Discovering the mindsets of the luxury recycling phenomenon

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Abstract: This study focuses on two main luxury items recycling issues. First, understanding customers' attitudes toward recycling luxury items via e-business and second, discovering e-platforms configurations used. This study considers as input parameters consumers' age and gender. Thus, an online survey implementing a mind genomics experiment was delivered to 4,320 international consumers regardless of whether they have experienced or not recycling luxury items via e-commerce channels. Only 3.624 consumers participated in the study, indicating one of four reasons they recycle luxury items via e-commerce channels. These reasons are: to renew their wardrobe often, follow fashion without paying an exorbitant price, profit from selling clothes & accessories they do not use anymore, and be part of the luxury recycling business without significant investments. In addition, this study established as the main pillars of luxury recycling items via e-commerce channels the following aspects: the use of e-commerce to recycle luxury clothes & accessories; the configuration used in luxury recycling e-commerce sites; the sector benefiting the most from the luxury recycling business; the luxury recycling business approach more beneficial. The selection of the study pillars and the reasons for recycling help to achieve the main goal of the study, being understanding what fascinates consumers about luxury recycling. It unveils that configurations such as outlets and individual sales are preferred in the luxury items recycling business. Further, recommendations are provided to consolidate ethical luxury items recycling business, such as the development of more user-friendly technological e-commerce platforms, and decreasing intermediation charges.

Keywords: Customer attitude, luxury items recycling, mind genomics, e-commerce business platforms. seller/buver configurations.

JEL Classification: C380, D19, D490, D910, F180.

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Introduction

The research focus of this paper is to explore and understand what fascinates consumers to make them recycle luxury items via e-commerce channels. This study focuses on two main issues: first, understanding customers' attitudes toward recycling luxury items via e-business, and second, discovering e-platforms configurations primarily used. It considers as input parameters consumers' age and gender. Recycling today represents an essential dimension and a challenge in the fashion business culture as it is not used only to satisfy our basic needs (Achabou & Dekhili, 2013; McNeill & Moore, 2015). Recycling is part of all aspects of our modern life, but it gets a special meaning in the case of luxury items. Coco Channel once said, "Luxury products are the necessity that begins where necessity ends" (Karbo, 2009). Furthermore, recycling gets a social

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relevance when applied to luxury items as it makes luxury accessible for everyone (Yeoman & McMahon-Beattie, 2006). The old saying goes: "Something that one person considers worthless may be considered valuable by someone else."

Further, luxury clothes and accessories are hard to recycle. It will create a grave environmental problem if unfashionable items are discharged at the end of the season. Instead of being thrown away yearly, a better solution would be to store them. Storage is also a very costly process considering the seasonality of the fashion industry. Both alternatives have a hidden cost.

A more rational approach to the problems related to "what to do" with luxury items is recycling. One form of recycling luxury items is reselling them at a better price, referred to as second-hand sales. Nowadays, the stock and the resale of luxury items is considered a multi-billion-dollar industry projected to grow to almost twice the size of fast fashion by 2029 (ThredUp, 2020).

The study of Achabou and Dekhili (2013) shows that individuals live in an "ethics era" as the increasing demand for sustainable companies supporting the circular economy keeps growing. Even the luxury fashion industry feels this pressure (Campos Franco et al., 2019). The advent of the Internet, the presence of big names in the fashion industry on the Internet, and the digital revolution keep raising consumers' expectations for good deals regarding luxury items.

The concept of ethical business is present in the websites and social media networks (i.e., Facebook and Instagram) of famous luxury brands. It is common for luxury brands to have agents involved in this business, acting as second-hand retail stores, individual sale profiles, bloggers, vintage stores, and outlets. There are even powerful e-commerce platforms facilitating this business, such as Vestiare, Cudoni, Resellfridges, Vide Dressing, Cocoon Refresh, Depop, Hewi London, Designer Exchange, Edit Second Hand, Bagista, and Rewind Vintage, to name a few (Buy & Sell Second-Hand Luxury Designer Fashion, 2022).

The entire online luxury market is challenging. Distinct motivations drive consumers of both luxury and second-hand luxury items (Mcneill & Moore, 2015). Thus, the recent emergence of second-hand retail stores and e-commerce channels dedicated to reselling luxury items has gained popularity among consumers. The consumption of luxury items as a lifestyle choice gained social relevance for many consumers only a few years ago (Vigneron & Johnson, 1999; Vigneron & Johnson, 2004). Luxury is defined as the synonym of exclusiveness, extravagance, and superior quality, with the intention to signal special social status by its selected clientele (Brun & Castelli, 2013; Kapferer, 2015; Vigneron & Johnson, 1999; Vigneron & Johnson, 2004).

Second-hand luxury or stock consumption instead, including here vintage items and accessories (jewelry, watches, glasses, and other items), is driven by economic, recreational, and critical motivational factors (Guiot & Roux, 2010).

Consumers may have different reasons to embrace this new trend. Some of them like to provide their support for environmental sustainability causes. Other consumers only seek social status. Some consumers would support this trend for both the reasons mentioned above. There need to be more studies that analyze and try to understand the motivational reasons that increase consumers' interest vis-a-vis the recycling of luxury items.

