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**Fostering circularity to promote the reuse of household items with
non-profit second-hand stores**

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Master Thesis

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Abstract

Environmental concerns have been on the centre of discussion and policy-making over the last decades. Driven by increasing awareness of finite resource depletion and environmental impact caused by manufacturing pollution, Circular Economy (CE) has emerged as a transformative framework aimed at reducing waste by promoting reuse, recycling and upcycling of materials.

This study explores the concept of non-profit second-hand stores in order to provide a new life to products destined to be stored at home or thrown away, even if they were still functioning. Through the performance of 10 interviews from diverse backgrounds and diverse age groups with the objective of understanding consumer experiences on physical and online second-hand stores, perception of second-hand items, experience regarding discarding no longer needed household items and attitudes towards donations of such items. Using a qualitative research methodology, the key concepts, themes and the relationship between the aforementioned concepts were analysed.

The findings revealed the habits of owners of items no longer needed, their knowledge and experiences on the usage of second-hand platforms, and their opinions on a concept for a physical second-hand store managed by a non-profit organization.

Keywords: circular economy, second-hand store, household items circularization, donation-based second-hand store

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List of abbreviations

CE – Circular Economy

C2C – Consumer to Consumer

NPO – Non-Profit Organization

FPO – For-Profit Organization

1 Introduction

Environmental concerns have been increasing over the last decades, over broad concerns of ambient pollution and finite resource exhaustion (Bonciu, 2014).

Traditional linear economic models, typically described as “take-make-consume-dispose” approach, have contributed to vast extraction and waste of natural resources, straining ecosystems and presenting an unsustainable consumption rate (European Commission, 2014).

With the increase of awareness towards environmental impacts from economic practices, Circular Economy (CE) has emerged as a transformative framework, growing in popularity with the aim of tackling waste production and incentivise reuse, recycling and upcycling of products and materials which would've not been used again (Bonciu, 2014; Singh *et al.*, 2019).

Such closed-loop concept not only reduces the required raw materials initially extracted from the environment, reduces the waste generated by the manufacturing process, but also eliminates the need of producing new products from scratch, maximizing gains from all extracted material and reducing insecurity of shortening material supply (European Commission, 2014).

One notable application of CE concepts lies in the promotion of second-hand markets, in which this work intends to further develop. Research shows second-hand market matches this concept by extending products lifespan and reducing waste by providing new purposes for otherwise thrown away products. Despite these potential benefits, second-hand markets face several obstacles stemming from consumer perception and trust issues, as well as various logistical barriers (Sandes and Leandro, 2019; Tiarawati *et al.*, 2022).

This work falls under the scope of the project CircularTech, which is a project sponsored by the European Union under the initiative NextGenerationEU, with the objective of closing material cycles and ensuring a sustainable waste management. The end goal is to reuse/convert wasted materials into new raw materials (CircularTech, 2023).

Overall research into the topic of second-hand stores is based around fashion items, which are items known to have high barriers to repurchases due to hygiene and fast evolution of fashion perception, becoming easily outdated. The emergence of online platforms which allow to deal directly between the customers (following a peer-to-peer model) further dynamized the second-hand fashion market, improving the extraction of value by the seller and the buyer (Parker and Weber, 2013). This change of paradigm revolutionized second-hand markets induced a large research opportunity on online stores, analysing customer behaviour, sourcing and selling opportunities, and investigating potential synergies with other concepts, such as Circular Economy.

On the opposite spectrum of fashion items sit various types of household items which have low monetary value, and owners perceive the cost of selling as too high for almost no return. Research shows that typical household items for sell, which includes furniture, kitchenware, small appliances and tools lack demand to appeal to outweigh the effort of the transaction, which includes the transaction, transportation, and risk. The effort required for second-hand purchases, especially when buying sight-unseen, and the effort for bargaining increase the barrier against procuring brand-new items (Wilts, Fecke and Zeher, 2021).

In partnership with Lipor and under the scope of CircularTech, this thesis will explore the application of second-hand product service with the intent of selling items which have low

supply on ordinary second-hand markets. This store will additionally depend on donations, especially of items which owners would consider the effort of selling too high and would rather dispose or store the item instead of selling for some monetary return. Some items which this store would deal with are small, hand-carriable objects such as low-value antiques, broken collections of household items such as cutlery and silverware, and small decorative items such as, for example, picture frames. This concept contrasts with traditional second-hand stores which base their business model on procuring items from individual consignment or through local acquisition methods, be it through local retailers or procuring through individual deals from garage, estate sales, or other second-hand channels (Parker and Weber, 2013).

Over the course of this thesis, service design principles will be applied to formulate a service blueprint, detailing stakeholders' involvement and interactions and defining the varied customer journeys depending on the acting roles.

1.1 Research Questions

The aim of this dissertation is to research the concept of non-profit second-hand stores using the underlying model of circular economy, with the purpose of reintroducing household items into the economy, aiming to reduce resource waste. To address these issues, the following research questions were proposed:

- *Q1* – What are the diverse types of household items which customers would be willing to buy and/or donate?
- *Q2* – How can non-profit second-hand stores minimize barriers to increase and incentivize second-hand purchases?
- *Q3* – How can non-profit second-hand stores incentivize donations and provide a meaningful service to various stakeholders?

The first research question explores the diverse types of household items which customers would be willing to buy or donate. This question intends to identify what types of items are usually disposed, and what are the items which could be donated. The same question will also attempt to answer what second-hand items customers are willing to buy.

The second research question investigates the barriers of second-hand purchases, exploring customer perception of second-hand items and stigmas of second-hand stores. With the knowledge of the issues regarding second-hand purchase experiences, this study aims to provide a better insight on possible mitigations of such issues.

Finally, the third and last research question delves into the how non-profit second-hand stores can incentivise donations by exploring the possible relationship with customers. The study will investigate what actions can stimulate the proximity between the store and relevant stakeholders for a symbiotic relationship.

2 Literature Review

The following chapter presents the key concepts involving a non-profit second-hand brick-and-mortar store, including circular economy, the evolution and complexities of second-hand markets, psychology of second-hand items and object donation/disposal. In this chapter, the relationships between such concepts will be explored: how second-hand markets integrates into circular economy, the intricate differences between physical and online second-hand markets, the perceptual issues of second-hand and circular items, as well as the perception of non-profit organizations compared to regular for-profit organizations.

2.1 Circular Economy

The concept of Circular Economy (CE) has emerged as a reshaping framework in order to address environmental and economic challenges posed by traditional linear economic models. (European Commission, 2014; Bocken *et al.*, 2016)

Unlike traditional economic models, also referred as “take-make-dispose” models, CE aims to provide a sustainable growth while minimizing waste within a products lifecycle. As the name implies, the redefined process decouples economic activity from the consumption of finite resources and providing a way of reintegrating waste into the cycle. (Bocken *et al.*, 2016)

This broad concept is grounded on a few core principals which guide its implementation through different steps of a product manufacturing and/or lifecycle. Bocken *et al.* (2016) resumed four abstract resource flow types which broadly define the lifecycle of products across 3 dimensions: slowing resource flows, closing resource flows and narrowing flows.

