

Turning Trash into Treasure is Hard Work! How the Activities of Consumers and Reuse Enablers Extend Product Lifetimes

Karin Nilsson^(a), Lea Becker Frahm^(b), Oskar Rexfelt^(a), Helena Strömberg^(a), Linda Nhu Laursen^(b)

a) Chalmers University of Technology, Göteborg, Sweden

b) Department of Architecture, Design and Media Technology, Aalborg University, Aalborg, Denmark

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Abstract: This paper explores the process of transferring second-hand products from one home to another. It focuses on three key participants: the consumer who is divesting products from their home, the consumer who purchases pre-owned items, and the second-hand and reuse enablers that facilitate this circulation of products. Current literature tends to concentrate solely on one of these groups—either consumers divesting products, second-hand and reuse enablers, or consumers buying pre-used items. This fragmented approach leaves gaps in understanding the complete process of product circulation. To address this knowledge gap, our study examines the entire process, starting from the moment a consumer decides to part with a product until that product finds a new owner. We conducted interviews with 20 consumers who are divesting products, 11 second-hand and reuse enablers, and 20 consumers who purchase pre-owned items. Our research identified three main product circulation processes and eight sub-processes: Donation, Commission Sale, and Sell-It-Yourself. Each circulation process involves a long series of activities carried out by the consumer divesting the product, the reuse enabler, or the consumer buying the item. By comparing these processes, we highlight that successful circular product exchanges require significant effort from all participants. Additionally, we demonstrate how the responsibility for these activities shifts depending on the chosen process, revealing the challenges associated with circular product transactions and how reuse enablers can support recirculation. This research contributes to a deeper understanding of the circular economy and its current struggles and opens discussions on how to overcome these challenges.

Introduction

One promising approach to address climate change effectively is the transition from a linear to a circular economy, in which products and materials are kept in circulation and product lifetimes are extended (den Hollander et al., 2017; Ellen MacArthur Foundation, n.d.). Circular economy strategies encompass a range of actions, including maintenance, reuse, refurbishment, remanufacturing, and recycling. Among these, product reuse is considered particularly impactful, as it preserves products at the current integrity level (Ellen MacArthur Foundation, n.d.). It typically entails that a product reaches a new consumer when the current one no longer needs it.

While direct product exchanges between consumers, such as gifts or more spontaneous second-hand sales, can facilitate reuse, intermediary actors often play a crucial role in enabling these transactions. Examples of such intermediaries include online marketplaces,

second-hand retailers, and flea markets, all of which help facilitate product circulation. These intermediaries, referred to here as 'reuse enablers,' serve as connectors between individuals looking to divest used products and those seeking to acquire them. As such, reuse enablers must cater to the needs of both groups to effectively support sustainable product recirculation.

How consumers handle unwanted products affects product lifetimes: decisions like retaining, recycling, or passing items to new users determine whether products continue in use (Cruz-Cárdenas & Arévalo-Chávez, 2018; Sarigöllü et al., 2021). Divestment choices offer various personal benefits and costs, influencing which path consumers choose (Cruz-Cárdenas & Arévalo-Chávez, 2018). Transferring items to others often involves additional tasks, which can make circulation seem inconvenient or even deter it entirely (Selvefors et al., 2019). For those looking to divest, reuse enablers are

crucial to making recirculation more attractive and convenient than less sustainable options. Reuse enablers also have a crucial role in addressing buyer concerns. Research highlights common barriers to second-hand shopping, including perceptions of disorganization, unpleasant odours, or uncleanliness (Bardhi, 2003; Bardhi & Arnould, 2005; Frahm, Boks, et al., 2024; Frahm, Laursen, et al., 2024). Although these views are changing (Mitchell & Montgomery, 2010), many shoppers still avoid second-hand items due to hygiene concerns, unpleasant shopping environments, and fears of social stigma (Armstrong et al., 2015; Frahm, Laursen, & Boks, 2023; Gullstrand Edbring et al., 2016; Hur, 2020; Wallner et al., 2022). Competing with new product sellers, reuse enablers must work to overcome these barriers, making second-hand shopping more appealing and thereby supporting more sustainable consumption patterns.