This research helps an in-depth understanding of why consumers recycle luxury items via e-commerce channels considering age and gender. Thus, selecting and using an arsenal of efficient criteria that allows for detailed and structured topic analysis is of high priority. The set of selected criteria helps to define the right path toward a more environmentally sustainable business approach.

The presented approach uses consumer feedback to examine consumer satisfaction and related benefits in the luxury recycling items business via e-commerce.

The research initially addresses the perceptions regarding using e-commerce channels for recycling purposes (Han et al., 2010; Turunen et al., 2020). Next, the consumers' configuration and business approaches, in addition to other related business parties' benefits, are considered (Turunen & Pöyry, 2019; Turunen et al., 2020). The evaluation method used is called mind genomics. This technology comprises a set of statistical models, data mining, and clustering techniques to understand what pushes people to make certain decisions (Moskowitz et al., 2006).

The data used in the study pertain to luxury recycling consumers via e-commerce regardless of their financial and social status, inside and outside the European Union.

177

Marketing and Trade

This paper tries to contribute to the existing literature in three different ways. First, this study addresses the satisfaction and benefits of consumers and other related business parties involved in recycling luxury items via e-commerce channels. This research helps in filling the literature gap on this topic. Second, the mind genomics experiment used is a collection of well-accepted yet novel approaches to understanding the mind of the respondents (Milutinovic & Salom, 2016). Third, this paper aims to understand and present valuable findings and insights into e-commerce luxury recycling channels. These findings may deserve appropriate consideration when considering consumers' satisfaction as it helps design and proactively implements more environmentally sustainable business solutions.

The rest of the paper is introduced as follows: section Methodology shows the data used for the analyses and the scientific approach, section Results and Discussions presents a list of the results obtained by this study, and the last section, Conclusions, shows findings of this study.

1. Theoretical background

By many counts, the behaviour of consumers is rather strange. There is a widely accepted view that the visceral connection between consumer and brand is crucial as the emotional responses evoking feelings, such as trust, confidence, satisfaction, authenticity, and perception of the self through luxury products are relevant aspects leading to the positive impact (Bian & Forsythe, 2012; Brun & Castelli, 2013; Turunen & Leipämaa-Leskinen, 2015). Together these endorsed behaviours increase the desire to possess luxury.

The consumption of luxury is generally motivated by extrinsic urge, which involves the need to engage in some behaviour to obtain an external (reference group, relatives, family) reward (social status, fame, financial success) (Shao et al., 2019).

Some studies (Han et al., 2010 ; Lai & Prendergast, 2019) have investigated consumers' motivations to require luxury items. They reveal two distinct types of consumption motivations. The first motivation is conspicuous consumption or brand prominence, defined by the use of luxurious products with visible, recognizable, and symbolic markings to indicate wealth, capital, and social status (Lai & Prendergast, 2019).

The second is inconspicuous consumption, defined through discreet and subtle branded products (Han et al., 2010).

The need for conspicuous luxury is subject to external influences (Lai & Prendergast, 2019) study suggests that according to men's view, apart from the status indicator, the use of conspicuous luxury amplifies women's beauty and values. Inconspicuous luxury goods instead are considered more sophisticated, reflecting a need for "mature" luxury consumers to be distinct from lower social classes. Apart from these uses, in the perceptions of both men and women, wearing luxury brands expresses significant attributes and meanings which generally contribute to the expression of financial resources and social status (Han et al., 2010; Lai & Prendergast, 2019).

The issue is different when considering luxury recycling opportunities. Nowadays, the recycling process makes thrifting popular toward luxury brand items at an affordable price. The recycling process means second-hand and luxury vintage items, including accessories such as jewellery, watches, and glasses for adults and kids. The characteristics of the items transacted determine second-hand luxury. Second-hand luxury items are previously owned, usually used, or unused (Turunen & Leipämaa-Leskinen, 2015). These items are available at alternative "secondary" channels (Turunen et al., 2020).

The vintage items instead refer to an authentic and rare piece (Turunen et al., 2020) linked to a specific era (Turunen & Leipämaa-Leskinen, 2015) but not necessarily a used item (Cervellon et al., 2012). The main difference between them is that second-hand is related to pre-owned goods, notwithstanding their age, while vintage is defined by the age of the piece itself (Cervellon et al., 2012). The recycling opportunities include second luxury and vintage items and represent an interaction that offers sustainability, individuality, and affordability, meaning the joy of a dedicated shopping experience.

Meanwhile, the digital revolution itself has continuously raised consumers' expectations. Different technologies are used for online shopping, such as augmented reality and 3D virtual features. Recycling has become a considerable business alternative, thanks to the availability of second-hand/vintage retail stores or e-commerce channels. These facilities, part of the online selling platforms, allow sellers to offer luxury/vintage items they do not use or want anymore. These could be never-used, pre-used, damaged, and repaired. Owners of these items prefer to recycle instead of donating them. The buyers can afford these items without paying exorbitant prices (Turunen et al., 2020). Besides, these channels are open to second-hand retail stores, individual sales, bloggers, vintage stores, or outlet configurations by allowing them to be part of the luxury recycling business and make profits without additional investments.