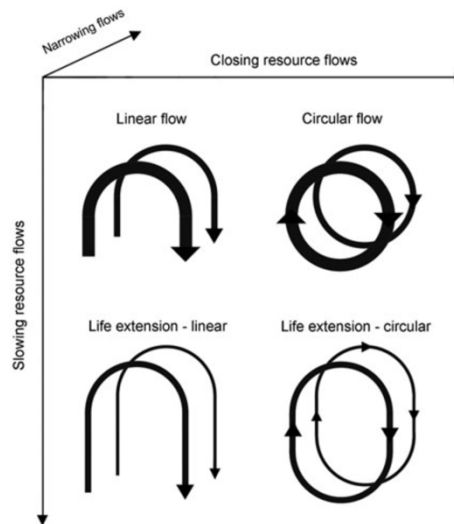


Figure 1 - Resource Flows across 3 dimensions (Bocken *et al.*, 2016)

Within these 3 dimensions, there are 2 base flows standing on the “Closing resource flows” dimension:

- Linear flow: traditional “take-make-dispose” cycles, also referred as “cradle-to-grave” as all outputs of the flow are essentially waste (Stahel, 2010).

- Circular flow: similar to linear flows, however products at end-of-life are no longer considered waste and are reintroduced to the economy as products once again (Stahel, 2010).

As a further improvement of these flows, they can be expanded on the life extension dimensions, sometimes mentioned as “slowing replacement system”, by allowing the expansion of the useful lifetime of the product. In other words, this loop is slowed by having a product maintain its usability for a longer period. This extension might be implemented from the initial design or be provided by means of repairing the product (Bocken *et al.*, 2016).

Product lifetime extension can take various forms, either from purposed design or simply inherent (not purposeful) characteristics for maintenance, repair and/or upgrade. A classic example of life extension is the inherent design of long-life products, designed for attachment with reliability and durability in mind.

In contrast, a product designed based on a closed resource loop has different characteristics in mind. Such products are built with the intention to be disassembled or deconstructed into the basic materials. Bocken *et al.* (2016) surmises these designs to have 3 base strategies: design for technological cycle, design for biological cycle, and design for disassembly and reassembly:

- Design for technological cycle: a design strategy with recycling in mind, reducing the overall waste by converting the constituting elements into new base materials for new products (Bocken *et al.*, 2016).
- Design for biological cycle: especially used in items for consumption, the product is designed with wear in mind. Not only are items safe and healthy for consumption but are also biodegradable. Such items are transformed into new raw materials by microorganisms, and, while not directly reinserted into a manufacturing cycle, reduce the impact of waste on ecosystems (Bocken *et al.*, 2016).
- Design for disassembly and reassembly: a strategy for the simplification of parts replacement, contributing to the last two design strategies, especially in items composed by a combination of both technological and biological items, with different lifecycles (Bocken *et al.*, 2016).

While such design strategies are mostly relevant for product design and their manufacturing processes, it’s important to understand product characteristics and their design philosophies. These strategies and product characteristics directly influence a customer's perception of value of second-hand items (Mukherjee, Datta and Paul, 2020).

Another dimension of CE outside product design strategies stands in the broad principle of reintroducing a product at any stage of its lifetime. One form of reintroducing a product is to reuse the product after entering the stage of disposal. Instead of disposing of an item, this product can be given a second life through reuse (Geissdoerfer *et al.*, 2020).

2.2 Second-hand

One form of closing a product lifecycle (thus circularizing its lifecycle) stands in the form of second-hand trading (Pretner *et al.*, 2021).

Second-hand stores are not recent concepts, but such consumer-to-consumer (C2C) trading gained traction in recent years by the advent of online stores. Most research bases around fashion-related items due to the barriers of consumption, but also the characterization of different types of fashion items (Seo and Kim, 2019; Kim-Vick and Yu, 2023).

According to Seo & Kim (2019), there is also a segregation of consumption by age and/or income, especially in the case of online platforms. Most users of such platforms are younger university students, which have low income and are in search of higher quality, more fashionable apparel.

Dooley (2019) sums the overall second-hand market as a positive experience in the basis of circular economy principles: items which could be difficult to recycle, and thus would end up depositing waste on the environment, can be reintroduced into the market. The items typically traded in such markets are antique or nostalgia driven items, and items which are of higher quality compared to new cheap items.

Related with the products design characteristics mentioned in section 2.1, secondary markets face the threat of low reliability and planned obsolescence (Parker and Weber, 2013). The quality and expected lifetime of a product has proven to be one of the central characteristics of an object from the perspective of a prospective buyer (Pretner *et al.*, 2021).

According to Pretner *et al.* (2021), second-hand items have a higher perceived value than circular items (brand new items built using recycled materials). To offset such value perception, the author found that environmental information (especially third-party provided) improves the willingness to buy.

Furthermore, in the age of digitalization, secondary markets have increased in activity as it addresses major barriers compared to online C2C trading. Traditional physical stores induce issues regarding time and effort requirements. Not only do participants require the effort to commute to the stores, but they are typically also time limited. The time spent browsing the store and completing the purchase might discourage presential purchases (Schüler, Fee Maier and Liljedal, 2020).

These stores also have trouble sourcing materials. Compared to online platforms where customers interact with each other, stores need to acquire merchandise, preferably locally from individuals, local retailers or “garage sales”. Buying items also introduces financial pressure on second-hand stores when required to provide up-front payment in case consignments are not possible (Parker and Weber, 2013).

Another barrier highlighted during the COVID-19 pandemic was the hygiene of physical stores and overall products. While this topic affected both offline and online platforms, consumers still voice hygiene concerns. This includes the overall experience within the store, from browsing to purchasing (Schüler, Fee Maier and Liljedal, 2020). Perception of second-hand items have inherent “contamination” feelings. Not only do second-hand items already have an inherent negative cues of contamination, but second-hand stores can induce a higher risk of such a feeling by allowing items to be touched (Argo, Dahl and Morales, 2006; Yan, Bae and Xu, 2015).

The location of the items (e.g., if they are protected by barriers where contact is impossible or having back-room items available instead of exposed items) is one of the factors in which a disgust feeling is brought to the consumers (Argo, Dahl and Morales, 2006; Yan, Bae and Xu, 2015). Another factor for reducing these negative feelings is time: such feelings fade if items are perceived to not have been touched for long periods of time (Argo, Dahl and Morales, 2006).

It is also present in online platforms but in the process of delivery and the hygiene of the product itself. Charnley *et al.* (2022) found that companies can mitigate this barrier by providing a cleaning service, however this stigma might be in decline and might not be a barrier in the future.

While seemingly contradictory, physical stores do provide a different appeal to their customers. Physical purchases provide a different feel compared to online stores, with users not only able to see physical products easily, but also touching and understanding how they work. Consumers enjoy the journey of purchasing the item and greatly value participating in this experience (Sarkar, 2017).

Another crucial factor about customers preferences regarding physical and online stores are their age. There are multiple factors related with age which present barriers to online usage. While online stores provide many benefits, most older adults have a higher perception of risk in online transactions, as well as a generalized lower proficiency in information technology (Lian and Yen, 2014).

While older adults prefer to use physical stores, younger adults have less resistance to purchasing at an online store and is sometimes even preferred. The convenience of purchasing items online is unrivalled, especially when compared to the effort to purchase on physical stores. Younger adults still prefer to purchase in stores in cases of shopping as a luxury experience or when items are needed faster, as customers can skip the process of delivery (Boardman and McCormick, 2018).

