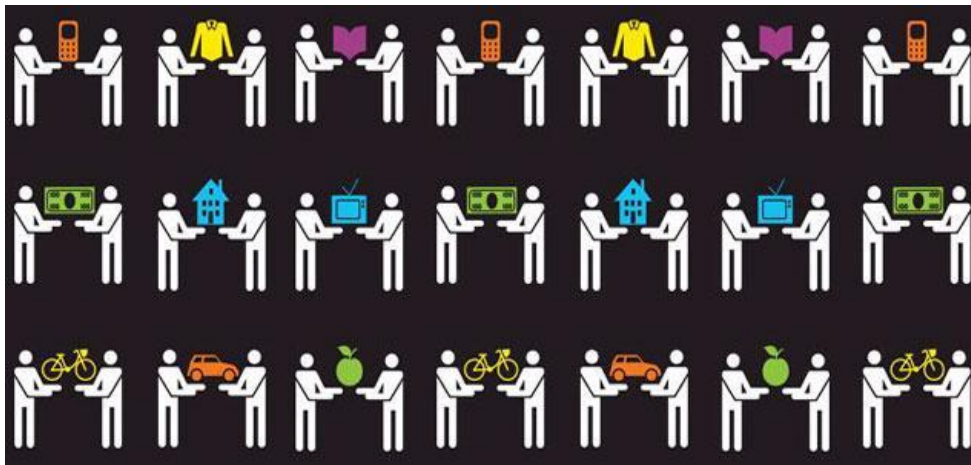


# The consumer potential of Collaborative Consumption

Identifying (the) motives of Dutch collaborative consumers  
& Measuring the consumer potential of Collaborative Consumption within the  
municipality of Amsterdam



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August, 2013

Picture: Botsman, R. and Rogers, R. (2011). What's mine is yours. How Collaborative Consumption is changing the way we live. HarperCollinsPublishers: London.

## Summary

Collaborative Consumption (CC) is a new socioeconomic groundswell in which traditional sharing, bartering, lending, trading, renting, gifting, and swapping are redefined through technology and peer communities. It is characterized by access, instead of ownership, to products and services thereby benefiting people, profit and planet. This 'new' form of sustainable consumption and entrepreneurship has the ability to transform business, consumerism, and the way people live (Botsman and Rogers, 2011). Examples of CC have been growing rapidly over the past few years. However, there is a dearth of empirical evidence about the actual growth potential of CC. Therefore, the knowledge gap addressed in this thesis is this dearth of empirical evidence and ultimately the question if CC has the ability to bring about a transition from current hyper consumption to a new socioeconomic groundswell of Collaborative Consumption.

## Objective

In order to define the research objective, a transition theory perspective is taken based on the assumption that; if CC is truly a new socioeconomic groundswell, then there is a transition going on from a society based on hyper consumption towards a society based on Collaborative Consumption. Any transition consists of four pillars (Rotmans, 2012). One of those pillars is the change in consumer behaviour. Thus the research object taken, are Dutch consumers and their willingness to take part in CC. The objective of this research is to yield *descriptive* and *explanatory* knowledge on the consumer potential of Collaborative Consumption, by determining if, and because of what factors, consumers living in Amsterdam would take part in Collaborative Consumption.

## Methods

Mixed methods are applied. Firstly, *qualitative* methods are used based on Grounded Theory (Glaser and Strauss, 1967). Data is gathered through unstructured in-depth interviews with twenty users of three Dutch CC-based platforms about their motives for taking part in CC. Subsequently, Atlas.ti, (coding software) is used to systematically analyze the data by finding indicators and integrating them into variables that correspond to intrinsic or extrinsic motivational factors as well as other explanatory factors. These variables are then quantitatively tested in the second part of the research, where a measuring instrument is created based on the variables derived in the first article and data from (scarcely available) other sources. The measuring instrument is then tested in a non-experimental setting by means of a large N-survey among 1330 citizens of Amsterdam. SPSS is used to perform the statistical analysis and determine what the willingness of Amsterdam citizens to take part in CC is, and to determine which factors influence this willingness.

## Results

Current users of CC-platforms started using (these platforms) because of the extrinsic motives of practical need, financial gains and receiving praise. The main intrinsic motives are social, for example 'meeting people' or 'helping out,' or have an environmental character, for example contributing to a healthy environment. Besides motivational factors, networks, (social) media and recommendation prove to be explanatory factors for the willingness to take part in CC. These findings correspond well to the four drivers identified by Rachel Botsman and Roo Rogers (2011) in their book *What's mine is yours*, which are: P2P technologies, resurgence of community, environmental concerns and cost consciousness. The results of the large N-survey indicate that there exists a substantial willingness to take part in CC among Amsterdam citizens that are not yet doing so. The results differ per item (power drill & bicycle, car, ride, meal, garden, accommodation, skill), role (taker, provider), and whether there is money involved (buying, selling, renting, renting out) or not (lending, lending out, giving, receiving, swapping). Overall, 43,8 percent would take part as a taker and 31,9 as a provider. From all respondents, 84,1 percent would take part in at least one form of CC. Respondents are slightly more likely to take part if the exchange mode does not involve money, especially for less expensive assets such as bicycles or power drills. More than half of the respondents would exchange objects and rides both as a taker and as a provider. The biggest difference between taking and providing occurs in accommodation rental (58 – 13,1). Other results are skills (52,2 – 35,9), cars (37,5 – 24,6), meals (25,6 – 17) and gardens (27,8 – 14,3). Motives for the willingness to take part in CC are; saving / earning money, meeting people, contributing to a healthy environment, recommendation, social attitude towards the neighbourhood, general social attitude and environmental behaviour. The two most opted other considerations made by the respondents on open answer boxes are helping out and saving time. No difference is found between intrinsic and extrinsic motives. Other explanatory factors for taking part in CC are online (eBay) and offline (second-hand stores, flea markets) experience. Furthermore, results on the different demographics indicate that women are slightly more likely than men to take part in CC. When income and age increase, the willingness to take part in CC slightly decreases and education correlates positively with the dependent variables. Interestingly the 54 non-western immigrant group demonstrated the highest willingness of all ethnic groups.

## **Conclusion and discussion**

There are limitations to this research. Most importantly, the characteristics of the research sample, which consists predominantly (but not exclusively) of native, high-educated citizens of 35 years and older. A part of the measuring instrument resembles to a previous survey among a representative sample of Amsterdam citizens. The similar results for both samples do provide an indication for generalizability to the whole population of Amsterdam. Other limitations are the subjective character of the qualitative part of the research, which is vulnerable to the interpretation of the researcher. Furthermore, the use of a questionnaire involves various potential biases. Even though the questionnaire is tested extensively, results on the control variables indicate that there are still respondents who did not interpret it correctly. In addition to this, there is a difference between stated behavioural indications and actual behaviour and also the measuring of social attitude and environmental behaviour, two subjects that are vulnerable for socially desirable answers. This has an impact on the internal validity. Furthermore, the questions asked in the measuring instrument about the dependent variable are exclusively about the exchanges themselves and not about the act of subscribing to a CC platform. Even though, in reality, people can do this for free and quickly, this still affects the internal validity as this threshold is not incorporated in the questionnaire. Additionally, for some questions the imaginative power of the respondents has an important role, as respondents need to imagine they need (taker), or have (provider) a product or service.

Despite of the limitations, the combination of qualitative and quantitative research of this research provides a valuable contribution to the dearth of empirical evidence on CC. The results demonstrate that there exists a substantial willingness among Amsterdam citizens to take part in CC. The consumer potential of CC is not only high because of this willingness among various demographic groups, but also because of the large variety of motives existing for taking part in CC, as well as the many different CC items people can choose from. The results confirm the vision of Rachel Botsman (2013); CC is not confined to people that are young and digitally savvy. From a consumer behaviour perspective, the findings from this research indicate that the transition to a new socioeconomic groundswell of Collaborative Consumption is indeed taking place.

**Keywords:** Collaborative Consumption – Sharing Economy – Collaborative Economy – Car sharing – Ride Sharing – Stuff Sharing – Meal Sharing – Skill sharing – Accommodation sharing – Land sharing – Motives – Sustainable Consumption – Sustainable Entrepreneurship

## Samenvatting

*Collaborative Consumption* (CC) is een nieuwe economie waarin traditionele handelsvormen als delen, lenen, handelen, huren, geven en ruilen opnieuw worden gedefinieerd door technologie en gemeenschappen. Het wordt gekarakteriseerd door toegang tot, in plaats van het bezit van goederen en diensten. Ook heeft het een positieve sociale, economische en milieu-impact. Deze 'nieuwe' vorm van duurzame consumptie en ondernemerschap beschikt over de kwaliteiten om het bedrijfsleven, consumentisme en uiteindelijk de manier waarop mensen leven, te veranderen. Gedurende de afgelopen jaren zijn de verschillende CC-platformen in Nederland en andere landen zijn snel gegroeid. Er is echter een gebrek aan empirisch bewijs over de groei potentie van CC. Het doel van dit onderzoek is een bijdrage leveren aan de kennis over deze groei potentie en daarmee bij te dragen aan het antwoord op de vraag of CC in staat is om een transitie te bewerkstelligen van de huidige hyper consumptie maatschappij naar een nieuwe maatschappij gebaseerd op *Collaborative Consumption*.

## Doelstelling

Het onderzoeksdoel wordt geformuleerd aan de hand van transitie theorie en uitgaande van de volgende assumptie; als CC inderdaad een nieuwe maatschappij omvat, dan is er sprake van een transitie van een maatschappij gebaseerd op hyper consumptie naar een maatschappij gebaseerd op *Collaborative Consumption*. Iedere transitie heeft vier pilaren (Rotmans, 2012). Één van die pilaren is een verandering van het consumentengedrag. Het onderzoeksobject in dit onderzoek is de Amsterdamse consument en zijn bereidheid om deel te nemen aan CC. Het onderzoeksdoel is het vergaren van beschrijvende en verklarende kennis over het consumenten potentieel van CC door middel van het bepalen of, en om welke redenen, Amsterdamse consumenten deel zouden nemen aan *Collaborative Consumption*.

## Methoden

Dit onderzoek maakt gebruik van een *Mixed methods* benadering. Eerst worden er kwalitatieve methoden gebruikt gebaseerd op *Grounded Theory* (Glaser and Strauss, 1967). Data wordt verzameld door middel van ongestructureerde diepte interviews met twintig gebruikers van drie verschillende CC-platformen over de motieven die zij hebben voor het gebruiken van deze platformen. Vervolgend wordt Atlas.ti (codeer software) gebruikt om de interviews systematisch te analyseren. Dit wordt gedaan door indicatoren te integreren tot variabelen die corresponderen met intrinsieke en extrinsieke motivaties of andere verklarende factoren. Deze variabelen worden vervolgens op een kwantitatieve manier getest in het tweede deel van het onderzoek. Hier wordt een meetinstrument gecreëerd gebaseerd op de variabelen uit het eerste deel en aangevuld door andere (schaarse) bronnen. Vervolgens wordt het meetinstrument toegepast in een niet-experimentele setting door middel van een grote N survey onder 1330 Amsterdammers. SPSS wordt gebruikt om de statistische analyses uit te voeren en te bepalen wat de bereidheid van Amsterdammers is om deel te nemen aan CC, en ook om te bepalen welke factoren deze bereidheid beïnvloeden.

## Resultaten

Huidige gebruikers van CC-platformen gebruiken de platformen vanwege de volgende extrinsieke motieven; praktische noodzaak, financieel gewin en het krijgen van complimenten. De belangrijkste intrinsieke motivaties voor het gebruik van de platformen zijn sociaal van aard, bijvoorbeeld 'het ontmoeten of helpen van mensen,' of duurzaam van aard, bijvoorbeeld 'het bijdragen aan een gezond milieu,' Los van de motivaties spelen ook netwerken, (sociale) media en aanbeveling een rol. Deze bevindingen komen overeen met de vier drijfveren van CC beschreven door Rachel Botsman en Roo Rogers (2011) in het boek *What's mine is yours*. Deze drijfveren zijn: P2P technologieën, een heropleving van gemeenschappen, milieu zorgen en kost bewustzijn. De resultaten van het kwantitatieve deel van het onderzoek laten een substantiële bereidheid tot deelname aan CC zien onder de Amsterdammers die nog geen gebruik maken van CC. De resultaten verschillen per item (boor & fiets, auto, rit, maaltijd, tuin, accommodatie, vaardigheid), rol (nemer, aanbieder), en voor of er wel (kopen, verkopen, huren, verhuren) of geen geld (lenen, uitlenen, geven, krijgen, ruilen) gepaard gaat bij de transactie. In totaal wilt 43,8 procent gebruik maken van CC in een nemende rol en 31,9 procent in een aanbiederende rol. Van alle respondenten heeft 84,1 de bereidheid getoond om deel te nemen aan in ieder geval, één vorm van CC. Verder zijn respondent lichtelijk meer geneigd om deel te nemen aan CC als geld geen onderdeel is van de transactie. Dit geldt vooral voor minder dure goederen zoals een fiets of een boor. Meer dan de helft van de respondenten zou een object (boor of fiets) uitwisselen voor zowel de rol als nemer en de rol als gever. Het grootste verschil in de bereidheid tussen nemen en geven geldt voor accommodatieverhuur (58 – 13,1). Andere resultaten zijn vaardigheden (52,2 – 35,9), auto's (37,5 – 24,6), maaltijden (25,6 – 17) en tuinen (27,8 – 14,3). De motieven voor de bereidheid om deel te nemen aan CC zijn; geld besparen / verdienen, mensen ontmoeten, bijdragen aan een gezond milieu, aanbeveling, sociale attitude ten opzichte van de buurt, algemene sociale attitude en milieugedrag. De twee meest genoemde motieven die door de respondenten zijn ingevuld in de open antwoord boxen zijn het helpen van anderen en het besparen van tijd. Er is geen verschil gevonden tussen intrinsieke en extrinsieke motieven. Andere gevonden verklarende factoren zijn online (Marktplaats.nl) en offline (tweedehands winkels, rommelmarkten) ervaring. De resultaten voor de verschillende

demografische variabelen laten zien dat vrouwen lichtelijk meer geneigd zijn deel te nemen, dan mannen. Verder gaat de bereidheid licht omlaag bij hogere leeftijden en inkomens. De ondervertegenwoordigde etnische groep van niet-westerse immigranten heeft de grootste bereidheid om deel te nemen van alle etnische groepen.

### **Conclusie en discussie**

Dit onderzoek heeft een aantal beperkingen. De belangrijkste beperking bestaat uit de karakteristieken van de groep respondenten uit het kwantitatieve deel van het onderzoek. Deze groep bestaat voornamelijk (maar niet exclusief) uit autochtone, hoogopgeleide burgers van 35 jaar en ouder. Een deel van het meetinstrument is identiek aan een recentelijk uitgevoerd onderzoek onder een representatieve onderzoeksgroep van Amsterdammers. Dit onderzoek vertoont vergelijkbare antwoorden op deze identieke vragen en biedt daarmee een indicatie voor enige generaliseerbaarheid van dit onderzoek op de gehele populatie van de stad Amsterdam. Een andere beperking is het subjectieve karakter van het eerste (kwalitatieve) deel van het onderzoek, dat gevoelig is voor de interpretatie van de onderzoeker. Voor het kwantitatieve deel van het onderzoek gelden ook beperkingen. Bijvoorbeeld het gebruik van een vragenlijst (meetinstrument). Ondanks het uitgebreid testen van de vragenlijst zijn er nog altijd respondenten die de vragen niet correct geïnterpreteerd hebben. Dit blijkt uit de resultaten van de controle variabelen. Verder bestaat er een verschil tussen de bereidheid om deel te nemen aan CC (intentie van gedrag) en het daadwerkelijk deelnemen (werkelijk gedrag). Daarnaast gaan er vragen over sociale attitude en milieugedrag, deze onderwerpen zijn vatbaar voor sociaal wenselijke antwoorden. Dit heeft invloed op de interne validiteit. Verder gaan de vragen over de afhankelijke variabelen exclusief over de uitwisselingen van de verschillende items, en niet over het inschrijven bij een CC platform. Ondanks dat dit snel en eenvoudig kan heeft het wel een impact op de interne validiteit omdat deze drempel niet is opgenomen in de vragenlijst. Tot slot vraagt het meetinstrument voor de vragen over de afhankelijke variabelen veel van het inlevingsvermogen van de respondent. Deze moeten zich namelijk meerde keren voorstellen dat ze een dienst of service nodig hebben, of juist aan kunnen bieden.

Ondanks de beperkingen biedt dit onderzoek met een combinatie van kwalitatieve en kwantitatieve onderzoeksmethoden een waardevolle bijdrage aan de schaars beschikbare hoeveelheid empirisch bewijs over CC. De resultaten tonen aan dat er een substantiële bereidheid is onder Amsterdammers om deel te nemen aan CC. Het consumenten potentieel is niet alleen hoog vanwege de bereidheid onder verschillende demografische groepen, maar ook omdat er veel verschillende redenen zijn om deel te nemen aan CC. Daarnaast is er een brede variatie aan CC mogelijkheden waar tussen mensen kunnen kiezen. De resultaten bevestigen de visie van Rachel Botsman (2013): CC is niet beperkt tot jonge mensen die opgegroeid zijn in het digitale tijdperk. Vanuit het consumenten perspectief, de resultaten van dit onderzoek wijzen uit dat de transitie naar een nieuwe maatschappij gebaseerd op *Collaborative Consumption* inderdaad plaats vindt.

**Kernwoorden:** *Collaborative Consumption* – Deeleconomie – Collaboratieve economie – Ritten delen – Auto delen – Spullen delen – Maaltijden delen – Vaardigheden delen – Accommodatie delen – Land delen – motieven – Duurzame consumptie – Duurzaam ondernemerschap

## Acknowledgments

I would like to thank my supervisor, Dr. Mendel Giezen for the guidance and advise throughout the research project, and especially for the support and flexibility after the complete research proposal changed because of a fading internship opportunity. I have been lucky to have a supervisor with the ability to combine flexibility with dedication and encouragement to keep me on the right track towards graduation.

Completing this work would have been much more difficult, if not, impossible without the support of the Research and Statistics department of the municipality of Amsterdam (O+S). Without their panel I would certainly not have been able to reach out to 2500 respondents. I am especially thankful to Drs. Carine van Oosteren who took the time to attend a meet-up about Collaborative Consumption to learn more about it. I am specifically thankful to Dr. Willem Bosveld, Drs. Carine van Oosteren, Ilona Vierveijzer and Maerten vd M. for their valuable feedback on the development of the questionnaire, and for programming the questionnaire. Last but not least, I am very thankful to Fedor Ikelaar MSc for introducing me at O+S and most of all for his limitless support during both the development of the questionnaire as well as the pilgrimage to mount SPSS.

I must express my gratitude to Peerby, Shareyourmeal and Konnektid who invested lots of their valuable time in getting this research started. Without their support it would have been really difficult to find respondents to interview. I would also like to thank AirBnB for providing me with research data and OuiShare, for hosting the first European summit on Collaborative Consumption while I was writing this thesis. This gave me the opportunity to discuss and connect with all kinds of others involved in Collaborative Consumption.

Not to forget, completing this research would have been impossible without the home cooks and food takers of Shareyourmeal, the stuff (object) sharers of Peerby and the skill sharers of Konnektid who gave their time and enthusiasm. Their stories are the fundamentals of this research. For this I am most thankful. The same thankfulness goes to the 1330 Amsterdam citizens who completed the questionnaire. The time they voluntarily invested was indispensable and very valuable to me personally as well as to Collaborative Consumption.

I would also like to express my gratitude to Marianne, Willy, Bas, Timmo, Jan-Willem, Luuk, Elske, Rogier, Joris, Geurt, Janine, Hanneke, Marjon and Jan-Albert, for testing concept versions of the questionnaire and providing valuable feedback. This certainly has improved the questionnaire and made it more doable. This helped 1330 Amsterdam citizens to get through and it helped me to increase the response rate. Brilliant!

I am thankful to Mark Stradmann, Jim Bishop and Carine van Oosteren for giving feedback on the translation of the questionnaire from Dutch to English. I am deeply thankful to Mark Stradmann who gave his time and expertise to help improve the level of English of the thesis as well as my own level of English.

My special gratitude goes to the Collaborative Lab, collaborativeconsumption.com, and specifically Lauren Anderson for commenting on the research and accepting me as the global curator of Collaborative Consumption in the Netherlands. This gives me great opportunities to disseminate and discuss the knowledge gained in this research, around the world. Furthermore, it gives me the visibility to connect with those to whom my work is relevant. Most importantly, it motivates me because it lets me know that all the hard work is not for nothing and the results are valuable.

I am truly thankful to all of my family and friends for their support and interest during all phases of the research. I am especially thankful to Marianne who has supported me throughout the research. Not only emotionally but also by proof reading and being very critical on everything I produced during the process. Her honesty helped me to keep things in perspective.