Prior studies on reuse enablers have often classified them by scope and revenue model (Yrjölä et al., 2021). Some reuse enablers support product recirculation without monetary exchange between consumers, such as through donations or direct gifting (Paden & Stell, 2005). Others rely on financial transactions—ranging from direct sales at flea markets, and online platforms to sales through intermediaries like second-hand retailers, auctions, consignment shops, and pawn shops (Lane et al., 2009; Paden & Stell, 2005; Sarigöllü et al., 2021). These descriptions, however, primarily emphasize business models and operational functions, offering limited insight into what the process of divesting and acquiring products second-hand entails for the consumers.

Studies on consumers divesting their goods, the operations of reuse enablers, and consumers purchasing second-hand items are typically treated as separate areas of analysis. However, together, these elements form an

interconnected process essential for product circulation. Moreover, an underexplored concept in this context is consumption work—the labour involved in the purchasing, use, reuse, and disposal of products (Wheeler & Glucksmann, 2015). The nature of this consumption work within circular economy practices is crucial, as it may significantly influence the development and viability of the “circular consumer” and can be a key to understanding the ‘attitude-behaviour’ gap (Hobson et al., 2021). Despite its importance, consumption work remains a largely neglected area in the current literature and in broader discussions on reuse (Hobson et al., 2021). While previous research has addressed how reuse enablers attract consumers by aligning with trends, maintaining cleanliness, repurposing items, or crafting engaging store environments (Frahm, Laursen, & Tollestrup, 2023; Gregson & Crewe, 2003; Parsons, 2005), few studies consider the ways reuse enablers facilitate connections between consumers divesting and consumers buying. This paper seeks to fill that gap by examining the different roles and linked activities in product circulation processes. By investigating the entire reuse process—with a particular emphasis on the consumption work it entails—this study aims to contribute a more holistic understanding of the consumers divesting, the reuse enablers, and the consumers purchasing pre-used. Furthermore, the study aims to develop the understanding of how these activities contribute to product circulation and the process of extending product lifetimes.

Methodology

This study is based on secondary data collected through several independent research studies. The three studies shed light on the concerns and activities performed by each of the three actors (see Figure 1). In combination, the studies contribute to answering the question of how the work required to recirculate products



Figure 1. The perspective that each of the studies contribute with.

is divided between consumers divesting, reuse enablers, and consumers buying.

The first study involved semi-structured interviews with 20 Swedish households, focusing on currently unused products retained within the household and how these products were divested. This study provided valuable insights into the various activities consumers engage in when divesting products, as well as their concerns during the process. Additional data from interviews with 20 Danish second-hand consumers (Study 2) offered insights into the activities and concerns of buyers of second-hand products, while data from interviews with 11 Danish second-hand retailers (Study 3) shed light on the value-adding and selling activities carried out by reuse enablers. Some complementary data was collected from various reuse enablers in both Sweden and Denmark, about the reuse enablers' service offerings and the process of divesting and acquiring products. The analysis of reuse enablers is based on the premise that the appeal of circular consumption alternatives largely depends on how they fit into consumers' everyday lives (in line with Selværs et al., 2019). Therefore, understanding what consumers do when interacting with different reuse enablers is crucial (cf. Hobson et al., 2021). To compare reuse enablers, we analysed the division of activities between the divesting consumer, the reuse enabler, and the buyer. This involved mapping out all the activities involved in a product exchange process for each reuse enabler and identifying "who does what", starting from when a consumer decides to divest a product and ending as the second-hand product enters a new home. The analysis also included the activities performed by the reuse enablers, mapping the value-adding activities.

A selection of reuse enablers to include in the study was made based on literature (e.g Paden & Stell, 2005; Yrjölä et al., 2021), and the authors' own experiences and awareness of different conduits, to include a variety of actors with different business models and offerings to the consumers. The selected reuse enablers included physical stores like charity shops and flea markets, but also various online based services (see Figure 3 for a full overview).