2.3 Non-Profit Second-Hand stores

A typical model of second-hand stores oriented for social benefits are based in charity retail. This retail model is performed by non-profit organizations (NPO) which procure search for donations as a majority source of items (Liu, Eng and Sekhon, 2014).

An important factor for the success of such organizations is based around brand image and legitimacy. Given their dependence on public support to operate, these stores need to carefully maintain their brand image in line with transparency, trustworthiness and responsibility. Both customers and donators carefully evaluate the brands moral legitimacy before interacting with, which is why these organizations require effective communication strategies (Liu, Eng and Sekhon, 2014).

NPO second hand stores also need to take into consideration the types of items they intend to procure and sell in a way that aligns with their image. NPO are typically seen as socially “warm” compared to the “competent” feeling provided by For-Profit Organizations (FPO). While competence is a bigger driver for purchasing, warmth greatly aligns with charity stores which orient themselves toward social and environmental responsibility (Aaker, Vohs and Mogilner, 2010).

In a study by Lovatt (2015) around donation of items from parents houses to charity shops, the author highlighted multiple reasons for donating instead of selling the products. One of the factors for donation is the ease of the donation process, providing a form of morally disposing of items which still could have a new life and be used by other people which need these items. Another factor for the donation were difficulties related with low-supply items, which required high effort to recover any value by selling on a second-hand platform.

As found by Joung & Park-Poaps (2013) in a research about donation of clothing, most owners wanted to have some economic return but are less receptive to clothing items of low value and/or low quality. In this case, most consumers discard clothing items due to the convenience instead of donating. However, donations were mostly driven by social and environmental consciousness, which is also influenced by a perception of effectiveness of their donation.

Consumers are more likely to donate if they understand the result and contributes of their actions.

2.4 Research gaps

This literature review provides a relationship between circular economy and socially responsible second-hand stores. As previously mentioned, a charity shop based around circular economy principles are a great method of producing positive impact for the environment by reintroducing unused or perceived end-of-life items back into the market.

The research gap found in the literature review stems around a lack of previous work around the destination of small household items. Most research found on this topic is based around reselling fashion and electronic products, which are products with high supply and demand in second-hand stores/platforms (Bashir, 2024).

3 Methodology

The following chapter presents the methodology used during this dissertation. In the first section, a comparative analysis of existing approaches is presented to understand which methodology better suits this work. The selected methodology will be analysed in further detail in the second section, as well as a description of the steps and procedures used.

3.1 Comparative analysis of existing approaches and reasons for the choice of adopted approach

Research methodologies serve as systematic tools for the collection, organization, and analysis of information, with the of achieving some conclusions. Different methodologies are available, specifically oriented towards answering different types of questions. (Walliman, 2011)

Creswell (2014) presents three different approaches to research, each oriented towards a specific type of collected data types: qualitative, quantitative and mixed methods research. The differentiator for these approaches is the types of data recorded, by formulating the data in terms of words (qualitative) or numbers (quantitative).

Qualitative research is a comprehensive and holistic approach used to interpret and analyse social and human problems. This process entails the development of evolving questions and procedures, collection of data typically within the participant's environment, and inductive data analysis that progresses from specific observations towards broader themes. (Creswell, 2014)

Creswell (2014) describes quantitative research as "(...) an approach for testing objective theories by examining a relationship between variables". The process of analysis and interpretation of the values are using statistical methods. Within quantitative research, there are different kinds of research designs which differ in their approaches.

Experimental designs attempt to determine if a specific stimulus provides influence on an outcome. This is performed by introducing this stimulus to a group, withholding from another (control group) and comparing the results. Survey research seeks to obtain a quantitative description of a population's opinions, attitudes or trends by assessing a representative sample of such population. (Creswell, 2014)

3.2 Method used in the project

After the detailed analysis above, the chosen methodology for this work was a qualitative approach, with the aim to better understand consumer preferences (in both capacities as donor and/or buyer), as well as their perspectives and beliefs around a theoretical service.

One such qualitative research design used during this project is grounded theory, based on a systematic gathering and analysis of data. Starting with an inductive approach, researchers derive an abstract theory after a process of data collection and iterative coding process (Creswell, 2014; Charmaz, 2015). The initial interviews are openly coded and then grouped into categories or themes using axial coding. During this step, relationships between the categories start to appear and the researcher can change the interview questions to further investigate specific topics (Burck, 2005).

Some authors, such as Backman & Kyngäs (1999), believe grounded theory can be difficult to follow for novice researchers due to their long and time-consuming process. For such

researchers, the application of this approach is a compromise between the methodology's demands and the available resources.

The Gioia methodology is a qualitative approach for performing data analysis while meeting the rigorous standards of trustworthy research. This methodology balances conflicting need to develop new concepts inductively while achieving the high standards required by top journals (Gioia, Corley and Hamilton, 2013; Magnani and Gioia, 2023).

This methodology provides a systematic way to analyse and interpret data through various steps. Starting with data collection and data coding, organizing participants terms and language into first-order concepts, further refining into more abstract second-order themes and finally into aggregate dimensions. Following this step, a grounded theory model is constructed in which dynamic relationships are between concepts, themes and dimensions are correlated. Finally, the findings are presented using a data-driven approach representation of second-order themes and aggregate dimensions, with frequent referencing quotes from participants (Gioia, Corley and Hamilton, 2013).

During the performance of interviews and data collection, a simultaneous analysis, categorization and codification were simultaneously performed. This allowed to efficiently determine underlying patterns within some consumer behaviours, as well as identify areas where interviewees might not have fully expressed their needs or concerns. These were considered in the following interviews to increase the data accuracy.

3.3 Sampling

The sample consisted of 10 interviews with potential service consumers. An important point about the diverse selection of interviewees was to correlated differences in socio-demography and professional qualifications to understand stigmas and interests across different generations and economic stratus.

Interviewee's No	Gender	Age	Profession
1	Male	25	Engineering
2	Male	27	Engineering
3	Male	38	Engineering
4	Female	67	Management
5	Male	26	Student
6	Male	34	Engineering
7	Female	43	Teacher
8	Male	33	Artist
9	Female	42	Medicine
10	Female	24	Management

Table 1 – Interviewee's gender, age and profession

3.4 Data collection and analysis

In order to understand the thoughts, incentives and barriers of consumers of a donation-based second-hand store, semi-structured online interviews were conducted with open questions. Before the beginning of this process, an interview protocol was developed that included an informed consent for data collection and with an excerpt of an interview script (APPENDIX A: Interview script). This script was divided into 2 parts, with the first containing broad questions regarding consumption patterns, waste management and consumption behaviours on online and physical second-hand stores or platforms. The second part elaborates on a service concept to be operated by Lipor for a non-profit physical second-hand store which is reliant on donations, in which the interviewee is asked their thoughts about this service and their willingness to participate.

The period of research was executed between December 19th 2023, and July 31st 2024; with an interview time ranging from 20 minutes to 35 minutes via Zoom, recorded for analysis at a later date. During these interviews, interviewees were asked about their methods of disposing of items no longer needed, the factors that lead to their choices and if they considered an alternative method of disposing.