### **I am thankful to the following organizations for giving me the opportunity to present this research:**

Utrecht University graduation presentation 2013 - O+S Yearly Symposium 2013 - shareNL expert meeting 2014 - The European Economic and Social Committee, public hearing on Collaborative Consumption 2013 - TEDx Amsterdam 2013 - Ouishare Netherlands and Knowmads Business School Amsterdam 2013/2014

### **I am thankful to the following organizations who have given me platforms to speak and write about Collaborative Consumption and this research:**

*shareNL and OuiShare drinks Amsterdam, April 2013 - Ministry of Economic Affairs Amsterdam, Kennisland, Safari, July 2013. - EenVandaag, April 2013 - BNR Nieuwsradio, 2013 - The European Economic and Social Committee, 2013 - Collaborativeconsumption.com 2013 and beyond - SecondSight for publishing a story about borrowing a hat and my research. - World Economic Forum's Global Shapers Community Hub in Amsterdam, March 2013*

## Table of contents

<b>1. Introduction</b>	<b>11</b>
1.1 Background en problem description	11
1.2 Research objective	12
1.3 Scientific relevance and connection to theoretical debates	12
1.4 Central research question and sub-questions	13
1.5 Methods summary	14
1.6 Structure of the thesis	14
<b>2. Article one - The consumer potential of Collaborative Consumption: Motives of Dutch collaborative consumers</b>	<b>15</b>
2.1 Abstract	15
2.2 Introduction	15
2.3 Theory	17
2.4 Methods	18
2.5 Results	19
2.6 Conclusion	25
2.7 Reflection	26
<b>3. Article two - The consumer potential of Collaborative Consumption: Measuring the consumer potential within the municipality of Amsterdam</b>	<b>27</b>
3.1 Abstract	27
3.2 Introduction	27
3.3 Theory	28
3.4 Methods	32
3.5 Results – Dependent variables	37
3.6 Results – Independent variables	38
3.7 Conclusion	45
3.8 Discussion	46
<b>4. Extension to the description of the methods used in the articles</b>	<b>47</b>
<b>5. Conclusion</b>	<b>49</b>
<b>6. Discussion</b>	<b>50</b>
6.1 Strengths, limitations, reliability, validity and generalizability	50
6.2 Recommendations for further research	51
<b>7. Epilogue</b>	<b>52</b>
Bibliography	53
Appendixes	
• Appendix A - The measuring instrument that was used in Amsterdam	57
• Appendix B - Results of the direct independent variables	65



## Figures and tables

### Figures

1.1	- Conceptual model	13
2.1	- Collaborative Consumption: Definition, drivers, principles and systems	16
3.1	- Question format independent variables and direct independent variables	34
3.2	- Other considerations made by the respondents in the role of taker	44
3.3	- Other considerations made by the respondents in the role of provider	44

### Tables

2.1	- Rogers' diffusion model	17
2.2	- Basic framework for assessing motivation based on social psychology literature	17
2.3	- Basic characteristics of platforms and respondents	18
2.4	- Overview of motives influencing the willingness of current users of CC platforms to take part in Collaborative Consumption	25
2.5	- Overview of networks and social media elements that are influencing the willingness of current users of CC platforms to take part in Collaborative Consumption	25
3.1	- Basic framework for assessing motives	29
3.2	- Control hypotheses ownership and trust	31
3.3	- Overview of hypothesis and corresponding variables	32
3.4	- Overview of what is exchanged and how (modes of exchange) this is done	33
3.5	- Demographic characteristics of the research sample	35
3.6	- Correlations between the State of the City and Collaborative Consumption research (question 5)	35
3.7	- Correlations between the State of the City and Collaborative Consumption research (questions 1)	36
3.8	- Correlations between the State of the City and Collaborative Consumption research (questions 2)	36
3.9	- Overview of the variables, scales, categories and their positions in the measuring instrument	36
3.10	- Overall willingness to take part in CC	37
3.11	- Willingness to take part in CC	37
3.12	- Eta square scores for exchanging involving and not involving money. .01 = small effect, .06 = moderate effect, .14 = large effect (Cohen, 1988)	37
3.13	- Differences for exchanging involving and not involving money (percentages)	37
3.14	- Pearson's correlation coefficient for trust and the willingness to take part in CC. ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).	38
3.15	- Pearson's correlation coefficient for ownership and the willingness to take part in CC. ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).	38
3.16	- CONTROL: Pearson's correlation coefficient for social attitude and social attitude towards neighbourhood towards meeting people ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).	38
3.17	- CONTROL: Pearson's correlation coefficient for environmental behaviour towards contributing to a healthy environment ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).	38
3.18	- CONTROL: Dependent variable. Pearson's correlation coefficient between the willingness to take part in CC and pushing the button for more information at the end of the questionnaire ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).	39
3.19	- Eta square scores for exchanging involving and not involving money. .01 = small effect, .06 = moderate effect, .14 = large effect (Cohen, 1988). - = no significant difference, -- = No score	39
3.20	- Cronbachs $\alpha$ for taker and provider roles per item	39
3.21	- Cronbachs $\alpha$ for cars and rides, and meals and skills	39
3.22	- Strength of the causal relations between the direct independent variables and the dependent variables. Pearson's correlation coefficient: ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).	40
3.23	- Pearson's correlation coefficient for the normal independent variables ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).	41
3.24	- Pearson's correlation coefficient for age, education and household income ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).	42
3.25	- Pearson's correlation coefficient for household income and the financial motive ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).	42
3.26	- Ind. samples T-test: Eta sq.scores. .01 = small effect, .06 = moderate effect, .14 = large effect	43
3.27	- Results on the dependent variables for different demographics (percentages)	43
3.28	- Other considerations of the respondents that influence their willingness to take part in CC	44
3.29	- Percentage of the respondents that would (very) likely take part, or are neutral in taking part in CC	45

## Abbreviations

CBS	Het Centraal Bureau voor de Statistiek (Statistics Netherlands)
CC	Collaborative Consumption
CL	Collaborative Lifestyles
GTM	Grounded Theories Methods
IPCC	Intergovernmental Panel on Climate Change
O+S	Bureau Onderzoek en Statistiek Amsterdam (Research & Statistics Amsterdam)
P2P	Peer to Peer
PSS	Product Service System(s)
RM	Redistribution Market(s)
SPSS	Statistical Product and Service Solutions

*The optimist proclaims that we live in the best of all possible worlds.*

*The pessimist fears this is true.*

*The Collaborative Consumptionist disagrees with both.*

(Freely translated after James Branch Cabell, 1979)

## 1. Introduction

### 1.1 Background and problem description

One of the most often cited definitions of sustainability is the one given by the Brundtland commission: “Sustainable development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987). So far, the ability of future generations to meet their own needs is far from guaranteed. The amount of carbon released by humans, as well as average temperatures worldwide are still increasing every year. Glaciers, polar ice and the permafrost are melting. The amount of forests keeps decreasing and ecosystems suffer both at land and at sea. Biodiversity is rapidly declining and the number of natural disasters, as well as their impact are increasing (IPCC, 2007). One of the reasons behind this environmental degradation are production and consumption patterns (European Commission, 2003; IPCC, 2007). It has long been recognized that “our enormously productive economy demands that we make consumption our way of live” (Lebow, 1955). This way of life becomes overly clear in the United States, where 99 percent of bought products end up as waste within six months (Leonard, 2010). Simultaneously, scientists from all around the world are increasingly unanimous about the cause of global warming as “ninety-seven percent of climate scientists agree that climate-warming trends over the past century are very likely due to human activities” (NASA, 2013). Political leaders fail to act accordingly and the Netherlands are no exception. Press releases of research reports reveal staggering figures of a previous environmental frontrunner that is now performing far below European average (Volkskrant, 2012; Trouw, 2012). The carbon emission reduction targets set for 2020 by the current government are not in line with internationally negotiated treaties and therefore, the government is even sued by 'stichting Urgenda' (a climate action foundation) that aims to change targets to both ambitious and necessary numbers (Urgenda, 2012). However, so far, the political process has been slow and incremental and significant improvements are not to be expected.

At the same time there is a new, yet old phenomenon re-emerging over the last decade, which is described by Rachel Botsman and Roo Rogers (2011) in their book *What's mine is yours*. Botsman and Rogers discovered that Couchsurfing, an online platform where people offer each other a place to sleep, is not the only ‘collaborative’ platform. They stumbled upon articles representing all kinds of exchanges, which often had “some kind of ‘co’ in the headlines” and found that “‘Collaboration’ had become the buzzword of the day for economists, philosophers, business analysts, trend spotters, marketers and entrepreneurs” (Botsman and Rogers 2011, p. xiv-xv). While examining these trends, the two became convinced that all behaviours, personal stories, social theories and business examples they found point to an emerging socioeconomic groundswell: “The old stigmatized C’s associated with coming together and ‘sharing’ – cooperatives, collectives, and communes – are being refreshed and reinvented into appealing and valuable forms of collaboration and community” (Botsman and Rogers 2011, p. xv). They termed this groundswell Collaborative Consumption (CC) and define it as: “Traditional sharing, bartering, lending, trading, renting, gifting, and swapping redefined through technology and peer communities- that is transforming business, consumerism, and the way we live” (Ibid). Within the Netherlands, there are many examples of CC enabling people to exchange products and services from one person to another. In doing so, people have increased access to products and services without the need of owning them. On the other hand people can benefit from assets they already have but do not always use. This transition ‘from ownership to access’ has the advantage that it is fully in the consumers’ self interest, while at the same time it offers substantial social, economical and environmental benefits (Botsman and Rogers, 2011). These benefits are explained in full detail in the introduction of the next chapter.

Given the benefits of CC (next chapter), it is no wonder that *Time* magazine announced CC as one of the ideas that will change the world (Time, 2011). The question is how fast and how far it will grow and eventually, if CC is truly a new socioeconomic groundswell. The transition from hyper consumption to Collaborative Consumption has a practical relevance for local, national and international policy-makers (European Economic and Social Committee, 2013; Economic Affairs Amsterdam, 2013; Government of the Netherlands, 2013) industry (Unterreiner, 2013) and the CC-based businesses (Interviews CC-platform owners, December 2012 – January 2013). Scientifically, research on CC is important for contributing to the scarce amount CC literature that is currently available. Additionally, CC is relevant to the scientific fields of sustainable consumption, where there is a general lack of empirical evidence (Thøgersen and Schrader, 2012), and sustainable entrepreneurship, which has a knowledge gap around “the potential for societal transformation through entrepreneurship” (Hall et al. 2010). Concluding, the knowledge gap addressed in this thesis, is the dearth of empirical evidence about the growth potential of CC, and ultimately the question if it has the ability to bring about a transition from current hyper consumption to a new socioeconomic groundswell of Collaborative Consumption.

## 1.2 Research objective

In order to define the research objective, a transition theory perspective is taken based on the assumption that; if CC is truly a new socioeconomic groundswell, then there is a transition going on from a society based on hyper consumption, towards a society based on Collaborative Consumption. According to transition expert Jan Rotmans (2012), all transitions have four pillars. One of those pillars is the change in consumer behaviour (transition theory is described more substantially in the introduction of chapter three). Thus, the research object taken are Dutch consumers and their willingness to take part in CC. In order to assess the research object, knowledge on the factors that influence this object is needed. To identify these factors, *descriptive knowledge* on the factors that cause people to take part in CC is required. Furthermore, *explanatory knowledge* is necessary to find out how these factors correlate to research object (Ibid). In sum: The objective of this research is to yield *descriptive* and *explanatory* knowledge on the consumer potential of Collaborative Consumption, by determining if, and because of what factors, Amsterdam consumers would take part in Collaborative Consumption.

## 1.3 Scientific relevance and connection to theoretical debates

This research contributes to the emerging literature on Collaborative Consumption, initiated by Rachel Botsman and Roo Rogers (2011). So far, research is limited to specific issues of CC such as peer-to-peer trust (Keetels, 2012; Pick, 2012), or specific examples of CC, such as Couchsurfing and eBay. Since 2009, at least 48 articles have been written about Couchsurfing (Google Scholar), but none of these articles deals with the factors that lead people to start using this form of CC (Scholar.Google.com). The only example of research on a form of CC where the willingness to take part was assessed is carpooling (Khandker et al., 2011). This research project is thus innovative in assessing people's willingness to take part in all types of CC, instead of just ride sharing. Finally, but most importantly, this thesis is (almost) unique for the fact that people that are not yet taking part in CC are researched. According to Lauren Anderson (Collaborative Lab, 2013), such research has not yet been performed, yet it is very necessary for all stakeholders involved. However, during the writing of this thesis, two substantial research projects were published. Hamari and Ukkonen (2013) investigated the role of intrinsic and extrinsic motivations in attitudes towards, and participation in CC. Their sample consists of 168 respondents who are all users of Sharetribe, whose mission is to help eliminate excessive waste by enabling everyone to use assets more effectively by sharing (Sharetribe, 2013). A second report was published, which described a research that quantitatively tested the motives of people that are not yet taking part in CC. This is a national poll, recently executed by Ipsos Public Affairs (IPA, 2013), commissioned by accommodation sharing platform AirBnB, with a research sample of 2.103 US citizens representing the whole US population. Thus, since this national poll, this thesis is no longer the only research project on those that are not yet taking part in CC. Nevertheless, this research is incredibly valuable for all CC stakeholders. This has become evident in the acknowledgement section of this thesis, where all occasions for written and oral presentations are described. Among them a public hearing of the European Economic and Social Committee to be held in September this year.

Besides relevance for CC stakeholders, this thesis is also relevant for the fields of sustainable entrepreneurship and sustainable consumption. Hall et al. (2010) conducted a review of *sustainable entrepreneurship* literature and found the following knowledge gap: "While the case for entrepreneurship as a panacea for transitioning towards a more sustainable society is alluring, there remain major knowledge gaps in our knowledge of whether and how this process will actually unfold" (Hall et al., 2010, 439). One opportunity for further research specifically quoted is "the potential for societal transformation through entrepreneurship" (Ibid). This research is directed specifically at the potential of CC, as one form of entrepreneurship, to create this transformation. Importantly, this is done by obtaining descriptive knowledge. This is valuable as "much of the literature [on sustainable entrepreneurship] is more prescriptive than descriptive" (Ibid, 442). Given the environmental benefits of CC, it can be seen as a form of *sustainable consumption* (Botsman and Rogers, 2011). A recent report by the EU funded research group SPREAD (2011), that focuses on sustainable living, identified Collaborative Consumption as an important and innovative social trend towards sustainable lifestyles which includes consumption. There is no consensus regarding the definition of the term, but it is commonly agreed that; "sustainable consumption requires individual action in changing consumption habits and adjusting lifestyles in line with the principles of sustainable development" (Mont and Plepys 2008, 532). Recently, a number of journals dedicated special issues to sustainable consumption. "The backcloth of the .. research reported in these special issues is a shared understanding that changes in consumer behaviour are crucial if we are to move to a sustainable development path" (Thøgersen and Schrader 2012, 1). However, in one of the recent special issues, a huge gap is identified "between the available knowledge on sustainable consumption and real action towards it, at all levels of society" (Ibid, 2). This research does not aim to bridge this gap, but it does provide an analysis of the consumer side of some 'real action' towards sustainable consumption.

In sum, this research project is highly relevant for CC stakeholders, including research, the fields of sustainable entrepreneurship and sustainable consumption.

## 1.4 Central research question and sub-questions

### Research question:

What is, and which factors explain, the willingness of Amsterdam citizens to take part in Collaborative Consumption?

### Sub questions:

*Descriptive:* What factors have caused current users of CC to start using CC?

(1a) What *intrinsic motivational* factors?

(1b) What *extrinsic motivational* factors?

(1c) What other factors?

(2) *Descriptive:* What is the willingness of Amsterdam citizens that are not yet taking part in CC to start doing so?

*Explanatory:* What (combinations of) factors found in sub question (1) relate to the willingness of Amsterdam citizens that are not taking part in Collaborative Consumption to start doing so?

(3a) What *intrinsic motivational* factors?

(3b) What *extrinsic motivational* factors?

(3c) What other factors?

(3d) What *demographic* factors?

In these paragraphs, the key concepts from the research question are explained, and visualized in the conceptual model provided in figure one. Three types of factors are considered. First, *demographic factors* referring to six demographic statistical characteristics; gender, age, ethnicity, household income, household type and education. Second and third are *motivational factors*. The concept of motivation is considered suitable because it refers to reasons underlying the behaviour of individuals (Guay et al. 2010, 712). A distinction between *intrinsic* and *extrinsic* motivation is made based on research by leading authors in the field of social psychology that commonly apply the concepts to educational research. Briefly summarized, *Intrinsic motivation* originates from one's enjoyment, interest, or pleasure and *extrinsic* motivation is typically effected by the provision of tangible or intangible rewards (Deci et al., 1999; Deci and Ryan, 1985; Eccles and Wigfield, 2002; Guay et al., 2010). More on motivation (can be found) in chapter two.

*Collaborative Consumption* is the sharing, bartering, lending, trading, renting, gifting, and swapping of goods and services through technology and peer communities. The examples of CC that are chosen to research reflect a broad range of existing CC platforms worldwide, and what is currently available in Amsterdam; Peerby (power drill & bicycle), Mywheels, Snappcar, WeGo (cars), Togethr (rides), Shareyourmeal (meals), Tuintjedelen (gardens), AirBnB (accommodation) and Konnektid (skills). Furthermore, there are two roles in CC, the role of the taker (borrow a power drill) and the role of the provider (rent out your car). Lastly, there are exchanges involving (buying, selling, renting, renting out) and not involving (lending, lending out, giving, receiving, swapping) money.

In sum, this research aims to find which factors (independent variables) relate to the willingness of Dutch citizens to take part in CC. For the dependent variable, analytical distinctions are made between items, roles and the involvement of money.

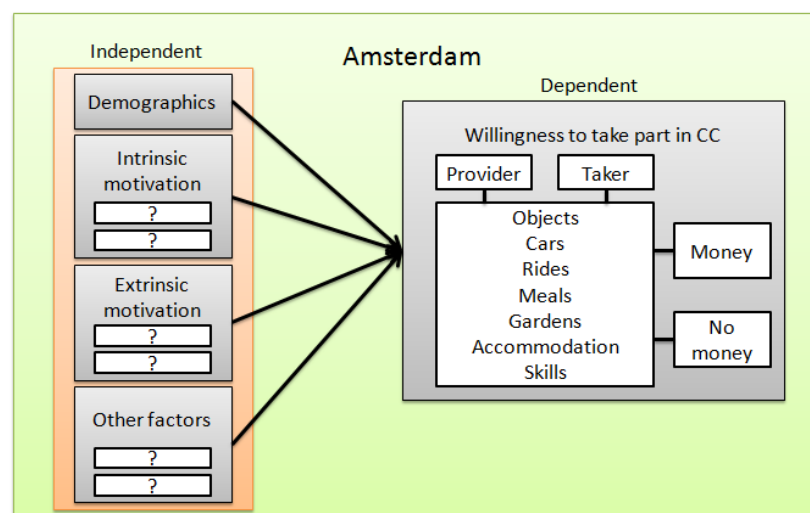


Figure 1.1 - Conceptual model

## 1.5 Methods summary

Since the book of Botsman and Rogers was published, Collaborative Consumption has received an ever increasing amount of attention from young entrepreneurs, business, politics, media and researchers. Doing research on such a new and developing subject requires a flexible attitude, as statements written during the writing of the research proposal in December 2012 and January 2013 were already outdated a few months later. Therefore, the decision was made to write two articles instead of one manuscript. This way, the urgent need for research data, for all involved in Collaborative Consumption (Collaborative Lab, 2013) would be fulfilled more rapidly. Furthermore, this research project is suitable for two separate articles, because it involves qualitative methods to answer sub question one, and quantitative methods to answer sub questions two and three. Thus, the first article contains a qualitative study, where current users of CC platforms are interviewed, resulting in an article about their motives and other explanatory factors. In the second article, these motives are tested quantitatively on a sample of Amsterdam citizens that are not yet taking part in CC. The methods for both articles are briefly described in the following paragraph.

In the first article, *qualitative* methods are used based on the Grounded Theory (Glaser and Strauss, 1967). Data is gathered through unstructured in-depth interviews with twenty users of three Dutch CC-based platforms about their motives for taking part in CC. Subsequently, Atlas.ti, (coding software) is used to systematically analyze the data by finding indicators and integrating them into variables that correspond to intrinsic or extrinsic motivational factors, as well as other explanatory factors. This way of data gathering is considered most useful, because descriptive knowledge needs to be generated to provide a foundation for theory building, which can in turn be used in the second article.

In the second article, *quantitative methods* are applied. A measuring instrument is created based on knowledge derived in the first article and data from other sources. The majority of these sources was published during this research project, indicating how fast CC is developing. To construct the measuring instrument, all motives and other factors found are aggregated into hypotheses and corresponding variables. These are then tested in a non-experimental setting by means of a large N-survey among the panel of the Research and Statistics Department of Amsterdam (O+S). SPSS is used to perform the statistical analysis and determine what the willingness of Amsterdam citizens to take part in CC is, and which of the independent variables correlate significantly to the dependent variables.

## 1.6 Structure of the thesis

Chapters two and three consist of the full first and second article including background, theory, research methodology, data collection, analysis, conclusions and discussion. Chapter four provides an extension of the methods used in both articles. Chapter five consists of the overall conclusion. Chapter six offers an extension to the reflection and discussion sections of both articles and provides recommendations for further research. The bibliographies of both articles as well as the other parts of the thesis are jointly provided at the end of the thesis before the appendixes.

## 2 Article one - The consumer potential of Collaborative Consumption: Motives of Dutch collaborative consumers

This article is part of a master thesis research project on the consumer potential of Collaborative Consumption in Amsterdam.

### 2.1 Abstract

Collaborative Consumption (CC) is a new socioeconomic groundswell in which traditional modes of exchange are redefined through technology and peer communities. It is characterized by access instead of ownership, to products and services thereby benefiting people, profit and planet. This 'new' form of sustainable consumption and entrepreneurship has the ability to transform business, consumerism, and the way people live. The success of CC-based platforms and companies depends to a large extent on reaching a critical mass of users. The objective of this paper is to yield descriptive knowledge on the motives of Dutch citizens to take part in Collaborative Consumption. Grounded Theory Methods are applied and Atlas.ti is used to analyze 18 in-depth interviews with 20 current users of CC based platforms about their motives for taking part in CC. The results indicate that practical need, networks and social media together with social, environmental and financial motives are all variables that influence the willingness of the respondents to take part in CC.

### 2.2 Introduction

Throughout the world there is an old phenomenon re-emerging called Collaborative Consumption (CC). Rachel Botsman and Roo Rogers (2011) found that Couchsurfing, an online platform where people offer each other a place to sleep, is not the only 'collaborative' platform. They stumbled on articles representing all kinds of exchanges and often with "some kind of 'co' in the headlines". They found that "'collaboration' had become the buzzword of the day with economists, philosophers, business analysts, trend spotters, marketers and entrepreneurs" (Botsman and Rogers 2011, p. xiv-xv). While examining these trends the two became convinced that all behaviours, personal stories, social theories and business examples they found point to an emerging socioeconomic groundswell: "The old stigmatized C's associated with coming together and 'sharing' – cooperatives, collectives, and communes – are being refreshed and reinvented into appealing and valuable forms of collaboration and community" (Botsman and Rogers 2011, p. xv). They termed this groundswell Collaborative Consumption and defined it as: "Traditional sharing, bartering, lending, trading, renting, gifting, and swapping redefined through technology and peer communities- that is transforming business, consumerism, and the way we live" (Ibid). CC consists of three types, four drivers and four principles. These are explained in the following paragraphs and visualized in figure one.

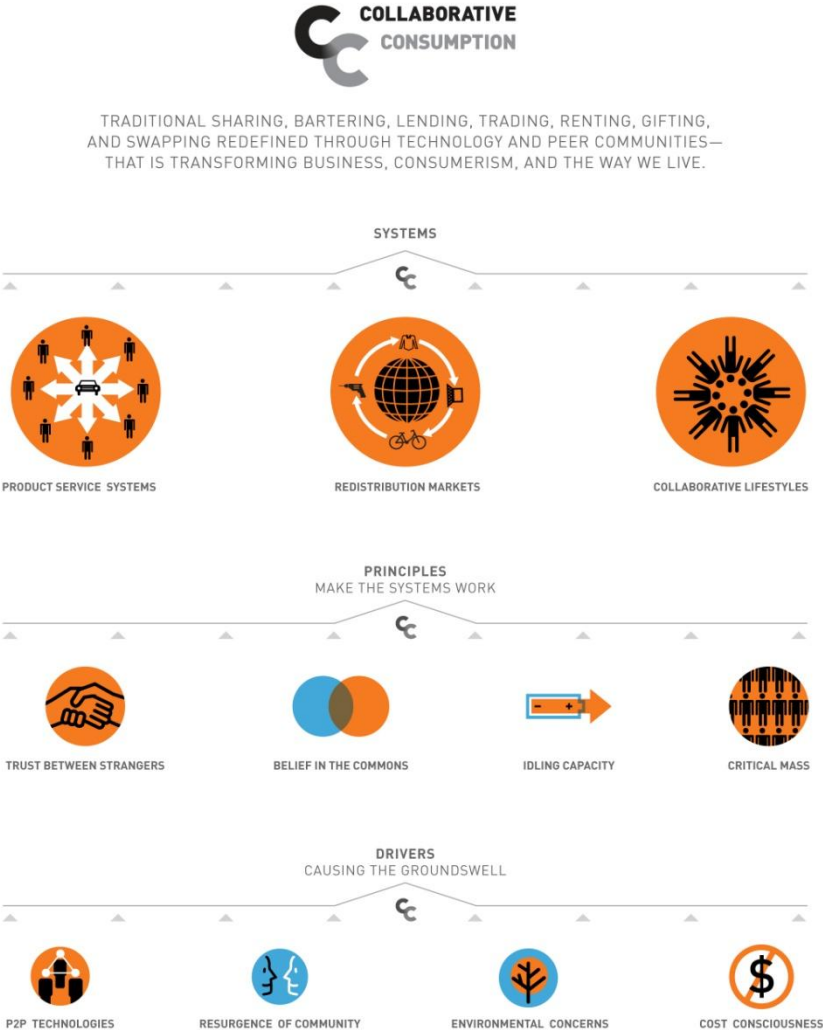
There are three types of CC: Product Service Systems, Redistribution Markets and Collaborative Lifestyles. *Product Service Systems* (PSS) imply the switch from an ownership mind-set towards a usage mind-set. Thus, people pay for, or get, the benefit of a product without owning the product. Within a PSS products both owned by a company and owned privately are shared. A good example is ride sharing, where people share (seats in) their car with others who are in need of the car's service, which is mobility. As this system benefits the utility of products, it has a positive environmental impact. Users benefit as well, as they save purchase and maintenance costs. *Redistribution Markets* (RM) allow for the redistribution of goods from where they are not needed to any place or person where the goods are needed. These markets have always existed but current technology and the subsequent social network are fuelling this type of CC. These new market places differ in paying systems. Some are entirely free, in others, goods are sold for points or money and yet in other there is a mixture of these types. There are also examples where goods are directly traded for other similar goods or other goods that have a similar value. Usually the exchanges takes place between anonymous strangers but there are also marketplaces that connect people on a local level. Like PSS, RM challenges traditional business methods. According to Botsman and Rogers (2011) "redistribution is the fifth 'R' - reduce, recycle, reuse, repair and redistribute - and is increasingly considered a sustainable form of commerce" (Ibid, p.73). *Collaborative Lifestyles* (CL) include the sharing and exchanging of fewer tangible assets such as time, space, skills and money on the local level. Examples are: working spaces, goods, tasks, time and errands, gardens, food, parking spaces. But as the internet enables people to coordinate, scale and transcend boundaries, CL also occurs worldwide in, for example, peer-to-peer social lending.

