

Exploring Motivations to Engage in Collaborative Consumption

Case: Facebook Recycling Groups

Marketing
Master's thesis
Aino Kymäläinen
2015

Author Aino Kymäläinen

Title of thesis Exploring Motivations to Engage in Collaborative Consumption
Case: Facebook recycling groups

Degree Master of Science

Degree programme Marketing

Thesis advisors Tomas Falk, Sami Kajalo

Year of approval 2015**Number of pages** 71**Language** English

Abstract

In recent years, there has been a significant change in how people consume. New collaborative business models emerge and flourish all around the world. Their success is due to many simultaneous changes in the society. For example, people have become increasingly sensitive to issues related to scarce natural resources. The global financial and economic crisis has encouraged individuals to seek alternative ways to consume. And most importantly, major technological advances have enabled the omnipresence of the Internet and related technologies in our everyday lives. Collaborative consumption is no longer a hype; it has grown to become a global phenomenon with an extremely fast growth rate. According to experts, economies are shifting further towards collaborative models. Yet, there is a discrepancy between research and the real world phenomenon. Therefore, this thesis addresses this gap in the academic discussion.

This master's thesis describes and offers further insights to understanding collaborative consumption and more specifically its second dimension, the subcategory of peer-to-peer redistribution markets. Major theoretical contributions include the introduction of a new scale to measure the liquid relationship to possessions. In addition, the thesis brings the research of collaborative consumption to a new context in Finland.

The study answers the research questions '*What kind of motivations do people have to participate in collaborative consumption in online sharing and recycling communities?*' and '*What kind of different participant groups can be identified among the users of these online communities?*'. Motivational factors were identified from existing literature and in March 2015 data was collected through a survey among the users of Facebook sharing and recycling groups in Helsinki (n=442). Quantitative methods such as factor and cluster analysis were used to process the data.

The results indicate that four distinctive user groups can be identified; Accumulators, Utility seekers, Enthusiasts and Materialists. All of the groups emphasize the identified ten motivational factors differently and in various combinations. This research both confirms and challenges some of the findings of previous literature. For example, the fact that all four user groups scored high on green consumer values, while none of them were found to emphasize green consumer values as a primary motivation to participate, offers support for previous findings.

The findings of the thesis result in significant managerial implications for both commercial and non-commercial actors, operating both in Facebook and on other platforms. Understanding the various motivations of the consumers helps the actors to better target their offering. The thesis also provides many research suggestions to further explore this highly current and interesting topic.

Keywords collaborative consumption, redistribution markets, sharing economy, motivations, recycling, Facebook, liquid relationship to possessions

Tekijä Aino Kymäläinen

Työn nimi Exploring Motivations to Engage in Collaborative Consumption
Case: Facebook recycling groups

Tutkinto Kauppatieteiden maisteri

Koulutusohjelma Markkinointi

Työn ohjaajat Tomas Falk, Sami Kajalo

Hyväksymisvuosi 2015**Sivumäärä** 71**Kieli** Englanti

Tiivistelmä

Viime vuosina ihmisten kulutustottumukset ovat muuttuneet ja uudet jakamistalouden mallit nauttivat suurta suosiota ympäri maailmaa. Niiden menestys perustuu moniin samanaikaisiin muutoksiin yhteiskunnassa. Ihmiset ovat esimerkiksi entistä tietoisempia luonnonvarojen rajallisuudesta ja maailmanlaajuinen talouskriisi on rohkaissut ihmisiä etsimään vaihtoehtoisia kulutustapoja. Ensiarvoisen tärkeää on ollut myös huomattava teknologian kehittyminen, joka on mahdollistanut mm. Internetin jatkuvan läsnäolon päivittäisessä elämässämme. Jakamistalous ei ole ohimenevä trendi, vaan siitä on tullut tärkeä, valtavan nopeasti kasvava globaali ilmiö. Asiantuntijoiden mukaan talouksien toiminta on yhä voimakkaammin siirtymässä yhteisöllisiin malleihin. Siitä huolimatta akateeminen tutkimus on jäljessä reaali maailman ilmiöstä. Siksi tämä tutkielma pyrkii vastaamaan tarpeeseen tutkimalla aihetta syvemmin.

Tutkielma kuvailee ja auttaa ymmärtämään jakamistaloutta ja sen malleja. Ilmiöstä on tunnistettu kolme eri ulottuvuutta ja tämä tutkielma keskittyy vertaiskauppaan. Tutkielma osallistuu teorian kehittämiseen myös esittelemällä uuden mittariston kuvaamaan likvidiä suhdetta materiaan. Lisäksi tutkielma tarkastelee ilmiötä uudessa suomalaisessa kontekstissa.

Tutkielma vastaa kahteen tutkimuskysymykseen: ”Minkälaisia motiiveja ihmisillä on osallistua jakamistalouteen Internetin jakamis- ja kierrätys sivustoilla?” sekä ”Minkälaisia erilaisia osallistujaryhmiä voidaan tunnistaa näiden sivustojen käyttäjien keskuudessa?”. Motivaatiotekijät tunnistettiin olemassa olevasta kirjallisuudesta ja tutkielmassa käytetty data kerättiin maaliskuussa 2015 kyselytutkimuksella helsinkiläisissä Facebookin kierrätysryhmissä (n=442). Datan käsittelyyn käytettiin kvantitatiivisen analyysin metodeista ensisijaisesti faktori- ja klusterianalyysia.

Tutkielman tulokset osoittavat, että neljä erilaista käyttäjäryhmää voidaan tunnistaa; Kerryttäjät, Hyödyn etsijät, Intoilijat ja Materialistit. Kaikki ryhmät painottavat kymmentä tunnistettua motivaatiotekijää eri tavoin ja erilaisina yhdistelminä. Tutkielma sekä vahvistaa että haastaa joitain aiempien tutkimusten tuloksia. Esimerkiksi tukea aiemmille tutkimuksille antaa löydös, jonka mukaan kaikilla neljällä käyttäjäryhmällä on voimakkaat vihreät arvot, mutta mikään neljästä ryhmästä ei painottanut ekologisuutta tärkeimpänä syynä osallistua.

Tutkielma tarjoaa useita suosituksia sekä Facebookissa että muilla alustoilla operoiville kaupallisille ja ei-kaupallisille toimijoille. Ymmärtämällä paremmin jakamistalouteen osallistuvien henkilöiden motivaatioita voidaan myös tarjoamaa paremmin ja houkuttelevammalla tavalla kohdentaa halutulle yleisölle. Lisäksi tutkielma tarjoaa useita ehdotuksia jatkotutkimusaiheiksi liittyen tähän erittäin ajankohtaiseen ja mielenkiintoiseen ilmiöön.

Avainsanat vertaiskauppa, collaborative consumption, jakamistalous, motiivit, kierrätys, Facebook

Table of Contents

1. Introduction	1
1.1 Research phenomenon and problem	2
1.2 Research gap and contribution	3
1.3 Facebook recycling groups.....	3
1.4 Thesis structure	6
2. Literature review	7
2.1 Collaborative consumption	8
2.1.1 <i>Product service systems</i>	9
2.1.2 <i>Redistribution markets</i>	10
2.1.3 <i>Collaborative lifestyles</i>	11
2.1.4 <i>Four principles</i>	11
2.1.5 <i>Environmental effects</i>	13
2.1.6 <i>Enjoyment</i>	15
2.2 Sharing.....	16
2.2.1 <i>Advantages and disadvantages</i>	16
2.2.2 <i>Sharing in and sharing out</i>	17
2.2.3 <i>Community building</i>	18
2.2.4 <i>Anti-consumption</i>	19
2.2.5 <i>Frugality</i>	20
2.2.6 <i>Materialism</i>	21
2.3 Liquid relationship to possessions.....	23
2.3.1 <i>Situational value</i>	24
2.3.2 <i>Use-value</i>	24
2.3.3 <i>Immateriality</i>	24
3. Methodology	25
3.1 Research paradigm.....	25
3.2 Data collection and sample description	25
3.3 Survey development and measures	28
3.3.1 <i>Developing a new scale for liquid relationship to possessions</i>	30
3.4 Statistical analysis methods.....	31
3.4.1 <i>Factor analysis</i>	31
3.4.2 <i>Cluster analysis</i>	34
3.5 Validity and reliability	35
4. Data Analysis and Results	37
4.1 Factor analysis.....	37
4.1.1 <i>Initial analysis</i>	37
4.1.2 <i>Final analysis</i>	43
4.2 Cluster analysis.....	46
4.2.1 <i>Cluster 1: Accumulators</i>	48
4.2.2 <i>Cluster 2: Utility seekers</i>	49
4.2.3 <i>Cluster 3: Enthusiasts</i>	50
4.2.4 <i>Cluster 4: Materialists</i>	51
5. Conclusions	53
5.1 Discussion.....	53
5.2 Managerial implications	57
5.3 Limitations and future research	59
Bibliography	61

List of Tables

Table 1. Evolution of approximate member numbers in chosen recycling groups.....	4
Table 2. Categories of collaborative consumption.....	9
Table 3. Demographic characteristics of the respondents	27
Table 4. Scales chosen for this research.....	28
Table 5. Description of indicators for liquid relationship to possessions	31
Table 6. Cronbach's Alpha values for the original constructs.....	37
Table 7. Communalities for the LRP scale.....	38
Table 8. Variance explained by the initial factors	39
Table 9. Initial results of the principal components factor analysis.....	39
Table 10. Variance explained by the final factors	44
Table 11. Final results of the principal components factor analysis	44
Table 12. Different motivational components.....	46
Table 13. Final cluster centroids	47
Table 14. Cluster centroids for each factor.....	52

Picture 1. Examples of “WANTED” and “FOR SALE” ads in a recycling group.....	5
------------------------------------------------------------------------------	---

Appendices

Appendix A: Questionnaire in Finnish	65
--------------------------------------------	----

1. Introduction

Throughout the history of humankind, sharing has existed. Yet, the concepts of ‘collaborative consumption’ and ‘sharing economy’ are products of the Internet age (Belk, 2014). The world economy has been volatile since 2008 and alternative views on capitalism and consumerism have appeared as a response to the global financial and economic crisis (Heinrichs, 2013). The growing popularity of collaborative culture can be seen as a sign of evolving transformation in consumer preferences (Albinsson & Perera, 2012). It has also been suggested that the fundamental logic of how economies work is undergoing a significant change and sharing economy may be the next stage of the evolution (Cohen & Kietzmann, 2014).

In addition, new strategies and options for a more sustainable economy are needed in growing scales as the overall production and consumption trends have been unsustainable in the past. (Heinrichs, 2013) Simultaneously, to a larger extent than before, marketers must realize the profound influence of environmental issues to each of the 4 Ps. Addressing sustainability related topics is crucial, as they have an influence on both marketing theory and practice. (Kotler, 2011)

Companies such as Netflix and Zipcar were founded around the turn of the millennium and since then they have grown to become extremely well established businesses and leading examples of collaborative consumption (Botsman & Rogers, 2010). Consequently, one of the most researched examples of this new economic and cultural phenomenon of collaborative consumption is car sharing (e.g. Bardhi & Eckhardt 2012 ; Cohen & Kietzmann 2014 ; Martin, Shaheen, & Lidicker 2010) . It has increased in popularity in recent years and according to estimates there are more than 600 service providers around the world (Cohen & Kietzmann, 2014). One factor contributing to the popularity of car sharing could be that owning certain products, like cars, as part of self-definition is of diminishing importance. This is partly due to all the costs and trouble associated with maintaining the goods. Therefore, especially the younger generation is losing interest in actually owning a car and opt for different access based models and alternative solutions. More generally, the increasing popularity of short-term rental of various types of goods has led to a situation, where it is more difficult for other consumers to tell if the user of a product is the actual owner. (Belk, 2014)

Collaborative consumption and sharing economy require the use of market intelligence in order to create a more collaborative and sustainable society. The concepts can be applied to almost anything; from car sharing to web-based peer-to-peer platforms that vary from room renting to recycling

clothes. (Heinrichs, 2013) Consumer research and these peer-to-peer platforms will be in the focus of my thesis.

In the following sections of the introduction, the research phenomenon is discussed in more detail and the research problem is introduced. Secondly, the existing gap in research and the research contributions of this study are addressed. Thirdly, the Facebook groups where the survey is conducted are introduced. Finally, the introduction concludes with a description of the structure of the thesis.

1.1 Research phenomenon and problem

The phenomenon this master's thesis seeks to describe and understand is collaborative consumption and its subcategory, peer-to-peer redistribution markets. To be precise, with the help of existing literature, my goal is to identify different motivational factors that drive people to participate in online sharing and recycling communities on Facebook. Further, by using statistical analysis methods, the intention is to form different kinds of participant groups according to their shared motivations. The study is conducted in the Finnish context in the Helsinki metropolitan area.

Identifying and understanding consumers' motivations to engage in collaborative consumption is important. Without having a clear view what acts as a driving force for their behavior, it is difficult to for example draft policies or to offer right incentives to both consumers and entrepreneurs to encourage them to pursue a path that would be more resource-efficient and environmentally friendly. (Leismann, Schmitt, Rohn, & Baedeker, 2013) Similarly, understanding the motivations can also help create new business models, formulate offerings, and sell products and services that are more desirable to the target audience.

Thus, the aim of my M. Sc. thesis is to provide answers to the following research questions:

What kind of motivations do people have to participate in collaborative consumption in online sharing and recycling communities?

What kind of different participant groups can be identified among the users of these online communities?

1.2 Research gap and contribution

“Academic discourse on the sharing economy is lagging behind public discourse and practice.” (Heinrichs 2013, 229)

The main contribution of this thesis is participating in the academic discussion about sharing and collaborative consumption, which still remains under researched despite growing practical importance and widespread public discourse. (Belk 2010 ; Heinrichs 2013) There is an evident gap in research, and the topic is extremely relevant in the modern society. Thus, the phenomenon deserves more attention also in academia as it has the potential to make a noticeable difference in both the global and local economies (Cohen & Kietzmann, 2014). Further systematic exploration is needed as the sharing economy and collaborative consumption are no longer just trends of hype; they have grown to global phenomena with important dynamics (Heinrichs, 2013). By conducting this quantitative consumer research I wish to contribute to the deeper understanding of this phenomenon.

In addition to participating to the academic discussion, based on the study by Bardhi, Eckhardt and Arnould (2012), a new scale to measure the liquid relationship to possession is created. The contributions of the thesis are thus mainly theoretical, but managerial implications based on the findings are formulated as well. This research also brings the theory of collaborative consumption to the Finnish context by examining recyclers in the Helsinki area.

Finally, an element of novelty arises from the setting of the research. The context of this thesis is the peer-to-peer exchange of pre-owned goods, which falls into the redistribution markets category within collaborative consumption. So far, most of the focus has been on the product service systems (the study of services such as Zipcar) or on the collaborative lifestyle category (the study of services such as Airbnb).

1.3 Facebook recycling groups

In recent years, Facebook recycling groups and online flea markets have become increasingly popular in Finland. In 2012, a group called *Arabianranta kierrättää* (i.e. ‘Arabianranta recycles’) was created by a local individual Hilikka Huotari. As going to physical flea markets or sending packages to buyers far away can take a lot of effort, Huotari wanted to provide people an easy and convenient way to recycle, free of cost (Tiihonen, 2013).

Arabianranta kierrättää has chosen a strict local focus for the group and it soon became so popular that it has inspired the creation of numerous spin-off groups. Several groups indicate specifically in

their descriptions that inspiration to start the group came from Arabianranta. Nowadays there are more than 30 local recycling groups in Helsinki, and the principal rule in most of the groups is that the items must change owners within the specific neighborhood. Defining geographical limits where business needs to be conducted and emphasizing the local aspect of recycling is justified often by the desire to make the process as convenient as possible to both sellers and buyers. While many new groups have emerged, there has also been up to a tenfold increase in the number of members in the existing groups within the last 18 months (Table 1).

Each group has its own rules, and some have specified what kind of products or brands are suitable for sale in that group, e.g. children wear and toys or academic formal wear. For example *Kallio kierrättää* (i.e. ‘Kallio recycles’) states in its description that the group is designed for “affordable recycling of furniture, decoration items, and clothes” and suggests that the price can be not only a monetary sum, but anything from a food or home item to a favor in return. Most of the transactions are classic flea market –type of economic exchanges rather than free giveaways or offers to lend items. Yet, even in these groups goods are sometimes exchanged e.g. for “a pack of bubblegum” or for “one liter of organic juice”. Something that the thousands of posts published daily have in common is that people seem to have an endless stock of items they no longer need. Through these groups they can pass on the items to people who are so eager to have them that the queues are long and even verbal fights sometimes occur.

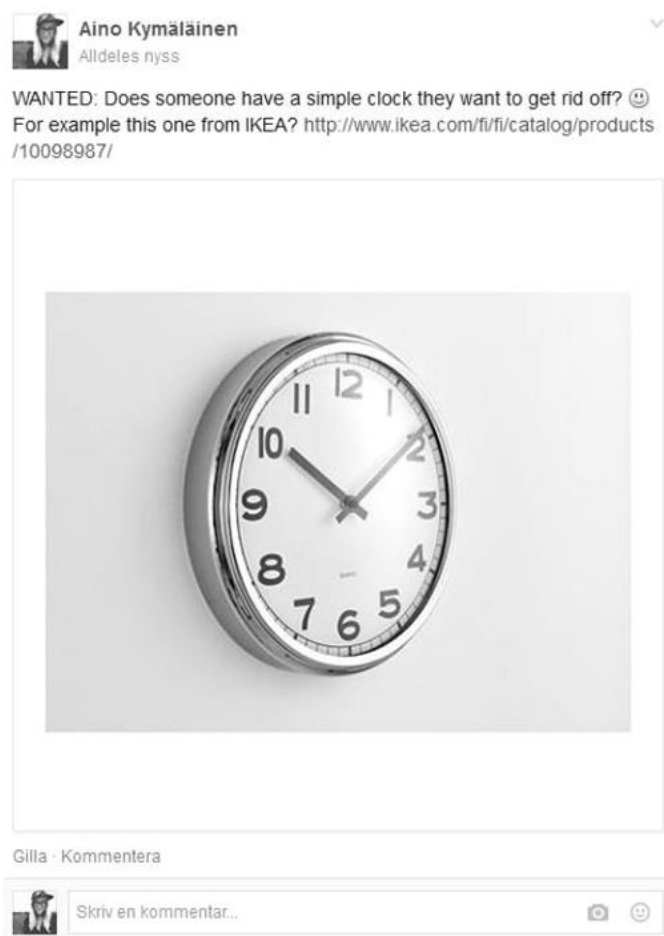
I chose to conduct my research on Facebook recycling groups because although there are some sites purely dedicated for peer-to-peer rentals and lending, such as *Arabianranta lainaa ja vuokraa* (i.e. ‘Arabianranta borrows and rents’) or *kuinoma.fi* and city libraries provide a product loaning service, those sites are still relatively inactive for the moment.