After the end of each interview, a transcription of the data was performed and analysed using NVivo software by coding and categorizing interviewees insights. The code model was iteratively refined, as well as the interview questions to achieve a more accurate representation of the interviewee's behaviour.

4 Results

In this chapter, the results of the research conducted for this project will be analysed. Using the aforementioned methodology, this research explored the destination of household items which are no longer needed, the habits and patterns on of consumers regarding second-hand stores and exploration of a hypothetical non-profit second-hand store.

The emphasis of this project is to provide insights into customer perception, behaviour and perceived barriers of a non-profit second-hand store, as well as investigate possible ways to improve the relationship between the relevant stakeholders.

During this chapter, excerpts of the interviews will be analysed and explored to provide insight the perceptual problems of second-hand items, barriers for donation and buying items, as well as suggested methods for stimulating a proximity relationship between customers, donors and the store.

4.1 Destination of household items

The destination of household items no longer needed by their owners, and the barriers and drivers for each method of disposal serve as a guide towards understanding how a potential second-hand store can address such barriers to access this untapped market.

Table 2 - Destination of household items, reasons and destinations of discarding

Second order themes	First order concept	Interviews
Dispose		5
	Collection in buying a new item	1
	Not in a good state	3
	Too much effort to sell	1
Donation		3
	Collection points	2
	Family hand-down	2
	No longer necessary	2
	To social institutions	2
	To schools	1
No specific destination	Too much effort to sell	1
		4
	Non-functional	2
Save	Upgrade	3
		7
	Emotional attachment	1
	Doesn't want to sell or dispose	1

Functional objects	2
Habit	2
Indecision	1
Lack of interest	2
Might be useful in the future	3
Too much effort to sell	2
Sell	7
To recover some value	2

In Table 2 **Erro! A origem da referência não foi encontrada.**, there are 2 levels of categories and number of references in interviews. In category 2 are detailed the destinations of household items, and in category 3 are the reasons for the chosen method and more specific methods of discarding. There are 4 general destinations of items: disposal, donation, storage and selling. There is also a 5th code specified under the name “No specific destination” for highlighting general reasons why items are no longer needed by their owners. These chosen methods will provide insight into the owner’s reasoning and how they could be influenced into another method of disposal.

Regarding the somewhat considered “default destination” which is disposal, interviewees agree this is the default destination of items in case they don’t fit into another category or are not worth the effort for using another method of discarding.

“If I can’t identify any use, I throw it away or try to recycle it”

Interviewee No 3

“No, never [though of selling]. I don’t have the patience, much less time to sell (...)”

Interviewee No 7

Some type of items were also highlighted as used until their end-of-life, where a second purpose could not be assigned to them.

“For example, in the case of dinnerware like plates, they are used until they break and are then thrown away”

Interviewee No 5

A particular case was mentioned by the 8th interviewee, who found value in products even after their end-of-life. These might include various types of objects which might be broken or unusable, but still serves an artistic purpose. This way, items are recycled or reused even without serving their original purpose.

“As I work in the field of visual arts, I always have people around me who can use a certain product, which for me no longer has, but for someone else they are valuable. (...) Even if they are boxes, electronics, etc”

Interviewee No 8

There was also a particular case of an item type which could be possibly sold, however there is a small amount of demand due to modern streaming platforms: CDs and DVDs. These items still hold value in collectors' market but might be difficult to sell.

“In terms of CDs, they are thrown out or recycled when no longer needed.”

Interviewee No 5

Regarding donations, there are different forms by which items are given to other people or organizations. Interviewees 6 and 7 mentioned their habits of handing down their items to family members who might need them or are donated to local their local community in case in case there aren't any willing to get the items.

“In case it doesn't have a significant value, which makes selling in second-hand markets impractical, I choose donation. (...) It's a habit I've been developing since my child began school, to ask directly if they need anything instead of donating to another third-party. (...) For example, toys for children”

Interviewee No 6

“Smaller items, like clothing or related items, I try to give to someone who needs it. (...) I have someone to give them to in the family. For example, children clothing. Adult clothing I normally leave in collection containers”

Interviewee No 7

In a particular case of an interview, there was an insight into a negative point of these collection containers. Even though they are the primary method for donating adult clothing, the interviewee claimed they are difficult to use due to overfilling and their complex engineering.

“(...) frankly it's not a method I like because there are a lot of clothing scattered around the container because stuff would come out when you tried to place the items inside. (...) I used to go directly to some institutions before COVID, but afterwards it was closed or they stopped receiving people.”

Interviewee No 7

Item storage was the most popular method overall. In most cases, the owners felt the products were still functional or still might be useful in the future. There are also cases of emotional

attachment to the objects, where items could be given away or thrown but the owner can't find the strength to let go of them.

“Most of them go to the storage room. (...) Who knows the future? Someday it might be useful”

Interviewee No 1

“I have a lot of books, some of which I don't need anymore because my children have grown already, formed their own families and with the internet they no longer make sense. But when I was younger, I went to the trouble of collecting dictionaries, encyclopaedias and books of that genre which have absolutely no use. Nobody reads them, they are here only occupying space, but I can't throw them out.”

Interviewee No 4

Meanwhile, selling itself is a controversial topic: selling is a mean to receive some monetary return of a functional item. Some interviewees have sold items before and want to continue selling items in the future. However, some people don't want to sell because they don't think the effort is worth it compared to choosing another method of discard.

“I never thought of selling. I know there are a bunch of apps for selling household items, but it's not really my thing.”

Interviewee No 4

“If the toys have significant value, then yes, I'd sell them on second-hand markets. (...) I'm a big technology consumer, when I need to upgrade a component from my computer, I usually sell the part I no longer need, because they retain high value of course”

Interviewee No 6

“A motive that makes use [not sell] is the laziness of having to photograph, handle logistics and then send the item.”

Interviewee No 9

4.2 Experience with second-hand platforms

In this section, the experience of customers on second-hand platforms will be explored, in the dimensions of physical and virtual platforms, as well as their perceptions, barriers and drivers to the usage of such platforms. In Table 3, there are second order themes and first order concepts related to second-hand online trading platforms. In the second order themes, there are two different dimensions being addressed: the barriers and drivers of overall platforms, and more specific perceptions of the most well-known online platforms mostly used in Portugal.

Table 3 - Online platforms and usage experience

Second order themes	First order concept	Interviews
Barriers		6
	Does not like	1
	Didn't try to use	2
	Fraud Potential	4
	Lack of a trusted middleman	1
Drivers		2
	Have economic return	2
OLX		5
	Easy to sell to people close-by	1
	Positive experiences	2
	Prone to scam	1
eBay		3
	Access to a broader market	1
	Difficulty to sell	1
	Difficulty in shipping to distant locations	1
Vinted		5
	Protection plan against frauds	1
	Safer experience	1
Wallapop		2
	Access to a broader market	1
	Bigger market	1
	Protection plan against frauds	1
	Requires trust in the seller	1

In online platforms, there is a perceived duality in terms the liking or disliking of the platforms, with a specific difference between technically adept versus technically proficient people. The distinctive factor between using an online platform versus a physical store is the ability to touch and look physically at the items.

"I don't buy on the internet. I think it's horrible. (...) I like to touch, I like to look, I like to understand the detail. You can't do any of that on paper or in an image."