The study of Turunen and Pöyry (2019) explores a new dimension of pre-owned luxury purchases: the resale value consciousness. It implies that a second-hand purchase is an investment that can be sold again at a later point in time. It can justify more impulsive purchases further instigated by the ease of selling them online. Thus, buyers take the role of sellers, passing on a product to a new user.

The fast-growing online second-hand/vintage luxury market, such as Vestiaire Collective, Rebelle, Re-SEE, Tradesy, Retold vintage, Fashionphile, Hewi London, Luxury garage sale, Collector Square, and The Resolution Store platforms to name a few, represents the environment where different buyers and sellers act on behalf of different configurations simultaneously. This topic represents a potential interest among academic researchers (Turunen et al., 2020).

The study of Turunen et al. (2020) also addresses the issue of the meanings and values attached to the process of selling luxury goods. They reach two main conclusions. First, when a luxury item is sold, it is disposed of its emotional value and reduced to a financial transaction, thus empowering the seller. However, other related business parties involved in the transactional process, such as banks, post offices, and the techno-digital revolution, still need to be considered. These users (individual sales, second-hand/vintage shops, bloggers, and outlets) perceive selling as a financial reward, often to support new first-hand purchases while satisfying the needs of new buyers. Another un-discussed topic is user's needs, such as wardrobe renewal, following fashion, making profits from items not in use anymore, being part of the luxury recycling business without considerable investments, etc.

Second, the study shows that there is also a change in the social role of the seller: for some, the act of selling pre-owned luxury bestows on the seller the perception of belonging to a higher social status. In these channels, each transaction passes the security check ensuring that buyers receive authentic products (Hennigs et al., 2012; Liu et al., 2013). For both sellers and buyers, this mechanism allows them to play an active role as sustainable consumers.

The existing literature shows a lack of studies that explain the consumers' motivation toward the luxury recycling process. These underlying motivations of both buyers and sellers could determine their perceptions on the matter.

The novelty of this research is to explore and understand the consumers' perceptions regarding e-commerce use for luxury recycling purposes, their benefit approaches, the kind of configuration used via e-commerce channels, and sectors that benefit the most from the luxury recycling business. The experimental design method used for examination purposes elaborates consumers' data on gender and age basis. The purpose is to produce valuable insights for e-commerce luxury recycling acceleration to move versus a more environmentally sustainable business approach.

2. Research methodology

This study uses mind genomics for collecting and analyzing the data. It is part of the hypothesis-free kind of approach.

There is an intensive discussion in the modern literature about the best method to use in scientific studies; the hypothesis-based approach versus the hypothesis-free approach. Different researchers highly support this scientific discussion (Aragon, 2011; Beiko, 2014; Goodman, 1999; Heun, 2018; Yanai & Lercher, 2020). The fast and cheap technologies for acquiring massive amounts of data have questioned hypothesis-based studies. The collected data might hold vital information about the topic under study. The focus on finding something predetermined could disturb researchers' focus from looking into other patterns the collected data may contain (Goodman, 1999).

We herein implement a hypothesis-free philosophy to reveal and understand the possible contribution of each element/answer included (Moskowitz et al., 2006).

2.1 Participants and data

An online survey was delivered to 4,320 consumers inviting them to participate in the study. An international set of Albanians, Italians, Spanish, and French consumers were contacted



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Demographic	Gender			Age (years)						
information	Total	Male	Female	13–17	18–24	25–34	35–44	45–54	55–64	65+
Base size	3,624	1,176	2,448	48	1,632	552	504	456	312	120
Albanian participants	2,355	743	1,612	48	1,128	265	185	226	112	40
Italian participants	544	158	386	-	140	100	110	90	75	60
Spanish participants	434	145	290	-	180	120	125	120	60	20
French participants	290	130	160	-	184	67	84	20	65	-

Tab. 1: Participant's data

Source: own

via e-mail regardless of whether they had experienced or not recycling luxury items via e-commerce channels. We selected an international sample because the e-commerce channels are international; consumers from worldwide use the same platforms.

Only 3,624 consumers responded positively to the participation. The participants in the survey correspond to Albanian (65%), Italian (15%), Spanish (12%), and French (8%) citizens.

Participants provided some personal data (Tab. 1), such as gender, age, and citizenship, by indicating one of four reasons why they use to recycle luxury items via e-commerce channels. The reasons are: to renew their wardrobe often, follow fashion without paying an exorbitant price, profit from selling clothes & accessories they do not use anymore and be part of the luxury recycling business without significant investments.

About 68% of the responders were female, and around 32% were males. About 1.3% were consumers around 17 years old, 45% of the responders were 18–24 years old, and around 15.3% were consumers aged 25–34 years old. The other consumers aged 35–44 were around 13.9%, 45–54 years old were around 12.58%, 55–64 were around 8.6%, and over 65 years old were around 3.31%.

The majority of consumers that responded to the call were from Albania. Also, a small number of consumers in the group aged 13–17, 48 in all, were from Albania. We think it is relevant to point out that consumers of this group are mainly close to 17, which makes them adolescents. Adolescents are an essential segment of the consumer population as they have cultural and psychological motives to be part of the group appearing as the well-to-do social stratum. The tendency of a segment of the population to be part of the well-being social stratum favours consumerism.