Collaborative Consumption is entirely in the consumers' self interest while at the same time it offers substantial social, economical and environmental benefits. These benefits correspond to the drivers of CC identified by Botsman and Rogers (2011). *Socially*, CC increases human interaction because people meet face-to-face. For example it can help isolated people to get in contact with neighbours but also connects them to relatives elsewhere as cheap rides become available. The social driver of CC is called 'resurgence of community' (Ibid). *Economically*, CC saves money as people have to buy less goods while still having access to the services of those goods. For instance, people no longer need to buy a car to have the mobility of a car and people no longer need to buy a power drill to get a hole in their wall. The financial driver of CC is called 'cost consciousness' (Ibid). *Environmentally*, there are substantial benefits

because people make more efficient use of existing products and resources. Within CC, the use per product unit is higher and thus less products have to be produced and discarded (Baines et al., 2007). Additionally, CC increases the efficiency of services such as mobility. For example, car-sharing platforms give consumers the opportunity to use the overload of empty seats in cars, which reduces the amount of carbon dioxide emissions and thus global warming (CBS, 2012). The environmental driver of CC is called 'environmental concerns' (Botsman and Rogers, 2011). This is crucial from a sustainable development perspective because "this 'greenhouse effect' may by early next century have increased average global temperatures enough to shift agricultural production areas, raise sea levels to flood coastal cities, and disrupt national economies" (IPCC, 2007). The fourth driver of CC is peer-to-peer (P2P) technologies. In the new global village, traditional modes of exchange are re-emerging but on a scale and in ways that has never been possible before. In sum, aided with modern day technology, CC is driven by, and provides an alternative solution to the world's economic, social and environmental crises.

Besides the four drivers there are also four principles that make CC systems work. Firstly, *trust between strangers*, creating trust online is one of the main challenges to CC platforms. Online trust has been well researched over the last decades (Cheung and Lee, 2006; McKnight et al., 2002; Pavlou, 2002; Wu et al., 2011; Zacharia and Maes, 2010) and recently research has been done on trust within CC platforms specifically (Keetels, 2012; Pick, 2012). Secondly, *belief in the commons*, a belief in a commons-based society. Elinor Ostrom (1990) demonstrated that simple rules can allow for a well functioning self-organized commons, and that individuals will cooperate to act in the common good, even in capitalist societies. She demonstrated that economics is not about markets but about resource allocation and distribution problems. For this achievement she won the Nobel Memorial Prize in Economic Sciences (Botsman and Rogers 2011, xxi) Thirdly, *idling capacity* is a precondition that makes a good suitable for Collaborative Consumption. It refers to goods with significant costs that are sitting idle most of the time. An often heard example is the car which costs hundreds of dollars a month but is used only one hour a day (Botsman and Rogers, 2011). Finally, *reaching a critical mass*, is the least researched principle of CC. As Martin Voorzanger, initiator of the ride-sharing platform Togethr explains: "The users are the content, when there are no users, the platform has no content" (M. Voorzanger, personal communication, December 13, 2012). In other words, when nobody offers a ride, nobody can find a ride. In order to know if CC-platforms can reach critical mass, it is helpful to know what the consumer potential for these platforms is. To understand this potential, knowledge is necessary on the motives that people have for taking part in CC and CC-platforms. However, such knowledge is not yet available in scientific journals. Therefore the objective of this research was to identify whatever motives Dutch people may have for starting to use a CC platform and thus take part in CC. To this end, in-depth interviews are performed with 20 users of CC based platforms. These interviews are based on a modest theoretical framework described in the next theory section followed by a methods and results section.

**Figure 2.1 - Collaborative Consumption: Definition, drivers, principles and systems (SOURCE: www.collaborativeconsumption.com)**





## 2.3 Theory

According to Botsman and Rogers (2011), CC is a new socioeconomic groundswell that not only transforms business and consumerism but also the way we live. Rogers' diffusion model is used as a contextual framework that helps to put this new socioeconomic groundswell in perspective. Furthermore, the concept of motivation is introduced as a basic framework for understanding the motives of Dutch consumers to take part in CC.

Collaborative Consumption is an innovative mode of consuming as it combines traditional modes of exchange with modern day technology. An innovation is an "idea, practice or object that is perceived as new by an individual or other unit of adoption" (Rogers, 2002). Well-known in marketing research is Rogers' diffusion model that is applied to the adoption of innovations among individuals and organizations. "Diffusion is the process through which an innovation is communicated through certain channels over time among the members of a social system" (Rogers, 1995). Like Botsman and Rogers (2011), Everett M. Rogers (1962) recognizes that there is a point at which an innovation reaches critical mass. From this point onwards, continued adoption of the innovation is self-sustaining due to the amount of existing adopters. According to the diffusion model of Rogers, there are five categories of adopters. First, the *innovators* are the first 2.5 percent of the individuals in a system to adopt the innovation. This group consists of people that are involved in more cosmopolite social relationships. Innovators are characterized by their interest in new ideas. Second, *early adopters* are the next 13.5% of the individuals in a system to adopt an innovation. This group consists of people that are more integrated into the local circle of peer networks. This category is followed by subsequent adopter groups that look to them for advice and information about the innovation. The early adopters are characterized by the highest degree of opinion leadership. Additionally, in Roger's original book he identifies early adopters as "typically younger in age, have a higher social status, have more financial lucidity, advanced education, and are more socially forward than late adopters (Rogers 1962, 283). Third and fourth are the *early* and *late majority* both representing 34 percent of the model. These groups are following the example of the previous adopter group. Fifth and last, the *laggards*. These are the last sixteen percent to adopt an innovation. These are only willing to accept a new idea when they are surrounded by peers who have adopted and are satisfied with the new idea (Rogers 2002, 991). When comparing Rogers' diffusion model to the current state of the CC platforms in the Netherlands, it is hypothesized that the users of these platforms are mostly innovators and early adopters because most CC platforms are in the entrepreneurial start-up phase and have around 1.000 to 40.000 users (Interviews with: Backseatsurfing; Konnektid; Meerijden.nl; Peerby; Shareyourmeal; Toogether; Winddelen, December 2012 – January 2013).

Rogers diffusion model		
Adopter category	Percentage	Characteristics
Innovators	2.5	Cosmopolites – curious
Early adopters	13.5	Localites – opinion leadership – younger in age – higher social status – more financial lucidity – advanced education – more socially forward <i>as compared to subsequent categories</i>
Early majority	34	Follow early adopters
Late majority	34	Follow early majority and early adopters
Laggards	16	Only adopt when surrounded by peers who satisfactory adopted the innovation.

Table 2.1 - Rogers' diffusion model

Motivation refers to the reason for doing something and has an intrinsic and an extrinsic component. *Intrinsic motivation* originates from one's enjoyment, interest, or pleasure and "energizes and sustains activities through spontaneous satisfactions inherent in effective volitional action" (Deci et al., 1999). Eccles and Wigfield (2002) state that "when individuals are intrinsically motivated, they engage in an activity because they are interested in and enjoy the activity" (Ibid, 112). *Extrinsic motivation* is typically effected by the provision of rewards that can either be tangible in the form of money, grades, privileges, or intangible in the form of praise (Guay et al., 2010). When extrinsically motivated, "individuals engage in activities for instrumental or other reasons, such as receiving a reward" (Eccles and Wigfield 2002, 112). Additionally, it has been argued that self-determination plays a role in extrinsically motivated behaviour (Deci and Ryan, 1985 in: Eccles and Wigfield 2002, 113).

Concept	Motivation			
	Intrinsic	Extrinsic		Self-determination
Tangible rewards		Intangible rewards		
Examples	Enjoyment, interest, pleasure	Money, privileges	Praise	

Table 2.2 - Basic framework for assessing motivation based on social psychology literature (Deci et al., 1999; Deci and Ryan, 1985; Eccles and Wigfield, 2002; Guay et al., 2010)

## 2.4 Methods

The aim of this research was to identify whatever motives Dutch people may have for starting to use a CC platform. Descriptive knowledge was generated to provide a foundation for theory building. Therefore, Grounded Theory Methods (GTM) were applied (Glaser and Strauss, 1967). Data was gathered through unstructured in-depth interviews with 20 users of three Dutch CC-based platforms about their motives for taking part in CC. This type of interviewing allowed the researcher to have a guide or a plan, or simply a topic to address, and the interviewee was given the opportunity to respond in a leisurely way (O'Reilly, 2005). During the interviews many in-depth questions were asked about the respondents personal motivations as well as motivations from the respondents' network. For example, not only 'why did you start using the platform?' was asked, but also 'whatever reason can you imagine for you, your friends, people you know through the CC platform, or people you don't know to start using the platform?' This has led to a broad range of motives. Atlas.ti, (coding software) was used to systematically analyze the data by means of open coding (LaRossa, 2005). Subsequently, codes were combined into categories. Then axial coding was used to put the data back together in new ways by making connections between categories and integrating them into variables (Ibid; Strauss and Corbin, 1990). These variables were then placed in the motivational framework described above and placed in the context and hypotheses of Rogers' diffusion model described above.

### Research sample

The research sample consists of users of three CC-based platforms; Peerby, Shareyourmeal and Konnektid. These are chosen because they reflect the three types of CC described above and should therefore cover a broad range of collaborative consumers. Peerby is a demand-based goods sharing platform. It is like a Product Service System because it implies the switch from an ownership mind-set towards a usage mind-set. Thus, people pay for, or get, the benefit of a product without owning the product. Shareyourmeal is an online marketplace where neighbours can cook and pick up dishes for and from each other. It is an example of a Redistribution Market because it entails the redistribution of goods from where they are not needed to any place or person where the goods are needed. Konnektid is an online marketplace for skills and is a form of Collaborative Lifestyles. As table one and two show, there is a difference among the respondents from the platforms. The Konnektid respondents have all spoken to the founder at least once. Some of them are more innovators than early adopters as they are active with their own online start-ups. They like the idea of taking away the middle man and directly connect supply and demand of anything. Peerby users tends to fit characteristics of early adopters described above. Respondents from Shareyourmeal, the largest platform in this research, seem to represent both the early adopter group and possibly a bit of the early majority. Table three provides the basic characteristics of the platforms and the respondents as well as the hypothesized adopter categories.

Platform	N users	N	Average age	Youngest	Oldest	Education	Location	Hypothesized adopter categories
Konnektid	1000	7	29	23	34	Higher Vocational Education - Academic	Amsterdam	Innovators – early adopters
Peerby	10.000	6	34.2	30	48	Academic	Amsterdam, 1 from Utrecht	Innovators - early adopters
Shareyourmeal	40.000	7	41.3	29	55	Intermediate Vocational Education - Higher Vocational Education	Throughout the Netherlands	Early adopters – Some early majority?

**Table 2.3 - Basic characteristics of platforms and respondents**

The method of data saturation was used to determine the sample size. This principle means that when subsequent interviews yield no additional codes the adequate sample size is reached. The different types of CC were taken into account. As expected, six interviews per type of CC proved enough to reach saturation. This fits earlier findings on data saturation. Among them, an article by Guest et al. (2006) titled: "How many interviews are enough?" Morse's (1994) recommendation for phenomenological studies and the mathematical model developed by Nielsen and Landauer (1993). This model is based on six different technology usability projects which all argue that six interviews is enough to uncover 80% of the major usability problems. In this research there have been sixteen individual interviews and two double interviews resulting in a research sample of twenty respondents. According to the literature mentioned above, these interviews combined should yield over 90 percent of possible factors influencing respondents motivations to take part in CC, and over 80 percent for each type of CC. In addition, those who accepted the invitation but were not interviewed, were asked to describe their motives for starting to use their platform by email. Highlights from these respondents were used in the analysis.

## 2.5 Results

When analyzing the interviews, all motives were aggregated into five main groups (variables). These are; practical, social, environmental, financial and curiousness related motives. Other influencing variables are networks and social media. In the following paragraphs all variables are dealt with in detail. However, some motives could not be aggregated into one of the variables because they are too specific. These are displayed in the 'out of the box' sections spread throughout the analysis.

### Curiousness

Curiousness can be intrinsically motivated, because of the enjoyment experienced by respondents of finding and testing new things. It can also be extrinsically motivated because of possible future tangible rewards. In line with early adopter characteristics, half of the respondents mentioned curiousness as a reason for subscribing to a platform. Firstly, they are curious about who else is in their neighbourhood and on the platform, and secondly they are curious about why these people are connected and what they can offer. 'What' can be food, goods and skills. Curiousness is also directed at the platforms themselves, meaning that respondents have an intrinsic interest in trying things out. As Konnektid only has approximately 1000 users, its followers are mostly innovators. People are following the platform closely to see how it will develop:

Curiosity plays a role. If you are the first with a certain initiative then you are likely to attract people like me that are willing to try things out. To see what it is and how it develops (K14).

It should be noted here that the step from trying something out of curiousness to using a platform on a daily basis is difficult. Some discover a platform and try it a couple of times but do not (yet) incorporate it in their daily routine. As one respondent explains: "It is still mostly curiousness and not yet part of my DNA" (T12). Whether it will become a part of the daily routine depends on how useful the platform will become. These findings correspond well to the characteristics of the innovator and early adopter groups described above. These people are cosmopolites that are much willing to try out new things and people that can be described as 'more socially forward.' These findings combined with the characteristics of the research sample described above confirm the hypothesis about the research sample, namely that current users of CC platforms are mostly innovators and early adopters.

### Out of the box motive for taking part in CC

*Two Peerby users were motivated because they consider the platform to be hip.*

#### Box 1 - Curiousness summary:

**Intrinsic:**

-Enjoyment of finding and testing new things

**Extrinsic:**

-Possible tangible rewards

### Practical motives

The most dominant motives for using the platforms are practical. Meaning that the majority of the respondents have subscribed to the platform and started to use it at the moment they needed something, whether this is a meal, tool or skill. For lending tools through Peerby, the available space at home is mentioned as a motive. Using Peerby often requires less space in one's home as products that are not often needed are easily borrowed from neighbours (P2). It is considered practical to know what is available in a given neighbourhood. One respondent argues that without CC, many practical opportunities are missed because we do not know what people are able to do:

I believe things function best if you do not always try to do it alone and try to reinvent the wheel. Instead use the experience of others. This works with ideas but also with practical issues such as repairing a washing machine or raising children. It is just not handy to do everything alone (P5).

Doing everything alone takes more time and therefore it becomes beneficial to cooperate. However, time is also a challenge for CC platforms. Access should be as efficient as ownership. One respondent spoke about peer-to-peer car rental platform Snappcar:

An important barrier for using Snappcar is the required time. Car sharing should be as fast as car owning. When I walk out of the door the time of contact should be short and I want to drive away immediately (P3).

In order for the sharing economy to compete with the ownership economy efficiency is crucial. When CC based companies can mimic the efficiency of ownership they are more likely to outcompete the

### Out of the box motive for taking part in CC

*When you are single and looking for ways to meet new people nearby.*

regular economy (Botsman and Rogers, 2011; Gansky, 2011). Time efficiency is most evident with *Shareyourmeal* takers. A simple visit to a neighbour and a box of freshly and usually healthy prepared food is ready (T11). Also, disliking cooking or having irregular working hours are mentioned as motives. What reasons do *Shareyourmeal* cooks have for starting to cook? Three out of four cooks mentioned rather professional motives. One already is employed as a professional cook (T10), another is being educated to become one (T8) and the third has the ambition to open a restaurant someday (T7). All five home cooks interviewed like to experiment with food and want to find out what people like (T7,8,9,10,20). *Konnektid* is considered practical at neighbourhood level as skills are found nearby. However, some respondents argue that it can only be practical at city level as this increases the chance to find what is needed (K14, K15, K17). As *Konnektid* is still a small platform, respondents are not sure about how they can use it but are curious about how it will develop:

It is promising and that is enough for me. The reason to keep using it depends directly on the platform. How many users, skills and if it eventually will be of use to me (P16).

Five out of seven *Konnektid* respondents consider the platform more useful for professionals and do not directly see the use of it in the neighbourhood. When asking directly there is a willingness to use it in the future on the neighbourhood level:

I would mainly use it professionally I think. But if there would be a neighbourhood tribe where I can exchange things with neighbours I might like it but I would not look for it or start one myself. However, I do use social media, like Facebook, to keep track of what is happening, for example following a new bar or restaurant (P18).

More on social media will be discussed in the paragraph on *Network*. In sum, the practical motives for taking part in CC for all three platforms are predominantly related to need and the fulfilment of needs. These are purely extrinsic motivations.

### **Out of the box motive for taking part in CC**

*When a (married) couple is half vegetarian and half meat lover, Shareyourmeal offers the opportunity for both partners to cook (or not) and eat whatever is preferred together.*

#### **Box 2 - Practical motives summary:**

**Intrinsic:**

-None

**Extrinsic:**

- Need of a meal, tool or skill
  - >Knowing what is available nearby
- Space at home
- Saving time
- Get professional experience
  - >Learning to become a cook
  - >Test if there is a market for your future restaurant

### **Social motives**

After practical need, the most dominant motives for taking part in CC are social. Helping someone else satisfies. Interestingly, there is not a real difference regarding these motives of the users of the three platforms. However, a note needs to be made here regarding *Konnektid*. As it is recognized more as a platform for professionals the social aspects are not directly mentioned by the majority of the respondents. However, when explaining the aims of *Konnektid* it is considered social because it is neighbourhood based.

If it is able to facilitate projects in neighbourhoods then I believe it has a social added value. Otherwise it will develop as a freelance platform (K14).

Currently *Konnektid* is doing projects in neighbourhoods. Thus social motives overlap with the two other platforms. Users are *intrinsically* motivated because of the enjoyment they get from sharing and because of the increased social cohesion. Just being able to help somebody with the help of the platform but also being helped fuels this enjoyment.

I like it to receive an email and that people are just willing to help one another, maybe I am naive, but it makes me truly happy. That somebody gets happy because you lent something out in good faith and that this is still possible nowadays (P6).

I really like it to receive people from my neighbourhood. So far there have been 18 food takers. They all live nearby but I had never seen them but now they are in my kitchen. Also, these people meet one another in my kitchen, cosy and fun. It also creates social control. When an old man who is a regular at my place did not visit for a while I started wondering what happened so I checked with another cook and then send him an email to ask if everything is going well (T8).

This cook and a few other respondents recognize the importance of social cohesion for certain groups of people such as the elderly. Not only isolated older people but also any older person could benefit from *Shareyourmeal*, as one

elder food takers states: 'my family sometimes gets tired of my stories' (T9). *Extrinsic* social motivations mentioned among Konnektid and Shareyourmeal users are the possibility to demonstrate one's abilities and to receive compliments. Many respondents appreciate the praise they receive from people they cook for. One popular cook described that it excites him when people provide feedback (E25). Another interesting extrinsic aspect is forward reciprocity:

It is not that I want to make money with it. That is not important to me. More important is being able to help someone. It is kind of a pay-it-forward system. If I help someone, then surely somebody else will help me (P4).

Money is set aside here. By doing well to any Peerby user, the respondent expects tangibles other than money, namely a product that becomes needed in the future.

More *generally*, getting to know other cultures is mentioned (T7, T11). Most urban areas in the Netherlands are hyper multicultural but in many cases people do not know what cultures are 'at their doorstep.' None of the respondents is specifically looking for new friends but many of them recognize a lack of social cohesion in their neighbourhoods. As one respondent describes it is 'not a friendship connection but more a, like knows like connection' (T12). Just knowing who lives in the neighbourhood is a currently unfulfilled need for many. For some respondents there is more to meeting new people:

I had already seen the profile picture and I am a social person so the social aspect definitely plays a role. So if I meet someone to whom I connect easily it could lead to something nice. However, the prime reason to use Shareyourmeal is practical, the social motive is secondary (T11).

This quote demonstrates again that practical motives tend to come before social motives. There are two more comments to be made here. Firstly, an overload of social cohesion is possible. One Peerby user that likes to cook is often recommended to start using Shareyourmeal, but she does not want to simply because she is already meeting people every day and during most of the evenings. Therefore, she does not want to add groups of food takers during dinner time (P4). Secondly, one respondent experiences no need for more social cohesion in the neighbourhood because the cohesion is already high (K19). The value of social cohesion, however, is recognized by all respondents:

There is so much knowledge in any neighbourhood. Why would people have to pay for everything when there is a nice alternative? And maybe at some point you can do something in return. That creates much more value than paying. Being of use to somebody else is much nicer than receiving money (K15).

One of those values is conflict prevention. One respondent who has worked for large organizations dealing with conflict now finds improving social cohesion at the local level as the most efficient way of preventing conflict by being dependent on each other (K15). A view that is supported by a few other respondents and articulated as follows:

I hope the number of sharing platforms and users will keep growing. Especially in this time, but really in every time, I find it important for people to realise that you can be very self-centred but in the end people need each other. With sharing, people are allowed to be dependent on one another (P2).

The 'out of the box' section on health on the previous page supports the view of this respondent. In sum, there are many social

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#### Out of the box motive for taking part in CC

*The opinion leaders are the ones who have the ability to bring CC to the early majority (K13).*

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#### Out of the box motive for taking part in CC

*Health, surprisingly, is mentioned quite a few times as a motive for Shareyourmeal users. Takers choose it because it provides a more healthy alternative than regular food-takeaways (T11). For cooks it can be the same: "Within 30 years of marriage I always loved to cook, especially for others. Lately, I got divorced. I started to use Shareyourmeal because I was cooking bad and unhealthy food for myself" (E22).*

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*Another health motive was given by one respondent who suffers from Lyme disease and therefore needs structure. Cooking for Shareyourmeal on a regular basis offers this structure (T9).*

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*A cook whose husband had died got heavily depressed also mentioned health as a motive. Cooking for Shareyourmeal gave her a purpose. Feedback from and contact with neighbours gave her so much joy that her medicine use dropt dramatically.*

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*An additional health motive was mentioned by a fourteen year old boy with ADHD, who cooks for Shareyourmeal with the help of his mother. Doing so "he has contact with people and thus learns to interact with them" (E24).*

reasons for people to take part in CC. Besides the intrinsic satisfaction and enjoyment related motives there are also extrinsic motives such as receiving compliments. Overall, an improved social cohesion in the neighbourhood, helping and being helped, as well as new ways of interacting with people are the most dominant motives.