Results and Analysis

Product exchange processes consist of a long series of activities that vary between different reuse enablers, an overview of all activities

found in the analysis is presented in Figure 2. These activities need to be performed for products to be recirculated. They are differently distributed between consumers divesting products, consumers purchasing products, and the reuse enablers depending on the conduit. Figure 3 illustrates the division of activities between the actors throughout the product exchange process for each type of enabler. Some of the activities always need to be carried out to make the product exchange possible (indicated by a full line around the activity), while others, though not critical, are frequently performed (indicated by a dashed line around the activity).

The sheer number of activities required was often perceived as being too much work, which often prevented or made recirculation more challenging. In addition, specific activities like preparing products for sale and dealing with buyers were often considered as hard work by divesting consumers. For consumers looking to divest products this hard work often worked as a barrier, preventing them from moving products along. Similarly, for reuse enablers there is both varied and hard work involved in handling and reselling second-hand products. For example, reuse enablers work hard to counteract the prejudice about smelly or dirty charity shops by cleaning products before bringing them into the store. The work involved in recirculating products is often challenging, especially for the consumers divesting, as they do not have the same routine and experience as the reuse enablers.



Figure 2. Product exchange activities.

Since certain reuse enablers share similar characteristics, they can be grouped into three primary categories: donations, commission sales, and sell-it-yourself. Each category will now be discussed in detail.