This study established, as the main pillars of luxury recycling items via e-commerce channels, the following aspects: the use of e-commerce to recycle luxury clothes & accessories; the configuration used in luxury recycling e-commerce sites; the sector benefiting the most from the luxury recycling business; the luxury recycling business approach more beneficial.

2.2 Research method

This research uses mind genomics (Moskowitz & Gofman, 2007; Moskowitz et al., 2022), a research approach based on conjoint measurement. Mind genomics allows an understanding of what pushes people to make decisions.

Mind genomics has many years of history, with applications ranging from merchandising, finding customer requirements for nature food stores (Gere et al., 2018), the concerns of people about the prospects of cancer (Gabay et al., 2018), evaluating the new distance learning approach mainly used as the teaching tool during the COVID-19 pandemic (Todri et al., 2020). Recently, a study was published dedicated to using mind genomics in law (Moskowitz et al., 2020). Moskowitz et al. (2022) study use it to understand what pushes people when they make political or social decisions. The mind genomics approach is hypothesis-agnostic and statistically oriented. The responses to the vignettes are deconstructed by ordinary least-squares regression (OLS) to reveal the part-worth contribution of each element (answer) to the rating question. Other researchers use mind genomics in many different research topics.

One of the most important steps is to define the problem in the study. Mind genomics requires the selection of four pillars relevant to the topic. These must "tell a story" making sense as questions, and all must be relevant, helping to understand the subject deeply rather than just being thrown together (Todri et al., 2020). The following are the four silos of the study: the use of e-commerce to recycle luxury clothes & accessories, the configuration used in luxury recycling e-commerce sites, the sector benefiting the most from the luxury recycling business, and the luxury recycling business approach more beneficial.

For each silo/question, the researcher should provide four potential answers. An experimental design pattern combines answers/ messages to create vignettes. The pattern does not allow for repetitions of the answers from the same silo. Vignettes are presented to respondents to be evaluated using 1–9 Likert scale. Their responses are obtained to analyze and then deconstruct the data to estimate the contribution of each message. Thus, mind genomics allows the researcher to understand the response of individuals to the granular aspects and the specifics of everyday life (Gofman & Moskowitz, 2010; Milutinovic & Salom, 2016). Another relevant issue to address with care in mind genomics is the selection of the classification criteria. Mind genomics provides up to six classification criteria. By default, gender and age are among these criteria. The rest of the classification criteria could be defined by the researcher based on the study's goals.

In this research, the selected classification criteria are:

- (i) Overall, I like to renew often my wardrobe;
- (ii) I follow fashion without paying an exorbitant price;
- (iii) I make a profit from selling clothes & accessories I do not use anymore;
- (iv) I am part of the luxury recycling business without major investments.

The results of the study are distributed along the lines of each classification criterion. Thus, mind genomics provides the ability to analyze in-depth the correlation among the study's

Tab. 2: Mind genomics experiment silos

Do you use e-commerce to recycle luxury clothes & accessories?						
A1	I do not use e-commerce to recycle luxury clothes & accessories					
A2	I do not use e-commerce to recycle luxury clothes & accessories because I do not have a credit card					
A3	I do use e-commerce to recycle luxury clothes & accessories only for sale purposes					
A4	I frequently use e-commerce sites to buy and sale luxury clothes & accessories					
What kind of configuration do you use in luxury recycling e-commerce sites?						
B1	I use an individual sale configuration for luxury recycling business					
B2	I use a second-hand vintage shop configuration for luxury recycling business					
B3	I use a blogger configuration for luxury recycling business					
B4	I use an outlet configuration for luxury recycling business					
Which sector will benefit the most from luxury recycling business?						
C1	Postal services will see an increase because of the luxury recycling business					
C2	Banking services will see an increase because of the luxury recycling business					
C3	Luxury recycling business will create more employment opportunities					
C4	Luxury recycling business advances technology development					
	Which luxury recycling business approach will benefit you the most?					
D1	I will benefit the most from sale opportunities					
D2	I will benefit the most from promotion buys					
D3	I will benefit the most from promotion days					
D4	I will benefit the most from buy and resale opportunities					

Source: Mind genomics experiment silos

variables. Tab. 2 presents the silos and the answers for each silo.

3. Results and discussions

The obtained results show that the value of the intercept is 46. The interpretation of the intercept is that 46% of participants have a positive inclination towards luxury item recycling in the absence of any other information. The gender-based results show that the intercept value for women is 50 and the one for men is 37; women are more interested in this business than men.

45.7% of participants consider the luxury recycling phenomenon as a possibility to renew often their wardrobe (I like to renew often my wardrobe). This result reconfirms the general trend toward luxury recycling. 29.8% of participants affirm that luxury item recycling allows them to follow the fashion without paying a hefty bill (I follow the fashion without paying an exorbitant price). 13.9% of participants are attracted by the possibility of making money by reselling these items (I make a profit from selling clothes & accessories I do not use anymore). The rest of the participants, around 10.6%, are interested because they are in this business without investing vast amounts of money (I am part of the luxury recycling business without maior investments).

Considering the statistical relevance of the silos, they are ordered as follows: the luxury recycling business approach is more beneficial (1.25); the configuration used in luxury recycling e-commerce sites (1); the sector benefiting the most from the luxury recycling business (0.75); the use of e-commerce to recycle luxury clothes & accessories (-3).