Interviewee No 4

Another potential issue of online platforms is their potential for fraud and scams. While this issue can be addressed in different forms, these platforms usually handle trading directly with other customers. This introduces trust issues regarding multiple factors, such as the product condition, the other person interested in the deal, and even product and payment problems. These issues are handled differently by different platforms, and well-informed customers can identify and avoid such scams.

“I know there are some scams sometimes. Even I have been the target of a scam, but I managed to understand immediately and stop before continuing with the deal.”

Interviewee No 2

“In exchanges in person, sometimes can be... I wouldn't say dangerous, but sometimes it's complex. And the same applies in case I'm selling. (...) You can meet someone, and they just take the product without pay, for example.”

Interviewee No 5

During the conduction of the interviews, there were 4 platforms highlighted: OLX, Vinted, Wallapop and eBay. The most widely used platforms are the first two, and the latter 2 are lesser known for different reasons. OLX is an established platform in Portugal, and it's no surprise that it's the general use platform, with a broad category of items available. It operates on the basis that both transaction peers will handle the trading, either locally exchanged or shipped by their preferred method. The responsibility of ensuring the items are safe and the transaction is handled correctly falls to the seller and the buyer.

“OLX is based a lot on trust of the other side. It'd be ideal if there was a trusted middleman to guarantee the safety of the buyer and the seller. I believe Vinted does that.”

Interviewee No 1

“I generally don't have many complaints, but each sale is what it is. It depends a lot on the person on the other side of the sale. (...) OLX it's trusted platform, where most people publish. Generally, you can find a deal close-by where it is possible to travel to and verify the item”.

Interviewee No 6

Contrasting with OLX, Vinted is a platform mostly known for clothing trading. Other items are also available, but not with the same volume as OLX. A major advantage of this platform is their protection plan which serves as a form of prevention of scams by having a third-party handle trading disputes.

“Vinted is a platform most used for clothing, which is why I never used that platform.”

Interviewee No 6

“I’ve used Vinted, but it’s not really the type of platform I tend to use. (...) I think it’s more associated with clothing”

Interviewee No 8

Wallapop is similar to OLX in the aspect that all types of merchandise are exchanged, but offers the same protection schemes as Vinted, by allowing in-house payment and handling disputes.

“Wallapop is like a competitor of OLX. The market is extensive in a technological level (...) and has more supply compared to OLX, but mostly comes from Spain. The market is bigger there and most sellers and Spanish. Buying in Wallapop sort of needs you to trust the seller and receive the item before you can check the item. (...) For as much security as Wallapop claims to have, I have never tried it.”

Interviewee No 6

Lastly, eBay is a platform which has very little expression in Portugal. Similar to Wallapop in their protection schemes, their market base mostly extends over the world and can be cumbersome to sell on such long distances.

“Normally in eBay, their purpose is to ship outside of Portugal, to other countries, which in itself complicates the sale, the process of shipping, etc.”

Interviewee No 5

“eBay is the most recognized name, but it’s very expensive. The items come from far away, and, because of that, the shipping fees are also more expensive. Ultimately, it doesn’t pay off”

Interviewee No 6

4.3 Proposed service

In this section, the aforementioned proposed service will be explored around their barriers, drivers and the relationship that customers want. It’ll also be explored the roles of the customers, either as buyers or donors.

In Table 4, the second order themes and first order concepts are correlated with the mentions in the interviews. The concepts addressed in this table refer to the barriers, drivers, and the relationship of the customer with the proposed store. Using various first order concepts retrieved from the interviews, main obstacles with the service can be identified and measures can be suggested to improve the concept.

Table 4 - Barriers, drivers and perceived relationship

Second order themes	First order concept	Interviews
Barriers		2
	Object unusable	1

	Not in a shopping centre	1
Drivers		8
	Good organization-appeal	5
	Object diversification	2
	Object segregation	2
	Proximity-Accessibility	3
	Trust in a middleman	2
Relationship		8
	Association	1
	Doesn't want newsletters	3
	Wants newsletters	5
	Online presence	4
	View the result of the donation	3

One of the central topics is proximity and accessibility. It's clear that the location of the store is key for attracting customers and allowing them to reach easily. A central location which allows customers to stop during a commute or close-by to their home or work locations incentivises its usage. The location of the store can also serve as a form of spreading its purpose and advertise its social purpose to passer-by. There are also some mentions by interviewees that wouldn't like the store to be in a shopping centre due to the high concentration of people.

“I'd like that the store was accessible and I didn't have to walk around. (...) One thing I'd like is for the store not to be in a shopping centre. I have difficulty going to shopping centres and things like that. (...) One of the most important aspects for me is where the store is, in a way that is accessible to everyone, and they understand the idea and participate.”

Interviewee No 4

An important aspect for this store is the projection of trust. This perception of trust can take many forms, be it in the quality and cleanliness of the products, or by a proper communication of the results of the store.

“I think that guaranteeing trust and the integrity of things (...) is fundamental. Feeling that it's a trustworthy platform where we won't be wasting our time or our resources.”

Interviewee No 1

“[Because] there's no problem with buying used items, and if they're clean, well-conditioned and have been checked by people before”

Interviewee No 6

“I think it’s important, especially if we are talking about a non-profit platform. If I’m donating, it’s important that the whole process is transparent”

Interviewee No 8

Around the concept of item diversification, good organization and appeal, interviewees have highlighted that they would like the space to be well organized and with good appearance. The different types of items should be well separated to give a sense of quality. Cleaning the items is also important to remove the stigma of second-hand items.

“I also think it's a good idea to clean and care for the equipment so that it can later be sold, because it breaks the stigma of old things. In other words, by repairing, cleaning and even giving other aspects that make this old equipment more appealing.”

Interviewee No 2

“In my experience, sometimes these kinds of stores have a weird, messy and disorganized, a bit musty and unappealing. I think these stores can only be successful if they are interesting and if they are able to draw attention by their quality, design, appearance and the way they interact with people”.

Interviewee No 4

In terms of a relationship in the form of an online website, some interviewees would like to view information about the store and the items they have available. That would increase the proximity of the store and provide a more efficient buying/selling experience.

“What I'd like to have that information on a website or something very user-friendly to get where I wanted to go and have the information I wanted.”

Interviewee No 2

“Speaking of the newsletter, obviously I'd like a website with its own filtering and so on. Not a priority, it would obviously help to sell more even if it's only sold in person, at the store. I'd like to be able see the products in stock without going to the store.”

Interviewee No 6

From the interviews, it was also clear that donors would like to know the result of their donations. An interviewee suggested sending a text message saying an item was sold to someone in order to incentivize them to donate again. A sense of good esteem for the objects by repairing and cleaning is important to provide a sense of visibility that donated items are cared for. This is especially important when considering the findings in section 4.1, where some items could be stored instead of sold because of emotional attachment.

“Yes, I'd like to see that the items I've donated, that they're clean enough if they were not clean. I'm assuming that the person who's carried them hasn't carried dirty items, for example

in the case of clothes, but that they're well packaged and well presented. In the case of more electronic things, so to speak, that they're tested beforehand and sold with the certainty that they work.”

Interviewee No 6

In Table 5, the roles of store customers are explored, with first order concepts regarding their reasons to use the store and possible friction points. In this table, these themes and concepts are correlated with the number of interviews that mention them.