Table 1. Evolution of approximate member numbers in chosen recycling groups

Name of the group	Approx. number of members	
	August 2013	February 2015
Arabianranta kierrättää	1 400	6 400
ArToVa kierrättää	-	2 700
Haaga kierrättää	220	4 900
Hermannin kierrättää	110	1 600
Herttoniemi kierrättää, lainaa ja vuokraa	220	2 150
Kallio kierrättää	750	21 000
Keskustassa kierrätetään (HKI)	-	4 700
Oulunkylän FB-kirppis	250	2 400
Puku kierrättää	240	1 300
Punavuori kierrättää	-	5 600
Viikin FB-kirppis	670	2 900

The group members are able to upload photos or verbal ads about products they want to sell, buy, borrow, lend or donate. Volunteer admins control the group, remind members of the rules and delete inappropriate ads. All members are also expected to help the official admins, for example by making sure that they delete their own ads once the item has been sold, or by reporting any observed misconduct.

Picture 1 is a set of screen captures from the group *Punavuori kierrättää* (i.e. ‘Punavuori recycles’). On the left, the picture demonstrates an example of an ad where I wanted to buy a clock, similar or in the same style as the picture. The request was posted on the morning of 6th of February and within 15 minutes three suggestions were received. After deciding that the one costing 4 euros was the most attractive option for me, I sent a private message to the seller. In a few minutes we agreed upon a pick up time and place for the next day. The whole process was very quick and convenient, let alone affordable. The right hand side demonstrates an ad where I am selling a pair of old shoes.



Picture 1. Examples of “WANTED” and “FOR SALE” ads in a recycling group

1.4 Thesis structure

The rest of the thesis will be structured the following way. In the second chapter, the necessary key concepts and dimensions of collaborative consumption to understand the phenomenon are presented. The chapter discusses previous research and provides an overview of existing literature. Following the theoretical background, in the third chapter, topics related to methodology of the research will be discussed. These include introducing the chosen research paradigm, discussing the data collection methods, and describing the survey development. The fourth chapter is devoted to discussion of the empirical research and data analysis. Finally, the conclusions of the thesis will summarize the results, discuss both managerial and theoretical implications as well as the limitations of the present study. Suggestions for future research are also provided.

2. Literature review

Belk (2014) suggests that through the rise of collaborative consumption, we might be entering what he refers to as a “post-ownership economy”. Although it was Belk (1988) himself who suggested that “you are what you own”, according to him this idea is now in the modern society shaping into the form of “you are what you share”. Our sense of self is nowadays to a larger extent influenced by access to possessions rather than actual ownership. When action is local and e.g. goods are shared within a neighborhood it can also foster a strong sense of community. (Belk, 2014)

As mentioned, the assumption that ownership is the ultimate outcome of consumer desire has been challenged. For example Chen (2009) concluded, that while art can be either collected or enjoyed publicly in museums, the two modes of consumption have different effect on the perception of value and are driven by different desires. It has also been argued that “the future of business is sharing” (Gansky, 2010). In the past, access and rental were perceived to be inferior options compared with acquisition and ownership. This is now changing and as the alternative ways to consume exist side-by-side, companies are starting to understand how to monetize this shift. (Bardhi & Eckhardt, 2012)

There are many potential forms a sharing economy can take, but the Internet and associated technologies have made it possible to bring the sharing to a completely new scale (Cohen & Kietzmann, 2014). Especially the Web 2.0 is in a key position as it, in contrast to Web 1.0, allows users to create content and connect with each other (Belk, 2014). The strategy of creating a ‘perfect’ one-directional message and sending it out to the market no longer works for companies, regardless how successful such a strategy might have been in the past. (Gansky 2010, 89). Modern technology has naturally contributed to the distribution of digital products such as e-books, but nowadays it also to a greater extent connects consumers to various physical products and services (Gansky 2010, 40).

The current conditions under which we are able to conduct business are the result of a complicated equation. Many pioneers have paved the way to safe transactions on the web, including PayPal and Amazon, while thanks to advances made by e.g. Google and Apple we carry Internet in our pockets and are reachable 24/7. Simultaneously we are present on the Web with our own faces and names on platforms such as Facebook, making it more difficult to pretend to be someone else. (Stein, 2015) Combined with the aftermath of the global economic crisis, the timing for collaborative consumption models to appear is right. Consumers around the world are focusing on their well-being and re-evaluating their consumption and sharing habits as well as their values. All this has made it possible for the collaborative consumption to be flourishing. (Albinsson & Perera, 2012)

A brief comment should be made about the ambiguity of terms. As the phenomenon is still relatively new, it has not yet been well theorized (Bardhi & Eckhardt, 2012). Thus, the used terminology is still diverse in both popular and academic discussion and definitions regularly overlap.

In this thesis ‘*collaborative consumption*’ is used as a general umbrella term to describe the phenomenon as a whole, and it is used interchangeably with ‘*sharing economy*’. Using both terms is common also in most of the academic and popular journals. Some researchers such as Bardhi and Eckhardt (2012) talk about access-based consumption, but in this research access-based consumption is seen as a dimension of collaborative consumption. Also Gansky (2010) discussed basically the same phenomenon in her book, but called it ‘*the Mesh*’. However, in order to avoid confusion this term is not used in this master’s thesis as it is not widely used in academic journals either.

2.1 Collaborative consumption

Despite the recent rise in popularity, the term ‘collaborative consumption’ was first introduced already in the end of the 1970s. At the time, it was defined as “events in which one or more persons consume economic goods or services in the process of engaging in joint activities with one or more others” (Felson & Spaeth 1978, 614). Modern view of the term is slightly different and although nowadays the specific definitions still vary among academics, Belk (2014) has for his own part provided good definitions what modern collaborative consumption is not. As opposed to Felson and Spaeth (1978), Belk (2014) emphasizes the need to understand that collaborative consumption is not pure joint activities among people including consumption. That definition is too broad and relies solely on coordinated consumption, while true collaborative consumption requires coordinating both the acquisition and distribution for a compensation, which can be either monetary or non-monetary. (Belk, 2014)

Rachel Botsman and Roo Rogers are highly successful advocates of collaborative consumption and they define it as a growing new phenomenon, which is based on the idea that people get the perks of owning an item with reduced personal efforts and costs. As the environmental impact is also smaller, collaborative consumption has become an increasingly popular and attractive alternative to traditional consumption including buying and actual ownership. (Botsman & Rogers, 2010)

Botsman and Rogers (2010) also described three different categories of collaborative consumption (Table 2), which have been later adopted to academic studies (e.g. Albinsson & Perera 2012 ; Bardhi & Eckhardt 2012). The different collaborative consumption systems are product service systems,

redistribution markets and collaborative lifestyles. Something in common for all three categories is that they often flourish in urban areas. Like the Facebook recycling groups, many other forms of the sharing economy have also been born in big cities from where they gradually spread to other parts of the country. One explanation is pure necessity. Cities suffer from space limitations, and whether it is the lack of storage or parking the individuals suffer from, e.g. renting services and neighborhood recycling groups can bring relief to the problem. (Bardhi & Eckhardt, 2012) Full closets can be emptied and unused things resold, or one-time need for a power tool or a party dress can be met through renting. Other aspect that supports cities' role as a cradle for collaborative consumption businesses is the fact that they are densely populated. This naturally enhances convenience as supply is larger and finding other people is easier. (Gansky 2010, 81)

Table 2. Categories of collaborative consumption

(adapted from Botsman & Rogers 2010 , Albinsson & Perera 2012)

	Description	Examples
Product service systems	Benefits of a product to a person with no need to own it. Making goods available to consumers for a fee.	Zipcar, Kuinoma, Rent the runway
Redistribution markets	Individuals exchanging pre-owned goods peer-to-peer	ebay, tori.fi, Facebook recycling groups
Collaborative lifestyles	People with similar interests exchanging less tangible assets	Airbnb.com, Kickstarter, EatWith, Ventoura

2.1.1 Product service systems

The first category, *product service systems*, provides the benefits of a product to a person with no need to own it. Product service systems make goods available to consumers for a fee through different rental or leasing models. (Albinsson & Perera 2012 ; Leismann et al. 2013) The goods can be either privately owned and shared peer-to-peer, or belong to a company (Botsman & Rogers, 2010). Particularly demand for rental and access services of consumer goods has increased lately (Moeller & Wittkowski, 2010). Instead of purchasing the physical products and retaining them, many prefer to pay for the temporary access and benefits of the goods (Bardhi & Eckhardt, 2012). Product service systems' purpose is to optimize and make the utilization phase of a product longer (Leismann et al., 2013).

Typical examples of this category are for example car sharing services such as Zipcar. Most of the car sharing companies satisfy the needs of the customers by offering pure turnkey solutions. They provide value for the customer, who is charged by the time or mileage covered, but the company takes care of things such as insurance, maintenance or gas. (Cohen & Kietzmann, 2014) Another example of a product service system is the online rental service Rent the Runway. The company offers ordinary consumers with different income-levels access to designer garments and accessories, which they might not be able to afford otherwise. The company recently raised \$60 million of new venture funding (Griffith, 2014) and according to the CEO and co-founder the idea is “to build the Amazon of rental” in the future (Bertoni, 2014)

Finally, I would even include some services which are free for the end-consumer in this category, although that is a bit contradictory to the definition. Yet, for example the national library networks carry out the principles of collaborative consumption, as individuals can access books temporarily and many are able to enjoy and use shared resources.

2.1.2 Redistribution markets

The second category, *redistribution markets*, refers to a system where individuals exchange pre-owned goods peer-to-peer. This form of sustainable commerce fosters recycling of goods rather than throwing them out. This can be considered to be the fifth “R” in “reduce, recycle, reuse, repair and redistribute”. (Botsman & Rogers, 2010) The redistribution can take several forms. It can involve monetary compensation or be totally free, like on the site Freecycle. Also, it can happen through many different kinds of marketplaces ranging from general online giants such as eBay to small local neighborhood groups (Albinsson & Perera, 2012) such as the ones in the focus of my thesis. The goal is to relocate goods and resources from somewhere where they are useless to places where they are needed (Bardhi & Eckhardt, 2012). In an offline environment for example flea markets and second-hand shops represent these redistribution markets.

In Finland, the two biggest web marketplaces for pre-owned goods are currently *tori.fi*, which is part of the international Schibsted media group, and the Finnish online auction site *huuto.net*. Although *tori.fi* is growing fast with 5.6 million posts in 2014, *huuto.net* is still the indisputable market leader with more than 50 million ads posted last year. (Juvonen, 2015)

2.1.3 Collaborative lifestyles

The third category is called *collaborative lifestyle*. In this category “people with similar interests are banding together to share and exchange less tangible assets such as time, space, skills and money” (Botsman & Rogers 2010, 73). People can get together for example to share offices, take care of a garden or to enjoy a home-cooked dinner (Albinsson & Perera, 2012). Traditionally this form of collaborative consumption has been very local by nature, but the Internet has made it possible to free this category from geographical boundaries as well. For example space is rented via Airbnb in more than 190 countries (Airbnb, 2015) and since the launch of Kickstarter in 2009, more than \$1.6 Billion has been gathered to fund over 79 000 creative projects (Kickstarter, 2015).

2.1.4 Four principles

Although collaborative consumption may take many shapes and forms, according to Botsman and Rogers (2010) there are four underlying principles that are always present. These principles are ‘*critical mass*’, ‘*idling capacity*’, ‘*belief in the commons*’ and ‘*trust between strangers*’ and their relative importance varies depending on the situation.

Critical mass is vital for two reasons; choice and attracting users for the services (Botsman & Rogers 2010, 76, 81). For collaborative consumption to be a potential alternative for traditional shopping, there must be enough participants, offering, and choice. If the users are not satisfied, the system will soon encounter problems and be short-lived (Botsman & Rogers 2010, 80). Services such as Yelp function because millions of people contribute to the site and describe their experience daily (Gansky 2010, 42) If one were to look for advice on Tripadvisor, for example where to stay in New York City, but they only featured a few hotels, the offering would be totally misrepresented and the value of the service to the individual would be compromised. In the Facebook groups, as described in the introduction, there are now thousands of people and at least based on vast personal experience, the needed critical mass has been reached. To illustrate; during the process of writing this thesis I also posted an ad, where I wanted to buy a denim shirt. Again, within hours, I had plenty of different options, all for the fraction of the price I had seen in stores.

The second aspect of critical mass refers to attracting loyal users (Botsman & Rogers 2010, 81). When a form of collaborative consumption becomes sufficiently popular and people talk about the phenomenon it increasingly intensifies its pull. People tend to be interested in things that “everyone else” is doing (Botsman & Rogers 2010, 82). Once there is enough momentum, the majority and even the laggards may join.

Idling capacity refers to the unused potential that is stored in the form of physical goods in our cupboards and garages. It also refers to less tangible things, such as our capabilities and time that could be useful for someone else (Botsman & Rogers 2010, 86). Collaborative consumption's role is to redistribute the idling capacity to where it is needed and modern technology is in a key position to help achieve this (Botsman & Rogers 2010, 83). The Internet and related technologies enable people to find and connect with each other easily and in real-time online instead of traditional word-of-mouth and physical bulletin boards (Cohen & Kietzmann, 2014). In the Facebook groups people are able to recycle surprising things and queues may appear on items the original owner was about to throw into the trash. The Internet has brought the transaction cost so low, that sometimes putting up an ad and recycling requires basically no effort.

Belief in the commons means that the network effects of collaborative consumption are significant. This idea is closely related to the first principal of the critical mass. The more people join in, the more value they provide to one another, whether or not that is their original intention. Through giving one gets. Just like a single telephone is useless, the value of collaborative consumption lies in the expanding network of people joining, and as a result each participant gains more value in the process. (Botsman & Rogers 2010, 90)

Finally, *trust between strangers* is a prerequisite for most forms of collaborative consumption. As the peer-to-peer systems eliminate classical middlemen, people who are often complete strangers to one another need to interact. (Botsman & Rogers 2010, 90) Many collaborative consumption models rely on different types of reputation systems, where e.g. the buyers and sellers can give feedback and rate each other. When these systems are in place, they tend to encourage good behavior, as bad reviews impact negatively the individual's opportunities to do business in the future. (Jøsang, Ismail, & Boyd, 2007) It has been reported that for example at eBay, buyers comment sellers more than half the time and sellers comment on buyers more than 60 % of the time. And of all the ratings around 99 % are positive. (Resnick & Zeckhauser, 2002) In the Facebook groups, no official rating system is currently in place. The operations are largely based on trust. But when somebody has a negative experience they are encouraged to report the incident to the voluntary admins. General discussions about appropriate behavior and the rules of the groups also surface regularly.

2.1.5 Environmental effects

Environmental protection and resource efficiency are key challenges facing all sectors of the society today, including business and politics. Collaborative consumption has the potential to offer business model solutions and forms of consumption, which help conserve the limited resources also for the use of future generations. (Leismann et al., 2013) It has been suggested that sharing economy can be a pathway to a sustainable society of the future (Heinrichs, 2013). As consumers are to a greater extent paying more attention to sustainability and social responsibility issues, this adds pressure also to companies to address the topic. Environmental questions need to be addressed so that the companies do not appear indifferent. (Kotler, 2011) Although some of the hype around collaborative consumption is due to consumers re-evaluating their spending habits after the recession, its success is also driven by the evolving environmental mind-set of modern consumers (Cohen & Kietzmann, 2014).

The positive environmental effects of collaborative consumption are significant. Although an individual business model itself might not be built on promoting sustainability, the secondary effects might be remarkable. For example in the case of B2C car sharing models, in addition to encouraging sustainable mobility, the company's goal might simply be the maximization of profits (Cohen & Kietzmann, 2014). However, it has been estimated that each shared car corresponds up to 13 private vehicles being removed from use and off the roads (Martin et al., 2010). In addition, as the car is not parked on the consumer's own driveway, using a shared car requires more consideration and a deliberate decision to use a car. This leads to less driving and increased use of alternative modes of transportation (such as biking, using public transportation etc.) among the participants in car sharing schemes. (Meijkamp, 1998)

Sustainability is a crucial, built-in part of collaborative consumption, not an add-on (Botsman & Rogers 2010, 74). Sometimes being environmentally friendly can stem from the simplest things. A study conducted in North America and Europe showed that staying in Airbnb's is in many ways greener than hotels, not only in terms of things such as energy and water usage. But in addition, for example waste-per-stay is reduced due to the simple fact, that less than half of Airbnb hosts provide single-use toiletry products for their guests. (Airbnb, 2014) As for eBay, one of the biggest global players in the redistribution markets, they have announced that they never specifically planned to be a green business, but rather have realized it to be inherent (Clifford, 2009).

A study focusing on the environmental impacts of different forms of delivering music also concluded, that digital purchasing of music reduced the energy and carbon dioxide (CO₂) emissions between

40 % and 80 % compared with physical CD delivery (Weber, Koomey, & Matthews, 2010). Although most people are motivated to download music for other reasons than conserving the environment, the unintended consequence is being environmentally friendly (Botsman & Rogers 2010, 98).

Different business models have different effects on the environment and their environmental friendliness varies. For example renting reduces the quantity of produced and purchased products over time as many consumers use the items during its lifespan (Moeller & Wittkowski, 2010). Also redistribution markets, such as the Facebook recycling groups, prolong the life of items. When someone buys a pre-owned good instead of getting a new one from the store, the original does not end up in the landfill and the resources needed to produce a new product are saved. One of the benefits of neighborhood groups is also the physical proximity of the recyclers; when the goods can be picked up on foot, the environmental burden is even further reduced, as opposed to e.g. mailing the goods.