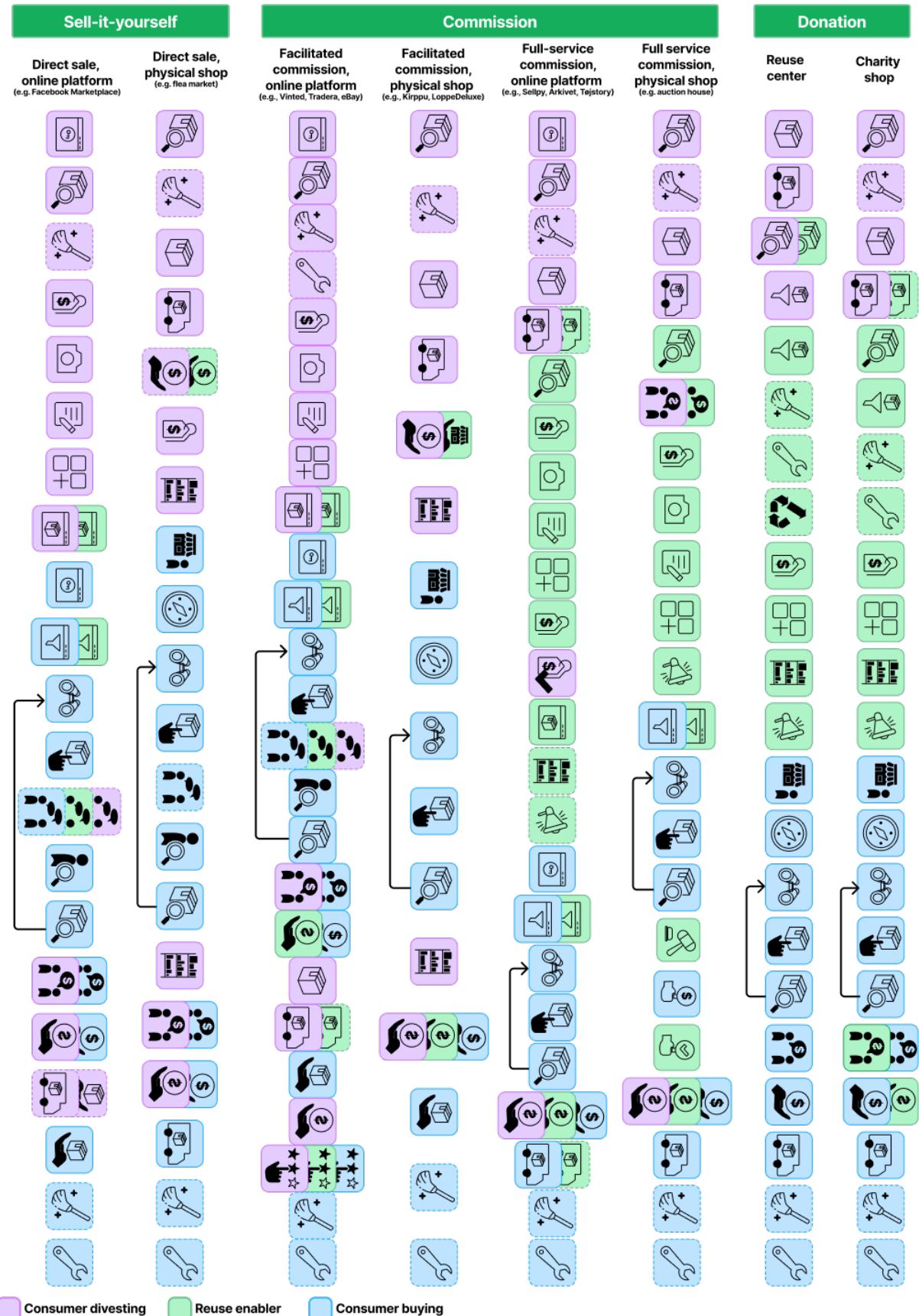


Figure 3. Division of activities between actors.

Donation

The donation process is characterized by a relatively low level of effort required from consumers who are divesting their items. Donating products to charity requires few activities and divested products can be handled in bulk which eases divestment. The divesting consumer receives no financial compensation; instead, all revenue from the resale goes to the reuse enabler, typically a charity shop or a reuse centre. The reuse enabler takes on the bulk of the work to recirculate the product. This includes re-valorisation efforts, such as cleaning, and sometimes minor repairs or upcycling, to make the items more appealing for resale, as well as the selling activities.

There is no direct interaction between the consumer divesting the item and the consumer purchasing it. Thus, the buying consumer has no way to assess the item's previous owner. This separation creates a distinct handover point, with minimal overlap in activities or interactions between the divesting and buying consumers and the reuse enabler. The absence of the original owner in this process simplifies price negotiations and may even contribute to a "neutral" feel to the product, as it is less affected by the previous owner's influence. This neutrality may enhance the appeal of the product to new consumers, making it feel more universally accessible and free from prior associations.

Commission Sales

In the commission sales category, there is greater overlap in activities among all participants—the divesting consumer, the buying consumer, and the reuse enabler. The reuse enabler receives a commission on each sale, with the monetary amount varying based on the level of service provided. *Full-service commission sales* yield a higher percentage for the reuse enabler compared to *facilitated commission sales*, where the reuse enabler's role is more limited.

The commission sales category thus includes two sub-categories. In *Full-Service Commission* (e.g., auction houses, full-service online platforms), the reuse enabler takes physical possession of the product, assuming a more involved role that includes setting sale terms and typically engaging with the divesting consumer on aspects like pricing and conditions of sale, which are often considered challenging by divesting consumers.

The reuse enabler manages a series of preparatory activities to prepare the product for sale, including advertising and coordinating with the buying consumer.

This interaction creates a more integrated experience for the buying consumer, while the divesting consumer's role becomes largely passive after the product is handed over. Notably, there is no direct contact between the divesting and buying consumers, and the buying consumer cannot evaluate the product's previous owner. In *Facilitated Commission* (e.g., physical commission shops, commission-based online platforms), the reuse enabler plays a more passive role, mainly providing a physical or digital platform where divesting and buying consumers can connect directly. The reuse enabler does not handle the product directly but instead facilitates the transaction by providing a secure space for the exchange. In this model, the divesting consumer takes responsibility for all aspects of the sale, including re-valorisation, advertising, and negotiations. Taking on this work is often considered challenging but is often worth it as they receive a larger part of the price. They remain actively involved throughout the entire process, unlike in full-service commission sales. The buying consumer has a limited ability to assess the divesting consumer, often relying on ratings, display quality, or other indirect indicators of the seller's reliability.

Overall, commission sales offer secure transactions and allow the reuse enabler to play either an active or passive role depending on the type of commission.

Sell-it-yourself

In the sell-it-yourself category, the consumer divesting the product assumes full responsibility for most aspects of the exchange, including re-valorisation, advertising, selling, and the final handover to the buying consumer. This type of reuse enabler significantly shifts the workload to the divesting consumer, who performs many of the activities typically managed by a reuse enabler in other sales processes. This is often seen as challenging, especially as the divesting consumers perform these actions infrequently and may lack the routines and competences required.