Table 5 - Themes and concepts for buyers and donors

Second order themes	First order concept	Interviews
Buyer		8
	Reasonable and fair price	4
	Reasons for the store to sell	1
	Resistance to buying low-value products	1
	Resistance to buying second-hand	2
	Resistance to profit-making	1
Donor		5
	Financial transparency	4
	Motivations	4
	Understand the result	5

One of the expectations by buyers in this concept is reasonable and fair pricing, especially since items themselves are second hand. The perceived expectations are not related to competing in pricing with other second-hand stores and platforms, but a certain higher quality and product esteem is expected in this store.

“For the same reason that I buy second-hand items on OLX or eBay, if they're in good condition and I'm going to put them to good use and they usually end up being cheaper than buying a new item, I see no reason not to take advantage of it.”

Interviewee No 5

“I really like the concept. I'm totally in favour of assisting shops like this as long as the value is fair, especially when considering the shop is based on selling things that are donated.”

Interviewee No 6

One reason highlighted during the interviews for the store to sell and not give items away is the perceptive value of an item. As interviewee number 4 mentioned, “my experience tells me if something doesn't cost money, it isn't valued by people”. This provides another insight

which is worth considering since the purpose of this concept is to give items a second life. If an item is given to someone who doesn't need or won't use it, just to resell or store again, the mission of the conceptual store is failed. Interviewee number 2 also mentioned a related concept: "If these items which have low value, will people want to buy them?" This is a perceived risk for the conceptual store since items might have no market and the store could have trouble selling these items.

In the case of the role of donor, there are 3 first order concepts found during the analysis of the interviews: financial transparency, understanding the results of the donation process, and the motivations for donating.

Starting with financial transparency, trust was an important value described throughout the interviews. It's important that the institution and brand image reflect this value in order to motivate further donations.

"I'd like to know the background of this shop, this organisation, so that if I want to donate, I can. That information would be very important."

Interviewee No 2

"As long as the institution is worthy of my trust, which is something which doesn't actually happen much nowadays"

Interviewee No 4

There was also a mention of resistance to profit-making, where the interviewee felt it didn't make much sense to donate to a store which will sell an item, instead of outright selling the item again. Henceforth, it's crucial for the donor to understand the impact of their donation and ensure that there was a tangible impact for their actions.

"To be honest, knowing that I'm donating so that they can be bought again, I'd prefer to sell. [...] It's one thing to donate so that they can be donated again. I think that would make more sense, but if it's to sell afterwards, I think I'd like to sell too. [...] If I'm donating and then it's being sold, what would the profit of this sale be used for?"

Interviewee No 2

In terms of the motivations discovered during the research process, interviewees highlighted their intention of decluttering their house of items which are no longer being used but want to provide a second life to these products which are still in a good state and functional. This process serves as an alternative to storing or disposing of items which are still in their midlife.

"There are things that are just taking up space, most of the things that are in the storeroom are taking up space. It's not that I'm going to use them again, it's just that situation of 'what if I need them in the future?'. But most of them are taking up space, so I think it would be a good approach."

Interviewee No 1

“We accumulate loads of objects throughout our lives, some of which have probably been used very rarely. [...] For me it would be interesting because if I want to go into the kitchen cupboards, which are full of things, and get rid of some of them, what would I do with them otherwise? Throw them away.”

Interviewee No 4

As for the result of the donation, the result of the donation should be able to contribute directly or indirectly towards the environment, the store itself and improve the society. The donation itself already directly impacts the environment by avoiding a new product needing to be manufactured and recirculating a functional item. The store can also serve as a form of giving back to the community and helping people in need, who cannot afford to buy new first-hand items. The profit recovered from this store can also be reinvested not only on the store itself to improve the overall service, but towards societal and environmental initiatives.

5 Discussion

The purpose of this chapter is to present a critical analysis of the research results, considering the relationships between the study findings and the existing literature on the subject. The comparison of the results with existing literature enhances the understanding of the relationships between circular economy, online and offline second-hand markets and platforms, and non-profit influence on customer perception.

Regarding the destination of second-hand items, the results uncovered the main outlet of these items depending on the item state, their value, and if it was possible to give the items to someone else. Most items which are no longer needed, replaced, or upgraded are stored because of emotional attachment, being unable to give or sell to someone else and still being functional. Additionally, some interviewees also mentioned that disposal would be a viable outlet of an item in case there isn't space to store. This market segment is ideal for the proposed store concept to explore, as well capture donations from owners that were initially inclined to donate but found themselves unable to do so. This concept is consistent with Circular Economy's literature, which contributes to reintroducing previously disposed or ignored items into the economy. (Geissdoerfer *et al.*, 2020)

This research also highlighted a present stigma against second-hand objects. The feeling of contamination of second-hand items can be present in various types of items and can be major barrier against purchasing, especially in the case of wearables such as clothing. Literature on the topic of second-hand items confirms this friction point, also suggesting a cleaning process to mitigate negative feelings. (Argo, Dahl and Morales, 2006; Yan, Bae and Xu, 2015) Also confirming the available literature, during the interviews were mentions of a positive experience in the act of touching and feeling items, improving the customer journey. (Sarkar, 2017) During the research, this process was also mentioned during questions related to donation, reinforcing the feeling that items are valued and cared for in this store.

Furthermore, research found that second-hand online platforms are preferred by younger generations in comparison physical stores. The main purpose of selling in these platforms was to exchange an item which was no longer needed by a monetary value. It was also apparent that older generations didn't want to use these platforms, mostly due to lack of experience and lack of patience. In this case, research also matches literature, which indicated that younger adults have less resistance to purchasing online compared to older generations. (Boardman and McCormick, 2018) While understanding the concept as being for a physical store, interviewees still demonstrated interest in a limited online presence, even if only to promote their values and basic information regarding the store, and ideally containing updates on items available and in need by the store.

The research also found that trustworthiness of the institution is crucial for incentivizing donations and purchasing in such a store. Given the business model of this conceptual store and reliance in donations, it's critical to maintain a good relationship with customers and donors, as well as maintain a positive brand image. These findings correspond to literature's recognition of a necessity to maintain transparency and trustworthiness values in order to support their brand legitimacy. (Liu, Eng and Sekhon, 2014) Given the non-profit nature of the organization and the values built on social responsibility, it's important for this organization to provide effective strategies to provide back to the community and environment and maintain moral legitimacy.

6 Conclusion and future research

This study explored a concept for a non-profit second-hand store, based on circular economy principles under the project CircularTech and a European Union initiative named NextGenerationEU (CircularTech, 2023).

The research consisted of 10 interviews performed with various potential consumers and donors, gathering key insight into discarding patterns, second-hand platform usage and their opinion regarding a conceptual second-hand store operated by a non-profit organization. These interviews were performed with variance in ages and professions to obtain different opinions from different population segments. While the number of interviews is low, the theoretical saturation has been achieved by the diverse experiences, behaviours and opinions.

The results have provided valuable insights into customer behaviour, expectations and consumption patterns regarding second-hand items. The results highlighted existing stigmas related to second-hand items, concerns and preconceptions of second-hand stores, as well as the different preferences regarding store experiences. This study's findings contribute to the improvement of a circular second-hand business model by tapping into donations of household items that would be otherwise destined to be stored or thrown away.