Despite the obvious positive effects, it is important to point out that sometimes collaborative consumption can also have negative consequences for the environment. For example, if the items circulating in the product-service systems or redistribution markets require transportation, the shipping and packaging materials are a burden to the environment. Different access-models of consumption can also lead to overuse of some resources. Whether the positive consequences outweigh the negative ones, i.e. if the resource use as a whole is eventually more efficient, depends heavily on the particular business model. The potential to save resources is greater when the lending and renting models are applied to items that are used rarely than with utility items used daily. The consequences can be positive also if the collective use of items actually leads to a diminished procurement of newly produced products. Nevertheless, if collaborative consumption for example creates financial savings for an individual and they decide to consume the achieved savings elsewhere, the positive environmental effects might be non-existent. (Leismann et al., 2013)

While excessive use resulting in greater wear and tear than ordinary use can be seen as a negative thing (Leismann et al., 2013), it can also result in positive environmental effects. For example as car sharing business models put the vehicles into far more intensive use than usual, this leads to shorter product lifetimes. But as the cars are replaced more often than those owned by individuals, also the technology is updated more frequently. Products are used efficiently to their maximum capacity and they are replaced due to wearing out instead of old age. Thus, at least in theory, the latest and most environmentally friendly models are on the roads. (Meijkamp, 1998)

It could be assumed that some users of the Facebook recycling groups have strong green values and are motivated to use the redistribution markets because of environmental reasons. Simultaneously there might be users who are not at all environmentally aware, but instead are motivated by other factors while the business model itself just happens to be ‘green’.

2.1.6 Enjoyment

To be motivated means that the individual feels stimulated or inspired to take action to the extent that they actually do something. Both the level (the intensity) as well as the source (the type) of motivation vary depending on the person. The most basic way to classify different motivations is to separate them to intrinsic and extrinsic. (Ryan & Deci, 2000)

Extrinsic motivations drive people to do things in order to benefit from the instrumental value of the action. What they actually try to achieve is a separate outcome, which is enabled by the original behavior. (Ryan & Deci, 2000) Although it is possible that some people feel pressured to engage in the recycling groups e.g. in order to convey a certain image of themselves or they are forced to sell things on behalf of someone, it is quite safe to assume that most people are motivated by intrinsic motivations. Coming to this conclusion stems from the fact that the Facebook recycling groups are purely voluntary constructs and generally people are free to choose whether they want to join or how active they are in the groups.

Actions driven by intrinsic motivation are taken because they are regarded as interesting and satisfying (Ryan & Deci, 2000). Van der Heijden (2004) studied the user acceptance of hedonic information systems, which are pleasure oriented, fun to use, and strongly associated with leisure activities. The value of hedonic information systems depends on how enjoyable the user perceives the experience to be. The enjoyment has been proven to be a stronger predictor of behavioral intention than perceived usefulness. (Van der Heijden, 2004) Moeller and Wittkowski (2010) refer to the same phenomenon when they discuss the “experience orientation” in consumption in general. According to them, many consumers nowadays focus on the excitement and experience derived from consumption and how the hedonic activity is perceived as entertaining. (Moeller & Wittkowski, 2010)

For many, using the Facebook recycling groups is a recreational activity and actually professional trade is often prohibited in the rules. Thus, it remains to be seen if the users of the groups score high on the perceived level of enjoyment.

2.2 Sharing

Sharing is a term so closely related and central to collaborative consumption (Albinsson & Perera, 2012), that it will be discussed separately in this part of the thesis. There is still a lack of research on alternative modes of consumption apart from ownership (Bardhi & Eckhardt, 2012), but Russell Belk (e.g. 2007, 2010, 2014) has done extensive research on sharing and his pioneering studies will be referred to throughout this section.

As mentioned, collaborative consumption is often referred to as “sharing economy”. But in this thesis, sharing itself is seen as a dimension of collaborative consumption and to relate most strongly to the categories of product-service systems and collaborative lifestyles, because it by definition involves joint ownership instead of transfer of ownership (Belk, 2010). Interestingly, while Belk (2007) would include e.g. voluntary lending, pooling and allocation of resources into sharing, he would exclude e.g. contractual renting and leasing. This might be explained by the longer duration of the access to the goods, when it could be expected that the consumer experience is more similar to ownership, although further research on the topic is needed (Bardhi & Eckhardt, 2012).

While Belk (2010) makes a clear distinction between the ways of shared consumption, e.g. between gift-giving and sharing, Corciolani and Dalli (2014) demonstrate in their research that the alternative ways can be integrated and used simultaneously in the context of Bookcrossing. They integrate the separate theories into a unified model and see releasing books without expecting anything in return as a nonreciprocal form of gift-giving. (Corciolani & Dalli, 2014)

In the recycling groups goods are also sometimes donated for free and could be seen as this type of gift-giving. When the donors do not expect anything in return, they might comment on the posts e.g. that unless someone is interested, the item will find its way to the trash. Sometimes they do not even want to meet the person retrieving the item, but instead tell them the item is waiting for pick-up in front of the door.

2.2.1 Advantages and disadvantages

Sharing is many ways beneficial to the consumer, the environment, and the community in both the practical and economic sense (Belk, 2014). It is usually a communal act that links people together in a potentially powerful way creating feelings of affinity and connectedness unlike pure economic exchange (Belk, 2010). The tendency to share is stronger as long as we believe that there is no shortage of goods. On the contrary, if we believe the supply is finite, feelings of selfishness surface and desire to retain possessions has a negative impact on the willingness to share. (Belk, 2007)

One pragmatic economic benefit of sharing is making something that would normally be unavailable affordable to the consumer. An individual might not be able to afford e.g. a designer handbag or a holiday home, but can access them through sharing. (Belk, 2010) In addition to a monetary gain, Lambertson and Randall (2012) have identified other sources of utility related to sharing. Utility may stem from the flexibility that sharing offers compared to owning the product or from the fact that as an item is shared, storing it is often not the headache of the borrower. Others who prefer sharing perceive benefits in the decision to not support a certain industry through a purchase and others appreciate the social utility they get from gathering approval from reference groups. Finally, utility can be related to ecological values and personal interests in sustainable consumption. (Lambertson & Randall, 2012)

Despite the numerous benefits, there are also costs related to sharing, which may make it a less attractive option compared to purchasing. Those costs that affect the perception of utility include the actual monetary fee one has to pay for accessing the shared item, non-monetary costs such as time spent learning how to operate the unfamiliar object as well as costs associated with searching i.e. both money and effort required to find and compare an object to share. (Lambertson & Randall, 2012) In addition to perceived cost, personal characteristics and preferences may affect an individual's willingness to share.

2.2.2 Sharing in and sharing out

While the benefits listed above are plentiful and sharing can help save both resources and create synergies, sharing outside our immediate family is still scarce. And although sharing remains the norm within families, increased privatization can be detected there as well. For example shared family meals become less common and it is typical that each family member has their own mobile phone, computer, and so on. (Belk, 2007)

Two different types of sharing can be distinguished; sharing in and sharing out. Sharing within the family, as well as sharing in a way that reminds sharing within the family, is considered 'sharing in' (Belk, 2010). Sharing in 'involves regarding ownership as common, such that the others are included within the aggregate extended self.' (Belk 2007, 725) Consumers can extend the self through other people (Belk, 1988) and that is a fundamental element of sharing in (Belk, 2010).

On the contrary, when people "share out" it is often meant as a unique, one-time act and the parties can be relative strangers. Naturally, the tendency to share in with family or friends is more likely than sharing out. (Belk, 2014) But more often we should consider sharing outside of the immediate family

as well. By sharing out we can get more benefits or it can be an expression of honest altruism while strengthening the self-image of being generous. (Belk, 2007)

Exactly like in the context of sharing toys through toy libraries, the Facebook recycling groups researched in this thesis may possibly include both elements of sharing in (i.e. sense of community) and sharing out (i.e. frugality and wish to save money) (Ozanne & Ballantine, 2010).

2.2.3 Community building

Collaborative consumption and especially its peer-to-peer applications have been identified to foster community and sense of belonging to a group (Botsman & Rogers 2010, 175 ; Belk 2014). Sharing can cultivate a feeling of being among like-minded individuals and possessions can also be a way to symbolize membership to a group (Belk, 2007).

When Albinsson and Perera (2012) studied sharing events as an example of an alternative marketplace, they found that community building was both a motivation for the people to participate as well as an outcome of these events. People who took part in this alternative way of trading reported that not only tangible goods were shared, but also knowledge, skills, favors, and opinions. Events were an opportunity to raise awareness and support causes the participants felt strongly about. They formed connections with new people with different backgrounds, but similar interests. This kind of activities and increased sense of community contrasts with the traditional, individualistic-oriented Western consumer culture. (Albinsson & Perera, 2012)

Online communities, such as the Facebook groups, are built more around common interests, thus emphasizing relational aspects of the community instead of pure shared geographical location (Albinsson & Perera, 2012). Yet, as recycling requires the physical encounter when items change owners, I would see the Facebook groups as a hybrid of the two elements.

While some of the groups, for example the one operating in Kallio, welcomes many members outside the neighborhood as long as they deliver their merchandise to the area, others have taken a strict local focus. The founder of *Arabianranta kierrättää* has emphasized on many occasions, and it is also stated in the group description, that the ideology behind the Facebook group leans heavily on its locality. The arguments for choosing the regional focus include increased convenience and usability, but even more importantly, building the sense of community. (Pajari, 2015) The group supports and encourages its members to get to know each other instead of trying to get the maximum economic gain.

In this research motivational factors including sense of community will be explored. It will be interesting to find out whether people feel connected to the online groups and the fellow members of that community.

2.2.4 Anti-consumption

Anti-consumption is an increasingly popular area of research. It has been suggested that in order to fully understand consumer behavior, understanding this opposite phenomenon to consumption is necessary. (Lee, Fernandez, & Hyman, 2009) While the literal meaning of anti-consumption is ‘against consumption’ (Lee et al. 2009) the resistance can refer both to the individual’s desire to reduce the levels of their overall consumption or alternatively their opposition towards specific brands or products (Iyer & Muncy, 2009). Also it is important to note, that although anti-consumption attitudes may be demonstrated through actions such as participating in sharing activities (Ozanne & Ballantine, 2010) or preferring environmentally friendly consumption choices, the term itself is not necessarily synonymous with concepts such as alternative or green consumption (Leet et al. 2009). That said, a literature review supports the idea that the practices of anti-consumption are in fact elements of sustainable lifestyles (Black & Cherrier, 2010).

While Lee et al. (2009) see for example sustainable consumption as a form of pro-social consumption, rather than as anti-consumption, Iyer and Muncy (2009) would recognize it as one of the forms of anti-consumption. From existing literature Iyer and Muncy (2009) identify four research streams that anti-consumption research has focused on recently. The areas of interest vary on two dimensions. First of all, whether the consumer’s anti-consumption is directed to consumption in general or only specific brands. Secondly, the other dimension examines, whether the individuals are concerned with societal issues (such as conserving the environment) or whether they focus on issues related to personal happiness and making their own life simpler. (Iyer & Muncy, 2009)

While the categories do not exclude one another and an individual can follow the logic of several of these, an archetype for each can be described. *Global impact consumers* are concerned about the environment and by reducing the overall consumption hope to benefit the society as a whole. *Simplifiers* are equally interested in reducing their consumption, but their motivations stem from a personal pursuit towards a less consumer oriented and happier lifestyle. *Market activists* represent those who avoid specific brands or products as they are seen as causing societal problems e.g. through unethical labor policies. Finally, *anti-loyalists* avoid products or brands that they associate with inferiority or negative experiences. (Iyer & Muncy, 2009) Also Black and Cherrier (2010) identified in their study that consumers have different motivations for their anti-consumption practices and their

actions may for example be motivated by their individual needs as well as by a more general concern for the environment and a desire to preserve it.

Ozanne and Ballantine (2010) found evidence in their quantitative study that people engaging in sharing through the toy libraries held strong anti-consumption values. Sharing was seen as a favorable alternative structure for traditional consumption. As a suggestion for further research they propose to explore other forms of sharing. (Ozanne & Ballantine, 2010) This research partly contributes to this suggested research avenue as sharing is such an integral part of collaborative consumption. Thus, it remains to be seen whether some user groups in the Facebook recycling groups hold the before mentioned sharing or anti-consumption values.

2.2.5 Frugality

It has been said that price is the most powerful tool marketers have in their toolbox as it can have a drastic effect on consumer behavior and consequently on the company's result (Han, Gupta, & Lehmann, 2001). Thus, how consumers perceive prices and how they think about money has an effect on how they consume, both in traditional environments as in the context of collaborative consumption and sharing.

Traditionally frugality has been seen as a negative personality trait, which is associated with greed and pure resistance of spending money only in order to accumulate wealth. However, Lastovicka et al. (1999) concluded in their study, that actually frugality is related more to delaying the spending and using consumer goods resourcefully in order to attain long-term benefits through short-term sacrifices. (Lastovicka, Bettencourt, Hughner, & Kunze, 1999)

Renting is generally significantly cheaper than buying, depending naturally on things such as frequency. However, Moeller and Witkowski (2010) made a quite surprising finding; in their study price consciousness did not have a significant effect on preferring non-ownership models. (Moeller & Wittkowski, 2010) However, most of the users of the toy-libraries were identified to hold strong frugality values and the libraries often promote their lending services by emphasizing the possibility to save in order to attract users (Ozanne & Ballantine, 2010).

People have the habit of storing past prices in their memory and they compare these reference prices when considering possible purchases. If a product has a lower price than the reference price a consumer has in mind, it is considered as a find and a gain. (Han et al., 2001) In the Facebook groups it is quite common that people mention the retail price of a product when they are selling something. This indication of a "discount" is meant to make the product seem more desirable. Many of the groups

also have official rules against commenting on the prices that other people have set. Yet, even without such rules, products priced too high will not be sold, whereas items considered as bargains attract a desperate queue.

As the pre-owned goods sold and exchanged peer-to-peer in Facebook groups are also usually sold for a fraction of the original retail price, it is very interesting to see, if some of the users are motivated by the possibility to save money. Thus, considering frugality and assuming it to act as a possible motive to participate for some group members is reasonable.

2.2.6 Materialism

Materialism is an important element to inspect in order to understand how consumers behave. It has even been argued, that unless we understand the meanings consumers attach to possessions, understanding their behavior is not possible (Belk, 1988).

The definitions of the terms “materialism” and “materialistic” vary depending on the context, but they are also often freely used in everyday conversations without definitions (Richins & Dawson, 1992). In common language the terms are normally used to refer to “a tendency to consider material possessions and physical comfort as more important than spiritual values” as defined in the Online Oxford English Dictionary 2015 or to “the belief that having money and possessions is the most important thing in life” as defined by the Online Cambridge English Dictionary 2015.

How materialism presents itself is dependent on the circumstances as well as cultural and individual differences (Belk, 1985). However, Richins and Dawson (1992) were able to identify from an extensive literature review three correlating aspects, which repeatedly surface when materialism is defined by academics. The three constructs have also been recognized by ordinary consumers and the different elements are strongly presented in their views about materialism.

Firstly, *the acquisition centrality* aspect of materialism describes the way highly materialistic people see possessions, and the act of acquiring them, as a very central element of their lives. Material possessions bring meaning to their lives. Owning and acquiring more is the ultimate goal which materialistic people seek to reach.

Secondly, *acquisitions as the pursuit of happiness* refers to how materialists consider acquired belonging as a gateway to happiness. Instead of other things, such as personal relationships or achievements, materialistic people seek happiness through acquisition. Possessions are seen as

essential to satisfaction and well-being, which partly explains why material things have such a central role in their lives.

Thirdly, the element of *possessions-defined success* refers to the way materialists assess both their own and others' success. Material goods have a status value and they are seen as evidence of accomplishments; one's success can be estimated both by the number and the quality of collected possessions. Materialistic people have the tendency to measure personal success based on owning goods that send a certain image to the outside world. Belongings can be seen to reflect the ideals of a perfect life. (Richins & Dawson, 1992)

Also Belk (1985) identified three different constructs that form the subscales of materialism. These three traits are *possessiveness*, *non-generosity*, and *envy*. Possessiveness refers to the desire to maintain control of one's possessions, which can be not only material goods, but also for example some experiences. Possessiveness is associated with a fear of losing possessions as well as control over them. Non-generosity is closely related to possessiveness, but it refers more directly to reluctance and aversion to sharing and lending possessions to others. Finally, envy refers to the individual's desire for other people's possessions and even very negative feelings towards the people owning those desired objects. (Belk, 1985)

Despite varied academic definitions and perspectives, materialism is generally seen as a quite stable personality trait as well as having a negative influence on a person's long-term well-being and happiness (Belk 1985 ; Shrum et al. 2014). But although the negative effects of materialism are more often presented in literature and media (Belk 1985 ; Richins & Dawson 1992), there are also some possibly positive consequences that are seldom focused on. Shrum et al. (2014) address these positive aspect of materialism in their research. According to their experimental research, materialistic behavior can occasionally, under certain conditions lead to at least short-time benefits and help attain objectives. For example individuals may experience actual subjective increase in their well-being and happiness through consumption (e.g. when buying luxury items) or altruistic behavior can simultaneously serve a signaling function to the outside world as well as help the society. (Shrum, et al., 2014)

It will be interesting to find out whether the users of the Facebook recycling groups score high on the materialism scale. On the one hand it could be assumed, that materialistic people are not so keen on using this kind of service as they prefer to maintain control over their possessions, and thus would be unlikely to borrow or sell their belongings in these groups. On the other hand, there could be users

who enjoy the convenient access to a large selection of items and embrace their materialistic traits through active acquisition.

While materialists represent a certain group of consumers, very different attitudes can be detected in other parts of the population. In the next chapter the concept of a liquid relationship to possessions is discussed. Compared with materialists, people with liquid relationship to possessions have almost opposite approaches and attachments to belongings and material goods.

2.3 Liquid relationship to possessions

Since Belk's (1988) research on the extended self, there has been a consensus in the academic community arguing that possessions are central to individual's identity projects. We consider our possessions as parts of ourselves, either intentionally or unintentionally, and thus strong and long-lasting attachments towards them are formed (Belk 1988 ; Bardhi et al. 2012). But while the world changes and even Belk (2014) himself states that identity can be constructed on what we can access instead of ownership (Belk, 2014), Bardhi et al. (2012) introduce the idea of liquid relationship to possessions.