### **Box 3 - Social motives summary:**

#### **Intrinsic:**

- Helping someone satisfies
- Being helped satisfies
- Sharing brings enjoyment
- Meeting people from one's neighbourhood brings enjoyment

#### **Extrinsic:**

- Receiving compliments
- Forward reciprocity

#### **General:**

- Boost social cohesion
- Getting to know other cultures
- Conflict prevention
- >Not looking for new friends but more a 'like knows like' connection

### **Environmental motives**

Fourteen respondents mention the environment as a motive for taking part in CC. It is recognized that it makes a lot of sense to share products that are not often used. However, the link to environmental sustainability is not always clear:

Resource scarcity and carbon dioxide emissions are abstract things. They are increasingly important but not the prime reason for using Peerby (P3).

For a minority of the respondents, environmental concern is the prime reason. When asked what is meant by the 'idea' for the environment as the reason for using Peerby, one respondent explained that this is the idea that no additional buying of products and the corresponding environmental burden is necessary for something that I only need once (P4). Most of the Shareyourmeal users consider the throwing away of food as harmful for the environment and consider Shareyourmeal a potential solution.

I am against throwing away food and I try to use everything that I buy. People that cook for themselves only need half a paprika and eventually throw the other half away. When I cook for them this waste is avoided. In addition less gas and water is used through Shareyourmeal (T8).

Many of the respondents are also active on other online and offline market places. Besides helping others, avoiding to throw goods away is the prime reason. Even though the environment is something abstract to the respondents, when asked directly they all agree that the earth has reached its limits and that things have to be done differently in order for the human race to maintain. In sum, even though carbon dioxide and resource scarcity are abstract things, the majority of the respondents are environmentally concerned, a few of them take it as their prime motive for taking part in CC. None of the respondents explicitly mentioned extrinsic motives. Instead they are either intrinsically motivated to 'do it right' for the environment or out of common sense.

### **Box 4 - Environmental motives summary:**

#### **Intrinsic:**

- Avoid unnecessary environmental burden
- Avoid throwing food and goods away

#### **Extrinsic:**

- Too abstract

#### **General:**

- Makes sense to share products that are sitting idle
- Earth has reached its limits and things have to be done differently

### **Financial motives**

More than half of the respondents mentioned that financial benefits could be a reason to start using the platforms. However, the majority of the respondents do not have financial motives themselves. This also has to do with the character of the platforms in this research that are based either on small or no financial transactions. For instance, car-sharing and accommodation sharing platforms are more likely to attract people looking for financial benefits. The peer-to-peer accommodation website AirBnB is used by some respondents. The main reason is to make money although it is also "great if people have a fantastic weekend in my house" (P14). One Shareyourmeal user also shared a ride to Italy on Meerijden.nl. Besides having someone to talk to, saving some money on fuel was the main reason (T12). Last, a Konnektid user rents out his car on Snappcar to make money (K14). In addition, many respondents use Marktplaats, mainly to make and save money. A reason for people to use Shareyourmeal is that home cooks provide higher quality for less money as compared to regular food suppliers. One's financial wealth also influences the likelihood of taking part in CC:

### **Out of the box motive for taking part in CC**

*When moving to a new city or neighbourhood, Collaborative Consumption offers many friendly opportunities to get to know one's new surroundings (K19).*

I think what also plays a role is that I do not have a lot of money, it's certainly not the first reason but if I would have a lot of money I would more easily buy a vapour cleaner. However, now I have decided to wait with cleaning

my couch and wait for someone who can lend his or hers out to me. With more money and a bigger house I would buy goods more easily (P6).

It is thus interesting to test whether people with a substantial income are still willing to lend and rent instead of buying things like vapour cleaners. In some cases, a CC platform is used for a reason that is best described as the filling of a market gap. A nice example is a couple originally from India that are cooking for Shareyourmeal:

We are of Indian origin and here Indian food is famous for being spicy. But in fact, Indian food is not always spiced. Instead of a lot of spices we work with fresh ingredients. Additionally, if you go out for dinner at an Indian restaurant it is often expensive and not prepared as it should be. We have never seen a good Indian restaurant. That is why we are offering Indian food like we believe it should be for the price of the ingredients (T7).

Besides 'real' Indian food, Shareyourmeal cooks also offer special meat pancakes unavailable elsewhere but also cakes and pies without milk or egg and other allergy proof products that would not have been available without Shareyourmeal (T9). Another market gap, besides offering something new, is the opportunity for people that are learning to become a cook or have the ambition to open a restaurant, to experiment and to get to know their market (T7, T8). The same holds true for seasonal products at Peerby or any other undiscovered skill that is shared through Konnektid (K13). In sum, financial motives are extrinsic by definition and it depends on the type of platform and the financial wealth of the individual. Secondly, financial motives can also have an entrepreneurial character. Here the platform provides tools to start entrepreneurial activities. Before looking at curiousness in the concluding part of the analysis the next paragraph explains the role of networks and social media.

**Box 5 - Financial motives summary:**

<b>Intrinsic:</b>	<b>Extrinsic:</b>
-none	-Financial gain
	>Make money
	>avoid costs
	-Higher quality food for less money
<b>General:</b>	
-Income	
-Entrepreneurship	
>Filling market gaps	

### Networks & social media

All interviews involved questions about how the respondent first got to know the platforms they use. For Peerby and Shareyourmeal a large majority of the respondents saw them first on Dutch mainstream media programs such as De Wereld Draait Door (The World Keeps Turning). Most of the Konnektid respondents have spoken to the founder personally or have attended a start-up event where the founder presented Konnektid. The aspect of recommendation is also highly visible throughout the interviews. As emphasized by both Botsman and Rogers (2011) and Gansky (2011), recommendation is probably the strongest marketing instrument today and fits perfectly to the sharing economy. A majority of the respondents heard about the platforms they use from people they know and half of the respondents mentioned that they, to different extents, promote the platform they use within their networks. This varies from an occasional message on Facebook to actively contributing to local media. Consequently, some respondents first heard about the platform through local media. Here is a quote from a super promotor:

Besides Facebook, I post to the message wall in the supermarket. I wrote to a newspaper, they interviewed me and wrote an article about it. It resulted in many reactions, it really worked. A while ago I was in a theatre where I was interviewed for 700 people about Shareyourmeal in a conference on start-up entrepreneurs. Again, there are many reactions and new subscriptions on Shareyourmeal.nl. I was invited even though I am only a non-profit entrepreneur within Shareyourmeal. Soon I will appear in the member magazine of the Rabobank and I am curious about the new reactions that will arrive (T8).

There is also an aspect of self-interest in promoting the platforms. By doing so, the users enrich their own opportunities within the platforms because the users are the content as is explained in the introduction. Even myself, as an interviewer, am part of the networks that spread the use of CC platforms. Most respondents were interested in other platforms I spoke about after the interviews. This points out to spin-over opportunities among the platforms. A couple of weeks after I interviewed a couple that cooks for Shareyourmeal I received an email from them in which they asked about the research and mentioned that they started using Peerby, something I had recommended to them after the interview (T9, T20). However, one respondent never watches TV and thus did not know about Shareyourmeal (T7). She, being of Indian descent, explains that different cultures have different networks and mainstream television programs do not reach her network.

People cook with the knowledge they have. Culture is an important factor influencing this knowledge. Food is part of culture. I think that mostly the cultures that are known for cooking a lot, Indians Turkish, Moroccan and Surinam, usually have leftovers but you do not see them at Shareyourmeal. The reason for this probably is that

they just do not know. I also never heard about it even though it is really useful. Mainstream television is not suitable to reach this group, it needs to be injected in communities and then it can go really fast starting from one single person (T7).

Nevertheless, half of the respondents that talked about demographics specifically mentioned high-educated Millennial as the most common user characteristics for their platform.

It is a bit odd to me that Peerby is mostly used by relatively high-educated people with a good income who seem to understand why it is important to share. But there are also people with little money who do buy a power drill to hang a cheap painting on their wall. How nice would it be if these people are able to use Peerby to avoid those costs? That would be ideal right? But now they keep buying new goods, because they do not know that there is another way (P4).

**Box 6 - Networks summary:**

- Respondents got to know about their platforms mainly through:
  - > Media (both local and national)
  - > Recommendation
- There seems to be a spin-over effect among the platforms
- Different cultures have different networks
- Currently those networks with early adopter characteristics are using CC platforms

It seems that Collaborative Consumption is stuck in certain networks and the chasm to other demographic networks is not yet taken. This could be inherent to Rogers' diffusion model. What about the role of social media?

Being active on social media plays a role in willingness to participate in CC platforms. Nearly all respondents are at least familiar with, but most are also using, platforms like Facebook and Marktplaats, the Dutch equivalent of Ebay. Additionally, all respondents are familiar with at least one other platform that is related to Collaborative Consumption. Being familiar with similar platforms is considered important by the majority of the respondents. Making contact with others easily is the reason people use Facebook and Hyves. Being familiar with this easy way of connecting helps to engage with others on platforms like Shareyourmeal where real contact is taking place (T8). Additionally, a person's overall approach to social media is important. One respondent highlights an interesting characteristic of Collaborative Consumption platforms. On the one hand, it is just one more online thing that you have to spend time on. On the other hand, the return from online to offline makes it promising:

I have to say, some friends of mine are pretty obsessively using Facebook. That gives me an aversion to anything that requires me to pick up a Smartphone again. I am not a fan of all those networks to keep updated. However, I have a working phone again and thus understand the ease of an app. And I like the idea of using the online to go offline (K19).

Thus, if used well, CC platforms are a valuable contribution to dominant social media platforms such as Facebook (K15). Besides online sharing some respondents are also actively sharing offline and consider this a reason why they are also more likely to be interested in online sharing. Examples are clothing swaps (P6) and flea-markets (K13).

In sum, networks are a friend and an enemy to Collaborative Consumption. On the one hand the number of users within a network can grow fast. On the other hand, so far Collaborative Consumption is penetrating fast through some networks, yet is still hardly visible in most other networks. Maybe when recommendation occurs across cultural and demographic boundaries, Collaborative Consumption is a step closer to going mainstream. Before the conclusion, all findings are summarized in table four and five below.

**Box 7 - Social media summary:**

- Nearly all respondents are also using Facebook or Marktplaats
- Nearly all respondents are familiar with at least one other CC platform.
- Being familiar with another CC platform, Facebook or Marktplaats helps to start using a new CC platform.
- Being familiar with offline ways of sharing helps to start using a new CC platform.
- The use of online (services) to go (and meet) offline is an important

**Out of the box motive for taking part in CC**

*Having children makes it valuable to know who lives in one's neighbourhood (K15).*



Motives	Intrinsic	Extrinsic	General
Practical		-Need of a meal, tool or skill >Knowing what's available nearby -Space at home -Saving time -Get professional experience >Learning to become a cook >Test if there is a market for your future restaurant	
Social	-Helping someone satisfies -Being helped satisfies -Sharing brings enjoyment -Meeting people from one's Neighbourhood brings enjoyment	-Receiving compliments -Forward reciprocity	- Boost social cohesion - Getting to know other cultures -Conflict prevention >Not looking for new friends but more a 'like knows like' connection
Environmental	-Avoid unnecessary environmental burden -Avoid throwing food and goods away		-Makes sense to share products that are sitting idle -Earth has reached its limits and things have to be done differently
Financial		-Financial gain >Make money >avoid costs -Higher quality food for less money	-Income -Entrepreneurship >Filling market gaps
Curiousness	-Enjoyment of finding	-Possible tangible rewards and testing new things	

**Table 2.4 - Overview of motives influencing the willingness of current users of CC platforms to take part in Collaborative Consumption**

Networks and social media	
Networks summary	Social media summary
-Respondents got to know about their platforms mainly through: >Media (both local and national) >Recommendation -There seems to be a spin-over effect among the platforms -Different cultures have different networks -Currently it are networks with early adopter characteristics that are using CC platforms	-Nearly all respondents are also using Facebook or Marktplaats -Nearly all respondents are familiar with at least one other CC platform. -Being familiar with another CC platform, Facebook or Marktplaats helps to start using a new CC platform. -Being familiar with offline ways of sharing helps to start using a new CC platform. -The use of online to go (and meet) offline is an important motive

**Table 2.5 - Overview of networks and social media elements that are influencing the willingness of current users of CC platforms to take part in Collaborative Consumption**

## 2.6 Conclusion

Collaborative Consumption (CC) is about the revival of traditional modes of exchange, redefined by technology and peer communities. It is fully in the consumers' self-interest, but at the same time it has a positive social, environmental and economical impact. CC-based platforms such as Peerby, Shareyourmeal and Konnektid facilitate the exchange and sharing of goods, food and skills in neighbourhoods. The success of these CC-based platforms depends to a large extent on reaching a critical mass of users. Because without critical mass, any user will hardly be able to find goods, food and skills. In order to know if CC-platforms can reach critical mass, it is helpful to know what the consumer potential of these platforms is. To understand this potential, knowledge is necessary on the motives that people have for taking part in CC and CC-platforms. However, such knowledge was not yet available in scientific journals. Therefore, the objective of this research was to discover as many motives as possible. Methods used in this paper are qualitative and based on Grounded Theory. Atlas.ti was used to analyze 18 in-depth interviews with 20 current users of CC based platforms about their motives for taking part in CC.

The findings indicate that respondents predominantly started to use their platforms out of a *practical need*. This is considered an extrinsic motivation. The platform provided them with the privilege to have access to things they need. However, many other intrinsic and extrinsic motivations have been articulated. During the coding process, these have been aggregated into *social*, *environmental* and *financial* motivations. Furthermore, *networks* and *social media* also proved to influence the respondents' willingness to take part in CC. Recommendation is a strong marketing instrument and this proved to be true in this research, as one of the main reasons for starting to use a platform was recommendation from a friend or a television programme. The four drivers of CC identified by Botsman and Rogers (2011); P2P technologies, resurgence of community, environmental concerns and cost consciousness, were not part of the research framework. Nevertheless, the findings correspond well to these drivers, confirming what is written in their book 'What's mine is yours' (Ibid). Tables four and five provide an overview of all the findings.

In the theory chapter it is hypothesized that current users are mostly innovators and early adopters. The high level of curiousness among the respondents, as well as their basic characteristics, confirmed that they are mostly innovators and early adopters. Additionally, the platform specific hypothesis from table three are confirmed. The Konnektid respondents are all innovators, Peerby respondents fit both to the innovator and early adopter group, and the Shareyourmeal respondents are predominantly early adopters but some of them are also part of the early majority as they followed the example of others around them. Thus, looking at the users of three Dutch CC-based platforms, it is concluded that they are predominantly innovators and early adopters. They got to know about the platforms through networks and social media and started using them mainly out of practical need. In addition, a diverse set of social, environmental and financial motives for using these platforms was found. This indicates that the consumer potential of CC in the Netherlands could be substantial because people with very different motives can all be interested in CC. However, based on the findings in this article, CC as a new socioeconomic groundswell is only in its nascent stages. The next step in researching the consumer potential of CC is to bring CC and these motives to people that are not yet taking part in CC and measure if, and because of what motives, they would start doing so.

## 2.7 Reflection

It is concluded that the respondents belong mostly to Rogers' innovator and early adopter groups. This could be a bias as the early majority may have different motives. However, this bias is expected to be minimal for a variety of reasons: Firstly, Rogers' diffusion theory does not include motivational differences, besides curiousness, among different adopter groups. Furthermore, the findings correspond well to the drivers identified by Botsman and Rogers (2011). Secondly, the interview techniques described above were aimed at finding whatever motive the respondent could come up with. Thirdly, there is a high diversity of motives found. All these reasons indicate that the chances of missing an important motive of subsequent adopter groups is unlikely. However, it is not 100 percent certain that all relevant motives have been found. Nevertheless, a diverse set of motives has been found and a substantive basis for further research is created. The next question to be answered is how other, less curious people, or in Rogers terms, the early majority, perceive Collaborative Consumption.

Besides the 'sample bias' there is more to reflect on. Firstly, the interviews were mostly about the first time people subscribed to a platform. However, subscribing to the platform and trying it out is one thing, starting to use it is something different. This aspect is also inherent to any CC-platform. As described in the introduction, the users form the content. Before a platform becomes effective in 'delivering' what their users need, it needs a minimal amount of users (Botsman and Rogers, 2011). Although it was not the intent of this research, some respondents spoke about this difference. People often mentioned the patience that is needed when subscribing to a platform that does not have a lot of users. Several respondents argued that they had to wait and check every now and then to see if there was activity in their neighbourhood yet. Secondly, practical need is described as the dominant motive. However, is practical need a motive? It is in the decision on how to fulfil the need, where motivation plays its role. Nevertheless, given the amount of times respondents stated that they had started to use the platform because they needed something, it is incorporated as a motive. Thirdly, self-determination is considered to be a part of extrinsic motivation. Although none of the respondents spoke about self-determination, Collaborative Consumption does offer additional options for people to choose from and therefore increases possibilities for self-determination.

### 3 Article two - Measuring the consumer potential of Collaborative Consumption: The municipality of Amsterdam

#### 3.1 Abstract

Collaborative Consumption (CC) is the traditional sharing, bartering, lending, trading, renting, gifting, and swapping redefined through technology and peer communities. The objective of the research described in this article is to assess the consumer potential of CC in Amsterdam by developing a measuring instrument based on motives of current collaborative consumers. These motives and other explanatory factors for taking part in CC that are currently known, are collected and aggregated into variables and hypothesis. The measuring instrument consists of a questionnaire based on these motives and other explanatory factors including demographics. Examples of CC measured in this research are seven items (objects, cars, rides, meals, gardens, accommodation and skills), two roles (taker and provider) and several modes of exchange (buy, sell, rent, rent out, lend, lend out and swap). The research sample consists of 1330 respondents from the cities panel, who are predominantly 35 years and older. The results indicate that, on average, 38 percent of the respondents are willing to take part in all examples of CC, and 84 percent would at least take part in one example of CC. However, the willingness for taking part in CC differs for different examples of, and roles within CC. Furthermore, various motivational, demographic and other factors influence the willingness to take part in CC.

#### 3.2 Introduction

Collaborative Consumption (CC) is defined by Rachel Botsman and Roo Rogers (2011) as: “Traditional sharing, bartering, lending, trading, renting, gifting, and swapping redefined through technology and peer communities- that is transforming business, consumerism, and the way we live” (Ibid). Examples of what is being exchanged are cars, rides, parking places, gardens, meals, skills, bicycles, power drills and other tools, clothes, accommodations, money, experiences, knowledge or whatever else people come up with. All these examples can be divided into three types of CC. Over the past few years, thousands of platforms have emerged around the world that are facilitating these exchanges. Through all these exchanges among people, social cohesion improves as there is more interaction in cities and neighbourhoods. Additionally, the pressure on the environment is reduced as products are used more efficiently. Lastly, there are substantial financial benefits for individuals as CC provides them with cheaper access to all kinds of products and services. For instance, it is no longer necessary to own a power drill to get a hole in your wall. Access to someone else’s power drill is enough. Furthermore, CC allows people to earn money with what they already have but not always use. Given these benefits for both businesses and locals, national and international governmental institutions have noticed and often recognized CC and its potential (Economic affairs Amsterdam, 2013; EESC 2013; Government of the Netherlands, 2013; WEC positioning paper, 2013). According to Botsman and Rogers (2011), we are moving from a twentieth century of hyper consumption towards a twenty-first century of Collaborative Consumption. Therefore, they consider CC nothing less than a new socioeconomic groundswell where “the old stigmatized C’s associated with coming together and ‘sharing’ – cooperatives, collectives, and communes – are being refreshed and reinvented into appealing and valuable forms of collaboration and community” transforming business, consumerism but also the way we live, while benefiting people, profit and planet. If this is true, then the current consumer potential of CC is part of a transition.

Transition expert Jan Rotmans (2012), like Botsman and Rogers, recognizes an economical as well as an ecological crisis that are both driving a transition to an unknown future. A transition consists of four phases. Firstly, the predevelopment phase, which is characterized by very little visible societal change, but a lot of experimentation. Secondly, the take-off phase, in which the change process starts and the state of the system begins to shift. Thirdly, the acceleration phase, in which “structural changes take place in a visible way through an accumulation of socio-cultural, economic, ecological and institutional changes that react to each other” and “there are collective learning processes, diffusion and embedding processes” (Loorbach, 2007). Finally, the stabilization phase, in which “the speed of societal change decreases and a new dynamic equilibrium is reached” (Loorbach, 2007; Rotmans, 2012). A full transition does not occur easily nor often. According to Rotmans (2013), four things are simultaneously needed: Strong landscape signals over a longer period of time, policy support, broad consumer support and a change in consumer behaviour.

There are four principles that make CC systems work. Firstly, *trust between strangers*. Creating trust online is one of the main challenges to CC platforms. Online trust has been well researched over the last decades (Cheung and Lee, 2006; McKnight et al., 2002; Pavlou, 2002; Wu et al., 2011; Zacharia and Maes, 2010) and recently research has been done on trust within CC platforms specifically (Keetels, 2012; Pick, 2012). Secondly, *belief in the commons*. People do not only have to trust other individuals, they also need to believe that a group of people is able to share the same resources in a fair and sustainable way. Simple rules can allow for a well-functioning self-organized commons, where individuals will cooperate to act in the common good, even in capitalist societies. This has been proven by Elinor

Ostrom (1990), who demonstrated how economics is not about markets but about resource allocation and distribution problems (Botsman and Rogers 2011, xxi). Thirdly, *idling capacity*, which refers to the “untapped social, economical and environmental value of underutilized assets” (Botsman, 2013). An often heard example is the car which costs hundreds of dollars a month but is only used one hour a day (Botsman and Rogers, 2011). Fourthly, *reaching a critical mass*, which is the least researched principle of CC. As Martin Voorzanger, initiator of the ride-sharing platform Toogethr explains: “The users are the content, when there are no users, the platform has no content” (personal communication, December 13, 2012). In other words, when nobody offers a ride, nobody can find a ride. In order to know if and which CC-platforms can reach a critical mass, it is necessary to know what the consumer potential for these platforms is.

Accordingly, in order to provide one of the building blocks to determine the status of a transition towards the new socioeconomic groundswell, as well as to discover if and which CC-platforms can reach critical mass, it is necessary to know the consumer potential of CC. Therefore, the aim of this research project is to measure the consumer potential of Collaborative Consumption platforms by developing a measuring instrument that measures consumers’ willingness to, and motives for taking part in CC, and applying it within the municipality of Amsterdam. The next chapter provides an overview of what is currently known about motives and other explanatory factors for taking part in CC, resulting in a number of hypotheses. In the subsequent chapter, it is described how the measuring instrument based on these hypotheses is constructed, as well as the characteristics of the research sample and its implications for the representativeness of this research. This chapter is followed by the results, including seven examples, two roles and several modes of exchange in CC, as well as the approval or rejection of each of the hypotheses. Lastly, the results are summarized and discussed in the conclusion and discussion chapter.

### 3.3 Theory

This chapter provides an overview of motives and other explanatory factors for taking part in CC that are currently available. Furthermore, the demographics applied in this research and two control variables are introduced. Hypotheses are formulated based on these motives, demographics, control variables and other factors. Thus, this chapter contains the foundation for the measuring instrument that is built to test these hypotheses in the next methods chapter. An overview of all hypotheses and variables is provided at the end of this chapter in table three.

Extensive searches on Google Scholar and Scopus did not result in any articles on the subject. Used search terms are ‘motives/motives in Collaborative Consumption,’ ‘motives/motives for sharing online’ and ‘what motivates people to share/consume collaboratively.’ As an alternative, relevant surveys and articles from several non-scientific online sources are used. Furthermore, quantitative research was done on motives of collaborative consumers in the Netherlands (Glind, 2013a). This resulted in a number of useful sources of which the larger ones are introduced in this paragraph. Hamari and Ukkonen (2013) investigated the role of intrinsic and extrinsic motives in attitudes towards, and participation in CC. Their sample consists of 168 respondents who are all users of Sharetribe, whose mission is to help eliminate excessive waste by enabling everyone to use assets more effectively by sharing (Sharetribe, 2013). Glind (2013a) interviewed twenty users of three CC platforms in order to find out what motives they have for doing so. His findings compare well to the drivers of CC identified by Botsman and Rogers (2011) in their book *What’s mine is yours*, which is also used as (one of) the main source(s) throughout the following paragraphs. Furthermore, several surveys on motives, commissioned by CC platforms, are used. All these sources derived their information from people that are already taking part in CC. Only one source was found that quantitatively tested motives on people that are not yet taking part in CC. This is a national poll, recently executed by Ipsos Public Affairs (IPA, 2013), commissioned by accommodation sharing platform AirBnB, which has a research sample of 2,103 US citizens representing the US population. The following paragraphs describe motives, other explanatory factors and demographics, each with corresponding hypotheses and variables.