A unique characteristic is that transactions between the consumer divesting and the consumer buying rely heavily on mutual trust. Since the reuse enabler typically is not involved

in the financial exchange, there is no third-party security to guarantee the transaction's safety. Instead, the reuse enabler's role is mostly about providing a platform, either physical or online, where divesting and buying consumers can connect.

Throughout the process, the divesting consumer remains active, managing each step from product presentation to payment and handover. This arrangement conveys a high level of interaction between the consumer divesting and the consumer buying, as their activities are closely linked. The consumer divesting also benefits financially, receiving the full payment (or close to it) for the sale.

Overall, the sell-it-yourself category offers divesting consumers the chance to maximize earnings but requires them to manage most of the process themselves, making it a more self-reliant approach to product exchange. Nevertheless, these reuse enablers play an important role in making divested products accessible to a large pool of potential buyers and making a wide range of products accessible to consumers looking for something on the second-hand market.

Overall Comparison

When comparing different reuse enablers, it is evident that consumers who divest products receive a larger portion of the payment when they take on more responsibilities. By assuming tasks such as product re-valorisation, advertising, and selling, the divesting consumer can increase their share of the sale.

From the perspective of the buying consumer, the activities they must perform are relatively consistent across various reuse enablers. While the buying consumer may pay different prices for the same product depending on the platform, the number of activities required does not change significantly. This raises the question of what the consumer is actually paying for if it is not to be relieved of any work. Although not captured in this analysis, it is likely that the price difference is related to the overall shopping experience, which can vary greatly depending on the reuse enabler. Factors such as the selection of products, their condition, the layout of the shop, and the way items are displayed all contribute to the buyers' experience. These elements are, in turn, influenced by the activities carried out by the reuse enabler (or sometimes the consumer divesting). While these activities may not significantly reduce the buyer's workload, they

can greatly enhance the shopping experience when carried out skilfully.

Discussion

This research highlights the substantial work involved in product circulation, both for consumers divesting products, the reuse enablers, and consumers purchasing them. For the consumers divesting products, reuse enablers can decrease the effort needed by taking over activities that the divestors otherwise would have to carry out themselves. In relation to the buyers, the reuse enablers not only provide a place to find second-hand products but also carry out activities to enhance the shopping experience.

While this analysis presents a complex landscape of available product circulation conduits, it only offers a partial view. Both consumers looking to divest and those seeking to buy products might struggle to understand the differences between various reuse enablers, and this complexity deepens when consumers must select a reuse enabler based on their specific needs. For divestors, high-value items may warrant a more work-intensive conduits to maximize profitability. However, for disposing of multiple lower-value items, other less work-intense conduits may be more suitable. Similarly, buyers' needs can vary. Are they shopping for enjoyment and browsing for unique finds, or are they seeking a specific product at a good deal? This distinction will influence which reuse enabler that is most suitable to satisfy their needs. Throughout the interview data that forms the basis for this study, there are indications that navigating the landscape of reuse enablers presents a significant challenge for both divestors and buyers. An important area for future research would thus be to explore this challenge further, with the long-term goal of making it easier for consumers to participate in product circulation markets and, hence, a circular economy.

Another valuable avenue for future research is the shopping experience and how it varies across different reuse enablers. A deeper exploration of how reuse enablers shape the overall shopping experience could not only reveal strategies for selling second-hand products at the highest possible price but perhaps also provide insights into how lower-value products can be effectively sold (or circulated) at all.

In conclusion, the presented analysis of the activities that are carried out by consumers

divesting products, reuse enablers, and consumers buying second-hand products illustrates the diverse and hard work involved in product recirculation for all participants. It sheds light on how reuse enablers bridge the gap between divesting and buying consumers and reveals how different types of reuse enablers affect the division of labour among these actors. This understanding can serve as a foundation to further support consumers in the second-hand market, for instance by introducing less work-intensive options. In turn, this can facilitate the recirculation of used products and extend product lifetimes.

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