The findings gathered about online and physical second-hand platforms was also insightful, especially highlighting the perception and experiences on the main platforms. The most used platform by the participants was OLX, which has no costs for basic usage but also has a higher perception of fraud and insecurity. But for most participants, especially the ones who use these platforms, the potential of good deals outweighs the negative perceptions. Users can deal locally, in person and reduce cost of shipping, or alternative ship to other regions at a slightly higher cost and risk. Some customers prefer to view and try the product and ensure its condition before committing to the deal. Compared to other competitors, OLX has no protection clauses which shield the customer against fraud and other mishaps.

Comparatively, Vinted has a mostly streamlined operation which handles communication, shipping, and has strong protection plans which protects against fraud, shipping issues, and provides help in cases of returns and refunds. The aspect of a trusted middleman projects confidence to consumers. Most interviewees mentioned the prevalent aspect of trading mostly clothing items in Vinted, even though there is the possibility of buying other product categories. Another disadvantage of this platform revolves around purchases having a cost per transaction. These differences constitute a trade-off which customers try to balance, and depending on their technical disposition, preferences and risk tolerance proves a decisive factor towards the best experience and best platform for each case.

In a similar position stands Wallapop, a new entrant on the Portuguese market with similar functionalities as Vinted. The differentiating factor compared to the prior platform is the broader range of product categories listed, although interviewees perceive that most products are sold from other countries and perceive that as being riskier than procuring items from local regions.

In a different position stands eBay, a well-established international platform praised by some interviewees due to its vast catalogue of products from various countries, which includes both first and second-hand products which are highly difficult to procure on other platforms. Like Vinted and Wallapop, this platform has fees per transaction, but further expands by including insertion fees for sellers with high volume of listings. Shipping is also a factor to be considered

on this platform, as the customer might be required to pay for this extra cost, which includes both transportation and customs duties.

Regarding physical second-hand stores, this study investigated the perception of such stores. Interviewees mentioned that second-hand stores are a good place to find items no longer in production, which in the overall second-hand market are rare or unusually hard to find. However, most perception of these stores are based on negative feelings, especially around their unappealing appearances and the lack of physical proximity to the customer. Another aspect about these stores which were mentioned by an interviewee is the availability of cheap and new alternatives for some items, which might have a higher perceived value compared to used, older items which are not always in the best cosmetic condition.

The perception of social and environmental responsibility, as well as a non-profit nature of the theoretical service, are behavioural drivers highlighted by the interviewees. This presents an opportunity to mitigate the prior barriers faced by second-hand stores, which can themselves be minimized by organization and better presentation of items in the store, as well as through the fostering of proximity with customers through the usage of newsletters or online presences (website and/or social platform).

Nevertheless, there are still limitations regarding research which can be further expanded in future research. This research was limited to a northern region of Portugal, which could be limiting in term of the results. Further research could explore a wider region to determine if there are any variations in customer behaviour and expectation, and service drivers and barriers for these buyers and donors. It's important to highlight that the results obtained by this project are based on a qualitative research approach, and recognized insights can be further analysed and validated through quantitative research.

In conclusion, this study enriches the understanding of second-hand stores by exploring consumer behaviour insights with consideration of circular economy principles and the role of non-profit organizations with social and environmental responsibility in mind. The proposed second-hand store concept integrates the key insights highlighted by this study, facilitating the circularization of previously overlooked items into the economy and fostering a responsible business model.

References

- Aaker, J., Vohs, K.D. and Mogilner, C. (2010) ‘Nonprofits Are Seen as Warm and For-Profits as Competent: Firm Stereotypes Matter’, *Journal of Consumer Research*, 37(2), pp. 224–237. Available at: <https://doi.org/10.1086/651566>.
- Argo, J.J., Dahl, D.W. and Morales, A.C. (2006) ‘Consumer Contamination: How Consumers React to Products Touched by Others’, *Journal of Marketing*, 70(2), pp. 81–94. Available at: <https://doi.org/10.1509/jmkg.70.2.081>.
- Backman, K. and Kyngäs, H.A. (1999) ‘Challenges of the grounded theory approach to a novice researcher’, *Nursing & Health Sciences*, 1(3), pp. 147–153. Available at: <https://doi.org/10.1046/j.1442-2018.1999.00019.x>.
- Bashir, U. (2024) *Most common second-hand purchases by category in the U.S. 2024*, Statista. Available at: <https://www.statista.com/forecasts/997103/most-common-second-hand-purchases-by-category-in-the-us> (Accessed: 23 July 2024).
- Boardman, R. and McCormick, H. (2018) ‘Shopping channel preference and usage motivations: Exploring differences amongst a 50-year age span’, *Journal of Fashion Marketing and Management: An International Journal*, 22(2), pp. 270–284. Available at: <https://doi.org/10.1108/JFMM-04-2017-0036>.
- Bocken, N.M.P. *et al.* (2016) ‘Product design and business model strategies for a circular economy’, *Journal of Industrial and Production Engineering*, 33(5), pp. 308–320. Available at: <https://doi.org/10.1080/21681015.2016.1172124>.
- Bonciu, F. (2014) ‘The European Economy: From a Linear to a Circular Economy’, *Romanian Journal of European Affairs*, 14(4), pp. 78–91.
- Burck, C. (2005) ‘Comparing qualitative research methodologies for systemic research: the use of grounded theory, discourse analysis and narrative analysis’, *Journal of Family Therapy*, 27(3), pp. 237–262. Available at: <https://doi.org/10.1111/j.1467-6427.2005.00314.x>.
- Charmaz, K. (2015) ‘Grounded theory’, *Qualitative psychology: A practical guide to research methods*, 3, pp. 53–84.
- Charnley, F. *et al.* (2022) ‘Can Digital Technologies Increase Consumer Acceptance of Circular Business Models? The Case of Second Hand Fashion’, *Sustainability*, 14(8), p. 4589. Available at: <https://doi.org/10.3390/su14084589>.
- CircularTech (2023) *Objetivos do CircularTech - CircularTECH*. Available at: <https://www.circulartech.pt/objetivos/> (Accessed: 3 June 2024).
- Creswell, J.W. (2014) *Research design: qualitative, quantitative, and mixed methods approaches*. 4th ed. Thousand Oaks: SAGE Publications.
- Dooley, K. (2019) ‘Trash, treasure, and everything in between’, *Science*, 366(6468), pp. 960–960. Available at: <https://doi.org/10.1126/science.aaz5198>.
- European Commission (2014) ‘Towards a Circular Economy: a Zero Waste Programme for Europe’. Available at: http://icams.ro/icamsresurse/2018/proceedings/XI_Towards_Circular_Economy_04.pdf (Accessed: 3 June 2024).
- Geissdoerfer, M. *et al.* (2020) ‘Circular business models: A review’, *Journal of Cleaner Production*, 277, p. 123741. Available at: <https://doi.org/10.1016/j.jclepro.2020.123741>.
- Gioia, D.A., Corley, K.G. and Hamilton, A.L. (2013) ‘Seeking Qualitative Rigor in Inductive Research: Notes on the Gioia Methodology’, *Organizational Research Methods*, 16(1), pp. 15–31. Available at: <https://doi.org/10.1177/1094428112452151>.