When Glind (2013a) asked respondents about their motives for taking part in CC, *practical need* was most dominant. Respondents started to use their CC platforms at the moment they needed something, whether this was a meal, tool or skill. Saving time and saving space at home are additional motives for taking part in CC (Botsman and Rogers, 2011; Glind, 2013a). However, practical need itself is not necessarily a motive, because most people need products and services delivered by CC anyway. For instance, people need food, accommodation and mobility. It is within the decision how to fulfil this need that motivation plays its role. Therefore, no hypothesis considering practical need is tested. The measuring instrument takes practical need for granted (see next chapter).

Motivation is defined as the reason for doing something and it has an extrinsic and an intrinsic component. *Extrinsic* motivation is typically effected by the provision of rewards, which can either be tangible in the form of money, grades, privileges, or intangible in the form of praise (Guay et al., 2010). Extrinsically motivated individuals “engage in activities for instrumental or other reasons, such as receiving a reward” (Eccles and Wigfield 2002, 112).

*Intrinsic motivation*, on the other hand, originates from respondent's enjoyment, interest, or pleasure and "energizes and sustains activities through spontaneous satisfactions inherent in effective volitional action" (Deci et al., 1999). According to Eccles and Wigfield (2002), intrinsically motivated individuals "engage in an activity because they are interested in and enjoy the activity" (Ibid, 112).

Concept	Motives		
Categories	Intrinsic	Extrinsic	
		Tangible rewards	Intangible rewards
Examples	Enjoyment, interest, pleasure	Money, privileges	Praise

Table 3.1 - Basic framework for assessing motives

Hamari and Ukkonen (2013) researched specifically the role of intrinsic and extrinsic motives. Their findings indicate that extrinsic motives (reputation + economic benefits) have a significant effect on peoples willingness to take part in CC, while intrinsic motives (ecological sustainability + enjoyment) have such an effect on people's attitudes towards CC (Hamari and Ukkonen, 2013). This research is only directed at the willingness of the respondents to take part (behavioural intention) in CC. In order to verify the findings of Hamari and Ukkonen (2013), the following hypothesis is tested: Extrinsic motives are more strongly related to the willingness to take part in CC than intrinsic motives. In this research all environmental motives are considered intrinsic, all financial motives are considered extrinsic, and all social motives are considered intrinsic, with the exception of praise, which is considered an extrinsic motive.

**Hypothesis 1**

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Extrinsic motives are more strongly related to the respondent's willingness to take part in CC than intrinsic motives

*Social motives* are defined by Botsman and Rogers (2011) as a 'resurgence of community.' Over time people have become isolated from the communities they live in and many do not even know the names of their neighbours. Therefore, this social driver is the willingness of people to know and interact with their neighbourhoods again (Ibid, 173). In addition, Glind (2013a) found that meeting people from respondent's neighbourhood brings enjoyment. People are *intrinsically motivated* because helping somebody satisfies and sharing brings enjoyment. The ability to help others is a motive that was also found when ride-sharing platform Togethr surveyed its users. Those who only offer rides do so mainly to help others. Enjoyment was also found as a motive in Glind (2013a) and Hamari and Ukkonen (2013), who found a significant impact of enjoyment on both attitude towards and behavioural intention for taking part in CC. This fits well to the findings of the IPA research project, which demonstrates how, for those who already share their property or belongings online with a stranger, the top motivation for doing so is tied to the ability to help others and, ultimately, make the world a better place (IPA, 2013). Glind (2013a) also found that being helped by somebody else brings enjoyment as well. Interestingly, people can also be *extrinsically motivated socially*. For example, some home cooks of Shareyourmeal admitted they cooked partly because of the praise they receive from food takers. The compliments they receive on their page on the website motivates them to continue. Another *extrinsic motive* is forward reciprocity. This means lending out something to one neighbour while being confident that someone else will lend you something when needed. All these findings are aggregated into two hypotheses, stating that both respondent's general social attitude, as well as respondent's social attitude towards his/her neighbourhood specifically, influence the willingness to take part in CC.

**Hypothesis 2 - social**

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Social attitude towards the neighbourhood influences respondent's willingness to take part in CC

**Hypothesis 3 – social**

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Social attitude influences respondent's willingness to take part in CC

The *environmental* driver of CC is called 'environmental concerns' (Botsman and Rogers, 2011). This *intrinsic* driver is not as dominant as the other motives because for many people the environment is more abstract than the other motives. Some respondents in Glind (2013a) do acknowledge that the earth has reached its limits and things have to be done differently. Despite awareness of carbon dioxide emissions and global warming, it is difficult to relate these issues to people's daily lives. Nevertheless, people are motivated to use collaborative platforms because it helps them to avoid unnecessary environmental burden such as throwing food and goods away or preventing seats in cars from being empty (Glind, 2013a). Within the IPA research, 24 percent consider supporting or promoting environmental sustainability as a reason for taking part in CC (IPA, 2013). A survey commissioned by car sharing platform Zipcar among its users showed that half of the participants acknowledged that they drive less because they want to protect the environment (Zipcar, 2011). In line with this, the survey commissioned by ride sharing platform Togethr found that protecting the environment is a dominant motive for carpooling (Togethr, 2013). Freecardboardboxes.com, a platform where people give and receive free cardboard boxes, is sometimes used because of

**Hypothesis 4 – Environmental**

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Environmental behaviour influences respondent's willingness to take part in CC

'green' reasons (Botsman and Rogers, 2011). Thus, environmental attitudes relate to respondent's willingness to take part in CC. However, it is difficult to measure this attitude. Therefore, the decision was made to measure proxies of environmental behaviour. Consequently, the hypothesis that was tested is; environmental behaviour influences respondent's willingness to take part in CC.

*Economically*, CC saves money, as people have to buy less goods while still having access to the services of those goods. For instance, people no longer need to buy a car to have the mobility of a car and people no longer need to buy a power drill to get a hole in their wall. The financial driver of CC is called 'cost consciousness' (Ibid). This *extrinsic motive* is more straightforward and involves mostly financial gain, whether this is making money or avoiding costs (Botsman and Rogers, 2011; Glind, 2013a). The IPA research demonstrated that nearly six in ten U.S. adults agree that the ability to borrow or rent someone else's property or belongings online is a great way to save money, and 47 percent considers renting out respondent's property or belongings to be a great extra source of income. Interestingly, people that are not yet taking part in CC are most likely to be motivated by the financial reward, while people already taking part in CC consider social motives most important. Six out of ten people that are now taking part in CC started because of financial motives and overall 77 percent of the people in the sample consider CC to be a great way for saving money (IPA, 2013). Unsurprisingly, Fastcoexist headlines their article on the IPA report as follows: "People get in it for the money, but stay in it for love" (2013). Recent research found that UK consumers already earn and save 4.6 billion pounds through Collaborative Consumption (Sustainablebrands.com, 2013). The Toogethr survey found financial motives to be most important for people to carpool (Toogethr, 2013). The Zipcar survey found that millennials (age 18-34) are motivated to take part in CC "because of potential savings they could accumulate for major milestones such as retirement, housing, and college tuition" (Zipcar, 2011). Indeed, financial incentives are crucial, especially for those that are not yet taking part in CC, but also current participants "very much believe in the principles of capitalists markets and self-interest" (Botsman and Rogers 2011, 71). Therefore, it is hypothesized that financial motives influence respondent's willingness to take part in CC.

**Hypothesis 5 - Financial**

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Financial motives influences respondent's willingness to take part in CC

**Networks and (social) media**

Besides motives, *networks and (social) media* have been found to be important variables in influencing people to take part in CC. The fourth driver of CC, according to Botsman and Rogers (2011), is peer-to-peer (P2P) technology. In the current 'information age,' more people are sharing more content, more sources, more often and more quickly (CIG, 2013). People have to get to know a CC platform before they can use it. Glind (2013a) found that current users found out about their current CC platforms mainly through local and national media, but also through recommendations from peers offline and online through social media. When looking at how CC platforms spread around cities, it is observed that if many people around someone use a platform, the likelihood for this person to also take part increases. Platforms spread through neighbourhoods like oil-spills (Shareyourmeal.net, 2013). This also has to do with the critical mass, because, for a platform to function, there need to be others on it. Therefore, once a certain mass is reached in a neighbourhood, entrance becomes easier. Experience is also important. Glind (2013a) found that nearly all respondents are using Facebook or Marktplaats (Dutch version of eBay) and were familiar with at least one other CC platform. This experience helps when deciding to start using another platform. Additionally, being familiar with offline ways of CC, like flea markets and visiting second handed stores also helps when deciding to start using another platform (Glind, 2013a). More extended research has been done on internet and e-commerce. These studies show that experience with internet in general and internet e-commerce, positively influences the willingness of people to buy items online (Corbitt, Thanasankit and Yi, 2003; Meztzege, 2006). Furthermore, there is a spin-over effect among CC platforms. Having experience with one platform increases the likelihood of trying another. Glind (2013a) found that many of the respondents were receptive to other examples and many of them already used more than one CC platform. According to Botsman and Rogers (2011), the

**Hypothesis 6 – Networks and (social) media**

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Following media like television, newspapers, radio and internet influences respondent's willingness to take

**Hypothesis 7 - Networks and (social) media**

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Recommendation influences respondent's willingness to take part in CC

**Hypothesis 8 - Networks and (social) media**

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Being active on social media platforms (like Facebook) influences respondent's willingness to take part in CC.

**Hypothesis 9 - Networks and (social) media**

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Experience with online market places such as Marktplaats (Dutch equivalent of Ebay) influences respondent's willingness to take part in CC

**Hypothesis 10 - Networks and (social) media**

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Experience with offline market places influences respondent's willingness to take part in CC

experiences of many CC-based solutions will over time “create a deep shift in consumer mind-set. Consumption is no longer an asymmetrical activity of endless acquisition but a dynamic push and pull of giving and collaborating in order to get what you want. Along the way, the acts of collaboration and giving become an end on themselves” (Botsman and Rogers 2011, 217).

**Hypothesis 11 - Networks and (social) media**

Already taking part in CC influences respondent’s willingness to take part in CC

**Demographics**

Testing variance for different *demographics* is an important element of this measuring instrument. Research so far, as well as reviews and opinion blogs on CC, demonstrate a concern about how until now, most people that are taking part in CC belong to the high educated millennials (Campbel-Mithun, 2012; Glind, 2013a; Ipsos Public Affairs, 2013; Makkonen 2013). Markus Barnikel, CEO of Carpooling.com, believes that CC will spread far beyond elite circles: “When I met the three founders [of Carpooling.com], I had the same feeling I had when I joined Yahoo in 1999, at a time when people said, “the internet is just a fad, it’s for an urban elite, people will not buy it”. Today I’m hearing the same thing about Collaborative Consumption, and I think the story will repeat itself” (Ouishare, 2013). Rachel Botsman (2011) acknowledges this, explaining that those under 35 are more likely to be digitally savvy. Therefore, it make sense that this age group is currently dominant in CC but that “the values of the Millennial generation are in no way confined to a certain age group” (Botsman, 2013; Botsman and Rogers 2011, 60,70). It is necessary to be a bit web savvy to participate in CC. However, it is not necessary to be a technology geek or a computer sophisticate. “Indeed, from the masses of baby boomers addicted to eBay to the Gen Xers increasingly using bartering services, people are participating in different types of Collaborative Consumption from a diverse array of subcultures and socioeconomic and demographic groups” (Ibid, 70). Within the national poll conducted by IPA (2013) the results have been balanced by weighting the demographics. The results indicate that 43 percent of those who have not yet taken part in CC would like to learn more about how the “sharing economy” works. Among them, younger adults (57%) and those aged 35-54 (46%) are most receptive compared to people above 55 years of age (30%). Furthermore, households with children (52%) and those with college education (50%) are also more interested in learning about CC. Within their sample, there are also respondents that are already taking part in CC. The overall results indicate that adults under 35 (30%) are much more likely to report that they have shared something online with someone they didn’t previously know than are those aged 35-54 (15%) or 55 years and older (8%). Furthermore, men (21%) versus women (14%), households with children (23%) versus households without children (15%) and not married (20%) versus married (15%) are also more likely to have shared their property or belongings online (Ipsos Public Affairs, 2013). In sum, it is clear that testing for different demographics is important, given the concern that CC is currently dominant in specific demographic groups and because of the differences found in the United States. It is hypothesized that demographics influence respondent’s willingness to take part in CC. Six demographic variables are considered; gender, age, income education, ethnicity and household. These are further explained in the next chapter on methods.

**Hypothesis 12>17 - Demographics**

Demographics (gender, age, education, household income, ethnicity, household) influences respondent’s willingness to take part in CC

There are a few control variables used that may have influenced the dependent variable relating to trust and ownership. As explained above, creating *trust* online is one of the main challenges to CC platforms. This research is not directed at trust and, in the measuring instrument, a hypothetical situation of a 100 percent safety is created. Nevertheless, respondents might still incorporate trust in their answers. Therefore it is hypothesized that trust does not influence respondent’s willingness to take part in CC. The same procedure is followed for *ownership*. The respondents are asked to imagine they need something, for example a car. Respondents who own a car might not interpret the question correctly, therefore, it is hypothesized that ownership of products and services do not influence respondent’s willingness to take part in CC.

Control hypotheses	Source(s)	Variable(s)
18 Trust does not influence respondent’s willingness to take part in CC.	Keetels, 2012; Pick, 2012	Trust
19 Ownership of products and skills do not influence respondent’s willingness to take part in CC.	Self-constructed	Ownership

Table 3.2 - Control hypotheses ownership and trust

Code	Hypothesis	Source(s)	Variable(s)
MO1	Extrinsic motives are more strongly related to the willingness to take part in CC than intrinsic motives	Hamari and Ukkonen, 2013	Social attitude, Environmental behaviour, Financial motives, Receiving praise
MO2	Social attitude towards the neighbourhood influences respondent's willingness to take part in CC	Botsman and Rogers, 2011; Glind, 2013a; Hamari and Ukkonen, 2013; IPA 2013; Togethr 2013	Social attitude neighbourhood
MO3	Social attitude influences respondent's willingness to take part in CC		Social attitude
MO4	Environmental behaviour influence respondent's willingness to take part in CC	Botsman and Rogers 2011, Glind 2013a, IPA 2013; Togethr, 2013; Zipcar, 2013	Environmental behaviour
MO5	Financial motives influences respondent's willingness to take part in CC	Botsman and Rogers, 2011; Glind, 2013a; Fastcoexist.com, 2013; Hamari and Ukkonen, 2013; IPA 2013; Togethr 2013; Zipcar, 2013	Financial motives
ME6	Following mainstream media influences respondent's willingness to take part in CC	Glind, 2013a	Media
RE7	Recommendation influences respondent's willingness to take part in CC	Botsman and Rogers 2011; Glind 2013a	Recommendation
ME8	Following social media platforms (like Facebook) influences respondent's willingness to take part in CC.	Botsman and Rogers 2011; Glind 2013a	Social media
EX9	Experience with online platforms such as Marktplaats (Dutch equivalent of eBay) influences respondent's willingness to take part in CC	Botsman and Rogers, 2011; Corbitt, Thanasankit and Yi, 2003; Glind 2013a; Meztzege, 2006	Online experience
EX10	Experience with offline market places influences respondent's willingness to take part in CC	Glind, 2013a	Offline experience
EX11	Already taking part in CC influences respondent's willingness to take part in CC	Botsman and Rogers 2011; Glind 2013a	Taking part in CC
DE12	Demographics influence respondent's willingness to take part in CC	Botsman and Rogers 2011; Campbel-Mitchun, 2012; Glind 2013a, IPA, 2013; Makkonen 2013; OuisShare, 2013	Gender
DE13			Age
DE14			Education
DE15			Household income
DE16			Ethnicity
DE17			Household

**Table 3.3 - Overview of hypothesis and corresponding variables**

### 3.4 Methods

In this chapter, the construction of the measuring instrument and its usage are explained, as well as the characteristics and representativeness of the research sample. The next paragraph describes the procedural elements of creating the measuring instrument. Subsequently, the instrument itself is explained in more detail for the dependent and the independent variables, followed by the demographics and the research sample. An overview of all variables, scales, categories and the position of the variables in the measuring instrument is provided in table nine at the end of this chapter. The measuring instrument can be found appendix A.

Methods used involve the construction of a measuring instrument and the testing of this instrument by means of a large N-survey within the municipality of Amsterdam. The construction of the measuring instrument consists of various phases. The first phase is described above and consists of searching for sources about motives and aggregating these motives into hypotheses and corresponding variables. Secondly, sets of questions are developed in order to measure these variables. The operationalization of the variables is further explained in the subsequent paragraphs. Thirdly, the developed measuring instrument is tested in two rounds for comprehensibility and usability by 13 Dutch citizens with varying age and education levels. Based on their feedback the instrument is improved. Furthermore, feedback was delivered by several researchers from the Research and Statistics department of the municipality of Amsterdam (O+S) and Utrecht University. The main improvement is shortening the length of the questionnaire by randomly asking eight of the fourteen questions concerning the dependent variable. Hopefully, this has led to less frustration among respondents and a higher response rate. Furthermore, the option for an open answer is provided for all questions relating to considerations for the dependent variable. Fourthly, the improved measuring instrument was sent to 200 Amsterdam citizens and results were checked for any statistical inconsistencies. Subsequently, the instrument was sent electronically to 2500 Amsterdam citizens.



### Dependent variables

The dependent variable is the respondents' willingness to take part in CC. As explained in the introduction, CC consists of various modes of exchange; sharing, bartering, lending, trading, renting, gifting, and swapping of products and services. The main challenge for constructing the instrument is to cover as much as possible, while at the same time keeping the questionnaire compact and doable. Therefore, not all modes of exchange are included. Objects are chosen that have proved to be among the most popular items to trade within on-demand stuff lending platform Peerby (Peerby stuff cloud, 2013). These are a power drill and a bicycle. Furthermore, ride-, car-, meal-, skill (learning or teaching a language)- and garden sharing are chosen because they reflect what is currently available in Amsterdam. Outside the neighbourhood level, accommodation renting was chosen because peer-to-peer accommodation market place AirBnB is active in Amsterdam as well. There are eight goods and services considered corresponding to seven questions in the measuring instrument. All these questions, except the meal and accommodation consists of two ways of exchanging. The transaction can either involve or not involve money. As a taker, someone can buy, rent, swap or receive a product or service. As a provider, someone can sell, rent out, swap or give a product or service. This variety leads to 26 aspects that together form the dependent variable. An overview is provided in table four below. For the five questions that involve two modes of exchanging, one of the modes is assigned randomly. Furthermore, each respondent receives either a question about ride sharing or a question about car sharing. From the remaining five, three questions are randomly assigned. Thus, all respondents receive questions on four items. For each item, one can be a taker or a provider. This resulted in a total of eight questions per respondent on the dependent variable. In sum, the dependent variable is measured according to fourteen questions on seven different CC related items, two roles and two modes of exchange which can involve, or not involve money. Lastly, at the end of the questionnaire, respondents are asked if they want more information about CC. The answer to this question (real behaviour) is used to control whether respondents with a high willingness to take part in CC are more likely to ask for more information about CC.

All fourteen questions for the dependent variables are measured on a Likert scale. Results are not provided in means but in percentages, in order to keep the responses to the Likert scales complete. Differences among exchanging involving and not involving money are identified by means of an independent samples t-test. The homogeneity of the variances among the combinations is checked by means of the Levene's test. Subsequently, the effect size for significantly different groups are determined by calculating the Eta squared scores.

Real CC platform		What?	Taker			Provider		
Name	Function		Question	Money	No money	Question	Money	No money
Peerby	Peer to peer object sharing	Power drill	16a	Rent	Lend	23a	Rent out	Lend out
		Bicycle	16b	Rent	Lend	23b	Rent out	Lend out
Snappcar, WeGo, MyWheels	Peer to peer car renting	Car	17	Rent	NOT ASKED	24	Rent out	NOT ASKED
Toogethr	Peer to peer ride sharing	Ride	18	Buy	Receive	25	Sell	Give
Shareyourmeal	Peer to peer meal sharing	A meal	19	Buy	NOT ASKED	26	Sell	NOT ASKED
Tuintjedelen	Peer to peer garden sharing	A Garden	20	Rent	Swap	27	Rent out	Swap
AirBnB	Peer to peer accommodation sharing	Travel accommodation	21	Rent	NOT ASKED	28	Rent out	NOT ASKED
Konnektid	Peer to peer skill sharing	Learning a language	22	Rent	Swap	29	Rent	Swap

**Table 3.4 - Overview of what is exchanged and how (modes of exchange) this is done**

### Independent variables

Four groups of independent variables are considered; control variables, direct independent variables, normal independent variables and demographics. This chapter describes the methods for each of these variables. All independent variables are based on the motives and other explanatory factors described in the theory section. The corresponding questions in the measuring instrument in turn, are based on these motives and explanatory factors. When possible, elements from existing measuring instruments are used. When this is not possible, questions are constructed by the researcher.

The two main *control variables* are trust and ownership. One question is asked about the extent to which the respondents trusts people in their neighbourhood. The results for this question are used to test hypothesis eighteen. With regard to ownership, at the end of the questionnaire, respondents are asked to indicate which objects they own. Furthermore, they are asked to indicate whether they like to cook and to what extent they master the English

language. In order to determine whether the respondents interpreted the explanation (BOX 1) correctly, Pearson’s correlation coefficient is calculated for trust and ownership as well as their scores on the dependent variable. There are two self constructed Likert scales consisting of several items. For these scales, Cronbach’s  $\alpha$  is calculated; social attitude (Q6,  $\alpha$  0,65) and environmental behaviour (Q15,  $\alpha$  0,71). Furthermore, the results for the direct independent variables for meeting people and contributing to a healthy environment are compared with the results for the normal independent variables for social attitude (question six) and environmental behaviour (question fifteen) by means of calculating Pearson’s correlation coefficient. This is done because these questions are about similar themes and thus should correlate significantly. Pearson’s correlation coefficient is also calculated for relation between the scores on the dependent variable and whether respondents indicated they wanted to receive more information about CC or not.

**BOX 1**

**Instructions received by the respondents before answering the questions for the dependent variable**

Now we will ask you some questions about the buying, renting and borrowing of goods and services. For each and every question, assume that you are in need of these goods and services. For example, if the question states “imagine you need a grinding machine,” then answer as if you actually need it, even if you already own one in real life. Furthermore, you can assume for all the questions that the transaction is 100 percent secure. You do not run any risk.

The *direct independent variables* corresponds to four of the most dominant motives described above. Those are; saving/making money, meeting people, contributing to a healthy natural environment and recommendation. Here causality is established through the question format (see figure one). The strength of these calculations is determined by calculating Pearson’s correlation coefficient. Besides the results themselves, these variables are used to aggregate the 26 dependent variables. This is necessary because calculating the independent variables for each dependent variable is not feasible. Furthermore, it is expected that various motives for taking part in different examples of CC overlap. Therefore, the philosophy behind the aggregation process is to aggregate the different items, roles and exchanges involving and not involving money, only when there are similar results for the direct independent variables. This way, findings on the independent variables remain appropriate for the results on the remaining dependent variables.