In the context of modern global nomadism which they researched, the relationship towards objects is suddenly very different. Today's globalized world is turning increasingly liquid to many people, making attachment to things tricky. (Bardhi et al., 2012) Fast-moving, even more liquid society might explain the recent success of different access models and rental options. They are flexible and easily adaptable compared with long-term ownership. (Bardhi & Eckhardt, 2012) When the relationship to possessions is liquid, attachment is temporary and situational, instrumental use-value is emphasized, and immateriality and "lightness" of objects and consumption are appreciated. (Bardhi et al., 2012)

The notion of liquid relationship to possessions is interesting because the feeling of attachment to objects affects our willingness to share. As opposed to those who have a liquid relationship to possessions, people are less eager to share things when the emotional bond to the item is strong. As discussed in the previous chapter, it is argued that materialistic individuals develop self-identity by extension to possessions are thus less willing to share. They seek happiness in possessions. (Belk 2007 ; Belk 2010)

One of the contributions I wish to make with my research is to create a new scale based on the Bardhi et al. (2012) study on the liquid relationship to possessions. This new scale is introduced later on in

the methodology chapter of the thesis. Next, the three aspects of liquid relationship to possessions, which all facilitate people's mobility, are briefly introduced.

2.3.1 Situational value

As the attachment to possessions is temporary and situational, the relationship to an object and the meanings attached to it do not transfer over time and space. Instead, the attachment is limited and re-evaluated in each situation, e.g. when moving to a new place. In the conditions of continuous change, this impermanence of attachment creates flexibility and eases adaptability. (Bardhi et al., 2012) On the contrary, if the relationship to possessions is not liquid the opposite is true. The original theory of the extended self suggests, that we use our possessions to store our memories and feelings from our past and link our belongings to past experiences (Belk, 1988).

2.3.2 Use-value

Appreciating the instrumental use-value of an object refers to acknowledging its functional properties. Use-value stays more constant even if transferred across cultures, than e.g. symbolic value. When an individual appreciates objects for their functionality and features such as durability, light weight and flexibility, parting with them is also easier and does not evoke great sentiment of personal loss. (Bardhi et al., 2012) Items are just items, and a lost object can be replaced with a similar new one bought from the store. Where as liquid relationship to possessions suggests that all items can be replaced, those with a more conventional relationship to their belongings may feel very negative feelings if they unintentionally lose something. The theory of the extended self explains that this can be due to feeling of lessening of self as the lost items were part of the individual's sense of self (Belk, 1988).

2.3.3 Immateriality

The final aspect of liquid relationship to possessions discussed by Bardhi et al. (2012) is appreciating objects for their immateriality. Again value is detected in objects that are light and portable, and of course literally immaterial i.e. in a digital format. People with liquid relationship to possessions thus prefer e.g. e-books over hard-covers and mp3 music over CDs. Pictures are appreciated when they are in a digital format stored on the computer rather than hanging framed on the walls. The benefits associated with virtual versions of the products include for example the ease of storing and carrying them with you. (Bardhi et al., 2012)

The next section of the thesis focuses on discussing the methodological questions related to the empirical research.

3. Methodology

The theoretical background presented in the previous chapter of the thesis was constructed through an extensive literature review. Relevant secondary data was found for example from academic journal articles, newspapers, and webpages. Additional insights stemmed from the researcher's personal experience. This third chapter of the thesis focuses on describing the collection of the primary data and introducing the chosen data analysis methods.

3.1 Research paradigm

The chosen research paradigm for this study is post-positivism, which suits the quantitative nature of the thesis well. Ontological assumptions are made about the nature of reality and how it is perceived. In quantitative research, such as this one, it can be assumed that the social world exists as a separate, objective reality. This kind of objective ontological assumption suggests, that reality exists independently outside the knower, i.e. myself as the researcher. However, as post-positivism is a reformed version of positivism, it is also argued that knower and the known cannot be completely separate. Still, in order to gain understanding about the reality, although it cannot be done perfectly, rigorous data collection and analysis should be applied. (Eriksson & Kovalainen, 2008)

Central to both positivist and post-positivist research design is a desire to generate findings from representative samples that could be further generalized to a larger population. Theory is used to develop as consistent and as unbiased measurements as possible, and continuous attempts to improve them are made to develop them in terms of reliability and validity. (Malhotra, Birks, & Wills 2012, 196)

Questions related to epistemology describe how knowledge is produced and what its limits are. In this research, empiricism is chosen as the main approach as it is closely linked with positivism and it assumes that observable material things constitute reality. (Eriksson & Kovalainen, 2008)

3.2 Data collection and sample description

The primary data was collected during the day of 10th and in the morning of 11th of March 2015. A link to an online survey was posted to four chosen Facebook recycling groups in order to narrow down the sample population to the current members of the recycling communities. The chosen groups were *Arabianranta kierrättää* ('Arabianranta recycles', 6594 members on 11th of March), *Arabianranta kierrättää – lastenvaattet ja -tarvikkeet* ('Arabianranta recycles – children's clothing and equipment', 2814 members), *Kallio kierrättää* ('Kallio recycles', 23 333 members), and

Punavuori kierrättää ('Punavuori recycles', 6 227 members). All of them are local recycling groups operating in Helsinki and require that business must be conducted in a certain geographical area. In the first two groups a message containing the link to the survey was pinned on top of the page by the administrators. This way it stayed on top of the page despite the numerous ads posted on the site the same day. Instead, in the two other groups the call for action was posted the same way as the rest of the ads are posted on these sites. This enabled including a photo to attract attention, but simultaneously the message was moving fast towards the bottom of the page. As an external incentive, the possibility to win two movie tickets was offered to the respondents. The tickets were raffled among those who left their contact information at the end of the survey.

Anyone who saw my post on these sites was able to access the survey. The sampling method was thus non-random as convenience sampling was used. This must be considered as a limitation of the study and sampling error cannot reliably be quantified. Unfortunately it is also impossible to determine a response rate, as there is not a way to find out how many people saw the post. Eventually altogether 443 completed responses were received. One response was excluded as the respondent reported in a control question that she had not conducted any transactions through the group in the past nor does she intend to do so in the future. This respondent did not leave any open comments at the end of the survey either, which could have explained if she had the intention to do free-of-cost recycling on the site. This control question was used in order to make sure that the final sample included only active or potential online recyclers. Thus, the final number of responses used for the analysis was 442.

The survey started with a number of demographic questions in order to facilitate the categorization of respondents. It should be noted that it is typical for all survey research to have a concern with the representativeness of the sample. Sometimes even the best of academic research struggles with significant demographic biases. (Krosnick, 1999) In this study, e.g. the gender division of the sample is highly uneven with 95 % of respondents being women. Although women are a large majority in the recycling groups, the male underrepresentation should be considered as a limitation of the study.

Majority of the respondents are young adults, 62.3% of the respondents were aged below 31 years. This age distribution is not very surprising considering that the platform studied is Facebook. Only 7 people reported to be under-aged (below 18 years old, 1.6 % of all respondents), which might partly be explained due to the age limit of 18 in some of the groups. Educational backgrounds are varied and rather evenly distributed. Roughly one third (29.2 %) has gone to upper secondary or vocational school, one third has a bachelor's degree (33.5 %) and one third (29.9 %) a master's degree.

The vast majority of the respondents are very active users of the groups. The visit frequency to the site is high; more than a quarter (27.6 %) of the respondents visit the page several times a day, while 43.7 % of the respondents reported that they visit the page daily. A large majority (81.3 %) of the respondents has conducted a transaction of some sort through the site and more than half of the respondents (54.8 %) has both sold and bought items through the page. All of the respondents included in the study report the intention and interest to do business on the site in the near future.

While the sample is usable for the purposes of this study, the results of the study cannot be generalized to make assumptions about the general public as it cannot be assumed that the respondents are representative of all the users of all online recycling groups. The demographic characteristics of the survey respondents are presented below, in Table 3.

Table 3. Demographic characteristics of the respondents

		Frequency	
		Absolute	Relative (%)
Gender	Male	22	5.0
	Female	420	95.0
Age	Below 25	150	33.9
	26-30	125	28.3
	31-35	68	15.4
	36-40	42	9.5
	41-45	20	4.5
	Over 45	37	8.4
Educational background	Secondary school	28	6.3
	Upper secondary / vocational school	129	29.2
	Bachelor's degree	148	33.5
	Master's degree	132	29.9
	Other	5	1.1
Visit frequency on the site	Several times a day	122	27.6
	Daily	193	43.7
	A few times per week	80	18.1
	Weekly	30	6.8
	A few times per month	9	2.0
	Less often	8	1.8
Usage of the site	Has both bought and sold items.	242	54.8
	Has mainly sold items.	35	7.9
	Has mainly bought items.	82	18.6
	Hasn't yet been active but wants to sell items in the future.	11	2.5
	Wants to buy items in the future.	7	1.6
	Wants to sell and buy items in the future.	65	14.6

3.3 Survey development and measures

The survey was constructed based on a literature review and relevant constructs were identified from previous research. Most of the constructs come from Ozanne and Ballantine's (2010) quantitative research where they study the users of toy libraries and identify different groups of participants. Their focus is on studying whether sharing is a form of anti-consumption. The second important influencer is the qualitative study by Albinsson and Perera (2012) which focuses on studying collaborative consumption and sharing in alternative marketplaces. In their study they emphasize the community building aspects of collaborative consumption. The third major source of inspiration for this study was the article by Moeller and Wittkowski (2010). They identify six possible determinants which they use to assess consumer preferences for renting instead of buying with quantitative methods. Finally, the study about liquid relationship to possessions by Bardhi et al. (2012) was used to build a new scale for this research. Thus, the final eight scales chosen for this research are a combination of the measures presented in the before mentioned inspirational articles. Table 4 summarizes the constructs from previous studies where they were recently used.

Table 4. Scales chosen for this research

Chosen scales for this research	Previous research	
	Authors	Construct label
Sharing	Ozanne & Ballantine (2010) ; Albinsson & Perera (2012)	"Sharing"
Liquid relationship to possessions	Bardhi et al. (2012)	n/a
Materialism	Moeller & Wittkowski (2010) ; Ozanne & Ballantine (2010)	"Importance of possessions" ; "Materialism"
Anti-consumption	Ozanne & Ballantine (2010)	
Green consumer values	Moeller & Wittkowski (2010)	"Environmentalism"
Community building	Ozanne & Ballantine (2010) ; Albinsson & Perera (2012)	"Community building"
Enjoyment	Moeller & Wittkowski (2010)	"Experience orientation"
Frugality	Moeller & Wittkowski (2010) ; Ozanne & Ballantine (2010)	"Price consciousness" ; "Saving money"

All items of the eight constructs in the survey used a 7 point Likert scale, anchored from 1=strongly disagree to 7=strongly agree, and some of the items were reverse scaled. The survey was pretested by presenting it to a number of peers and the thesis supervisor. Based on their comments some minor changes and adjustments were made. As the original items were in English, the survey needed to be carefully translated into Finnish with great attention to details.

Next the eight constructs and the appropriate scales used in the study are briefly described.

Sharing

The sharing construct was adapted from the 8-measure scale that Ozanne and Ballantine created for their study (2010). The original scale is based on the work of Belk (2007 ; 2010). Ozanne and Ballantine only reported 5 out the 8 original items, and those were adapted from the toy sharing context to the Facebook recycling groups. For example the original item “Whenever possible I share toys rather than buy them” was adapted to the form “Whenever possible I share or borrow things rather than buy them”.

Materialism

The materialism construct was measured using the 9-item version of the scale developed by Richins (2004). This shorter version of the original 18-item scale (Richins & Dawson, 1992) covers the identified three aspects of materialism; the role of possessions in defining success, acquisition centrality, and the role of acquisition in the pursuit of happiness. Although even a shorter scale would have been appreciated for reasons of convenience, the 6-item version was not used as its viability as a measure of materialism would need further testing (Richins, 2004).

Anti-consumption

Similarly to Ozanne and Ballantine (2010), the anti-consumption construct was adapted from the 8-item scale developed by Iyer and Muncy (2009). One of the original items “ ‘Waste not, Want not’ is a philosophy I follow” was excluded from the study as an appropriate equivalent from the Finnish language to this English proverbial saying, referring to wise use of resources and advising someone not to waste anything as they might need it in the future, could not be found.

Green consumer values

As positive environmental effects are closely related to the concept of collaborative consumption, green consumer values were chosen to be one of the studied constructs. Moeller and Wittkowski (2010) studied the same theme under the label ‘environmentalism’. To measure this construct, a 6-item scale was adapted from Haws, Winterich and Naylor (2010). The scale measures the extent to which individuals express the value of environmental protection through their consumption behaviors. (Haws et al., 2010)

Frugality

While Moeller and Wittkowski (2010) labelled the construct used in their study as price consciousness, this study decided to include a frugality construct to the survey. Similar to Ozanne and Ballantine (2010), the 8 items of the construct come from the original study by Lastovicka et al. (1999) where they developed a scale to measure frugality.

Community building

Albinsson and Perera (2012) found that sharing events were a means of community building. Similarly to Ozanne and Ballantine (2010), this research adapted the community building construct from the original Brief Sense of Community Scale (BSCS) developed by Peterson, Speer, and McMillan (2008). The original items referred to neighborhoods, but their terminology was revised to fit the online recycling group context better.

Enjoyment

Moeller and Wittkowski (2010) tested a hypothesis according to which experiencing consumption as a source of entertainment and enjoyment would have a positive influence on a consumer's preferences for non-ownership modes of consumption. Similarly, Van der Heijden (2004) demonstrated that for hedonic information systems, the perceived enjoyment was an important predictor of behavioral intention. The enjoyment construct was adapted from Van der Heijden's (2004) study and measured using a 7-point Likert scale. This time the two extremes of the scale were positive (7) and negative (1) adjectives, for example "Using the Facebook recycling groups is 7 = enjoyable ... 1 = disgusting".

The complete survey can be found in Finnish in Appendix A.

3.3.1. Developing a new scale for liquid relationship to possessions

Specifically for the purpose of this study a new 6-item scale to capture the construct of liquid relationship to possessions (see Table 5) was developed. The scale is constructed based on the research by Bardhi et al. (2012). As mentioned before (in chapter 2.3) there are three key elements that characterize liquid relationship to possessions. The elements are appreciation of items based on their situational value, use-value, and immateriality. For the survey, I developed two questions addressing the situational value, three questions to describe the use-value, and one measuring the respondent's attitude towards the immateriality of goods.

Table 5. Description of indicators for liquid relationship to possessions

Latent variable	Indicator	Criterion	Description
Liquid relationship to possessions	LRP1	If I were to move abroad, I would take with me important items which remind me of home.	Situational value. As attachment to an item is temporary and situational, meanings do not transfer over time and space
	LRP2	Some items that I've had for years have a strong meaning for me.	Situational value. Memories are not stored in things and items are not kept for years just for sentimental reasons.
	LRP3	All items I own must have a clear functional purpose.	Use-value. Instead of symbolic value, items are valued for their functionality.
	LRP4	I rarely buy things only for pure pleasure.	Use-value. Items are valued for their functionality.
	LRP5	If all my belongings were destroyed in a fire, I would not mind as long as everything was replaced by the insurance company.	Use-value. As items are valued for their functionality, disconnecting with them is easier without feeling personal loss. Everything can be replaced.
	LRP6	I prefer electronic versions of e.g. books, movies or music over physical products.	Immateriality. Items are appreciated for their immaterial characteristics.

3.4 Statistical analysis methods

To analyze the collected data, two multivariate data analysis methods were chosen. First, factor analysis was conducted to reduce the number of variables. It was also used to determine underlying structures of motivations to use the recycling groups and to find out whether they correspond to the pre-determined suggested structures. Second, cluster analysis was conducted based on the factors obtained from the factor analysis. The clustering was done in order to categorize the users of the recycling sites in distinct groups and identify diverse profiles based on the motivations of the respondents. To further illustrate and describe the profiles, cross tabulations and analysis of variance were used to support the analysis. Next, the main methods of analysis are introduced and questions related to the validity and reliability of the study are addressed.

3.4.1 Factor analysis

Factor analysis refers to a category of multivariate analysis procedures mainly used to reduce and summarize data. It is very useful when the number of variables is large and the goal is to reduce them to a level that is easier to manage. (Malhotra et al. 2012, 774) It is also a useful tool when the relationships between variables are complex and multidimensional as it identifies underlying patterns and helps to condense the information (Hair et al. 2006, 101).

Factor analysis examines interdependencies among the entire set of variables and does not distinguish among dependent or independent variables, unlike methods of analysis such as ANOVA or multiple regression (Malhotra et al. 2012, 774).

The main purpose of factor analysis is to identify the underlying structures that explain the correlations among the variables (Malhotra et al. 2012, 774). The variables are grouped together into factors, so that that a strong correlation exists among the items within each of the factor, but the correlations between variables in other factors should be weak.

When the variables are standardized, the mathematical representation of the model is the following;

(1)

$$X_i = A_{i1}F_1 + A_{i2}F_2 + A_{i3}F_3 + \dots + A_{im}F_m + V_iU_i$$

Where

X_i = i th standardised variable

A_{ij} = standardised multiple regression coefficient of variable i on common factor j

F = common factor

V_i = standardised regression coefficient of variable i on unique factor i

U_i = the unique factor for variable i

m = number of common factors

(Malhotra et al. 2012, 775)

Correspondingly the individual common factors can be mathematically represented as linear combinations of the observed variables;

(2)

$$F_i = W_{i1}X_1 + W_{i2}X_2 + W_{i3}X_3 + \dots + W_{ik}X_k$$

Where

F_i = estimate of the i th factor

W_i = weight or factor score coefficient

k = number of variables

(Malhotra et al. 2012, 776)

Data requirements for conducting factor analysis include that the input variables should be measured on an interval or ratio scale and stem from past research and be subject to the researcher's judgement (Malhotra et al. 2012, 778). In this study, a seven-point Likert scale was used for all the variables, derived from previous research, making the data suitable for this type of analysis.