- Joung, H. and Park-Poaps, H. (2013) 'Factors motivating and influencing clothing disposal behaviours', *International Journal of Consumer Studies*, 37(1), pp. 105–111. Available at: <https://doi.org/10.1111/j.1470-6431.2011.01048.x>.
- Kim-Vick, J. and Yu, U.-J. (2023) 'Impact of digital resale platforms on brand new or second-hand luxury goods purchase intentions among U.S. Gen Z consumers', *International Journal of Fashion Design, Technology and Education*, 16(1), pp. 57–69. Available at: <https://doi.org/10.1080/17543266.2022.2113154>.
- Lian, J.-W. and Yen, D.C. (2014) 'Online shopping drivers and barriers for older adults: Age and gender differences', *Computers in Human Behavior*, 37, pp. 133–143. Available at: <https://doi.org/10.1016/j.chb.2014.04.028>.
- Liu, G., Eng, T.-Y. and Sekhon, Y.K. (2014) 'Managing Branding and Legitimacy: A Study of Charity Retail Sector', *Nonprofit and Voluntary Sector Quarterly*, 43(4), pp. 629–651. Available at: <https://doi.org/10.1177/0899764012474722>.
- Lovatt, M. (2015) 'Charity Shops and the Imagined Futures of Objects: How Second-Hand Markets Influence Disposal Decisions when Emptying a Parent's House', *Culture Unbound*, 7(1), pp. 13–29. Available at: <https://doi.org/10.3384/cu.2000.1525.157113>.
- Magnani, G. and Gioia, D. (2023) 'Using the Gioia Methodology in international business and entrepreneurship research', *International Business Review*, 32(2), p. 102097. Available at: <https://doi.org/10.1016/j.ibusrev.2022.102097>.
- Mukherjee, S., Datta, B. and Paul, J. (2020) 'The phenomenon of purchasing second-hand products by the BOP consumers', *Journal of Retailing and Consumer Services*, 57, p. 102189. Available at: <https://doi.org/10.1016/j.jretconser.2020.102189>.
- Parker, B. and Weber, R. (2013) 'Second-Hand Spaces: Restructuring Retail Geographies in an Era of E-Commerce', *Urban Geography*, 34(8), pp. 1096–1118. Available at: <https://doi.org/10.1080/02723638.2013.790642>.
- Pretner, G. *et al.* (2021) 'Are consumers willing to pay for circular products? The role of recycled and second-hand attributes, messaging, and third-party certification', *Resources, Conservation and Recycling*, 175, p. 105888. Available at: <https://doi.org/10.1016/j.resconrec.2021.105888>.
- Sandes, F.S. and Leandro, J. (2019) 'EXPLORING THE MOTIVATIONS AND BARRIERS FOR SECOND HAND PRODUCT CONSUMPTION', *Global Fashion Management Conference*, 2019, pp. 292–296. Available at: <https://doi.org/10.15444/GFMC2019.02.08.05>.
- Sarkar, R. (2017) 'Online Shopping vs Offline Shopping : A Comparative Study'.
- Schüler, M., Fee Maier, M. and Liljedal, K.T. (2020) 'Motives and barriers affecting consumers' co-creation in the physical store', *The International Review of Retail, Distribution and Consumer Research*, 30(3), pp. 289–310. Available at: <https://doi.org/10.1080/09593969.2019.1687103>.
- Seo, M.J. and Kim, M. (2019) 'Understanding the purchasing behaviour of second-hand fashion shoppers in a non-profit thrift store context', *International Journal of Fashion Design, Technology and Education*, 12(3), pp. 301–312. Available at: <https://doi.org/10.1080/17543266.2019.1611945>.
- Singh, J. *et al.* (2019) 'Challenges and opportunities for scaling up upcycling businesses – The case of textile and wood upcycling businesses in the UK', *Resources, Conservation and Recycling*, 150, p. 104439. Available at: <https://doi.org/10.1016/j.resconrec.2019.104439>.
- Stahel, W.R. (2010) *The Performance Economy*. London: Palgrave Macmillan UK. Available at: <https://doi.org/10.1057/9780230288843>.

Tiarawati, M. *et al.* (2022) 'Perception of brand value and motivation to collect second goods', *Technium Social Sciences Journal*, 34, pp. 465–471. Available at: <https://doi.org/10.47577/tssj.v34i1.5711>.

Walliman, N. (2011) *Research methods: the basics*. London ; New York: Routledge (The basics).

Wilts, H., Fecke, M. and Zeher, C. (2021) 'Economics of Waste Prevention: Second-Hand Products in Germany', *Economies*, 9(2), p. 74. Available at: <https://doi.org/10.3390/economies9020074>.

Yan, R.-N., Bae, S.Y. and Xu, H. (2015) 'Second-hand clothing shopping among college students: the role of psychographic characteristics', *Young Consumers*, 16(1), pp. 85–98. Available at: <https://doi.org/10.1108/YC-02-2014-00429>.

APPENDIX A: Interview script

Good morning/good afternoon,

My name is João Pacheco, I am a student on the master's in service engineering and management and I would like to thank you in advance for your availability for this interview.

As indicated in the informed consent, this interview aims to understand the needs and experience of consumers in relation to the reuse of small durable household goods.

Your opinion is very important for us to better understand these topics, so I would ask you to answer in as much detail as possible. There are no right or wrong answers, so I would also ask you to respond without any pressure. As stated in the informed consent form, your participation in this study is voluntary and you can stop at any time. In that case, all the information collected so far will be rendered useless.

Do you have any questions? Can we get started?

I'd ask you to tell me...

- What do you do with household items you no longer need?
 - o Identify the different types of household items - for example: kitchenware, furniture, decorative items, children's toys, electronic devices.
 - o Why did you get rid of the item and what was the reason for removing it?
 - o What is the process of identifying and disposing of objects like?
- What is your experience with second-hand shops/platforms - e.g. vinted, olx
 - o What is your objective when using second-hand shops/platforms?
 - What are your objectives as a buyer and objectives as a seller?
 - o Why do you use it/why don't you use it?
 - What are your objectives as a buyer and as a seller?
 - o What do you think could be improved in second-hand shops/platforms?
 - What are your objectives as a buyer and as a seller?
- We're thinking of developing a new concept of second-hand goods shops, run by a non-profit organisation, where people donate household items, they no longer need so that they can have a second life. This shop would have an appealing design, where the items would be cleaned and combined/classified in an appealing way.
- What do you think about this concept?
- Would you buy from this type of shop? Why or why not?
- Would you like to receive recommendations and what kind of recommendations would you like to receive as a customer?
- What do you think about donating items to this type of shop?
- What would be important to you, both in the process and in the outcome of such a donation?
 - o Would you like to know what impact your donation has had on society?
 - o Would you like to know how the shop's results/profits were utilised?
- How do you see the interaction between you (as a potential donor) and the shop?

- What kind of communication would you like to receive from the shop? E.g. Newsletters, product recommendations, etc.
- Involvement
- Gamification
- Do you have any suggestions for a concept for this type of second-hand shop?
 - Is there anything you'd like to say that we haven't covered here?

At the end of the interview, the following socio-demographic data will be collected:

- Age
- Gender
- Place of residence
- Level of education
- Profession

Final consents:

- Would you like to receive the results of this project? If so, can you provide an email address to receive them?
- Are you available for another interview about this project?