Dependent variable	<b>V17_1</b>	<b>Imagine you temporarily need a car and the possibility exists to rent a car from a neighbour. How likely is it that you would do this?</b>		very likely	likely	neutral	unlikely	very unlikely	I don't know	not applicable
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Independent variables	<b>V17_2</b>	<b>How do the following considerations affect this decision?</b>		very much	to some extent	neutral	a little	negligible	I don't know	not applicable
		Saving money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Meeting people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Contributing to a healthy natural environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		It is recommended to you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Other considerations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>V17_and</b>	<b>Are there any other relevant considerations?</b>								

**Figure 3.1 - Question format independent variables and direct independent variables**

The *normal independent variables* are measured separately from the dependent variable. These variables are general social attitude, social attitude towards the neighbourhood specifically, environmental behaviour, following mainstream media, following social media, online experience, offline experience and CC experience (already taking part in CC). The variables of social attitude and environmental behaviour are explained in the previous paragraph. Social attitude towards the neighbourhood is a coherent measure for the way respondents experience their neighbourhood. Following mainstream media is measured by the extent to which respondents follow the news on television, radio, newspapers and news websites. Following social media is measured by determining if, and to what extent, respondents use social media platforms such as Twitter, Facebook, LinkedIn, Hyves and Google+ to gather information. Online experience is measured by determining whether respondents use websites like eBay to buy and sell objects. Offline experience is measured by determining whether respondents visit flea markets or second-hand stores to buy or sell objects. CC experience is the extent to which respondents are already taking part in CC. This was measured by determining which respondents have already subscribed to a CC platform and then compare the results of those respondents with the non-subscribed users. Furthermore, practical need, which is also considered a motive by CC users (Glind, 2013a), is not taken as an independent variable but taken as a starting point in the questionnaire. For each question concerning the dependent variables respondents are asked to ‘imagine’ that they need (or are able to provide) the object or service considered.

### Research sample - Demographics

The research sample consists of citizens of Amsterdam that have volunteered to be in the city's panel and thus receive multiple questionnaires a year (O+S Amsterdam, 2013). The demographics of the respondents are described in the next paragraph and visualised in table five. Subsequently, the representativeness of the research sample for the whole population of Amsterdam is described.

All respondents are part of Amsterdam cities panel (O+S). Panellists are not obliged to fill in the questionnaire so the sample size depended on the response rate. The questionnaire was sent to 2500 Amsterdam citizens. Even though the summer holiday season had started, 1330 completed the questionnaire. Demographics are not in the questionnaire because these data are already available at O+S. Not all demographics are well spread. Gender, household income and household type are spread fairly well. Ethnicity, education and age are not spread very well. The research sample consisted of predominantly Native and high-educated people from 35 years or older. Other groups are western-immigrants (coming from Northern-Europe, United States, Australia) and non-western immigrants. This latter group consists of only 53 respondents that represent a wide variety of cultures (Suriname, Antilles, Turkey, Moroccans and more). This group is too small to draw conclusions upon but as so little is known on the motives of these people, their results are still considered valuable and can be used as a basis for further research. Three types of education levels were considered. In the Netherlands, there are different high-school levels preparing pupils for different levels of vocational education. Low education in the sample refers to respondents who have completed primary school, the lower levels of high school or completed a low vocation education programme. Medium education refers to respondents who have completed the higher levels of high school or completed an intermediate vocational education programme. High education refers to respondents who have completed a higher vocational education programme or have completed academic education programs. Regarding age, there is a good spread ,except for those under 35 years of age. It is regrettable that this age group is not (really) included. However, much is already known about the millennial group and their willingness to take part in CC. The older age groups are interesting, as little is known about them. Last to note here is that about four percent (54 respondents) of the sample was already subscribed to one or more CC platforms. It was decided to keep this group within the sample and test for the influence of this factor as is explained in the previous chapter.

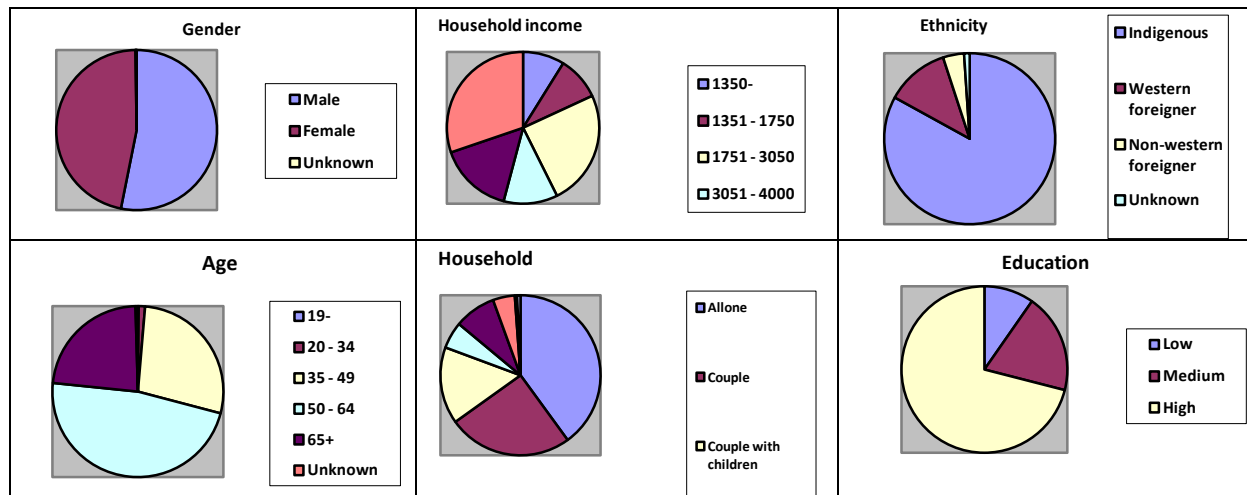


Table 3.5 - Demographic characteristics of the research sample

An indication of the representativeness of the research sample is provided by incorporating a part of a questionnaire that was used before on a representative sample of citizens of Amsterdam and then compare both results (O+S, 2011). The questions used concern the social attitude towards the neighbourhood (Q1&2) and the extent to which respondents trust their neighbours (Q6). The following graphs demonstrate the correlation between the results from both research projects. The Eta squared results for an independent t-test for each question indicate a small significant difference for question one (0,01) and two (0,01) and no significant difference for question five. This means that the research sample accounts for only one percent of the variance in the dependent variable. This indicates that the results are partly representative for the whole population of Amsterdam as well.

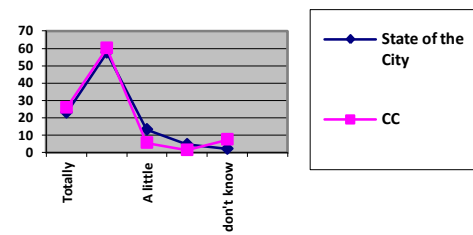
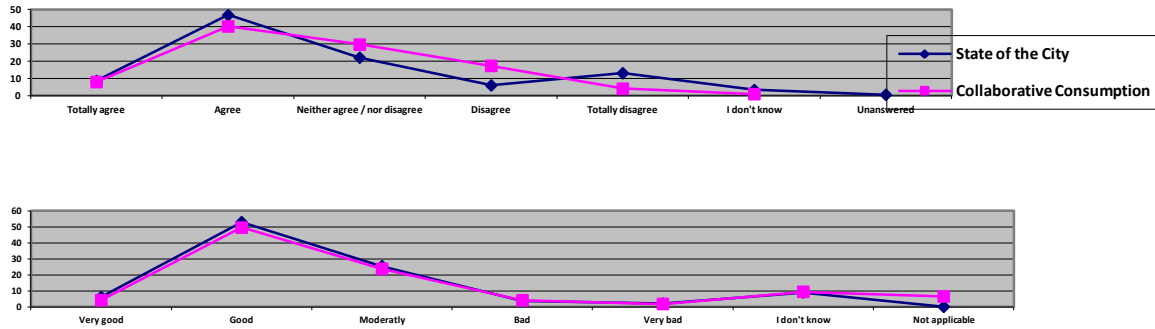


Table 3. 6 - Correlations between the State of the City and Collaborative Consumption research (question five)



**Table 3.7&3.8 – Correlations between the State of the City and Collaborative Consumption research (questions one and two)**

Even though there is an indication for a broader representativeness, it is not certain that the results of this research are representative for Amsterdam’s population. Additionally, no weighting procedures are performed because of the considerable differences among part of the demographics. Therefore, a cautious assumption is made here that the findings of this research are a solid indication for the willingness of high educated, native citizens of Amsterdam from 35 years and older to take part in CC. Furthermore, the similarities of this research with the ‘State of the City’ indicate a representativeness for the whole population of Amsterdam. Table nine provides an overview of the variables and how these are measured. In the next chapter the results are presented.

Hypothesis	Variable(s)	Scale	Categories	Position in measuring instrument
<b>Dependent (more detail in table 5)</b>				
	Willingness to take part in CC	Interval	Likert 1 - 5	Q16-29
		Dichotomous	1 – 2	final click for more information
<b>Direct independent</b>				
5	Financial behaviour	Interval	Likert 1 - 5	Q16-29(1)
2	Social attitude - meeting people	Interval	Likert 1 - 5	Q16-29(2)
4	Environmental behaviour	Interval	Likert 1 - 5	Q16-29(3)
7	Recommendation	Interval	Likert 1 - 5	Q16-29(4)
1	Intrinsic motivation	Interval	Likert 1 - 5	Q6(1-3)&15&Q16-29(2-3)
	Extrinsic motivation	Interval	Likert 1 - 5	Q6(5)&Q16-29(1)
2	Social attitude neighbourhood	Interval	Likert 1 - 5	Q1
3	Social attitude	Interval	Likert 1 - 5	Q6
4	Environmental behaviour	Interval	Likert 1 – 5	Q15
6	Media	Interval	Likert 1 - 6	Q9(1-6)
8	Social media	Interval	Likert 1 - 6	Q8&Q9(7-11)
9	Online experience	Nominal	Yes – No	Q11
10	Offline experience	Nominal	Yes – No	Q12-13
11	Taking part in CC	Nominal	Yes - No	Q30a
12	Gender	Dichotomous	1 -2	Not in measuring instrument (database O+S)
13	Age	Ordinal	Groups: 19- / 20-34 / 35-49 / 50-64 / 65+	Not in measuring instrument (database O+S)
14	Education	Ordinal	Low / Medium / high	Not in measuring instrument (database O+S)
15	Household income	Ordinal	1350- / 1351-1750 / 1751-3050 / 3051-4000 / 4001+	Not in measuring instrument (database O+S)
16	Ethnicity	Nominal	Native / western immigrant / Non-western immigrant	Not in measuring instrument (database O+S)
17	Household	Nominal	Alone / Alone with children / with partner / with partner and children / with other adult / with other adult and children	Not in measuring instrument (database O+S)
18	Trust	Interval	Likert 1 - 4	Q5
19	Ownership	Dichotomous	1-2	Q30-32

**Table 3.9 - Overview of the variables, scales, categories and their positions in the measuring instrument**

### 3.5 Results – Dependent variables

The dependent variable is the willingness to take part in CC. The results indicate that on average 43,8 percent would take part in CC as a taker and 31,9 percent as a provider (total 37,9 percent; IPA, 2013: 43 percent). The most popular exchange was lending out a power drill, something that 82,3 percent of the 186 respondents that have answered this question would do. The percentage of respondents that have answered likely or very likely at least once is 84,1 percent, indicating that a large majority would use at least one example of CC.

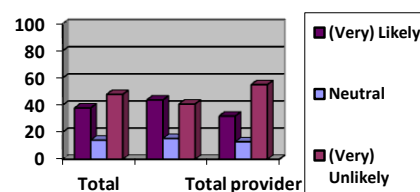


Table 3.10 – Overall willingness to take part

The results of the dependent variables vary for different items, roles and for exchanges involving or not involving money. Inherent to the total scores, there is a difference between the role of taker and the role of provider. The only exception are objects (power drill and bicycle) exchange, which has similar scores. With regard to; car, meal, garden, travel accommodation and skills (language learning) exchange, respondents were more likely to take than to provide. The biggest difference is observed for travel accommodation, where 58 percent would rent accommodation from a peer in another country and only 13,1 percent would provide his/her own living space. The exception is ride sharing, which has a high percentage of takers (54,9) but an even higher percentage for providers (66,1). The most popular items for exchange are rides (60,5), objects (51,5) and skills (44,1). The less popular items are cars (31,1), meals (21,3) and gardens (21,1), but still have a considerable consumer potential. An important side note regarding object exchanges must be made. Questions involving a power drill and questions involving bicycles are asked randomly. Even though both questions represent object exchange, results indicate that the object itself already makes a difference. Results prove a higher willingness to exchange a power drill than to exchange a bicycle. This finding can be related to the concept of idling capacity. A bicycle, for most Amsterdam citizens, is used more often than a power drill. Nevertheless, for the purpose of further analysis, the two remain combined into one item about ‘goods sharing.’

	Taker		Provider		Total	
	(Very) likely	neutral	(Very) likely	neutral	(Very) likely	Neutral
Object (Power drill & bicycle)	50,7 %	13 %	52,2 %	11,6 %	51,5 %	12,3 %
Car	37,5 %	13,9 %	24,6 %	12,4 %	31,1 %	13,2 %
Ride	54,9 %	18,3 %	66,1 %	11,6 %	60,5 %	15 %
Meal	25,6 %	19,6 %	17 %	13 %	21,3 %	16,3 %
Garden	27,8 %	10,8 %	14,3 %	10 %	21,1 %	10,4 %
Travel accommodation	58 %	14,2 %	13,1 %	9,7 %	35,6 %	12,0 %
Skill (Language learning)	52,2 %	18 %	35,9 %	22,9 %	44,1 %	20,5 %
Average	43,8 %	15,4 %	31,9 %	13,0 %	37,9 %	14,2 %

Table 3.11 - Willingness to take part in CC

Exchanges of items involving money demonstrate lower results than those without money. This is evident in table thirteen, where percentages for the groups of the sample that received money-related and those that received no money related questions are shown. The biggest differences are found for rides and objects. Furthermore, the differences between the involvement of money and no involvement of money are higher for providers than for takers. These findings are confirmed by the results of an independent sample T-test which demonstrate that moderate and strong effects are mostly observed for objects. Furthermore, small effects are observed for all other provider roles (table twelve). This confirms that, especially when providing, respondents slightly prefer transactions without money. The results are further confirmed by the comments made by respondents for the questions about the dependent variable and the comments at the end of the questionnaire. Notably, 348 times respondents explained that they would do the transaction without money. The majority of those comments were about the providing of objects and meals and the providing and taking of skills.

Independent t-test	Dependent variable	
	Taker	Provider
Power drill	-	0,14
Bicycle	0,06	0,10
Cars	0,02	0,04
Gardens	-	0,02
Skills	-	0,01

Table 3.12 - Eta square scores for exchanging involving and not involving money. .01 = small effect, .06 = moderate effect, .14 = large effect (Cohen, 1988)

	Taker				Provider			
	Money		No money		Money		No money	
	(Very) likely	neutral	(Very) likely	neutral	(Very) likely	neutral	(Very) likely	neutral
Object (Power drill & bicycle)	47,4	12,9	59,2	14,8	41	14,5	70,7	9,9
Ride	51,1	19,1	61	18,1	65,5	12,7	79,1	12,8
Garden	33,1	13,1	32,3	12,3	11,2	11,1	23,4	13
Skill (Learning language)	56,8	20,5	55,9	18,3	34,2	24,4	43,8	25,1
Average	47,1	16,4	52,1	15,9	38,0	15,7	54,3	15,2

Table 3.13 - Differences for exchanging involving and not involving money (percentages)

### 3.6 Results – Independent variables

In the previous chapter, various results are displayed concerning the dependent variables. Given the seven items, two roles and the aspect of having money involved or not, 26 different dependent variables are recognized. It is not feasible to conduct the analysis for all 26 dependent variables. Therefore, several aggregations are performed in the following subchapter, downsizing the number of dependent variables to five. Furthermore, this chapter provides the results of the direct independent variables. Subsequently, the results of the normal independent variables are provided, followed by the results on demographics. Lastly, a summary of other considerations made by the respondents is provided. However, the next subchapter starts off by describing the impacts of the control variables.

#### Control variables

A variety of control variables are incorporated in the measuring instrument. In this subchapter, the influences of trust and ownership are described. Additionally, the results for the direct independent variables for meeting people and contributing to a healthy environment are compared with the results for the normal independent variables for social attitude and environmental behaviour. Lastly, the results of the control variable for the dependent variables are described.

*Trust* is an important control variable. Without trust, people do not engage in exchanges. In the questionnaire, respondents were asked to consider a hypothetical situation of 100 percent safety. To check if people interpreted this correctly the respondents are asked to what extent they trust their neighbours. Pearson's correlation coefficients for this level of trust and results on the dependent variable demonstrate small significant effects for exchange of objects and rides. Apparently, a minority of the respondents did not interpret the questions correctly. Nevertheless, this only has a minor negative influence on the results.

Trust		
Item:	Taker	Provider
Power drill & Bicycle	-0,139**	-0,184**
Car	-0,042	-0,090*
Ride	-0,115**	-0,123**
Meal	-0,014	0,005
Garden	-0,05	0,035
Accommodation	-0,042	-0,07
Skill	-0,056	-0,034

Table 3.14 - Pearson's correlation coefficient for trust and the willingness to take part in CC. \*\* Correlation is significant at the 0.01 level (2-tailed). \* Correlation is significant at the 0.05 level (2-tailed).

*Ownership* is important, for without owning an object it is impossible to exchange it. Therefore, respondents were asked to pretend that they owned all products and services asked to provide and did not own all products and services asked to take. At the end of the questionnaire, respondents were asked what they own. With regard to meals, we controlled by asking to what extent the respondents like to cook. The results indicate moderate significant impacts for bicycle, car and garden exchanges. Interestingly, the impact on providing a ride is considerable, while the result for this variable is already a willingness of 66 percent. This result would be considerably higher if the ownership bias would be ruled out.

Ownership		
Item:	Taker	Provider
Power drill	0,003	-0,014
Bicycle	-0,196**	0,054
Car – car sharing	0,184**	0,366**
Car – ride sharing	0,230**	0,062
Meal	0,061	-0,052
Garden	0,140**	0,152**
Skill	-0,052	-0,096**

Table 3.15 - Pearson's correlation coefficient for ownership and the willingness to take part in CC. \*\* Correlation is significant at the 0.01 level (2-tailed). \* Correlation is significant at the 0.05 level (2-tailed).

The results for the direct independent variables for meeting people and contributing to a healthy environment should correlate considerably with the normal independent variables for social attitude and environmental behaviour. Tables sixteen and seventeen below demonstrate small correlations for both social attitude and social attitude towards the respondent's neighbourhood on the dependent variables. There are also strong correlations between environmental behaviour and contributing to a healthy environment. The direct independent variables are causal to the dependent variable. These correlations indicate that the effects of social attitude and environmental behaviour are thus also causal preconditions for the dependent variable.

Independent variable	Direct independent variable – Meeting people				
	Object	Car & ride	Meal & Language	Garden	Accommodation
Social attitude	0,170**	0,191**	0,186**	0,131**	0,159**
Social attitude neighbourhood	0,098**	0,118**	0,110**	0,033	0,045

Table 3.16- CONTROL: Pearson's correlation coefficient for social attitude and social attitude towards neighbourhood towards meeting people \*\* Correlation is significant at the 0.01 level (2-tailed). \* Correlation is significant at the 0.05 level (2-tailed).

Independent variable	Direct independent variable – Contributing to a healthy environment				
	Object	Car & ride	Meal & Language	Garden	Accommodation
Environmental behaviour	0,409**	0,505**	0,322**	0,344**	0,341**

Table 3.17- CONTROL: Pearson's correlation coefficient for environmental behaviour towards contributing to a healthy environment \*\* Correlation is significant at the 0.01 level (2-tailed). \* Correlation is significant at the 0.05 level (2-tailed).

At the end of the questionnaire, a button is installed by which respondents can ask for more information about CC. This is done in order to have a variable that controls a fragment of real behaviour. One would expect that the results on the dependent variables correlate significantly with the pushing of this button. Indeed, despite the length of the questionnaire, which makes it less likely that respondents want to read more in the end, there are significant correlations of +/- 0,2 on all five dependent variables (table eighteen).

Dependent variable	Dependent variables				
	Object	Car & ride	Meal & Language	Garden	Accommodation
Pushed the button for more information	0,195**	0,213**	0,254**	0,191**	0,199**

Table 3.18 - CONTROL: Dependent variable. Pearson's correlation coefficient between the willingness to take part in CC and pushing the button for more information (real behaviour) at the end of the questionnaire \*\* Correlation is significant at the 0.01 level (2-tailed). \* Correlation is significant at the 0.05 level (2-tailed).

### Direct independent variables and aggregation of the 26 dependent variables

The direct independent variables are installed in the measuring instrument in such a way that they are causal to the dependent variable. The aim of this chapter is to demonstrate the results for the direct independent variables and to use these results for aggregating the various dependent variables. Three aggregation steps are considered corresponding to the three characteristics of the dependent variables: items, roles and whether there is money involved in the transaction.

The difference between involving and not involving money in the exchange for the direct independent variables are minimal. The independent sample t-test results for these two modes of exchange do demonstrate a few significant difference, mostly around the 'meeting people' variable. However, Eta squared scores for these differences are small (max 0,02). Therefore, the results on the direct independent variables for exchanges involving and not involving money are combined.

Table 3.19 - Eta square scores for exchanging involving and not involving money. .01 = small effect, .06 = moderate effect, .14 = large effect (Cohen, 1988). - = no significant difference, -- = No score

Money or no money	Taker				Provider			
	Mon.	Meet.	Env.	Rec.	Mon.	Meet.	Env.	Rec.
Independent t-test								
Power drill	-	-	-	-	0,02	0,01	-	-
Bicycle	-	-	-	-	-	0,02	0,01	0,02
Ride	-	0,01	-	-	--	0,01	-	-
Garden	-	-	-	-	--	-	-	-
Skill	-	0,01	-	0,01	0,01	-	-	-

With exchanges involving and exchanges not involving money integrated, there are fourteen dependent variables left corresponding to seven different items and two different roles. The results for these direct independent variables are provided in Appendix B. The results for Cronbachs alpha for takers and providers indicate a high consistency among the direct independent variables (table twenty). This is understandable, as both taker and provider roles involve money (savings or earnings), meeting people, positive environmental impact and recommendation. Given the high alpha scores, the decision is made to aggregate the taker and provider role per item. An exception is made for the saving and earning money, because those results are lower than the 0,500 threshold.

Roles	Mon.	Meet.	Env.	Rec.
Object	0,344	0,561	0,593	0,532
Car	0,479	0,502	0,731	0,619
Ride	0,371	0,587	0,715	0,453
Meal	0,561	0,674	0,672	0,610
Garden	0,497	0,631	0,573	0,585
Accommodation	0,458	0,465	0,562	0,507
Skill	0,583	0,698	0,734	0,589

Table 3.20 - Cronbachs α for taker and provider roles per item

In the last aggregation step similar items are aggregated. Cronbachs alpha results indicate a high consistency for the direct independent variables for meal and skill exchanges. Therefore, these are aggregated into a single dependent variable called 'mealSkill.' For practical reasons, cars and rides are aggregated into a single dependent variable called 'mobility' for the remaining analysis. Cars and rides ,however, have lower consistencies. Therefore, their results are provided separately in this subchapter.