The study shows clearly that the main driving force towards the business of luxury recycling items is the potential to make a profit. The element evaluated with the highest score is (I will benefit the most from buy and resale opportunities, valued with 3). The benefits deriving from luxury product consumption may be classified either as "functional" or "psychological" (Peter et al., 1999) consequences. Groupage-based results show that the same element (I will benefit the most from buy and resale opportunities) is evaluated high by groupages 35-44, 55-64, and 18-24 years old, respectively, with values 7, 5, and 4. Groupages 25-34 and 45-54 do not grant much relevance to this element; both value this element with 1. Groupages under 17 and over 65 are not attracted to the profit issue; both assess it with -32 and -10, respectively. Women consider this element a possibility for profit; they estimate it with 4, while men give less importance to the profitability issue by assessing it with 1.

Another aspect of for-profit activities related to recycling luxury items is the element I will benefit the most from sale opportunities, valued with 1. Groupages that give relevance to this element are 25-34, 35-44, 55-64, and over 65, and they have evaluated this element with 2, 3, 8, 11, respectively. Groupage 18-24 and 45-54 seem to pay little attention to this element as they have rated it with -1 and -5, respectively. Groupage under 17 seems not even to consider having any profit as they have rated this element -40. Women think about profit as they have evaluated this element with 3 while men do not share the same opinion as they evaluate the same element with -5.

The recent emergence of luxury item sale opportunities has gained popularity among consumers. Thus, on the one hand, secondhand consumption is influenced by economic, recreational, and critical motivational factors (Machado et al., 2019). Moreover, on the other one, marginalized for a long time, these luxury items are rarely associated with excellent guality, an essential characteristic concerning their traditional perception.

Another element for evaluation is I will benefit the most from promotion days, rated with 1. As usual, different groupages have different opinions on the same element. Thus, groupages 18-24, 45-54, and 55-64 years old see this element as essential for business profit; they value it with 1. Only groupages 35-44 evaluate this element with 8, meaning, to them, the profit is essential. Youngsters (groupage under 17) and people over 65 years old do not see promotional days as an opportunity for profit - these groupages value this element -38 and -7, respectively. Men are warmer to promotional days than women. Men value this element with 3 while women with 0.

Even though luxury consumers are focused on recycling business benefits, environmental sustainability is a feature that potentially allows them to simultaneously accomplish esthetical desires with a sense of ethical responsibility (Stolz, 2022).

Thus, this study shows that promotional buys are not of interest to participants as they value this element with 0.

Another aspect of this study is the configuration used for recycling luxury items and accessors via electronic business platforms.

The study shows that the outlets are the most used platforms for recycling luxury items. This element, outlet configuration for luxury recycling business, is evaluated with 3. Groupages under 17, 18–24, and 35–54 see the outlet as the best mechanism for recycling luxury items. They rate this element 7, 4, and 5, respectively. Groupage 25–34 does not consider the outlet as the proper mechanism as it evaluates it with 1. People over 54 years old do not see the outlet as the right choice as they evaluate it with -4.5on average. Men and women agree that outlets are the best way to recycle luxury items. Men are slightly more optimistic than women on this issue as they rate it 3 and women 4.

Outlets nowadays are used not only for textile recycling but as well as new ways to add value to post-consumer textile waste" (Bukhari, et al., 2018). Thus, there is a visible tendency to appreciate the outlets for recycling luxury items because the available products are in considerable numbers.

The configuration as individual sale configuration in e-platforms offers good opportunities for recycling luxury items. This configuration is most appreciated by groupages 35-44 and 45-54 years old. They have evaluated it with 7. Groupage 25-34 rate it positively, with a 2. Groupage 18-24 rate it less, with 1, while groupage over 55 do not think that the individual sale configuration is not a good option and rate it with -4.5. Of the same opinion are even groupage under 17 that rate it -14. Men and women share the same opinion and rate it 2.

Individuals experimenting with the concept of individual sale configuration have an excellent knowledge of e-platforms. They have an essential portfolio of luxury products and use it for marketing purposes. These individuals reach a double target. First, they profit from recycling, and second, they manage to have a sizeable arsenal of luxury items.

Participants are indifferent vis-à-vis the choice blogger configuration in e-platforms. This element is rated 0. Participants do not appreciate much the configuration referred to as a second-hand vintage shop, and this element is rated -1. This approach shows that recycling luxury items and accessories is a responsible and ethical process.

Regarding the issue of Which sector will benefit the most from the luxury recycling business represented as silo D, participants appreciated the most the element Luxury recycling business advances technology development rated 1. Groupage 35–44 and over 55 years old support this idea as the rate it 6 and 9 respectively. Groupage 18–24 is indifferent to this issue; they rate it 0. Interestingly, groupages 25–34, 45–54, and the one under 17 do not think that the luxury recycling business does help technological development; they rate it -2, -3, and -35, respectively. Men are more favorable to this idea than women are; they rate it 3, while women rate it 1.

Participants are favorable to the element Luxury recycling business will create more employment opportunities; they rate it 1. Groupages under 17, 18–24, 35–44, 45–54, and 55–64 years old support this idea, rating it 23, 13, 2, and 1, respectively. Groupages 25–34 and over 65 years old do not share the same enthusiasm; they rate it –8 and –5, respectively. Men and women do not share the same opinion on this issue. Men think recycling luxury items would increase job opportunities; they rate it 5, while women rate it –1.