To test the suitability of the factor model, two formal statistics can be applied. First, Bartlett's test of sphericity is used to confirm that the null hypothesis, that the variables are not correlated, can be rejected. Second, the Kaiser-Meyer-Olkin statistics are studied to make sure that correlations between pairs of variables can be explained by other variables. When both of these are in order, factor analysis is appropriate. (Malhotra et al. 2012, 778)

In addition, questions concerning adequate sample size needed to be addressed. Recommendations for an appropriate sample size vary in literature. However, often a sample size of 100 observations is considered as the minimum. In addition to the approximate absolute number of observations, it is recommendable to pay attention to the subjects-to-variables ratio. As a rule, the sample size should be at least five times as large as there are variables, and maximizing the ratio is advised. (Hair et al. 2006, 112) In this research, the minimum requirements are exceeded. The original sample included 443 observations and there were 53 items in the original survey. Thus, the subjects-to-variables ratio is 8.33 : 1, which can be considered very satisfactory. Furthermore, after the necessary eliminations (discussed in more detail later, in chapter 4.1) the final analysis was done with 442 observations and 47 variables, giving an even better ratio of 9.4 : 1.

Criteria for determining the number of computed principal components should be selected when conducting factor analysis. It is possible to have up to as many factors as there are variables, but that would not serve any data reduction purpose. (Malhotra et al. 2012, 782) Thus, for this research the most commonly used technique, the latent root criterion was chosen. This method considers only factors with eigenvalues greater than 1.0 significant. The eigenvalue criterion is considered to be most reliable when the number of variables is between 20 and 50. (Hair et al. 2006, 120)

In order to obtain an output which is theoretically more meaningful and more easily interpreted, rotating the factor matrix is recommended (Malhotra et al. 2012, 784). Factor rotation leads to significantly simpler factor solution by redistributing the variance from earlier factors to later ones, making the results more comprehensible (Hair et al. 2006, 123). This study employs an orthogonal rotation method, the varimax procedure. Orthogonal rotational methods are most commonly used and

they suit well research which aims at data reduction to obtain new variables for further multivariate analysis, in this case cluster analysis (Hair et al. 2006, 127).

Finally, factor loadings are important in order to understand and interpret the essence of a particular factor. The loadings represent the correlation between the original variable and the factor. (Hair et al. 2006, 102) In general factor loading of $\pm .40$ can still be deemed minimally acceptable, but loadings exceeding $\pm .50$ are recognized as necessary for practical significance (Hair et al. 2006, 129) and thus $.50$ was considered as a threshold value in this research.

3.4.2 Cluster analysis

Cluster analysis, also called “classification analysis” or “numerical taxonomy”, aims to assign similar cases or objects into separate groups (Malhotra et al. 2012, 803). Objects in each group, i.e. cluster, are more similar to one another than to objects in other clusters. The clusters help to illustrate underlying natural structures of the observations based on their multivariate profile. (Hair et al. 2006, 555)

In marketing, cluster analysis can be applied to serve several purposes. It is for example used to segment the market, understand buyer behavior, and for general data reduction. (Malhotra et al. 2012, 804) Like factor analysis, cluster analysis helps researchers to reduce their data, but instead of reducing the number of variables, the number of objects is condensed. (Malhotra et al. 2012, 802).

In this study, cluster analysis was used to identify homogenous groups of consumers who have similar motivations to use the Facebook recycling groups. The cluster analysis was conducted for the factors obtained from the factor analysis. This way both the data was reduced to a more manageable level and the results were easier to interpret.

The selected clustering procedure for this study was the non-hierarchical *k*-means clustering. The algorithm uses the Euclidean distance, which is the most common measure of similarity. It means “the square root of the sum of the squared differences in values for each variable”. (Malhotra et al. 2012, 807) Non-hierarchical clustering methods require that the number of clusters is pre-determined (Hair et al. 2006, 589). Thus, several cluster solutions were tested before deciding on the most suitable one. The procedure is described in more detail in chapter 4.2.

3.5 Validity and reliability

When conducting research, it is crucial that the validity and reliability issues are addressed. They need to be in order, otherwise analysis or any conclusions drawn from the study are compromised.

Validity refers to the extent to which a measurement represents accurately the phenomenon of interest (Malhotra et al. 2012, 436). In other words, the chosen research methods, including the used scales, need to measure what they are intended to measure. The validity of this research is strengthened by the fact that both the research methods as well as the scales, excluding the one created for the purposes of this study, are all derived from existing literature and previous research has tested and validated the used scales. Also, as described earlier, the translation of the survey was done carefully and choices of wording were considered thoroughly and altered based on the pre-test in order to ensure the correct understanding of the Finnish respondents. This and rigorous data analysis methods helped to avoid response errors, both deriving from the researcher as well as the respondents. As the question batteries were adapted from previous research, there was also some concern that respondents would be giving slightly biased answers due to the pre-grouping of the questions. Yet, it was estimated that based on previous research, the effect would not be critical, especially because factor analysis would be conducted to regroup the items afterwards. In addition, grouping the questions was determined to be beneficial in terms of the readability of the survey, thus increasing respondents' likelihood to complete the whole questionnaire. The actions that were taken all strengthen the validity of the research.

While validity focuses on how well the concept is defined by the measures, reliability is concerned with the consistency of the measures (Hair et al. 2006, 103). Basically if the measurements are repeated, a reliable scale should produce similar results each time. Some issues concerning reliability arise from the online format of the survey, the sampling method, and not being able to determine the response rate or the sampling error. Not only moderating and controlling the situational factor was not possible, but also it is possible that the used sample is an imperfect representation of the population i.e. the Facebook recycling group users. Thus, the results should be interpreted carefully and no wide generalizations should be made. These are considered as limitations of the study. Still, the study fulfills its main purpose and provides important insights about the motivations of respondents to participate in one form of collaborative consumption.

In this study, reliability is approached through internal consistency reliability, which examines the consistency among the items forming each summated scale. The common measure of internal consistency reliability, the coefficient alpha (also known as Cronbach's alpha) is adopted to this

study. It represents the average of all possible split-half coefficients emerging from different ways of splitting the scale items. When calculating the coefficients for each factor, a commonly accepted minimum threshold value of .60 was used as a reference for satisfactory internal consistency reliability. (Hair et al. 2006, 102 ; Malhotra et al. 2012, 433-434)

4. Data Analysis and Results

The data was collected through a survey and analysis software Webpropol, from where it was easily transferred first to Microsoft Excel 2013 and further to IBM SPSS Statistics 22. The SPSS software was used to perform the statistical analyses once the data had been modified to a suitable format.

4.1 Factor analysis

4.1.1 Initial analysis

Principal components factor analysis was run for the motivations to participate in collaborative consumption through the Facebook recycling groups. The motivations were measured with 53 items on a 7-point Likert scale. The first step was to confirm whether the sample and the variables were suitable for factor analysis. This was done with Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy.

The Bartlett's test indicated high statistical significance ($p = .000$) and the null hypotheses could be rejected. In addition, the KMO value was .874, indicating further suitability of the data for factor analysis. Both values can be considered to be very good, as the desired reference values for each test are $< .05$ and $> .500$ respectively (Malhotra et al. 2012, 777).

The Cronbach's Coefficient Alpha was used to test the internal consistency reliability of the scales (see Table 6). As assumed, each of the scales adopted from previous literature had excellent alpha values, all well above the recommended .600 (Malhotra et al. 2012, 434). The scale developed by the researcher however, had a slightly poorer alpha value of .534 and should thus be used and interpreted cautiously.

Table 6. Cronbach's Alpha values for the original constructs

Construct	Cronbach's Alpha	N of items
Sharing	0.745	5
Liquid relationship to possessions	0.534	6
Materialism	0.838	9
Anti-consumption	0.778	7
Green consumer values	0.930	6
Community building	0.913	8
Enjoyment	0.892	4
Frugality	0.793	8

Due to the relatively low Cronbach's Alpha value for the LRP scale, the individual items of the scale and their role were inspected in more detail. It was discovered that the Alpha value could be improved slightly from .534 to .577 by excluding the item LRP6 "I prefer electronic versions of e.g. books, movies or music over physical products". Alternatively, if any other item would be deleted from the scale, their influence to the Cronbach's Alpha value would be negative and it would deteriorate even further.

In order to further examine if the LRP6 truly was a poorly fitting item for the scale, a principal component factor analysis was conducted for the individual LRP scale. The communalities (h^2) value of .064 showed, that the item LRP6 had little in common with the other items on the scale (see Table 7 below). Thus, the decision was made to exclude the item from the rest of the analysis. It seemed that this item did not measure the liquidity of the relationship towards possessions, but rather the preference for electronic and immaterial products stems from some other motivation, e.g. from technology orientation or personal preferences.

Table 7. Communalities for the LRP scale

Communalities	Communality
LRP1. If I were to move abroad, I would take with me important items which remind me of home. (R)	.669
LRP2. Some items that I've had for years have a strong meaning for me. (R)	.726
LRP3. All items I own must have a clear functional purpose	.694
LRP4. I rarely buy things only for pure pleasure	.664
LRP5. If all my belongings were destroyed in a fire, I would not mind as long as everything was replaced by the insurance company	.530
LRP6. I prefer electronic versions of e.g. books, movies or music over physical products	.064
(R) = item reverse scaled	

Following the decision, the principal components factor analysis was run again, now with the remaining 52 items. The KMO value was slightly better than before (.876) and the Bartlett's test highly significant ($p = .000$).

The principal components factor analysis resulted in twelve factors. Considering the complexity of further analysis and interpretation of the results, this was considered as quite a lot. Yet, as the number of variables exceeded 50, a large number of extracted factor was not surprising (Hair et al. 2006, 120). The chosen extraction method for the analysis was the eigenvalue criterion and thus only factors with eigenvalues higher than 1.0 were accepted. The percentages of total variance that each factor explained are reported in Table 8. Together the twelve factors explained 66.43 % of the total variance.

Table 8. Variance explained by the initial factors

Factor	% of total variance explained
F1	19.91
F2	12.18
F3	6.19
F4	5.14
F5	4.59
F6	3.67
F7	3.10
F8	2.70
F9	2.56
F10	2.40
F11	2.08
F12	1.93
Total	66.43

The initial results of the principal components factor analysis are presented in Table 9. The table also includes the factor loadings, communalities, and Cronbach's Alpha values.

Table 9. Initial results of the principal components factor analysis

Factor	Item	Factor loading	h²	Cronbach's Alpha	Based on	
F1	GCV3	My purchase habits are affected by my concern for our environment	.846	.794	.922	Haws et al. (2010)
	GCV2	I consider the potential environmental impact of my actions when making many of my decisions.	.844	.778		ibid.
	GCV5	I would describe myself as environmentally responsible	.820	.743		ibid.
	GCV6	I am willing to be inconvenienced in order to take actions that are more environmentally friendly	.808	.714		ibid.
	GCV1	It is important to me that the products I use do not harm the environment	.799	.729		ibid.
	AC2	I make specific efforts to buy products made out of recycled material	.722	.607		Iyer & Muncy (2009)

	GCV4	I am concerned about wasting the resources of our planet	.717	.711		Haws et al. (2010)
	AC3	I try to recycle as much as I can	.660	.513		Iyer & Muncy (2009)
	AC1	Given the choice, I would rather buy organic food	.599	.445		ibid.
	AC5	We must all do our part to conserve	.536	.591		ibid.
F2	CB4	I feel I belong in this group	.849	.830		Peterson et al. (2008)
	CB7	I feel connected to this group	.840	.801		ibid.
	CB3	I feel like a member of this group	.836	.803	.915	ibid.
	CB5	I have a say about what goes on in this group	.791	.658		ibid.
	CB8	I have a good bond with others in this group	.758	.638		ibid.
	CB6	People in this group are good at influencing each another	.706	.568		ibid.
F3	EN4	Using the Facebook group is interesting	.793	.765		Van der Heijden (2004)
	EN3	Using the Facebook group is pleasant	.784	.760	.982	ibid.
	EN1	Using the Facebook group is enjoyable	.776	.784		ibid.
	EN2	Using the Facebook group is exciting	.773	.735		ibid.
F4	FR7	I am willing to wait on a purchase I want so that I can save money	.801	.692		Lastovicka et al. (1999)
	FR8	There are things I resist buying today so I can save for tomorrow	.775	.670	.813	ibid.
	FR6	I discipline myself to get the most from my money	.718	.734		ibid.
	FR5	I believe in being careful in how I spend my money	.662	.686		ibid.
F5	MS2	The things I own say a lot about how well I'm doing in life	.773	.655		Richins (2004)
	MS3	I like to own things that impress people	.768	.687		ibid.
	MC3	I like a lot of luxury in my life	.670	.635	.794	ibid.
	MS1	I admire people who own expensive homes, cars, and clothes	.554	.588		ibid.
	MC2	Buying things gives me a lot of pleasure	.466	.567		ibid.
F6	SH5	Whenever possible I share or borrow things rather than buy them	.710	.667		Ozanne & Ballantine (2010)
	SH4	I try to share things outside Facebook	.699	.550	.745	ibid.
	SH3	I do not like the idea of sharing objects. (R)	.686	.577		ibid.
	SH2	I would rather share items through the Facebook group than buy them at the store	.632	.618		ibid.
	SH1	I believe sharing is an important skill to learn in life	.566	.500		ibid.
F7	MH3	It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like	.823	.728		Richins (2004)
	MH2	I'd be happier if I could afford to buy more things	.818	.804	.839	ibid.
	MH1	My life would be better if I owned certain things I don't have	.816	.751		ibid.
F8	FR2	There are many things that are normally thrown away that are still quite useful	.733	.644		Lastovicka et al. (1999)
	FR1	If you take good care of your possessions, you will definitely save money in the long run	.686	.556	.728	ibid.

	FR4	If you can re-use an item you already have, there's no sense in buying something new	.603	.617		ibid.
	FR3	Making better use of my resources makes me feel good	.557	.529		ibid.
F9	LRP3	All items I own must have a clear functional purpose	.802	.683		Kymäläinen (2015)
	LRP4	I rarely buy things only for pure pleasure	.680	.600	-.353	ibid.
	MC1	I try to keep my life simple, as far as possessions are concerned. (R)	-.607	.529		Richins (2004)
F10	LRP1	If I were to move abroad, I would take with me important items which remind me of home. (R)	.820	.693		Kymäläinen (2015)
	LRP2	Some items that I've had for years have a strong meaning for me. (R)	.804	.702	.705	ibid.
	LRP5	If all my belongings were destroyed in a fire, I would not mind as long as everything was replaced by the insurance company	.697	.557		ibid.
F11	AC4	If the world continues to use up its resources, it will not survive	.727	.666		Iyer & Muncy (2009)
	AC6	If we all consume less, the world would be a better place	.628	.632	.669	ibid.
	AC7	Most people buy way too many things that they really don't need	.550	.515		ibid.
F12	CB1	I can get what I need in this group	.714	.793		Peterson et al. (2008)
	CB2	This group helps me fulfill my needs	.666	.755	.866	ibid.

(R) = Item reverse scaled
SH = sharing, LRP = liquid relationship to possessions, MC = materialism, centrality, MH = materialism, happiness, MS = materialism, success, AC = anti-consumption, GCV = green consumer values, CB = community building, EN = enjoyment, FR = frugality

The results from initial factor analysis presented in the Table 9 include interesting findings which deserve to be inspected in more detail.

Firstly, except for the four-item enjoyment construct and the five-item sharing construct, the initial constructs do not appear perfectly in their original format after the factor analysis. This was to be expected, as the survey was constructed as a combination of several previous studies. From the original eight question batteries, twelve constructs have emerged. Albeit this is the case, and actual data summarization and reduction goals were not met, the constructs seem logical and most of the items form coherent ensembles.

Some of the original sets of items have also been split into two or more factors as a result of the analysis. This indicates, that the original scales represented multiple dimension of the same phenomenon which they measure. For example the scale developed to measure materialism had originally three aspects; centrality, happiness, and success. Those items have dispersed away from one another in the analysis to F5, F7, and F9.

Similarly, the anti-consumption scale items have been divided to factors F1 and F11. The first component F1 has the items of the green consumer values in it as well. Iyer and Muncy (2009) who created the anti-consumption scale identified the disproportionate number of questions concentrating on environmental issues as a limitation of their study. This outcome of the factor analysis is thus not surprising, instead it confirms the observation made in the original study. The two dimensions present in the anti-consumption scale seem to be items related to individual's own behavior on behalf of the environment (F1) and more general statements concerning opinions about the planet's resources and recycling (F11). This further confirms the findings by Iyer and Muncy (2009), which indicated that some people engage in anti-consumption due to societal concerns while others are motivated by more personal reasons. Motivations for anti-consumption can reflect both a more personal "I" perspective as well as a more general "we" perspective. (Iyer & Muncy, 2009)

Following a similar logic of several dimensions, items originating from the frugality scale have been split to components F4 and F8. The four items included in the F4 are related to spending money where as the four items in F8 reflect the recycling dimension of frugality more. The community building scale had six items in construct F2 and the final two items form the construct F12. Again, this would support the assumption that the construct of community building has two dimensions, one reflecting camaraderie and belonging, the other more focused on needs and their fulfillment.

Finally, the scale meant to measure liquid relationship to possessions developed for the purposes of this research has also been de-constructed. Three of the original items stayed together in F10, while two were paired with a materialism item in F9.

After careful consideration, for the sake of simplifying the analysis and reducing data, I decided that the two community building items of F12 are to be excluded from further analysis. Although they might represent a second dimension of the community building, it is decided that in this research it is enough to examine only the other dimension, represented by six items in F2.

When the Cronbach's Coefficient Alphas for the twelve constructs are inspected, all of them except for F9 are acceptable and above the recommended .60 (Malhotra et al. 2012, 434). Considering the factor loading of individual items, MC2 had a rather low value of .466, which is still minimally acceptable, but should be interpreted with care.

4.1.2 Final analysis

As discussed in the previous chapter, the initial principal component factor analysis created 12 constructs. Despite their apparent logical composition the pursuit of simplicity led to the elimination of F12. Several other adjustments were also made, which eventually led to a simpler, and easier-to-interpret, final ten factor solution. The iterative process is described below.