Step 3 - Items	Mon.	Meet.	Env.	Rec.
Cars and rides	0,223	0,271	0,463	0,254
Meals and skills	0,658	0,79	0,676	0,707

Table 3.21 - Cronbachs α for cars and rides, and meals and skills

The 26 dependent variables have been aggregated into five dependent variables which are used when analyzing the demographics and the normal dependent variables. The results for the direct independent variables for the seven dependent variables and the two roles are provided in appendix B (percentages). The strength of the causal relation between the direct independent variables and the dependent variables are provided in table 22. In these results, cars and rides are separated and the results for the (saving and earning) money variable are provided both for the taker and the provider role. This is done because of their differences.

The findings for the direct independent variables indicate that all direct independent (causal) variables correlate significantly with the dependent variables. Therefore, hypothesis five is approved; financial motives influence respondent's willingness to take part (in CC) for all items and roles tested. Not surprisingly, financial motives have the strongest correlations with more expensive assets such as cars, gardens and accommodation. Furthermore, hypothesis seven is approved; recommendation influences respondent's willingness to take part (in CC) for all items and roles tested. Lastly, the results for meeting people and contributing to a healthy environment are strong indications that hypotheses three (social attitude) and four (environmental behaviour) are approved. Therefore, these are incorporated in the next chapter, where the results for the normal dependent variables are described. Among those variables are social attitude and environmental behaviour, both of which correlate significantly with their corresponding results of the direct independent variables described in this subchapter.

**Hypothesis 5 - Approved**

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Financial motives influences respondent's willingness to take part in CC

**Hypothesis 7 - Approved**

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Recommendation influences respondent's willingness to take part in CC

Direct independent variables	Dependent variables					
	Object	Car	Ride	MealSkill	Garden	Accommodation
Taker – saving money	0,494**	0,629**	0,534**	0,588**	0,598**	0,733**
Provider – Earning money	0,274**	0,596**	0,263**	0,638**	0,633**	0,750**
Meeting people	,414**	,500**	0,471**	,620**	,539**	,575**
Contrib. he. environment	,461**	,584**	0,502**	,489**	,583**	,466**
Recommendation	,460**	,450**	0,410**	,562**	,578**	,635**

Table 3.22 - Strength of the causal relations between the direct independent variables and the dependent variables. Pearson's correlation coefficient: \*\* Correlation is significant at the 0.01 level (2-tailed). \* Correlation is significant at the 0.05 level (2-tailed).

### Normal independent variables

Various normal independent variables are assessed. Each of those is explained in this subchapter. The results for the Pearson's correlation coefficient are provided in table seventeen. There are two types of normal independent variables. Described first are the *motivational* variables concerning social attitude, environmental behaviour, as well as the distinction between intrinsic and extrinsic motives. Secondly, the variables concerning *media usage* are described and finally, variables concerning *experience* are discussed.

With regard to motives, the *social attitude towards respondent's neighbourhood* demonstrate small significant correlations for objects, mobility and MealSkill. Only for garden exchanges no significant effect is observed. However, overall it is concluded that hypothesis 2 is approved; The social attitude towards respondent's neighbourhood influences the willingness to take part in CC. The results for *Social attitude* demonstrate a similar pattern but with stronger correlations. Here, a significant effect for all dependent variables is observed. There are moderate correlations for objects and mobility and small correlations for MealSkill, Garden and accommodation exchange. This, in combination with the strong causal correlation between the direct independent variable 'meeting people' and the dependent variable from the previous chapter leads to the conclusion that hypothesis seven is approved; social attitude influences respondent's willingness to take part in CC. The results for *environmental behaviour* demonstrate significant correlations for all dependent variables. The correlation for garden and accommodation exchanges are small, those for objects and mealSkill are moderate and the correlation for mobility is strong. This is explained by the fact that the environmental impact of sharing a ride or a car is more concrete than any other dependent variable. In addition to these results, the direct independent variable from the previous chapter called 'contributing to a healthy environment,' has strong causal relations for all dependent variables. Therefore, it is concluded that hypothesis four is approved; environmental behaviour influences respondent's willingness to take part in CC.

**Hypothesis 2 - Approved**

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Social attitude toward the neighbourhood influences respondent's willingness to take part in CC

**Hypothesis 3 - Approved**

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Social attitude influences respondent's willingness to take part in CC

**Hypothesis 4 - Approved**

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Environmental behaviour influences respondent's willingness to take part in CC

Respondents can be *intrinsically or extrinsically motivated*. However, as the results in tables 22 and 23 indicate, both the extrinsic motives (financial) an intrinsic motives (social) have significant results with similar strengths. The social extrinsic component of 'receiving praise' has small significant results for all dependent variables except for gardens



which has a significant result of -0,093 just below the threshold. Therefore, hypothesis one is rejected; extrinsic motives are more strongly related to the respondent's willingness to take part in CC than intrinsic motives. In fact, both intrinsic and extrinsic motives improve the willingness of people that are not yet taking part in CC to start doing so.

**Hypothesis 1 - Rejected**

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Extrinsic motives are not more strongly related to respondent's willingness to take part in CC than intrinsic

With regard to *mainstream media* no significant correlation was found for any of the dependent variables. Therefore, it is concluded that hypotheses six is rejected; Following mainstream media does not influence respondent's willingness to take part in CC. With regard to *social media*, results are provided for being subscribed or not and for the degree to which respondents use social media to gather information. Only one significant correlation was found between being subscribed and accommodation exchange. The strength of this correlation is slightly lower than the small threshold (0,100). Therefore, it is concluded that hypothesis eight is rejected; the use of social media does not influence respondent's willingness to take part in CC. However, this could partially be the case, because there are only sixteen respondents below 35 years old in the sample.

**Hypothesis 6 - Rejected**

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Following mainstream media does not influence respondent's willingness to take part in CC

**Hypothesis 8 - Rejected**

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Usage of social media does not influence respondent's willingness to take part in CC

With regard to *online experience*, significant correlations are found for all variables. However, this correlation only has a small strength for garden and accommodation exchanges. Nevertheless, hypothesis (NUMBER) is approved; online experience influences respondent's willingness to take part in CC. With regard to *offline experience*, small significant correlations are found for all dependent variables except accommodation exchange which has a significant correlation of moderate strength. Therefore, it is concluded that hypothesis ten is approved; offline experience influences respondent's willingness to take part in CC. This makes sense because these online market places (such as eBay) are the earliest examples of CC itself. The results for *already taking part in CC* are about the minority of the respondents (<4%) that are already taking part in any of the items dealt with in this research. Significant results are found for mobility, mealSkill and accommodation. However, the strength of these correlations are negligible and therefore hypothesis eleven is rejected. The results from this sample do not point at a spin-over effect among CC platforms. However, this is not a very strong statement because of the low amount of respondents that are already taking part in CC (N=54).

**Hypothesis 9 - Approved**

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Online experience influences respondent's willingness to take part in CC

**Hypothesis 10 - Approved**

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Offline experience influences respondent's willingness to take part in CC

**Hypothesis 11 - Rejected**

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Already taking part in CC does not influence respondent's willingness to take part in CC

Hypot he sis	Independent variables	Dependent variables				
		Object	Mobility	MealSkill	Garden	Accommodation
2	Social attitude towards respondent's neighbourhood	0,167**	0,143**	-0,097**	0,035	Not applicable
3	Social attitude	0,200**	0,205**	0,186**	0,108**	0,186**
4	Environmental behaviour	0,214**	0,315**	0,221**	0,176**	0,173**
6	Following mainstream media	-0,026	-0,05	-0,014	-0,047	0,017
8	Being subscribed to social media platforms	-0,051	0,009	-0,053	-0,046	-0,094**
	Being active on social media platforms (like Facebook).	0,024	-0,022	-0,009	-0,019	0,042
9	Online experience	0,073*	0,074*	0,084*	0,104**	0,178**
10	Offline experience	0,146**	0,174**	0,196**	0,147**	0,232**
11	Already taking part in CC	0,06	0,063*	0,094**	0,021	0,078*

**Table 3.23 - Pearson's correlation coefficient for the normal independent variables \*\* Correlation is significant at the 0.01 level (2-tailed). \* Correlation is significant at the 0.05 level (2-tailed).**

## Demographics

The effects of six different demographics on the results of the dependent variables are described in this chapter. However, the results for all demographic variables should be interpreted cautiously, because of the characteristics of the research sample described above. For instance, the age group of 20-34 is heavily underrepresented (N=16) and the same holds true for the non-western immigrants (N=54). In the following paragraphs, the ordinal variables; age, education and household income, and subsequently the nominal variables; gender, ethnicity and household type are described. Finally, the implications of the results for different demographics on the dependent variables are described. The results of the dependent variables for different demographics are provided in table 27 at the end of this chapter.

With regard to *age*, significant negative correlations were found for mealSkill, garden and accommodation exchange. The strength of these correlations is negligible for mealSkill and small for the other two. Thus, the older the respondents are, the less likely they are to exchange gardens and accommodation. With regard to *education*, significant correlations are found among all items except gardens. However, only for object and accommodation exchanges there is a correlation of small strength. With regard to *household income*, a negligible correlation was found for mobility and small negative correlations were found for exchanges of MealSkill and gardens. Thus, as income increases, the likelihood of taking part in some examples of CC decreases. Interesting in this respect is the correlation between household income and the direct independent variable of earning and saving money. Small negative significant correlations are found for objects and accommodation. Moderate negative significant correlations are found for mobility, mealSkill and gardens. This indicates that as household income increases, the financial motive for all dependent variable decreases. This further grounds the negative correlation between income and the willingness to take part in CC. In sum, it can be concluded that hypotheses thirteen, fourteen and fifteen are approved; age, education and household income do influence respondent's willingness to take part in CC.

**Hypothesis 13,14,15 - Approved**

Age, education and household income do influence respondent's willingness to take part in CC

Hypothesis	Demographics	Dependent variables				
		Object	Mobility	MealSkill	Garden	Accommodation
13	Age	-0,042	-0,029	-0,063*	-0,108**	-0,182**
14	Education	0,111**	0,083**	0,058*	0,046	0,148**
15	Household income	-0,05	-0,09**	-0,107**	-0,160**	-0,049

Table 3.24 - Pearson's correlation coefficient for age, education and household income \*\* Correlation is significant at the 0.01 level (2-tailed). \* Correlation is significant at the 0.05 level (2-tailed).

Hypothesis	Demographics	Independent variable – Earning & saving money				
		Object	Mobility	MealSkill	Garden	Accommodation
15	Household income	-0,159**	-0,216**	-0,229**	-0,276**	-0,133**

Table 3.25 - Pearson's correlation coefficient for household income and the financial motive \*\* Correlation is significant at the 0.01 level (2-tailed). \* Correlation is significant at the 0.05 level (2-tailed).

For the nominal variables independent sample t-test scores are collected. Subsequently, the Eta squared scores are calculated: For ethnicity and household type, an ANOVA analysis is performed in order to determine where among which combinations effects take place. With regard to *gender*, small effects are found for all demographics except accommodation, indicating that women are slightly more likely than men to take part in CC. With regard to *ethnicity*, small effects are found between non-western immigrants and natives for mealSkill and gardens. Furthermore, a small effect was found for non-western immigrants versus western immigrants for gardening. In all these cases, non-western immigrants are more likely to take part in CC. No differences are observed between natives and western immigrants. With regard to *household type*, several small effects are observed. The general pattern found here is that respondents living alone or respondents living alone with children are more likely to take part in CC than the other household types. In sum, it can be concluded that hypotheses twelve, sixteen and seventeen are approved; gender, ethnicity and household type do influence respondent's willingness to take part in CC.

**Hypothesis 12,16,17 - Approved**

Gender, ethnicity and household type do influence respondent's willingness to take part in CC

Interestingly, some underrepresented demographic groups in the research sample demonstrate a higher willingness to take part in CC than the majorities. This is the case for income, where the lower income groups (1350-, N=118) are more likely to take part in CC, but also for ethnicity, where the non-western immigrants category (N=54) has the highest results. Therefore it would be worthwhile to explore if these results are the same for the various non-western immigrants living in Amsterdam and the Netherlands. Reversibly, the minority of low educated people in the

research sample (N=126) is much less likely than high educated people to take part in CC. Here too, it is worthwhile to further explore the willingness of this demographic group (to take part in CC). Similarities with the IPSOS survey in the United States are the decrease in willingness for older people (IPSOS aged 35-54 >46%, aged 55+ >30%) and the increase in willingness for higher educated individuals.

Hypothesis	Demographics		Dependent variables				
			Object	Mobility	Meal & Language	Garden	Accommodation
16	Gender		0,01	0,02	0,02	0,02	0
17	Ethnicity	western F - Native	-	-	0,00	-	-
		Non-Western F - Native	-	-	0,01	0,01	-
		Non Western F – Western F	-	-	-	0,04	-
18	Household type	Alone – with partner	-	0,01	0,02	0,01	0,02
		Alone – Partner & children	-	-	0,01	-	-
		Alone - Alone with children	-	0,01	-	-	0,01
		Alone – With other adult	-	-	-	-	-
		Alone with children – with partner	-	0,04	0,02	0,02	0,05
		Alone with children – Partner & children	-	0,02	0,01	0,02	0,02
		Alone with children – with other adult	-	0,04	-	-	0,03

Table 3.26 - Independent samples T-test: Eta square scores. .01 = small effect, .06 = moderate effect, .14 = large effect (Cohen, 1988)

In conclusion, it is argued that all demographics influence the dependent variable. However, the strengths of these influencing is calculated based on the characteristics of this research sample. The unequal spread of demographic groups in a large N sample has a minimizing effect on the results when using an independent samples T-test and it brings uncertainty for Pearson's correlation coefficient when groups certain demographic groups have a low amount of respondents. More data on the underrepresented groups in future research could allow for weighting procedures and thus more realistic estimates of the differences among demographic groups. Still, from this research it can be concluded that women are slightly more likely than men to take part in CC. When income and age increase, the willingness to take part in CC slightly decreases and education correlates positively with the dependent variables.

	Object		Mobility		MealSkill		Garden		Accommodation	
	(v.) l.	N.	(v.) l.	N.	(v.) l.	N.	(v.) l.	N.	(v.) l.	N.
<b>Ethnicity</b>										
Non-western F.	59,1	20,5	45,1	37,3	39,2	39,2	31,6	26,3	45,2	11,9
Western F.	49,6	22,3	51,3	27,9	36,5	29,7	22,4	16,4	38,9	20,6
Native	54,4	17,5	47,6	26,9	27,3	36,6	21,1	19,0	31,2	26,8
<b>Income</b>										
1350-	56,7	22,2	50,5	30,6	35,4	37,2	28,4	22,2	37,9	22,1
1351 – 1750	53,2	17,0	52,2	22,6	32,5	36,8	26,7	20,0	40,4	26,3
1751 - 3050	55,3	17,0	51,7	26,3	31,4	31,7	23,7	18,2	29,9	26,9
3050 - 4000	52,1	24,4	49,7	27,8	26,7	37,7	17,4	18,3	35,5	21,5
4000+	50,8	19,2	41,9	32,0	24,1	35,7	13,1	19,0	34,2	21,7
<b>Gender</b>										
Male	50,2	18,9	41,7	29,7	25,8	33,7	17,4	16,6	29,9	25,6
Female	58,8	16,9	55,5	24,7	33,0	38,1	26,5	21,4	36,3	24,9
<b>Household type</b>										
Alone	55,7	16,6	49,8	27,6	30,8	38,7	25,5	18,2	34,5	23,6
With partner	51,0	18,7	42,7	25,9	22,8	35,5	16,2	20,1	26,9	20,8
Partner & children	53,8	18,5	49,0	28,2	27,6	31,6	20,7	18,0	30,7	33,1
Alone & children	50,0	18,0	61,8	22,1	38,8	32,8	31,6	17,5	49,2	25,4
Two adults	53,9	19,1	47,2	28,7	26,9	33,7	18,6	19,8	30,8	30,8
Two adults & children	63,0	19,6	41,4	39,7	34,5	38,2	15,2	17,4	35,6	26,7
<b>Age</b>										
20 - 34	66,7	22,2	62,5	31,3	46,7	40,0	26,7	18,1	46,2	38,5
35 – 49	54,2	18,5	47,7	27,0	31,0	34,8	20,8	21,7	41,8	25,3
50 – 64	56,1	17,2	51,0	26,1	29,3	36,3	17,1	13,1	31,3	25,8
65+	49,6	19,0	42,5	30,7	25,1	35,7	21,8	18,8	23,2	23,2
<b>Education</b>										
Low	39,8	19,4	37,8	27,7	21,8	34,5	14,5	18,1	16,5	19,8
Average	49,8	15,9	44,6	27,3	31,7	30,0	23,8	17,9	29,9	27,8
High	57,5	18,0	50,5	27,5	29,4	37,2	22,1	19,5	36,2	24,8

Table 3.27 – Results on the dependent variables for different demographics (percentages)

### Other considerations made by the respondents

When answering the questions, respondents were given the opportunity to come up with alternative motives. This resulted in approximately 2500 motives. These motives have been coded and the main motives are displayed in figure one for the respondents in the role of taker, and figure two for the respondents in the role of provider. Interestingly, risk related issues were mentioned often. This means that respondents had difficulties with considering all transactions to be completely safe. Trusting the other person was also mentioned often. Another interesting finding was that many of the respondents believe no money should be involved when taking and even more when providing through CC. This holds true for cheaper items such as a power drill but to a lesser extent also for car, garden and even accommodation sharing. Hundreds of respondents indicated that helping out would be the main motive. Furthermore, time-savings was an important motives for takers and helping out an important motive for providers. 'Practical motives' refers to benefits not related to time but that are still convenient for the user. For instance, people that hate cooking or people who dislike the paperwork of owning a car. Socially, respondents speak of social cohesion and social fairness: "It is a better and more efficient use of tools you only need a couple of times. Moreover, you support a system that makes more expensive tools available to people with less money." But also about friendship: "That's how people become friends." Quality refers to the quality of the service or product that is delivered. Moneyless means that the respondent prefers to do the transaction without money. This means 'for free' in all questions except for 28, where people indicated they would rather exchange homes for a period and keep their wallets closed. Some respondents expected forward reciprocity: "One service is worth the other," "Helping someone satisfies and is good for your karma," and "I help someone and hope that many will do the same, so that I too will find help when needed."

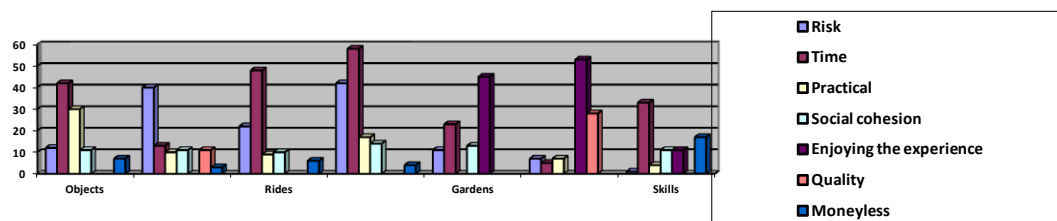


Figure 3.2 - Other considerations made by the respondents in the role of taker

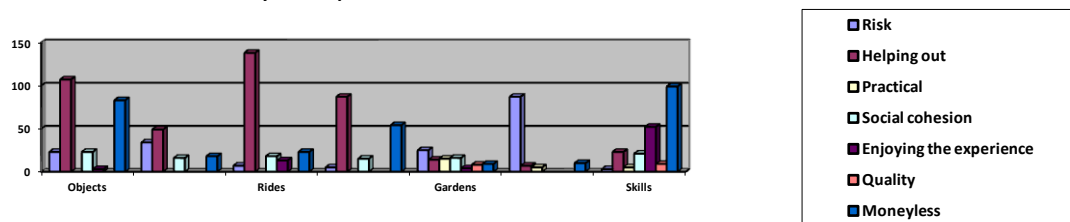


Figure 3.3 - Other considerations made by the respondents in the role of provider

Respondents also came up with other considerations. These have not been quantified. Many respondents mentioned issues related to trust (afraid of damage, personal security, conflicts with neighbours, privacy damage) and efficiency (time costs). Two variables that the questionnaire was set to avoid. Remaining independent was an important motive for not taking part in CC. Additionally, many respondents stated that they would only provide to people from their direct or indirect networks. Finally, some respondents preferred professionals instead of individuals. Other concerns mentioned are displayed in table 28.

Item	Taker	Provider
	Considerations	Considerations
Power drill & bicycle	Physically unable to cycle, Personal explanation of tool	
Car	Characteristics of the car, Saving parking space, No drivers licence	Too personal, Condition of the car, Having a leased car
Ride	Distance, Other possibilities, Not having to drive (Saving energy and possibility to consume alcohol)	No drivers licence, Distance
Meal	Discovering new cuisines, Diversity, Allergies, Diet, (vegetarian, low-fat)	Unable to cook, Unwilling to cook
Garden	Purpose of the garden, Physical activity, Healthy food, No waiting list	Less maintenance, Healthy food, Liking to garden
Travel accommodation	Liberty, Physically unable to travel	Law. Illegal to rent out a rented apartment.
Skill	Non-regular working hours, Small-scale Custom-made lessons, Lack of time	Receiving welfare and not allowed to earn money

Table 3.28 - Other considerations of the respondents that influence their willingness to take part in CC

### 3.7 Conclusion

This research project aims to identify the consumer potential of Collaborative Consumption (CC) by measuring the willingness to take part, as well as the motives and other explanatory factors for taking part in CC. Examples of CC measured in this research are; seven items (objects, cars, rides, meals, gardens, accommodation and skills), two roles (taker and provider) and (several) modes of exchange (buy, sell, rent, rent out, lend, lend out and swap). The items, roles and exchange modes chosen in this research, reflect what is currently available in Amsterdam and are intended to reflect a broad scope of CC platforms. However, there are many other CC platforms and modes of exchanging not incorporated. Therefore, cautiousness is required when drawing results for the whole space of CC. Motives and other explanatory factors for taking part in CC that are currently known, are collected and aggregated into variables and hypothesis. A measuring instrument is developed to test these hypotheses. The questionnaire is completed by 1330 citizens of Amsterdam who are all members of the city's panel. Three questions from the measuring instrument are taken from a previous research project among a representative sample of Amsterdam citizens. The results for these questions demonstrate similar results, indicating that this research is representative for the wider population of Amsterdam. However, the research sample consists predominantly of native high educated respondents from 35 years and older. Therefore, the assumption is made that the findings of this research are a solid indication for the willingness of high educated, native citizens of Amsterdam of 35 years and older, to take part in CC. In addition cautious assumptions are made for all Amsterdam citizens based on separate results for each demographic and the indication of representativeness described above.

The results on the dependent variable indicate that there is a substantial willingness for taking part in CC. This willingness differs per item (power drill & bicycle, car, ride, meal, garden, accommodation, skill), role (taker, provider), and whether there is money involved (buying, selling, renting, renting out) or not (lending, lending out, giving, receiving, swapping). The main results per item are summarized in this paragraph and in table 22. Overall respondents were more likely to take part in CC when the wallets stay closed, especially with small transactions like borrowing a power drill or ride sharing. This is evident both in the results, as well as in the comments from the respondents. With regard to roles, respondents are more likely to take part in CC as a taker (43,8 percent) than as a provider (31,9 percent) except for ride sharing. Nevertheless, it is clear that the willingness for taking part in CC is substantial and there is a potential for all platforms to grow towards reaching a critical mass of users. The lack of people younger than 35 in the research sample, combined with these results, indicate that CC is in no way confined to only people below 35 years old. Furthermore, the lowest score in any demographic group is fourteen percent, which implies that even in the least likely demographic groups, one out of every eight persons would take part in CC. On the other side of the spectrum, from all respondents 84,1 percent would at least take part in one form of CC.