The impact of the luxury items recycling business on banking services is another aspect evaluated by participants during this study. Thus, the element Banking services will see an increase because of the luxury recycling business is rated 1. Groupages that see with optimism this business are: under 17, 35–44, 55–64 years old and over 65; they rate this element 18, 10, 10, and 5, respectively. This optimism is not shared by groupages 45–54, 25–34, and 18–24 years old, as they rate this element -4, -3, and -2. Men and women almost converge while assessing this element as they rate it 2 and 1, respectively.

Similarly, participants do not support the element Postal services will see an increase because of the luxury recycling business; their response is relatively neutral, and they rate this element 0.

The popularization of the luxury items recycling business during these last years offers new opportunities to customers who did not have direct access to those products. Thus, the intermediary people (third person) involved in this business play a significant role. Consequently, the continuous demand for recycling luxury items hopefully will be followed by an increase in the total volume of transactions and adjustments of the entire system.

Regarding the likelihood of the luxury items recycling business, participants think that the use of e-commerce to recycle luxury clothes & accessories is essential even though there are other options; they rate this element -3. Groupages that support this element are those under 17, 55–64, and 35–44 years old; they rate it 16, 7, and 3, respectively. Men support this idea, and they rate it 6, while women totally disagree; they rate it -7.

Another aspect of this study is the impact of the ability of people to pay with a credit card on the luxury items recycling business. Thus, evaluating the element I do not use e-commerce to recycle luxury clothes & accessories because I do not have a credit card would be an adequate measurement. Participants rated this element -4. There is only one groupage, the 55–64 years old finds that the lack of credit cards will negatively affect the luxury item recycling business. They rate this element 10. Men and women synchronize on this judgment; they do not think the lack of credit cards will negatively affect the luxury items recycling business. They rate these elements -1 and -4.

The results show that participants need to evaluate the element positively I do use e-commerce to recycle luxury clothes & accessories only for sale purposes; they rate it -2. Groupages under 17 and 55–64 use e-commerce for selling luxury items and accessories; they rate this element 21 and 9.

Regarding the element, I frequently use e-commerce sites to buy and sale luxury clothes & accessories; the response from participants is negative; they rate it -3. As per the groupages response, only one 45–64 yearold considers this a business opportunity; they rate it 7.5 on average. Regarding this issue, men and women have different opinions. Men consider using e-commerce sites valuable and helpful to buy and sell recycled clothes and luxury items; they rate it 1. Instead, women think the opposite and rate this element -4.

The Index of Divergent Thoughts (IDT) is also calculated (Acar & Runco, 2019). After the study is completed, using the imagination of mind genomics ideas, the regressions information is organized and structured according to convergent/rational or divergent thinking. Divergent thinking typically occurs in a spontaneous, free-flowing manner such that many ideas are generated in an emergent cognitive fashion, and unexpected connections are drawn (Acar & Runco, 2019). Mind genomics uses clustering technologies (Porretta, et al., 2019) to group customers that think alike.

In this study, IDT distinguishes two mindsets in approaching luxury recycling. The first mindset of consumers that mind genomics regression coefficients (IDT) are evaluated 0.17, and the number of respondents is 1.848. While in the second mindset, the mind genomics regression coefficients (IDT) are evaluated 0.16, and the number of responders is 1.776.

Correspondingly, the mindset is structured as follows:

- Mindset 1 represents the people that consider necessary configuration and beneficial sectors concerning luxury recycling business via e-commerce channels, evaluated on average with 8.125.
- Mindset 2 represents the people that consider critical the business approach from which benefited the most via luxury recycling e-commerce channels, evaluated on average with 5.75.

These results also affirm that even though males and females might have differently opted for the aspects of luxury recycling business via e-commerce channels, they both have extensively used and benefited from it.

Conclusions

This paper presents a unique study on recycling luxury items assessed through an online experiment known as mind genomics, used to understand what pushes people's minds when making decisions. The study reveals that the luxury items recycling business via e-commerce channels have been consistently growing considering that consumers in general use them for the following reasons: (i) the renewal of the wardrobe; (ii) the possibility to follow fashion without paying an exorbitant price; (iii) it can make a profit from selling clothes & accessories which are not used anymore; and (iv) be part of the luxury recycling business without significant investments.

Meanwhile, the main findings obtained from this study, independently of age group, gender, and reasons, are: the outlet and individual sale configurations are the driving reasons for the luxury recycling business; buying and reselling opportunities are the most beneficial in the luxury recycling business; luxury items recycling business advances technology development; creates more employment opportunities; and increases banking services.

Regarding the first finding, the study unveils that configurations such as outlets and individual sales are preferred in the luxury items recycling business. This argument shows that the tendency towards the luxury items recycling business, besides functional motives, is directly linked to the familiarization with e-commerce formats and applied prices. Thus, the luxury items recycling business is a reality now and more accessible by far larger population strata.