In consequence of eliminating F12, the principal components factor analysis was ran again several times, before the final ten factors were found. This had an impact on both the composition and the number of the factors as well as the corresponding factor loadings. During the iterative process, two items LRP3 “All items I own must have a clear functional purpose” and MC1 “I try to keep my life simple, as far as possessions are concerned” were rejected due to not loading over the set threshold value of $\pm .50$. In addition, the item LRP4 “I rarely buy thing only for pure pleasure” was grouped with items measuring frugality. To fit the construct better, the item was reverse scaled before the principal components factor analysis was ran once again.

As a result of several rounds of principal component analysis, ten constructs emerged with either good or excellent Cronbach’s Alpha values. The only remaining problem was with the before-mentioned factor containing the frugality items and LRP4, as its Cronbach’s Alpha value was only .508. After more detailed investigation, it was concluded that removing the item LRP4 would improve the Alpha value from .508 (poor) to .813 (excellent). Thus, as a final adjustment, it was decided to exclude also the item LRP4 from the analysis. This was further reasoned by the fact that the item was originally meant to measure liquid relationship to possessions, not frugality. Yet, it did not fit in the factor with the rest of the LRP items, and its current position was just making the frugality scale less reliable.

Finally, after excluding the item LRP4, otherwise similar ten factors were obtained as in the preceding phase, yet the key figures were better. Together these ten constructs explain 65.09 % of the total variance. The percentages of total variance that each factor explains are reported in Table 10. The KMO value (.878) and Bartlett’s test value ($p = .000$) remained excellent for the remaining 47 items. The final ten factors with eigenvalues above 1.00 and with variables loadings .50 or higher, emerging after the eliminations are presented in Table 11.

Table 10. Variance explained by the final factors

Factor	% of total variance explained
F1	20.91
F2	12.19
F3	6.79
F4	5.39
F5	4.57
F6	3.98
F7	3.34
F8	2.84
F9	2.61
F10	2.48
Total	65.09

Table 11. Final results of the principal components factor analysis

Factor	Item	Factor loading	h²	Cronbach's Alpha	Based on	
F1	GCV2	I consider the potential environmental impact of my actions when making many of my decisions.	.847	.771	.922	Haws et al. (2010)
	GCV3	My purchase habits are affected by my concern for our environment	.846	.793		Ibid.
	GCV5	I would describe myself as environmentally responsible	.829	.749		Ibid.
	GCV6	I am willing to be inconvenienced in order to take actions that are more environmentally friendly	.808	.714		Ibid.
	GCV1	It is important to me that the products I use do not harm the environment	.789	.719		Ibid.
	AC2	I make specific efforts to buy products made out of recycled material	.712	.593		Iyer & Muncy (2009)
	GCV4	I am concerned about wasting the resources of our planet	.699	.707		Haws et al. (2010)
	AC3	I try to recycle as much as I can	.663	.511		Iyer & Muncy (2009)
	AC1	Given the choice, I would rather buy organic food	.595	.448		Ibid.
	AC5	We must all do our part to conserve	.505	.601		Ibid.
F2	CB4	I feel I belong in this group	.866	.835	.915	Peterson et al. (2008)
	CB3	I feel like a member of this group	.852	.802		Ibid.
	CB7	I feel connected to this group	.846	.810		Ibid.
	CB5	I have a say about what goes on in this group	.790	.654		Ibid.
	CB8	I have a good bond with others in this group	.763	.643		Ibid.
	CB6	People in this group are good at influencing each another	.695	.554		Ibid.
F3	EN1	Using the Facebook group is enjoyable	.792	.787	.892	Van der Heijden (2004)
	EN4	Using the Facebook group is interesting	.788	.754		Ibid.

	EN3	Using the Facebook group is pleasant	.785	.753		Ibid.
	EN2	Using the Facebook group is exciting	.775	.732		Ibid.
F4	MS3	I like to own things that impress people	.781	.686		Richins (2004)
	MS2	The things I own say a lot about how well I'm doing in life	.753	.622		Ibid.
	MC3	I like a lot of luxury in my life	.704	.642	.794	Ibid.
	MS1	I admire people who own expensive homes, cars, and clothes	.593	.580		Ibid.
	MC2	Buying things gives me a lot of pleasure	.543	.507		Ibid.
F5	FR7	I am willing to wait on a purchase I want so that I can save money	.813	.688		Lastovicka et al. (1999)
	FR6	I discipline myself to get the most from my money	.769	.736	.813	Ibid.
	FR5	I believe in being careful in how I spend my money	.723	.685		Ibid.
	FR8	There are things I resist buying today so I can save for tomorrow	.715	.572		Ibid.
F6	SH5	Whenever possible I share or borrow things rather than buy them	.722	.649		Ozanne & Ballantine (2010)
	SH4	I try to share things outside Facebook	.700	.528	.745	Ibid.
	SH3	I do not like the idea of sharing objects. (R)	.684	.523		Ibid.
	SH2	I would rather share items through the Facebook group than buy them at the store	.650	.587		Ibid.
	SH1	I believe sharing is an important skill to learn in life	.556	.408		Ibid.
F7	MH3	It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like	.823	.731		Richins (2004)
	MH1	My life would be better if I owned certain things I don't have	.812	.751	.839	Ibid.
	MH2	I'd be happier if I could afford to buy more things	.811	.805		Ibid.
F8	FR1	If you take good care of your possessions, you will definitely save money in the long run	.722	.568		Lastovicka et al. (1999)
	FR2	There are many things that are normally thrown away that are still quite useful	.718	.625	.728	Ibid.
	FR4	If you can re-use an item you already have, there's no sense in buying something new	.611	.603		Ibid.
	FR3	Making better use of my resources makes me feel good	.534	.501		Ibid.
F9	LRP1	If I were to move abroad, I would take with me important items which remind me of home. (R)	.817	.687		Kymäläinen (2015)
	LRP2	Some items that I've had for years have a strong meaning for me. (R)	.798	.679	.705	Ibid.
	LRP5	If all my belongings were destroyed in a fire, I would not mind as long as everything was replaced by the insurance company	.727	.541		Ibid.
F10	AC4	If the world continues to use up its resources, it will not survive	.715	.638		Iyer & Muncy (2009)
	AC6	If we all consume less, the world would be a better place	.658	.637	.669	Ibid.
	AC7	Most people buy way too many things that they really don't need	.546	.485		Ibid.

(R) = Item reverse scaled

SH = sharing, LRP = liquid relationship to possessions, MC = materialism, centrality, MH = materialism, happiness, MS = materialism, success, AC = anti-consumption, GCV = green consumer values, CB = community building, EN = enjoyment, FR = frugality

To summarize, there are ten different motivational factors that emerged from the data set collected from a sample of users in the Facebook recycling communities. The dimensions are briefly described in Table 12.

Table 12. Different motivational components

Factor	Description
F1 Green consumer values	The individual considers the environmental consequences and they have an influence on the actions taken.
F2 Community building	The individual's views on connection the online group as well as its overall dynamics.
F3 Enjoyment	The perceived hedonistic aspects of using the group.
F4 Materialism (owning)	The first dimension of materialism. Relates to owning things and how possessions can impress others.
F5 Careful spending	The first dimension of frugality. Relates to being careful about the way the individual spends money.
F6 Sharing	The individual's views on sharing and actions taken to promote it.
F7 Materialism (happiness)	The second dimension of materialism. Personal, relates to the happiness that owning things brings to the individual.
F8 Frugality (recycling, reuse)	The second dimension of frugality. Relates to the individual's views on recycling and re-using items.
F9 Liquid relationship to possessions	The individual's liquid relationship to possessions, relates to use and situational value of items.
F10 Anti-consumption	Ideas about the world's resources and the collective responsibility.

4.2 Cluster analysis

In order to answer the research questions “*What kind of motivations do people have to participate in collaborative consumption in online sharing and recycling communities?*” and “*What kind of different participant groups can be identified among the users of these online communities?*” a cluster analysis was introduced as a follow-up analysis for the factor analysis. The goal was to identify distinct groups among the respondents, who share similar motives to participate in collaborative consumption. The chosen technique for the non-hierarchical clustering was the common marketing research method, *k*-means clustering. This technique splits the objects into groups by maximizing between-cluster variation relative to within-cluster variation. Despite the disadvantages, for example the number of clusters needs to be pre-defined and that the selection of cluster centers is arbitrary (Malhotra et al. 2012, 809), non-hierarchical methods have gained wide acceptability and usage (Hair et al. 2006, 591).

In order to determine a suitable number of clusters, different solutions were tested and the analysis was ran with the number of clusters set between 2 and 5. After testing the different cluster solutions, the four cluster solution was determined to be most easily interpretable as well as theoretically most interesting. In addition, with four clusters, the division of cases among the clusters was the most even. Below, the final cluster centers are provided in the Table 13. They represent the mean values of each of the factors for the observations within the different clusters.

Table 13. Final cluster centroids

Cluster	N	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
1	81	.064	-.041	-.226	.385	-.199	-.001	.022	-1.405	.005	.163
2	119	-.352	.104	-.771	-.308	.166	-.306	-.139	.325	.504	.441
3	148	.142	.144	.535	.237	.314	.328	-.569	.278	-.154	-.244
4	94	.168	-.322	.328	-.316	-.532	-.128	1.053	.362	-.399	-.314

The cluster centroids are used to further interpret and describe the profiles of the different clusters. Demographic information as well as usage habits of the sites provided by the respondents are also taken into consideration when describing the characteristics of the clusters.

Cross tabulations between cluster membership and the background variables exposed interesting findings about the differences and similarities between the created clusters. Chi-square tests were used to examine the significance of the results. Except for age distribution and visit frequency on the recycling sites, differences across clusters in demographic and usage variables were found to be statistically insignificant. For example gender division was very similar in all four clusters, probably partly due to a low number of male respondents. The 22 male respondents were assigned to all four clusters (three in cluster 1, eight in cluster 2, five in cluster 3, and six in cluster 4). Also differences in educational background were insignificant and the clusters did not remarkably differ from one another. In the light of statistics, the differences in how the different user groups made use of the sites were not significant either.

Instead, in terms of age distribution the differences across clusters showed to be statistically significant ($p < .05$). Also how often the users visited the Facebook recycling sites showed to have differences across clusters on a statistically significant level ($p < .05$).

Next, the four distinct user groups are introduced in more detail.

4.2.1 Cluster 1: Accumulators

Acquired goods are a metric of success

Compared with the other groups, the Accumulators emphasize a dimension of materialism related to owning as a motivation to use the Facebook recycling sites. They appreciate the possibility to use the groups in order to acquire the kind of goods which can impress others. The Accumulators get excited when satisfying their materialistic needs, as buying new things brings them pleasure. Considering the desire to acquire new things, it is not surprising that the members of this cluster strongly underemphasize the second dimension of frugality as a motivation, which focuses on taking good care of your possessions, avoiding new purchases and maximizing the lifespan of possessions. Yet, it should be noted that on the scale from 1 to 7 the mean factor score for this dimension of frugality was 5.72, which is still rather high. Basically the other cluster just hold relatively even stronger recycling related motivations.

Although the Accumulators' anti-consumption attitudes reflect concern for the world's resources, their personal green values are not specifically emphasized as a source of motivation to use the Facebook groups. Yet, the anti-consumption attitudes that the Accumulators hold might partly explain the use of this alternative channel for purchases.

Compared with the other clusters, the Accumulators do not emphasize the potential to save money or perceiving the using of the site fun as a reason to participate in collaborative consumption. Compared with the other three groups, the Accumulators are also neutral in motivations such as liquid relationship to possession, community building or sharing in general.

The Accumulators are the smallest cluster with 81 individuals (18.3 % of the sample). In terms of demographics, this cluster is also the youngest with 72.9 % of the Accumulators being 30-years-old or younger. 63 % of the Accumulators visit the site daily or several times a day. 49.9 % of the Accumulators have both sold and bought items through the site, but compared to other clusters, a relatively high percent higher percentage (23.5 %) of the Accumulators have mainly just bought items than in other clusters.

4.2.2 Cluster 2: Utility seekers

Stuff is just stuff, so let's make the most of it

The second cluster is called the Utility seekers. Of all the clusters, they have most strongly a liquid relationship to possessions and they are also motivated to use the Facebook recycling groups for anti-consumption related reasons. On the scale from 1 to 7 the mean factor score for anti-consumption for the Utility seekers was 6.47. As the Utility seekers consider world resources to be scarce and report to purchase items to satisfy a use value or to get rid of them when the situational value no longer exists, the Facebook recycling groups are good and convenient platforms for this group.

The Utility seekers also emphasize motivations related to frugality, both re-using and making good use of resources as an opportunity to save money. Slightly less than other emphasized motivations, this cluster demonstrates also that community building and the social aspects of the groups are a motivation to use them.

As the Utility seekers' motivations to use the sites stem primarily from their utility value, it is not surprising that compared with other clusters, enjoyment as a motive is strongly underemphasized. This group of people do not see the sharing itself as particularly enjoyable nor is it emphasized as a motivation to use the sites. Realizing personal ecological values or sharing is not emphasized as a motivation. And as can be expected from the LRP and anti-consumption motives, the members of this clusters do not participate in the Facebook groups due to materialistic motivations either.

This cluster is second to largest with 119 respondents (26.9 % of the sample). The Utility seekers are slightly older than the Accumulators, with 62.2 % of the Utility seekers being 30-years-old or younger. Just like the Accumulators, the Utility seekers are active visitors on the page with 63 % of the cluster members visiting the site daily or several times a day. 47.1 % of the Utility seekers have already both bought and sold items through the sites, 9.2 % have mainly sold items and 20.2 % have concentrated on acquiring goods through the recycling sites.

4.2.3 Cluster 3: Enthusiasts

Sharing is fun and saving money doesn't hurt either!

The members of the third cluster, the Enthusiasts, emphasize hedonic motivations to use the Facebook groups. Compared with the other clusters, they report to enjoy participating in collaborative consumption on the sites more, and thus enjoyment is a predominant motivation. On the scale from 1 to 7, the mean factor score for enjoyment in this cluster was 6.00.

Out of the four clusters, the Enthusiasts are also most strongly motivated by sharing and both aspects of frugality. The mean factor score on the scale from 1 to 7 for sharing in this cluster was 5.50, for careful spending 5.51, and for frugality related to recycling and reuse 6.55. This cluster corresponds in many ways “best” to the grand themes that reoccur in collaborative consumption literature, discussed in the theory section of the thesis.

The dimension of materialism that focuses on owning nice things and impressing others with possessions is also emphasized slightly as a motivation. In addition, using the Facebook groups is motivated by community building and personal green consumer values. The Enthusiasts emphasize the most number of motivational factors, thus making the interpretation more complicated. The Enthusiasts strongly underemphasize possessions as a source of personal happiness and well-being. The mean factor score on the scale from 1 to 7 for this aspect of materialism was only 2.58. Anti-consumption and liquid relationship to possession are also underemphasized as motivations.

This cluster is the largest in size with 148 respondents (33.5 % of the sample). The mean age is the highest in this cluster and only 52.1 % of Enthusiasts are 30-years-old or younger. Enthusiasts are also relatively the most active visitors on the pages and 32.4 % of the sample reports to visit the page several times a day and cumulatively 79.7 % visit the sites at least once a day. Also 62.8 % of the Enthusiasts report to have both sold and bought items on the sites, which is the highest percentage among the four clusters.

4.2.4 Cluster 4: Materialists

If I had more, I would be happier

The fourth and final cluster, the Materialists, represents those individuals who strongly emphasize the second dimension of materialism as motivation to participate in collaborative consumption. This dimension is personal and relates to the idea that the individual would be happier the more they owned. Materialists also score high on enjoyment, which contributes to their motivation. Using the sites is also motivated by the recycling aspect of frugality. Like for the Enthusiasts, green consumer values play a motivational role for the Materialists.

The Materialists strongly underemphasize the first dimension of frugality which relates to being a careful spender as a motivation. On the scale from 1 to 7, the mean factor score for liquid relationship to possessions is only 1.93. These findings seem logical as materialism seems to play such a central role in their happiness and motivates them to use the sites. Also the rest of the motivational factors are underemphasized in this cluster.

The Materialists are the second to smallest cluster with 94 respondents (21.3 % of the sample). The Materialist represent various age groups. While 44.7 % of the Materialists are 25-years-old or younger, this cluster also has 15.9 % of respondents who report their age to be 41 or more. 69.2 % of the Materialists are aged 30 or younger. Visit frequency on the Facebook recycling sites is high and 75.5 % of the Materialists visit the sites at least daily. They are also active in conducting business on the sites and 56.4. % of the Materialists report to have both bought and sold items through the sites, 13.8 % have mainly focused on buying, and 17 % report to be interested in doing both in the future.

Table 14 illustrates a more visual summary of the cluster centroids and differences among the clusters. The upper half of the table consists of the factors that are emphasized and the lower half the factors that are underemphasized by each of the clusters. To further ease the interpretation especially high values are **bolded** and values very close to zero, either positive or negative, are written in *italics*.

Table 14. Cluster centroids for each factor

Cluster 1: Accumulators	Cluster 2: Utility seekers	Cluster 3: Enthusiasts	Cluster 4: Materialists
F4 / .386 Materialism (owning)	F9 / .504 LRP	F3 / .535 Enjoyment	F7 / 1.053 Materialism (happiness)
F10 / .163 Anti-consumption	F10 / .441 Anti-consumption	F6 / .328 Sharing	F8 / .362 Frugality (recycling)
<i>F1 / .064</i> <i>Green consumer values</i>	F8 / .325 Frugality (recycling)	F5 / .314 Careful spending	F3 / .328 Enjoyment
<i>F7 / .022</i> <i>Materialism (happiness)</i>	F5 / .166 Careful spending	F8 / .278 Frugality (recycling)	F1 / .168 Green consumer values
<i>F9 / .005</i> <i>Liquid relationship to possessions</i>	<i>F2 / .104</i> <i>Community building</i>	F4 / .237 Materialism (owning)	
		F2 / .144 Community building	
		F1 / .142 Green consumer values	
F8 / -1.405 Frugality (recycling)	F3 / -.771 Enjoyment	F7 / -.569 Materialism (happiness)	F5 / -.532 Careful spending
F3 -.0226 Enjoyment	F1 / -.352 Green consumer values	F10 / -.244 Anti-consumption	F9 / -.399 LRP
F5 -.199 Careful spending	F4 / -.308 Materialism (owning)	F9 / -.154 LRP	F2 / -.322 Community building
<i>F2 -.041</i> <i>Community building</i>	F6 / -.306 Sharing		F4 / -.316 Materialism (owning)
<i>F6 -.001</i> <i>Sharing</i>	F7 / -.139 Materialism (happiness)		F10 / -.314 Anti-consumption
			F6 / -.128 Sharing

5. Conclusions

This research focuses on collaborative consumption, a relatively new, but powerful global phenomenon shaping both how businesses work and individuals consume. As mentioned, new collaborative consumption businesses are emerging every day around the world and the phenomenon is constantly discussed in popular literature and magazines. Yet, the academic discussion is lagging behind what is happening in the real world. Therefore, this research attempts to address the gap. Taking part in the discussion and developing understanding on the phenomenon on a general level is one of the main theoretical contributions of this thesis. More specifically, this study researches the second dimension of collaborative consumption i.e. redistribution markets (Botsman & Rogers, 2010).

