categories. The difficulty of arranging return shipping or the cost of return shipping varies by product. For instance, there are obvious differences between shipping a fridge or a pair of shoes in terms of the hassle of arranging return shipping and the return shipping cost. Future studies can investigate whether product category is a boundary condition that determines the effectiveness of integrated return shipping policy and free return shipping policy.

It was also recommended for future studies to study the boundary conditions of other return management approaches. Based on the finding of such studies, online sellers may understand in which condition using the approaches significantly improve consumer responses, and thus they could make the right decisions on their return management.

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Doctoral Thesis by Changyuan Feng

ACADEMIC AND PRACTICAL CONSIDERATIONS FOR ECOMMERCE RETURNS MANAGEMENT: CRITICAL ISSUES AND MANAGEMENT APPROACHES

Departamento de Organización de Empresas I
Programa de Doctorado en Ciencias Económicas y Empresariales
University of Granada

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