The other consecutive finding confirms the willingness of luxury items recycling consumers to be involved in this business as they see profit opportunities (Turunen & Pöyry, 2019; Turunen et al., 2020). Their interest increases the number of involved people and consequently increases the dimensions of this business. Another consequence of the increased number of people involved in this business is consumers' higher level of personal satisfaction using recycled luxury items. Both findings create a more tangible environment for using an ethical approach combining business profit and personal gratification (Hennigs et al., 2012; Liu et al., 2013).

Consequently, any attempts to create new luxury recycling tools via e-commerce or further improve the existing ones should also consider the last three findings, advances in technology development; more employment opportunities; and banking services increase.

The study's practical implications that would further consolidate the luxury items recycling business are: first, to advocate for better technological e-commerce platforms to facilitate the involvement of a higher number of users/consumers, and second, to decrease the charge of the intermediary person/layers. At the same time the practical implications will help improve technological platforms and increase the number of banking transactions. Therefore, the banking sector will move faster toward more ecological and ethical banking portfolio products.

Considering that this study is unique in its in-depth analysis of the reasons why people are tempted to recycle luxury goods, it paves the way for other studies of similar nature. For example, nationality and the well-to-do social stratum as input parameters may be considered in the future to create a holistic understanding of the problem. **Acknowledgments:** This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors. We thank of all the colleagues and friends who helped us in the survey process.

References

Acar, S., & Runco, M. A. (2019). Divergent thinking: New methods, recent research, and extended theory. *Psychology of Aesthetics, Creativity, and the Arts, 13*(2), 153–158. https://doi.org/10.1037/aca0000231

Achabou, M. A., & Dekhili, S. (2013). Luxury and sustainable development: Is there a match? *Journal of Business Research*, 66(10), 1896–1903. https://doi.org/10.1016/j.jbusres. 2013.02.011

Aragon, R. (2011). Thinking outside the box: Fostering innovation and non-hypothesis-driven research at NIH. *Science Translational Medicine*, *3*(70). https://doi.org/10.1126/scitranslmed.3001742

Beiko, R. (2014). Bioinformatics: Hypothesis free – Or hypotheses freed? *BioScience*, *64*(9), 844–845. https://doi.org/10.1093/biosci/ biu126

Bian, Q., & Forsythe, S. (2012). Purchase intention for luxury brands: A cross cultural comparison. *Journal of Business Research*, 65(10), 1443–1451. https://doi.org/10.1016/j.jbusres. 2011.10.010

Brun, A., & Castelli, C. (2013). The nature of luxury: A consumer perspective. *International Journal of Retail & Distribution Management*, *41*(11/12), 823–847. https://doi.org/10.1108/ IJRDM-01-2013-0006

Bukhari, M. A., Carrasco-Gallego, R., & Ponce-Cueto, E. (2018). Developing a national programme for textiles and clothing recovery. *Waste Management* & *Research*, 36(4), 321–331. https://doi.org/10.1177/0734242X18759190

Buy & Sell Second-Hand Luxury Designer Fashion. (2022). Buy & Sell Second-hand Luxury Designer Fashion. Cudoni. Retrieved December 10, 2022, from https://www.cudoni.com/

Campos Franco, J., Hussain, D., & Mc-Coll, R. (2019). Luxury fashion and sustainability: Looking good together. *Journal of Business Strategy*, *41*(4), 55–61. https://doi.org/10.1108/ jbs-05-2019-0089

Cervellon, M., Carey, L., & Harms, T. (2012). Something old, something used. *International Journal of Retail & Distribution* Management, 40(12), 956-974. https://doi.org/ 10.1108/09590551211274946

Gabay, G., Zemel, R., Gere, A., Zemel, G., Papajorgji, P., & Moskowitz, H. R. (2018). On the threshold: What concerns healthy people about the prospect of cancer? Cancer studies and therapeutics. Research Open, 3(4).

Gere, A., Zemel, R., Papajorgji, P., & Moskowitz, H. (2018). Weak signals and mind-sets of consumers: The case of milk. Journal of Food Science and Engineering, 8(3), 125-136. https:// doi.org/10.17265/2159-5828/2018.03.004

Gofman, A., & Moskowitz, H. R. (2010). Isomorphic permuted experimental designs and their application in conjoint analysis. Journal of Sensory Studies, 25(1), 127-145. https://doi. org/10.1111/j.1745-459x.2009.00258.x

Goodman, L. (1999). Hypothesis-limited research. Genome Research, 9(8), 673-674. https://doi.org/10.1101/gr.9.8.673

Guiot, D., & Roux, D. (2010). A secondhand shoppers' motivation scale: Antecedents, consequences, and implications for retailers. Journal of Retailing, 86(4), 355-371. https://doi. org/10.1016/j.jretai.2010.08.002

Han, Y. J., Nunes, J. C., & Drèze, X. (2010). Signaling status with luxury goods: The role of brand prominence. Journal of Marketing, 74(4), 15-30. https://doi.org/10.1509/jmkg.74.4.015

Hennigs, N., Wiedmann, K.-P., Klarmann, C., Strehlau, S., Godey, B., Pederzoli, D., Neulinger, A., Dave, K., Aiello, G., Donvito, R., Taro, K., Táborecká-Petrovičová, J., Santos, C. R., Jung, J., & Oh, H. (2012). What is the value of luxury? A cross-cultural consumer perspective. Psychology & Marketing, 29(12), 1018–1034. https://doi.org/10.1002/mar.20583

Heun, R. (2018). How to write a scientific paper: A hypothesis-based approach. Global Psychiatry, 1(1), 3-6. https://doi.org/10.2478/ gp-2018-0004

Kapferer, J. N. (2015). Kapferer on luxury: How luxury brands can grow yet remain rare (1st ed.). Kogan.