The main purpose of this research was to answer to the research questions: *What kind of motivations do people have to participate in collaborative consumption in online sharing and recycling communities?* And successively the sub question: *What kind of different participant groups can be identified among the users of these online communities?* In order to answer these two questions an extensive literature review was conducted, forming the first part of the thesis. Following the secondary data collection, a survey was conducted in selected Facebook groups. To answer the research questions, several quantitative analysis methods were applied, such as principal component analysis and cluster analysis.

This final chapter of the thesis summarizes the results of the research and discusses its findings. Limitations of the study are also addressed and suggestions are made for further research on the topic.

5.1 Discussion

The first part of my thesis is a literature review aiming at giving a holistic overview about collaborative consumption and its dynamics. The existing literature was also the source from where different motivational factors were identified to be studied in the survey.

Overall, as suggested by Bardhi and Eckhardt (2012), consumer research is still in its early stages when it comes to studying the different manifestations of access-based consumption and thus, this research contributes to addressing the existing research gap. As a contribution to theory, this thesis creates a new scale to measure liquid relationship to possessions, based on the work of Bardhi et al. (2012). The thesis also responds to their future research suggestion of applying the construct into different consumption situations by studying it in a very different context than the global nomadism.

This research is also, to my best knowledge, the first one studying collaborative consumption conducted on Facebook recycling groups. Thus, the work builds on and extends the work of the inspirational studies such as Ozanne and Ballantine (2010). They suggested further research to explore other forms of collaborative consumption than the toy libraries, which were in the focus of their study.

Despite that Ozanne and Ballantine (2010) focused mainly on discovering whether sharing is a form of anti-consumption, other motivations which encourage similar behavior also emerged in their research and those were taken into consideration in this thesis. To answer the first research question, this study identified ten different motivational factors, which affect participation to collaborative consumption. The factors eventually emerged through the principal component analysis from eight question sets that were gathered from previous literature. These motivations were: green consumer values, community building, enjoyment, materialism related to owning things and impressing others, careful spending, sharing, materialism related to its role in personal happiness, frugality related to recycling and reuse, liquid relationship to possessions, and finally anti-consumption. Further, to answer the second question, by using cluster analysis as a method, this research identified four distinct user groups among the respondents based on their motivations.

The four groups were named Accumulators, Utility seekers, Enthusiasts, and Materialists. They emphasize the ten before mentioned motivations differently and, in terms of demographic and site usage related questions, statistically significant differences were found in the age distribution and visit frequency on the sites. The Accumulators represent the youngest cluster with 72.9 % of respondents being aged 30 or under as opposed to only 52.1 % of the Enthusiasts, who represent the oldest cluster. The Enthusiasts were also the most active visitors on the page, with almost 80 % of cluster members visiting the page several times a day or at least daily.

The four user clusters were created based on their different ways of emphasizing the ten motivational factors in diverse combinations. The liquid relationship to possessions, which was introduced as a new scale in this research, was found to be a major motivator only for the Utility seekers. Scoring high on this factor, indicated that these individuals are not emotionally so attached to physical possessions, and they followed a similar logic concerning anti-consumption. Even more than the Accumulators, the Utility seekers emphasize anti-consumption as a motivation to participate in collaborative consumption. This further confirms the findings from previous studies, stating that activities related to collaborative consumption can be motivated by anti-consumption values (Iyer & Muncy 2009 ; Ozanne & Ballantine 2010). However, whilst Iyer and Muncy (2009) focused on two

consumer groups who were eager to reduce their overall consumption, in this research anti-consumption motivations were also held by the Accumulators. This further expands understanding on anti-consumption attitudes, as the Accumulators emphasized materialism in the context of owning and accumulating possessions as their main motivation to participate. This could be seen as an illustrative example of how engaging in similar types of activities, using toy libraries and Facebook recycling groups, can be motivated by very diverse drivers.

The Facebook recycling groups work efficiently and hundreds if not thousands of deals are negotiated every day. Thus, they are excellent venues to also satisfy the materialistic needs. In this research materialism was seen to have two dimensions, one related to its role to create happiness for the individual, the other related to how accumulating goods is a sign of success to the outside world. All clusters except for the Utility seekers emphasized at least one of the two dimensions. Thus, materialism is a very important area of research to consider when discussing collaborative consumption and especially the logic of different recycling groups.

In their research, Moeller and Wittkowski (2010) did not find evidence to support the hypotheses that price consciousness or environmentalism would have a significant positive influence to preferring non-ownership consumption models. This research partially questions these findings, as fairly directly corresponding constructs of frugality and green values both arose. In this research, frugality was divided into two different aspects (of careful spending and recycling of goods), challenging also the views of Lastovicka et al. (1999) of frugality being a unidimensional construct. The respondent groups emphasized the two dimensions of frugality differently. The Enthusiasts and the Utility seekers were more motivated by careful spending while the recycling aspect was emphasized as a motivation to use the Facebook groups by all clusters except for the Accumulators. Considering that the goods are sold only for a fraction of the original retail price in the recycling groups, the fact that careful spending was not a primary driver for any of the groups was surprising. For all clusters, the mean score for careful spending was only 5.034. While the sample of toy library users in the Ozanne and Ballantine study (2010) held strong frugality values, it seems that in the Facebook recycling group case, affordable prices are seen as an added bonus rather than a primary driver for action.

Although all four clusters reported a high score on green consumer values (mean value of 5.125), surprisingly none of the four clusters were found to emphasize green consumer values as a primary motivation to participate in the recycling groups. The Utility seekers even rather strongly underemphasized it. The lack of being emphasized as a primary driver is a result that seems to support the findings of Moeller and Wittkowski (2010). As speculated in the theory section of this thesis

(chapter 2.1.4), a possible explanation, like suggested by previous literature (e.g. Clifford 2009; Botsman & Rogers 2010), could be that the “greenness” of the Facebook recycling groups is taken for granted among the respondents. They might use the service because as consumers they hold strong green values, as opposed to being attracted to use the service because the service itself is considered green.

Although sharing is such an integral element of collaborative consumption that the phenomenon is also called ‘sharing economy’, sharing was only emphasized as a motivation by the Enthusiasts, and even their mean score for this construct was 5.500. The other clusters to various extent underemphasized sharing as a motivation to participate. Also community building, which has been identified to be a driver to participate in various forms of collaborative consumption (e.g. Albinsson & Perera 2012 ; Ozanne & Ballantine 2010, Belk 2014) was only very slightly emphasized by the Utility seekers and the Enthusiasts. Ozanne and Ballantine (2010) found in their research that sharing in toy libraries was an expression of community, so what could explain the difference with the results of this study? Even the Enthusiasts, who scored highest on the construct of community building, only had a mean score of 3.937. One possible explanation could be the fact that this thesis research was conducted in an online environment as opposed to the physical toy libraries that Ozanne and Ballantine explored. As mentioned before, the Facebook groups I researched are noticeably more focused on buying and selling than on borrowing and lending. Thus, the communication between individuals is very straightforward and even if the goods change owners face-to-face, the interaction often stays short and limited. In addition, the groups continue to expand at a very fast pace. As the number of members grows, despite rules that oblige people to bring the merchandise to a specific neighborhood, more and more people outside the area keep joining the groups. These aspects, among others, could have a negative impact on the feeling of community building being nurtured.

Yet, although trying to keep the groups as local as possible might be driven by the desire to keep the interactions as convenient as possible, there has been evidence of “deeper” communal interactions since the data was collected. A number of groups have inspired events and meet-ups after an individual has started a discussion thread. For example *Kallio kierrättää* group has held two singles’ nights in Kallio with hundreds of participants. Also in Punavuori a free group workout session gathers dozens of energetic individuals to a local park every week. If this kind of activities are becoming more common, it would be interesting to see whether the results would be closer to Albinsson and Perera’s (2012), who found out that a sense of community was both a driver and a result of collaborative consumption.

Finally, although Moeller and Wittkowski (2010) did not find support in their research for experience orientation to influence preference for non-ownership models of consumption, in this research intrinsic motivations were emphasized. Especially the Enthusiast and the Materialists considered using the recycling groups to be enjoyable and thus emphasized that enjoyment as a motivation to participate. Enjoyment was also one of the themes that most strongly came up in the open comments of the questionnaire; people mentioned how much fun shopping in the groups is and how the experience is more interesting than just going to a regular store.

Overall, this research explores and illustrates the diversity of motivations that the thousands of users of the Facebook recycle groups hold. The contribution of my research is both theoretical through the creation of the new scale as well as contextual, providing further insights to a new phenomenon. The identified four user groups have different motivations to engage in the same activity and thus any commercial attempt to grasp their attention should recognize this. Next, managerial implications of this research are discussed.

5.2 Managerial implications

Sharing businesses may still be viewed as a small part of the economy (Albinsson & Perera, 2012), yet managers should realize their potential and start paying attention to this phenomenon. According to a recent PricewaterhouseCoopers report (PwC, 2015), global revenues from the five key sharing sectors are projected to rise to \$335 billion by 2025 and they are very likely to grow at a much faster pace than the revenues on traditional sectors. Thus, participating and thinking about ways to monetize the phenomenon should be on every manager's agenda. If they decide to ignore the shift, i.e. alternative marketplaces becoming mainstream, they risk becoming the Blockbuster of their industry, who went bankrupt in 2010, while Netflix continues to break records successfully (Gansky, 2010).

Facebook is very well aware that among the tens of millions of groups, peer-to-peer business is conducted. To better serve its users, the company introduced a first version of a "Sell" feature in Facebook groups in February 2015. The new feature most importantly facilitates manifesting information about the items. (Perez, 2015) Similarly, "Buy buttons" are becoming more common in social media advertising, as most recently Instagram and Pinterest launched their own new features and followed in Facebook's footsteps. (Kuchler, 2015) Albeit this research clearly indicates that the motives of the users vary strongly, it is unfortunately up to Facebook to decide what features they will be launching in the future. Currently, the only way that group administrators can influence the functionalities of the groups is through updating and closely monitoring the groups' rules. For

example while Facebook does not currently enable sorting the 'For sale' ads according to price, the groups could create separate folders for differently priced items. However, this probably would not be the most user friendly solution. Another example which would require product development from Facebook is establishing a rating system. As mentioned before, trust between strangers plays a key role when it comes to peer-to-peer trade. (Botsman & Rogers 2010, 90) While Facebook does not yet provide a formal rating system such as e.g. eBay, it is currently up to the group administrators to monitor general behavior, receive complaints, and ban misbehaving individuals from the groups. In sum, with the limited tools provided to the Facebook group administrators they should try and make use of the findings of this study. However, when discussing other platforms than Facebook, introducing and building the before mentioned examples is a lot easier. Thus, sites such as *kuinoma.fi* and *tori.fi* or new start-ups should consider the diverse motivations of their target users when developing their services.

While this research was conducted on a platform where all of the transactions are peer-to-peer and the administrators are volunteers, a huge business potential also for commercial solutions exists. The Facebook recycling groups and their increasing popularity also contribute to other business models where companies play well-defined roles and collect the profits. In Finland, the CEO of the online marketplace *tori.fi* has stated that Facebook recycling groups contribute to the overall megatrend of recycling goods peer-to-peer. This has had an indirect positive impact on their company's business. Similarly another company representative from *huuto.net* online auction site states that the increase in second hand demand for goods has had a powerful impact on people's buying behavior. The demand for new goods also increases as some people have started seeing buying more as an investment instead of pure consumption. The decision to invest in a purchase becomes easier when one knows the retail value will stay rather high and finding a buyer will not require great effort. (Juvonen, 2015)

In Finland, consumers are adopting new collaborative consumption models fast. As this research has pointed out, Facebook recycling groups keep growing and new ones are constantly launched. Uber drives people around and movies are watched on Netflix. Good and bad service experiences are described online in TripAdvisor before the bill is even paid. Thus, it is not surprising that entrepreneurial Finns are also interested in the peer-to-peer business and recycling of goods. Just to mention a couple of examples, the winners of Aalto University's Summer of Startups 2014 created an online second hand clothing store Remarket (Remarket, 2015) and also opened a physical store in 2015. As for the Finnish furniture company ISKU, they announced recently that they will open a new

chain of stores, RealGreen, which recycles furniture from all manufactures and either restores and resells them, or processes them into raw material (Kauppalehti, 2015).

Understanding the motives of the Facebook recycling groups' users is important and relevant to managers because connecting with the customers is difficult otherwise. Promoting a certain behavior based on a guess is imprecise and bad business. To encourage a change, be it follow a more resource-conserving path or next time to buy your product instead of the competitor's, requires offering the right incentives (Leismann et al., 2013). And to determine the right incentives, understanding the motivations explored in this thesis is important.

The findings of this thesis further confirm some of the main claims already suggested in previous literature. For example we saw that the green consumer values did not come up as a primary driver for any of the four user groups, while all of them scored high on that scale. Yet, charity type appeal has been typical to promote sustainable actions in the past. This thesis, instead, suggests like previous literature (e.g. Balck & Cherrier 2010 ; Leismann et al 2013) that although redistribution markets have clear ecological advantages, the benefits to be highlighted should definitely draw from the other motivational factors identified in this research. Similarly, in this research we saw that the four user groups have distinct profiles and their motivations differ. Thus, in order to target and spread the chosen message, managers need to segment their audience and adjust their communications accordingly.

5.3 Limitations and future research

This research expands our understanding on collaborative consumption as a phenomenon in general and, as it is the first one of its kind, gives interesting insights about the motivations that the Finnish Facebook recycling group users have. However, it is important to acknowledge the limitations and shortcomings of this research before further interpreting or generalizing the findings.

The research was restricted geographically to the Helsinki area. Thus, the results should not be generalized outside this area without further research. It would be interesting to study differences on a national scale between cities or even internationally, as sharing is prescribed by culture and cultural norms (Belk, 2007). Furthermore it would be interesting to explore whether differences arise within neighborhoods, as this research combined the data from four recycling groups without any further between-group comparison.

As this research is the first one of its kind in Finland, it would be highly recommendable to expand the scope of research from the Facebook recycling groups to other forms redistribution markets. This could be done for example by studying pure lending services, which due to relative inactivity and difficulty of gathering data were excluded from this study. The recycling groups studied in this thesis were heavily biased on recycling goods on a transaction basis, so e.g. freecycling and swapping events might be prosperous paths of research to explore and could possibly provide different type of results.

This study relied on quantitative methods and first identified ten possible motivations from existing literature, which were further divided into twelve factors. All of them were present and weighted differently by the four clusters found in the study. However, further research could consider re-examining the topic with the help of structural equation modeling to validate the findings. Alternatively, the use of qualitative research methods could help identify if any other motivations not presented in this study, such as convenience, are relevant for people's participation to collaborative consumption activities.

This study constructed and introduced a new scale to measure liquid relationship to possession. Despite some issues with the scale and the required adjustments along the way, even in its current form the results obtained were interesting as the Utility seekers had LRP as a primary motivation. This gave clear indication about how the different levels of affection for their belongings impacts people's behavior in the recycling groups. Yet, in order for research on this topic to move forward, research dedicated to develop and validate a reliable scale for LRP is encouraged. Once a more holistic scale is available as a research instrument, the understanding of liquid relationship to possessions as a motivational factor may be accumulated.

As a final suggestion for further research, it would be very interesting to know how the motivations evolve in the long run. Some of the collaborative consumption models were born as a result of the financial crisis; from the need of more frugal spending (Cohen & Kietzmann, 2014). At the time of writing the thesis Finland was still suffering from an economically difficult situation. Thus, once the economy has recovered it would be fascinating to find out whether this impacts motives or whether for example environmental consciousness keeps on growing and becomes a more dominant motive for some.

Bibliography

- Airbnb. (2014, July 14). *New Study Reveals A Greener Way to Travel: Airbnb Community Shows Environmental Benefits of Home Sharing*. Retrieved February 21, 2015, from Airbnb: <https://www.airbnb.com/press/news/new-study-reveals-a-greener-way-to-travel-airbnb-community-shows-environmental-benefits-of-home-sharing>
- Airbnb. (2015). *About Us*. Retrieved February 25, 2015, from Airbnb: <https://www.airbnb.fi/about/about-us>
- Albinsson, P. A., & Perera, B. Y. (2012). Alternative Marketplaces in the 21st Century: Building Community Through Sharing Events. *Journal of Consumer Behaviour*, *11*(4), 303-315.
- Bardhi, F., & Eckhardt, G. M. (2012). Access-Based Consumption: The Case of Car Sharing. *Journal of Consumer Research*, *39*(4), 881-898.
- Bardhi, F., Eckhardt, G. M., & Arnould, E. J. (2012). Liquid Relationship to Possessions. *Journal of Consumer Research*, *39*(3), 510-529.
- Belk, R. W. (1985). Materialism: Trait Aspects of Living in the Material World. *Journal of Consumer Research*, *12*(3), 265-280.
- Belk, R. W. (1988). Possessions and the Extended Self. *Journal of Consumer Research*, *15*(2), 139-168.
- Belk, R. W. (2007). Why Not Share Rather Than Own?'. *The Annals of the American Academy of Political and Social Science*, *611*(1), 126-140.
- Belk, R. W. (2010). Sharing. *Journal of Consumer Research*, *36*(5), 715-734.
- Belk, R. W. (2014). You Are What You Can Access: Sharing and Collaborative Consumption Online. *Journal of Business Research*, *67*(8), 1595-1600.
- Bertoni, S. (2014, August 20). *How Mixing Data and Fashion Can Make Rent The Runway Tech's Next Billion Dollar Star*. Retrieved February 25, 2015, from Forbes: <http://www.forbes.com/sites/stevenbertoni/2014/08/20/how-mixing-data-and-fashion-can-make-rent-the-runway-techs-next-billion-dollar-star/>
- Black, I. R., & Cherrier, H. (2010). Anti-Consumption as Part of Living a Sustainable Lifestyle: Daily Practices, Contextual Motivations and Subjective Values. *Journal of Consumer Behaviour*, *9*(6), 437-453.
- Botsman, R., & Rogers, R. (2010). Beyond Zipcar: Collaborative Consumption. *Harvard Business Review*, *88*(10), 30-30.
- Botsman, R., & Rogers, R. (2010). *What's Mine Is Yours*. New York: Harper Business.