Karbo, K. (2009). Gospel according to Coco Chanel: Life lessons from the world's most elegant woman (1st ed.). Rowman & Littlefield.

Lai, S. M., & Prendergast, G. (2019). How men interpret women's luxury brand signals. Journal of Fashion Marketing and Management: An International Journal, 23(2), 209-223. https://doi.org/10.1108/jfmm-02-2018-0025

Liu, N., Ren, S., Choi, T.-M., Hui, C.-L., & Ng, S.-F. (2013). Sales forecasting for fashion retailing service industry: A review. Mathematical Problems in Engineering, 2013, 1-9. https:// doi.org/10.1155/2013/738675

Machado, M. A. D., Almeida, S. O. de, Bollick, L. C., & Bragagnolo, G. (2019). Second-hand fashion market: Consumer role in circular economy. Journal of Fashion Marketing and Management: An International Journal. 23(3), 382-395. https://doi.org/10.1108/jfmm-07-2018-0099

McNeill, L., & Moore, R. (2015). Sustainable fashion consumption and the fast fashion conundrum: Fashionable consumers and attitudes to sustainability in clothing choice. International Journal of Consumer Studies, 39(3), 212-222. https://doi.org/10.1111/ijcs.12169

Milutinovic, V., & Salom, J. (2016). A guide to data-driven marketing strategy. In Springer-Briefs in Business. Springer

Moskowitz, H., Beckley, J., & Ashman, H. (2006). Founding a new science: Mind genomics. Journal of Sensory Studies, 21(3), 266-307. https://doi.org/10.1111/j.1745-459X.2004.00066.x

Moskowitz, H., & Gofman, A. (2007). Selling blue elephants: How to make great products that people want before they even know they want them. Pearson Education.

Moskowitz, H., Kover, A., & Papajorgji, P. (2022). Applying mind genomics to social sciences. IGI Global. https://doi.org/10.4018/ 978-1-7998-8409-5

Moskowitz, H., Wren, J., & Papajorgji, P. (2020). Mind genomics and the law (1st ed.). LAP LAMBERT Academic Publishing.

Peter, J. P., Olson, J. C., & Grunert, K. G. (1999). Consumer behaviour and marketing strategy. McGraw-Hill.

Porretta, S., Gere, A., Radványi, D., & Moskowitz, H. (2019). Mind genomics (conjoint analysis): The new concept research in the analysis of consumer behaviour and choice. Trends in Food Science & Technology, 84. https://doi.org/ 10.1016/j.tifs.2018.01.004

Shao, W., Grace, D., & Ross, M. (2019). Consumer motivation and luxury consumption: Testing moderating effects. Journal of Retailing and Consumer Services, 46, 33-44. https://doi. org/10.1016/j.jretconser.2018.10.003

Stolz, K. (2022). Why do (n't) we buy second--hand luxury products? Sustainability, 14(14), 8656. https://doi.org/10.3390/su14148656

ThredUp. (2020). Resale report 2023. ThredUp. Retrieved December 19, 2022. https:// www.thredup.com/resale/

Todri, A., Papajorgji, P., Moskowitz, H. R., & Scalera, F. (2020). Perceptions regarding distance learning in higher education, smoothing the transition. *Contemporary Educational Technology*, *12*(1). https://doi.org/10.30935/ cedtech/9274

Turunen, L. L. M., Cervellon, M.-C., & Carey, L. D. (2020). Selling second-hand luxury: Empowerment and enactment of social roles. *Journal of Business Research*, *116*, 474–481. https://doi.org/10.1016/j.jbusres.2019.11.059

Turunen, L. L. M., & Leipämaa-Leskinen, H. (2015). Pre-loved luxury: Identifying the meanings of second-hand luxury possessions. *Journal of Product & Brand Management*, 24(1), 57–65. https://doi.org/10.1108/ JPBM-05-2014-0603

Turunen, L. L. M., & Pöyry, E. (2019). Shopping with the resale value in mind: A study on

second-hand luxury consumers. *International Journal of Consumer Studies*, *43*(6), 549–556. https://doi.org/10.1111/ijcs.12539

Vigneron, F., & Johnson, L. W. (1999). A review and conceptual framework of prestige seeking consumer behavior. *Academy of Marketing Science Review*, *1*, 1–15.

Vigneron, F., & Johnson, L. W. (2004). Measuring perceptions of brand luxury. *Journal of Brand Management*, *11*(6), 484–506. https:// doi.org/10.1057/palgrave.bm.2540194

Yanai, I., & Lercher, M. (2020). A hypothesis is a liability. *Genome Biology*, *21*(1), 231. https://doi.org/10.1186/s13059-020-02133-w

Yeoman, I., & McMahon-Beattie, U. (2006). Luxury markets and premium pricing. *Journal* of Revenue and Pricing Management, 4(4), 319–328. https://doi.org/10.1057/palgrave.rpm. 5170155