- Chen, Y. (2009). Possessions and Access: Consumer Desires and Value Perceptions Regarding Contemporary Art Collection and Exhibit Visits. *Journal of Consumer Research*, 35(6), 925-940.
- Clifford, S. (2009). As Earth Day Nears, eBay Shows Its Green Side. *The New York Times*, 4.3.2009.
- Cohen, B., & Kietzmann, J. (2014). Ride On! Mobility Business Models for the Sharing Economy. *Organization & Environment*, 27(3), 279-296.
- Corciolani, M., & Dalli, D. (2014). Gift-Giving, Sharing and Commodity Exchange at Bookcrossing.com: New Insights from a Qualitative Analysis. *Management Decision*, 52(4), 755-776.
- Eriksson, P., & Kovalainen, A. (2008). *Qualitative Methods in Business Research*. Sage.
- Felson, M., & Spaeth, J. L. (1978). Community Structure and Collaborative Consumption: A Routine Activity Approach. *American Behavioral Scientist*, 21(4), 614-624.
- Gansky, L. (2010). *The Mesh: Why the Future of Business Is Sharing*. London: Penguin Group.
- Griffith, E. (2014, December 19). *Rent Rhe Runway Raises \$60 Million*. Retrieved February 25, 2015, from Fortune: <http://fortune.com/2014/12/19/rent-the-runway-raises-60-million/>
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate Data Analysis* (6th ed.). Upper Saddle River, New Jersey: Pearson Education Inc.
- Han, S., Gupta, S., & Lehmann, D. R. (2001). Consumer Price Sensitivity and Price Thresholds. *Journal of Retailing*, 77(4), 435-456.
- Haws, K. L., Winterich, K. P., & Naylor, R. W. (2010). Seeing the World Through GREEN-Tinted Glasses: Green Consumption Values. *Journal of Consumer Psychology*, 24(3), 336-354.
- Heinrichs, H. (2013). Sharing Economy: A Potential New Pathway to Sustainability. *GAIA- Ecological Perspectives for Science and Society*, 22(4), 228-231.
- Iyer, R., & Muncy, J. A. (2009). Purpose and Object of Anti-Consumption. *Journal of Business Research*, 62, 160-168.
- Juvonen, A. (2015, February 2). Vertaiskaupasta kasvoi megatrendi. *Kauppalehti*(Markkinointi).
- Jøsang, A., Ismail, R., & Boyd, C. (2007). A survey of Trust and Reputation Systems for Online Service Provision. *Decision Support Systems*, 43(2), 618-644.
- Kauppalehti. (2015, August 4). *Isku perustaa Suomeen uudenlaisen kalustekierrätysketjun*. Retrieved August 5, 2015, from Kauppalehti: <http://www.kauppalehti.fi/uutiset/isku-perustaa-suomeen-uudenlaisen-kalustekierratysketjun/T92ngtta>
- Kickstarter. (2015). *What is Kickstarter*. Retrieved February 25, 2015, from Kickstarter: <https://www.kickstarter.com/hello?ref=footer>

- Kotler, P. (2011). Reinventing Marketing to Manage the Environmental Imperative. *Journal of Marketing*, 75(4), 132-135.
- Krosnick, J. A. (1999). Survey Research. *Annual Review of Psychology*, 50(1), 537-567.
- Kuchler, H. (2015, June 2). *Pinterest and Instagram Llaunch 'Buy Buttons'*. Retrieved August 9, 2015, from Financial Times: <http://www.ft.com/cms/s/0/fecf5786-0959-11e5-8534-00144feabdc0.html#axzz3iJDNSmMf>
- Lamberton, C. P., & Randall, R. L. (2012). When Is Ours Better Than Mine? A Framework for Understanding and Altering Participation in Commercial Sharing Systems. *Journal of Marketing*, 76(4), 109-125.
- Lastovicka, J., Bettencourt, L., Hughner, R., & Kunze, R. (1999). Lifestyle of the Tight and Frugal: Theory and Measurement. *Journal of Consumer Research*(26), 85-98.
- Lee, M. S., Fernandez, K. V., & Hyman, M. R. (2009). Anti-Consumption: An overview and Research aAenda. *Journal of Business Research*, 62(2), 145-147.
- Leismann, K., Schmitt, M., Rohn, H., & Baedeker, C. (2013). Collaborative Consumption: Towards a Resource-Saving Consumption Culture. *Resources*, 2(3), 184-203.
- Malhotra, N., Birks, D., & Wills, P. (2012). *Marketing Research: An Applied Approach* (4th ed.). Essex, England: Pearson Education Limited.
- Martin, E., Shaheen, S. A., & Lidicker, J. (2010). Impact of Carsharing on Household Vehicle Holdings. *Transportation Research Record: Journal of the Transportation Research Board*, 2143(1), 150-158.
- Meijkamp, R. (1998). Changing Consumer Behaviour Through Eco-Efficient Services: An Empirical Study of Car Sharing in the Netherlands. *Business Strategy and the Environment*, 7(4), 234-244.
- Moeller, S., & Wittkowski, K. (2010). The Burdens of Ownership: Reasons for Preferring Renting. *Managing Service Quality*, 20(2), 176-191.
- Ozanne, L. K., & Ballantine, P. W. (2010). Sharing as a Form of Anti-Consumption? An Examination of Toy Library Users. *Journal of Consumer Behavior*, 9(6), 485-498.
- Pajari, K. (2015, February 26). *Verkkokirpputorilla tarvitaan tiukkaotteista seriffiä – huijareitakin kohtaa*. Retrieved March 16, 2015, from HS ilta: <http://www.hs.fi/ilta/26022015/a1424929006212>
- Perez, S. (2015, February 10). *Facebook Adds A New Way To Sell Items In Groups*. Retrieved August 9, 2015, from TechCrunch: <http://techcrunch.com/2015/02/10/facebook-adds-a-new-way-to-sell-items-in-groups/>

- Peterson, N. A., Speer, P. W., & McMillan, D. W. (2008). Validation of A Brief Sense of Community Scale: Confirmation of the Principal Theory of Sense of Community. *Journal of Community Psychology*, 36(1), 61-73.
- PwC. (2015, April). *The Sharing Economy - Consumer intelligence series*. Retrieved August 8, 2015, from PricewaterhouseCoopers: <http://www.pwc.com/us/en/industry/entertainment-media/publications/consumer-intelligence-series/assets/pwc-cis-sharing-economy.pdf>
- Remarket. (2015). *How It Works*. Retrieved August 9, 2015, from Remarket: <http://remarket.fi/content/8-how-it-works>
- Resnick, P., & Zeckhauser, R. (2002). Trust Among Strangers in Internet Transactions: Empirical Analysis of eBay's Reputation System. In M. R. Baye (Ed.), *Advances in Applied Microeconomics* (Vol. 11, pp. 127 - 157). Oxford: Elsevier Science.
- Richins, M. L. (2004). The Material Values Scale: Measurement Properties and Development of a Short Form. *Journal of Consumer Research*, 31(1), 209-219.
- Richins, M. L., & Dawson, S. (1992). A Consumer Values Orientation for Materialism and Its Measurement: Scale Development and Validation. *Journal of Consumer Research*, 19(3), 303-316.
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. *Contemporary Educational Psychology*, 25(1), 54-67.
- Shrum, L. J., Lowrey, T. M., Pandelaere, M., Ruvio, A. A., Gentina, E., Furchheim, P., . . . Steinfield, L. (2014). Materialism: the Good, the Bad, and the Ugly. *Journal of Marketing Management*, 30(17-18), 1858-1881.
- Stein, J. (2015). Baby, You Can Drive My Car: On-Demand Economy. *Time*, 185(4), 32-40.
- Tiihonen, P. (2013, August 14). Naapurustot kierrättävät Facebookissa. *Kirkko&Kapunki*(Kaupunki&Ympäristö).
- Van der Heijden, H. (2004). User Acceptance of Hedonic Information Systems. *MIS Quarterly*, 28(4), 695-704.
- Weber, C. L., Koomey, J. G., & Matthews, H. S. (2010). The Energy and Climate Change Implications of Different Music Delivery Methods. *Journal of Industrial Ecology*, 14(5), 754-769.

Appendix A

8% valmiina



Pro gradu -tutkielman kysely

Kiitos, että vastaat Facebookin kierrätysryhmien käyttäjille suunnattuun kyselyyn. Vastaaminen vie aikaa n. 4-7 minuuttia.

Kysely on osa pro gradu-tutkielmaani, jota teen Aalto-yliopiston kauppakorkeakoulun markkinoinnin laitokselle.

Kyselyn lopussa voit antaa yhteystietosi, jos haluat mukaan leffalippujen arvontaan. Kaikki vastaukset käsitellään luottamuksellisesti, eikä yhteystietojasi yhdistetä vastauksiisi.

Lisätietoja antaa:
Aino Kymäläinen
aino.kymalainen@aalto.fi
puh. 0408681329

Alkuun muutama taustakysymys

1. Sukupuolesi *

- Mies
- Nainen

2. Ikäsi *

- alle 18
- 18-25
- 26-30
- 31-35
- 36-40
- 41-45
- 46-50
- 51-55
- yli 55

3. Koulutuksesi *

- Peruskoulu
- Ylioppilastutkinto tai vastaava
- Alempi korkeakoulututkinto
- Ylempi korkeakoulututkinto
- Muu, tarkenna viereen:

4. Kuinka usein käyt Facebookin kierrätysryhmän sivulla? *

- Monta kertaa päivässä
- Päivittäin
- Muutaman kerran viikossa
- Viikottain
- Muutaman kerran kuukaudessa
- Harvemmin

5. Miten käytät sivustoa? *

- Olen sekä myynyt että ostanut tavaroita ryhmän kautta.
- Olen lähinnä myynyt tavaroita ryhmän kautta.
- Olen lähinnä ostanut tavaroita ryhmän kautta.
- En ole vielä myynyt tai ostanut tavaroita ryhmän kautta, mutta haluaisin tulevaisuudessa myydä tavaraa.
- En ole vielä myynyt tai ostanut tavaroita ryhmän kautta, mutta haluaisin tulevaisuudessa ostaa tavaraa.
- En ole vielä myynyt tai ostanut tavaroita ryhmän kautta, mutta haluaisin tulevaisuudessa tehdä molempia.
- En ole tehnyt enkä tulevaisuudessa aio tehdä kauppooja sivuston kautta.

Loput kysymykset ovat väittämiä, joihin sinun tulee vastata asteikolla 1-7 sen mukaan, kuinka samaa mieltä olet väittämän kanssa. (1 = täysin eri mieltä, 7 = täysin samaa mieltä)

6. Uskon, että jakaminen on tärkeä taito oppia. (1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

- 1 2 3 4 5 6 7

7. Lainaisin mielummin tavaroita Facebook-ryhmän kautta kuin ostaisin niitä kaupasta. (1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

- 1 2 3 4 5 6 7

8. En pidä ajatuksesta tavaroiden jakamisesta. (1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

- 1 2 3 4 5 6 7

9. Pyrin jakamaan ja lainaamaan tavaroita Facebookin ulkopuolella. (1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

- 1 2 3 4 5 6 7

10. Aina kun mahdollista, pyrin jakamaan tai lainaamaan tavaroita ostamisen sijaan. (1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

- 1 2 3 4 5 6 7

11. Jos muuttaisin ulkomaille, ottaisin mukaani tärkeitä tavaroita, jotka muistuttavat minua kodistani. (1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

- 1 2 3 4 5 6 7

12. Joillain tavaroilla, jotka minulla on ollut jo vuosia, on minulle voimakas merkitys.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

13. Kaikilla omistamillani tavaroilla täytyy olla selkeä käyttötarkoitus.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

14. Ostan harvoin tavaroita pelkän mielihyvän vuoksi.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

15. Minua ei häittäisi jos kaikki tavarani tuhoutuisivat tulipalossa, kunhan vakuutus korvaisi ne vastaavilla.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

16. Pidän enemmän sähköisistä versioista esim. kirjoista, elokuvista tai musiikista.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

17. Mitä omaisuuteen ja tavaroihin tulee, yritän pitää elämäni yksinkertaisena.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

18. Ostaminen tuottaa minulle paljon mielihyvää.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

19. Pidän paljon ylellisyydestä elämässäni.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

20. Elämäni olisi parempaa jos omistaisin tiettyjä tavaroita, joita minulle ei ole.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

21. Olisin onnellisempi jos minulla olisi varaa ostaa enemmän tavaroita.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

22. Minua joskus häiritsee melko paljon, ettei minulla ole varaa ostaa kaikkea mitä haluaisin.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

23. Ihailen ihmisiä, jotka omistavat kalliita asuntoja, autoja ja vaatteita.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

24. Omistamani tavarat kertovat paljon siitä, kuinka hyvin pärjään elämässä.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

25. Pidän sellaisten tavaroiden omistamisesta, jotka tekevät ihmisiin vaikutuksen.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

26. Jos mahdollista, ostan mielummin luomuruokaa.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

27. Näen erityistä vaivaa ostaakseni tuotteita, jotka on valmistettu kierrätysmateriaaleista.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

28. Pysin kierrättämään niin paljon kuin mahdollista.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

29. Jos maailma jatkaa resurssiensa loppuunkuluttamista, se ei selviä.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

30. Meidän kaikkien pitää tehdä osamme säästääksemme luonnonresursseja.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

31. Jos me kaikki kuluttaisimme vähemmän, maailma olisi parempi paikka.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

32. Useimmat ihmiset ostavat liian paljon asioita, joita he eivät todellisuudessa tarvitse.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

Hyvin menee! Enää muutama sivu kysymyksiä jäljellä. Jaksathan jatkaa loppuun asti ? :)

33. Minulle on tärkeää, että käyttämäni tuotteet eivät vahingoita ympäristöä.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

34. Harkitsen usein tekojeni mahdollisia ympäristövaikutuksia tehdessäni päätöksiä.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

35. Huoleni ympäristöstämme vaikuttaa kulutustottumuksiini.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

36. Olen huolissani planeettamme resurssien tuhlaamisesta.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

37. Kuvailisin itseäni vastuulliseksi ympärisasioissa.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

38. Olen valmis näkemään vaivaa toimiakseni tiettyssä tilanteessa ympäristöystävällisemmin.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

Seuraavat kysymykset koskevat sitä Facebookin kierrätysryhmää, jonka kautta vastasit kyselyyn.

39. Saan tarvitsemani tästä ryhmästä.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

40. Tämä ryhmä auttaa minua täyttämään tarpeeni.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

41. Tunnen itseni tämän ryhmän jäseneksi.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

42. Tunnen kuuluvani tähän ryhmään.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

43. Pystyn vaikuttamaan siihen, mitä ryhmässä tapahtuu.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

44. Ryhmän jäsenet ovat hyviä vaikuttamaan toisiinsa.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

45. Tunnen yhteyden tähän ryhmään.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

46. Minulla on hyvä side muihin ryhmän jäseniin.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

47. Facebookin kierrätysryhmien käyttäminen on..
(1 = ällöttävää, 7 = nautinnollista) *

1 2 3 4 5 6 7

48. Facebookin kierrätysryhmien käyttäminen on..
(1 = tylsää, 7 = jännittävää) *

1 2 3 4 5 6 7

49. Facebookin kierrätysryhmien käyttäminen on..
(1 = epämiellyttävää, 7 = miellyttävää) *

1 2 3 4 5 6 7

50. Facebookin kierrätysryhmien käyttäminen on..
(1 = ikävystyttävää, 7 = mielenkiintoista) *

1 2 3 4 5 6 7

Olet jo viimeisten väittämien kohdalla. Kiitos, että jaksat täyttää kyselyn loppuun saakka.

51. Jos pitää hyvää huolta omaisuudestaan, säästää pitkällä aikavälillä varmasti rahaa.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

52. Tavallisesti monia asioita heitetään pois, jotka ovat yhä käyttökelpoisia.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

53. Resurssieni tehokas käyttö tuntuu minusta hyvältä.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

54. Jos voit uudelleenkäyttää jo omistamaasi tavaraa, ei ole järkeä ostaa uutta.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

55. Uskon varovaiseen rahankäyttöön.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

56. Toimin kurinalaisesti saadakseni rahoilleni parasta mahdollista vastinetta.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

57. Olen valmis viivyttämään ostopäätöstä säästääkseni rahaa.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

58. On asioita, joita en osta säästääkseni rahaa tulevaisuutta varten.
(1 = täysin eri mieltä, 7 = täysin samaa mieltä) *

1 2 3 4 5 6 7

59. Viimeiseksi haluaisin tietää, mitä seuraavista palveluista käytät. Voit valita useamman. *

- Netin muut kauppapaikat esim. tori.fi, huuto.net ja vastaavat
- Kirpputorit tai second hand -kaupat
- Airbnb ja vastaavat (vieras tai isäntä)
- Kimppakyydit (tuntemattomien ihmisten kanssa)
- Kaupunkipyörät (ulkomailla)
- Trip Advisor (olet tuottanut sisältöä)
- Wikipedia (olet tuottanut sisältöä)
- Kirjastot
- En mitään yllämainituista

60. Tähän voit kirjoittaa palautetta kyselystä tai ajatuksiasi liittyen Facebookin kierrätysryhmiin.

3000 merkkiä jäljellä

61. Jos haluat osallistua leffalippujen arvontaan täytä vielä alle yhteystietosi.
Paina lopuksi "Lähetä" niin vastauksesi tallentuvat.

Nimi

Sähköposti