	Taker		Provider	
	(Very) likely	neutral	(Very) likely	neutral
<b>Object</b>	50,7 %	13 %	52,2 %	11,6 %
<b>Car</b>	37,5 %	13,9 %	24,6 %	12,4 %
<b>Ride</b>	54,9 %	18,3 %	66,1 %	11,6 %
<b>Meal</b>	25,6 %	19,6 %	17 %	13 %
<b>Garden</b>	27,8 %	10,8 %	14,3 %	10 %
<b>Accommodation</b>	58 %	14,2 %	13,1 %	9,7 %
<b>Skill</b>	52,2 %	18 %	35,9 %	22,9 %

**Table 3.29- Percentage of the respondents that would (very) likely take part, or are neutral in taking part in CC**

Besides the willingness to take part in CC, this research project aims to explain why people are taking part in CC. To that end, four types of independent variables are considered. Firstly, results for the *control variables* indicate that trust and ownership do have a small, unintended influence on the results. Furthermore, the control variables prove a consistency among questions concerning the same subject (social, environmental). Finally, significant moderate correlations are found between the dependent variables, and whether respondents opted for more information at the end of the questionnaire. These findings strengthen the reliability of the results for the dependent variable. Secondly, the *direct independent variables* are constructed in the measuring instrument in a such way that they are causal to the dependent variable. Strong significant causal correlations are found between the dependent variables and all direct independent variables: earning / saving money, meeting people, contributing to a healthy environment and recommendation. Optionally respondents could indicate other considerations. The two most opted consideration are 'helping somebody else' and 'saving time.' The results of the direct independent variables are compared for the 26 dependent variables (seven items, two roles and different modes of exchange). When these explaining variables have similar results they are aggregated. This process downsizes the total of dependent variables to five concerning the exchange of; objects, mobility, meals and skills, gardens, and accommodation. The remainder of the analysis is done for these five dependent variables. Thirdly, from the *normal independent variables*, social attitude towards the neighbourhood, (general) social attitude, environmental behaviour and financial motives influence respondent's willingness to take part in CC. No difference is found between intrinsic motives (social and environmental) and extrinsic motives (financial and social-receiving praise). Rather, the high willingness to take part in CC is due to the variety of motives respondents have for taking part. These results are different from Hamari and Ukkonen (2013) and IPSOS (2013), where financial motives are considered the main factor for starting to take part in

CC. Furthermore, recommendation and experience with online markets such as eBay or offline markets, such as second-hand stores or flea markets, influence respondent's willingness to take part in CC. Interestingly, already taking part in CC (N=54) did not influence the dependent variable. Similar results are found for the degree to which respondents are following mainstream and social media. Finally, results indicate that all *demographics* have a small influence on the dependent variables. However, more data on the underrepresented groups in future research could allow for more realistic estimates of the differences among demographic groups. From this research it can be concluded that women are slightly more likely than men to take part in CC. When income and age increase, the willingness to take part in CC slightly decreases and education correlates positively with the willingness to take part in CC. Interestingly, in terms of ethnicity, the underrepresented non-western immigrants category (N=54) has the highest results while this group is hardly visible among collaborative consumers and invisible so far in research. All together these results reject the concern that CC belongs to high educated millennials. Results from this research demonstrate that very different individuals are willing to take part in CC for a broad variety of motives. Indeed, the visions of Rachel Botsman (2013) and Markus Barnikel (2013) are confirmed, CC has the potential to grow far beyond the urban elite.

The results indicate that CC-platforms described, can indeed reach a critical mass of users and that, from a consumer behaviour perspective, the statement made by Botsman and Rogers (2011) who claimed Collaborative Consumption to be a new socioeconomic groundswell, is true. It is up to future research and the future itself to explore and experience if the other transition pillars are favourable too, and thus if Collaborative Consumption will indeed become a new socioeconomic groundswell.

### 3.8 Discussion

This articles described pioneering research in a largely unexplored field. Therefore not only the results are important but also the way these are measured and interpreted. In this article, CC is taken as the dependent variable. However, this a complex dependent variable given the broad range of examples, modes of exchange and the difference between the taker and provider role. This in addition to the various independent variables and demographics created a complex data file. This complexity provided a challenge to keep the analysis comprehensible. The decision that was made to calculate most independent variables only for five aggregated dependent variables was unavoidable. Still in this process detail was lost implying on the other hand, that future analysis could yield additional insights. Similarly, only the demographics for the dependent variables were calculated while it would also be interesting to calculate the independent variables for different demographic groups. Another data analysis issue was whether to execute a multiple regression analysis. Given the criticism on such analysis' for data based on Likert scale's the decision was made not to do this. Furthermore no weighting procedures were performed due to the very low numbers of some demographic groups. It was considered more valuable to keep the original group sizes and provide their results in percentages. Although this makes it clear to which exact groups results belong, it does affect the representativeness of the results as a whole. Therefore it would be interesting if a multiple regression analysis would be performed based on the weighted data, of the data used in this research and evaluate how that would affect the results. Last, the hypotheses state that the independent variables influence the dependent variable.

The measuring instrument was carefully developed and tested. Nevertheless several potential improvements are identified. When building the instrument it was decided to keep the questions concerning the dependent variables as concrete as possible. For instance, when developing questions for object exchanges, instead of using the term 'object' or 'tool,' two of the most exchanged items of object exchange platform Peerby were chosen. However the results on the dependent variable for both objects differed considerably indicating how sensitive the instrument is for different examples. This example demonstrates how difficult it is to measure CC. Furthermore four direct independent variable were installed in such a way that they were causal to the dependent variables. The variables correspond to the four main motives. There are also groups of normal independent variables that correspond to similar motives. For example the aspect of meeting people and different forms of social attitude including whether people like to help others. At the comments underneath the questions concerning the dependent variables, many respondents mentioned that 'just helping out' would be their main motive. It could be argued that it is better to turn all variables concerning motives into direct independent variables making them equal to one another and thus easier to analyze. Furthermore, the measuring instrument was sent electronically to the respondents implying that this research reached only people with internet access. This might be a problem for representativeness in other cities or regions. However, in Amsterdam this has a limited effect because 90 percent of the citizens have access to internet at home and in addition to that internet is available in cafés and libraries (O+S, 2011). Last, because this research was conducted online, respondents not be supported for interpreting the questionnaire. The control variables indicate that this has had an effect on the results because not all questions were interpreted correctly. In sum, there is always a better way. This article with its pioneering character has valuable methodological implications both for measuring and analyzing Collaborative Consumption.

## Chapter 4 – Extension to the description of the methods used in the articles

The methods in the articles are not as thoroughly described as is required for a thesis. Therefore, this chapter provides an extension to the methods described in both articles. For both articles, the details of the respondents are only available to the researcher. All details are anonymized. In the first article, this is done by assigning a letter and a number to each included respondent. The letter refers to the platform the respondents used (T = Shareyourmeal, P = Peerby, K = Konnektid). In the second article, all respondents are automatically assigned a number in the SPSS file. The list of respondents and corresponding numbers are exclusively available to the researcher and O+S (in case of the second article).

### Article one – The consumer potential of Collaborative Consumption: Motives of Dutch collaborative consumers

When possible, the researcher travelled (across the country) to interview respondents face-to-face. In about 30 percent of the cases, Skype is used to conduct the interview. All interviews are recorded and transcribed in order to allow for the coding of the data which is described in the following paragraph.

The data gathering consists of a open interviews which have the exclusive aim of retrieving as much knowledge as possible on motives and other explanatory factors for taking part in CC. This is well-explained in chapter 2.4. This paragraph explains in more detail the coding process. Besides the framework of intrinsic and extrinsic motivations, there is data or hypotheses on forehand. Thus, the first concepts emerge during the analysis of first interview. Atlas.ti 5.0 is used to go through the interviews line by line and to code basically everything. During the coding process, umbrella codes emerge. For instance “it is an original way to meet my neighbours” which has ‘meeting neighbours’ as its code and, “doing so I talk to people from my neighbourhood of whom I would otherwise not even had known they existed,” which has ‘meeting new people’ as its code. These two examples both end up under the category of ‘meeting people.’ Subsequently, connections among these codes are made through axial coding. This step is also the first part of the writing process. Here, data is put back together by connecting categories. For instance, the categories of ‘meeting people’ and ‘helping out’ both end up under the variable of social motives. This is then applied to the framework of intrinsic and extrinsic motives. The variable ‘social motives’ appears to be completely intrinsic, except for its subcategory of receiving praise which is an extrinsic variable. In sum, data collection is the starting point and a thorough coding process, involving various aggregation steps, is used to arrive at different variables that can be places in the framework of intrinsic and extrinsic motives.

The research sample is thoroughly described in chapter 2.4. Here, additional insight is provided in how the respondents were recruited and interviewed. Respondents of *Shareyourmeal* were recruited through an advertisement on their Facebook page. Twenty home cooks and food takers reacted. Six of them were selected for interviews. The aim of the selection is to retrieve a research sample that is as diverse as possible in terms of demographics (including city of residence). In one case, the husband of a selected respondent was at home during the interview and, being a home cook himself, he was also included in the research sample. Respondents of *Peerby* were recruited by means of an email from Peerby itself to 50 Peerby users. Six of them reacted and they were all included in the sample. Respondents of *Konnektid*, the smallest platform in terms of users, were recruited by sending an email to twenty users of which the majority is directly connected? to the platform owner. In all cases, the advertisement for the research asked the respondents if they would like to contribute to research on their platform that would help to develop it further, and included the email address of the researcher. Subsequently, the respondents were called to arrange for an interview.

### Article two – Measuring the consumer potential of Collaborative Consumption: The municipality of Amsterdam

The construction of the measuring instrument, as well as the data gathering process, are thoroughly described in chapter 3.4. In this chapter, the statistical analysis performed is described in more detail.

The most often used calculation is *Pearson’s correlation coefficient*. It is used for all continuous variables; control variables, the direct independent variables, the normal independent variables and the demographics of age, education level and household income. The assumptions of normality, linearity, and homoscedasticity are checked by means of scatter plots (only education level was doubtful). The correlation coefficient is used, because it is the appropriate method for determining the strength of the correlation and whether it is positive or negative. This information is exactly what is necessary to test the hypotheses and answer the research questions. The coefficient of determinations are not calculated. These scores indicate how much of the variance of the dependent variable is explained by the results of the independent variable. However, the aim of this research is to find which factors have an influence on the dependent variable. Therefore, it is decided to just provide the strength, significance and directions of the relationships. However, as suggested in the discussion of chapter three, it would be worthwhile to conduct a multiple regression analysis on the data obtained in this research.

*Cronbach's Alpha* is used to calculate the internal consistency for the groups of questions measured on a Likert scale concerning the concepts of social attitude and environmental behaviour. It is the appropriate method for determining whether the different items measure the same concept. This is often done in research involving psychometrics tests. However, it is less often used for aggregating dependent variables based on direct independent variables as is done in this research. In this research, it is necessary to aggregate the different items, roles and modes of exchange of the dependent variable in order to keep the analysis feasible. The aim of this aggregation process was to maintain the variance among the different explanatory variables as much as possible. Making this case for aggregation only with words is reasonable for many of the aggregations. For instance, contributing to a healthy environmental occurs in all cases, no matter if there is money involved or not and whether the respondents takes, or provides a ride. The same is true for meeting people and recommendation. However, Cronbach's Alpha provides a statistical proof of the internal consistency of whether the answers among large groups of people to an item are consistent. In this case it is used to measure if the answers of the same motive, for slightly different dependent variables are consistent, thereby substantiating the argument for the aggregations that are made.

Independent-Samples T-Tests are performed when different groups are compared. This is the case for the demographics of gender, ethnicity and household type. But also for the comparison between this research and the State of the City, as well as to substantiate the aggregation (described in the previous paragraph) of exchanges involving, and not involving money. The reason for using this test on these groups is that they all consists of two different groups of respondents, and it is necessary to find if there are statistical differences among these groups. The fact that transactions involving and not involving money consists of two separate groups is due the setup of the questionnaire. The mode of exchange is randomly assigned per question. Consequently, per question, half of the respondents received a question involving money and the other half a question without money involved. In all cases, the Levene's test is used to determine whether or not the variances of the two scores of the groups are equal, which is mostly the case. When this was not the case, results were incorporated for the calculation where equal variances are not assumed. Due to the large sample size, any violations on the normal distribution should not affect the results. Therefore, no histograms or Q plots are made to check for this. The results of the Independent-Samples T-Tests indicate whether there is a significant difference between the scores. However, for the purpose of this research it is necessary to determine the effect size. To that end, Eta Squared is used to manually calculate the effect size. For the interpretation of the effect size, the guidelines provided by Cohen (1988) are used (.01 = small effect, .06 = moderate effect, .14 = large effect). The demographics of ethnicity and household type consists of more than two groups. Therefore a one-way analysis of variance (ANOVA) is used to examine whether there is an overall significant difference among the different groups. Subsequently, Independent-Samples T-Tests and Eta Squared scores are calculated for the appropriate combinations.



## Chapter 5 – Conclusion

The objective of this research is to yield *descriptive* and *explanatory* knowledge on the consumer potential of Collaborative Consumption, by determining if, and because of what factors, Amsterdam consumers would take part in Collaborative Consumption. In this concluding chapter, each sub question is described followed by the overall conclusion.

### 4.1 Sub question one: What factors have caused current users of CC to start using CC?

There is a dearth of empirical evidence about factors influencing people to start taking part in CC-platforms. Therefore, these factors are identified by means of a qualitative research: Based on grounded theory methods, twenty users of CC-platforms are interviewed about their motives for using these platforms. A distinction is made between intrinsic and extrinsic motivational factors, and other factors. The findings indicate that practical need, financial gains and receiving praise from others are the main extrinsic motives. The main intrinsic motives are social and environmental. Besides motivational factors, networks, (social) media and recommendation prove to be explanatory factors for the willingness to take part in CC. These findings correspond well to the four drivers identified by Rachel Botsman and Roo Rogers (2011) in their book *What's mine is yours*, which are: P2P technologies, resurgence of community, environmental concerns and cost consciousness.

### 4.2 Sub question two: What is the willingness of Amsterdam citizens that are not yet taking part in CC to start doing so?

The willingness of Amsterdam citizens to take part in CC is tested in a non-experimental setting by means of a large N-survey among the panel of the Research and Statistics department of the municipality of Amsterdam (N=1330). CC in this research consists of seven items (objects, cars, rides, meals, gardens, accommodation and skills), two roles (taker and provider) and (several) modes of exchange (buy, sell, rent, rent out, lend, lend out and swap). The results indicate that there is a substantial willingness to take part in CC. Overall, 43,8 percent would take part as a taker and 31,9 as a provider. From all respondents, 84,1 percent would at least take part in one form of CC. Respondents are slightly more likely to take part if the exchange mode does not involve money, especially for less expensive assets such as bicycles or power drills. More than half of the respondents would exchange objects and rides both as a taker and as a provider. The biggest difference between taking and providing occurs in accommodation rental (58 – 13,1). Other results are skills (52,2 – 35,9), cars (37,5 – 24,6), meals (25,6 – 17) and gardens (27,8 – 14,3). In sum, there is a substantial willingness for Amsterdam citizens to take part in CC, differing per item, role and mode of exchange.

### 4.3 What (combinations of) factors found in sub question (1) relate to the willingness of Amsterdam citizens that are not taking part in Collaborative Consumption to start doing so?

The explanatory factors for Amsterdam citizens to take part in CC are tested in the same large N-survey that is used in the previous subchapter. The variety of the dependent variable, which included seven items, two roles and several modes of exchange, resulted in an initial amount of 26 dependent variables. To keep the analysis feasible, these are aggregated whenever there are similar results on the direct independent variables. This is the case for; modes of exchange involving and not involving money, for provider and taker roles, and for the items of meals and skills (mealskill). Furthermore, cars and ride exchanges are combined into 'mobility' because of their similar characteristics. After the aggregation process, there are five dependent variables: Objects, mobility, mealskill, gardens and accommodation. The remainder of the analysis is performed for these five variables.

Strong causal relations are found for the direct independent variables; saving / earning money, meeting people, contributing to a healthy environment and recommendation. Besides these variables, a set of normal dependent variables is measured. Results indicate that; social attitude towards the neighbourhood, general social attitude and environmental behaviour influences the respondent's willingness to take part in CC. Respondents were also given the opportunity to come up with other considerations they have for each question about the dependent variables. The two most opted other considerations made by the respondents are helping out and saving time. In contrast to the findings of Hamari and Ukkonen (2013) and IPSOS (2013), there is no meaningful difference among financial motives and other motives. Additionally, the findings from Hamari and Ukkonen (2013) indicate that CC-behaviour is influenced by extrinsic motives while CC-attitude is influenced by intrinsic motives. In this research only behaviour is measured, but no difference is found between intrinsic motives (social and environmental) and extrinsic motives (financial and social>receiving praise). Furthermore, online (eBay) and offline (second-hand stores, flea markets) experience have an influence on the dependent variable. Lastly, all demographics that are tested for have an influence on the dependent variable. Women are slightly more likely than men to take part in CC. When income and age increase, the willingness to take part in CC slightly decreases and education correlates positively with the dependent variables. The minority of non-western immigrants (N=54) are significantly more willing to take part in CC than the other ethnic groups.

In conclusion, the results of the sub questions demonstrate that there exists a substantial willingness among consumers to take part in CC. The consumer potential of CC is not only high because of this willingness among various demographic groups, but also because of the large variety of motives existing for taking part in CC, as well as the many different CC items people can choose from. The results confirm the vision of Rachel Botsman (2013), CC is not confined to the millennials and can grow far beyond the urban elite. Indeed, from a consumer behaviour perspective, the findings from this research indicate that the transition to a new socioeconomic groundswell of Collaborative Consumption is indeed taking place.

## Chapter 6 – Discussion

This chapter is an extension to the reflection and discussions of both articles and aims to provide additional insights in the validity and reliability of the research. The thesis as a whole is an example of mixed methods research, which is a suitable method for research on comprehensive issues. It incorporates triangulation, as the qualitative results from the first article are quantified in the second article (Jick, 1979). The strengths and benefits of the mixed methods approach are described in the following paragraphs. Subsequently, validity and generalizability are discussed followed by recommendations for further research.

### 6.1 Strengths, limitations, reliability, validity and generalizability

The mixed method approach has various *strengths*. First of all, depth. A large N-survey was the obvious method for finding relations among the many independent and dependent variables. The advantage of a quantitative strategy is the possibility of generalizing findings to a wider population. A disadvantage is the loss of depth, but because of the mix methods, depth is already generated in the first article. Additional in-depth information was provided by the respondents of the questionnaire through the open-answer boxes. This also tackled the problem of *non-spuriousness* because it is very unlikely that explanatory factors are missed. Secondly, all motives and other explanatory factors, derived from the qualitative methods in the first article, are tested by means of a large N-survey in the second article. This way the limitation of subjectivity in the first article is at least partly compensated. Similarly, the small sample (n=20) has results that cannot be generalized to a wider population. However, this problem is solved by testing those in a quantitative setting. Thirdly, the results of the second article are essentially not causal, as because of asymmetry, it cannot be known whether the cause preceded the effects (except for the direct independent variables). However, because of the qualitative data in the first article, various causal relations between the independent and dependent variable are already established because they have been articulated this way by the interviewees. Therefore, the hypotheses in the second article use the term ‘influence’ instead of ‘correlate.’ However, this research remains a snap-shot in time. To know with complete certainty if the cause precedes the effect, and to see if an increase in the independent variables precedes an increase in the willingness to take part over time, longitudinal data is required. Lastly, the qualitative methods adopted in the first article are only replicable to the extent of adopting the same procedures, however replication is limited because of the interpretation of the researcher which is unavoidably subjective. Here the strength of the mixed method approach becomes evident as the quantitative part of the research is replicable. Both the measuring instrument and the steps taken during the analysis can be repeated.

A number *limitations* could not be avoided by the mixed methods approach. As described above, the *qualitative* research strategy adopted in the first article is vulnerable to the subjectivity of the researcher. It can be argued that the researcher is the measuring instrument. Therefore, the open interview method used is unavoidably effected by interpretation of the researcher. The same is true for data analysis. All codes, aggregated codes and variables are invented during the process and thus interpretation plays a considerable role. Only repetition of the research by other researchers could compensate for the loss of validity due to interpretation. To allow for replicability, the methods used are thoroughly described in the article and in chapter four. Nevertheless, as the researcher is the research instrument, this part of the research cannot be fully replicated by another researcher. Limitations of the *quantitative* research strategy of the second article are mostly related to the use of a questionnaire, which is completed by the respondents without the researcher nearby to clarify questions. Even though the questionnaire is tested extensively, results on the control variables indicate there are still respondents that did not interpret it correctly. In addition to this, there is a difference between stated behavioural indications and actual behaviour. In line with this, several questions are asked about social attitudes and environmental behaviour. These topics are vulnerable to socially desirable answers. Finally, the methods used could not control for covariance. There are several significant correlations among the independent variables that have not been incorporated in the analysis. For example, income tends to co-vary with education level, and social attitude tends to correlate with environmental behaviour.

With regard to the *internal validity*, the main issue is the difference between indicated willingness of behaviour and actual behaviour. This is partly compensated for by the 'button for more information' at the end of the questionnaire, which demonstrates that people who are more willing to take part in CC, are also significantly more likely to ask for more information. Furthermore, the questions asked in the measuring instrument about the dependent variables are exclusively about the exchanges themselves, and not about the act of subscribing to a CC platform. Even though in reality people can do this for free and quickly, this still affects the internal validity, as this threshold is not incorporated in the questionnaire. Furthermore, respondents are asked to imagine they need something in the role of taker or imagine they actually have something in the role of provider. Additionally, respondents are told that all transactions are completely safe. Thus, for some questions the imaginative power of the respondents plays an important role. This unavoidably has an impact on the *construct validity* of the results. Understandably, the control variables of trust and ownership, designed to measure this impact, demonstrate various significant impacts on the results. Lastly, the *predictive validity* might have an impact on the results because the willingness of respondents might be affected by the mood that they are in when answering the questions.

Even though 1330 respondents have completed the questionnaire, there is a sampling error, as the characteristics of the sample are not the same as those of the entire population of Amsterdam. The characteristics of the research sample show a considerable bias towards native, high educated respondents of 35 years and older. Therefore, *generalizability* for the wider population is limited (as described in the second article). Furthermore, all respondents of research sample are member of the panel of the municipality of Amsterdam. Unavoidably, these people have a computer and internet and can therefore be considered at least a bit digitally savvy. However, 90 percent of all Amsterdam citizens of sixteen years and older do have internet access at home (O+S, 2012). Besides demographics, the *external validity* for CC is considerable. Caution is necessary because there are many CC platforms not incorporated in this research, but on the other hand, the seven examples of CC in this research do represent a broad spectrum of what is currently available. Therefore, the overall results are a strong indication for CC as a whole. Furthermore, the results for specific platforms (the different dependent variables) are generalizable for similar platforms that have not been incorporated in this research.

## 6.2 Recommendations for further research

First of all, as mentioned before, for those that believe regression analysis is a suitable method of analyzing Likert scales, it would be worthwhile to execute a multiple regression analysis based on the data of this research. Furthermore, additional in-depth research could be done on the differences among different demographics within the sample. Here, only the results of the dependent variable are calculated for different demographics while it would also be interesting to know more about the independent variables per demographic.

This research has focussed on why people want to take part in CC, and not why people do not want to take part. However, more knowledge on these motives could also substantially help CC in improving itself to conquer obstacles and attract more people to Collaborative Consumption.

Current users of CC are predominantly natives. The results on the 54 non-western foreigners indicates a substantial willingness among this group. It would be worthwhile to assess this group more thoroughly by looking at several different ethnicities present in the Netherlands. It might just be these groups that can help CC-platforms reach a critical mass more quickly.

It would interesting to replicate this research in other cities, regions and countries across the world and compare the results. However, it would be wise to adjust the items to what is locally available. In line with this, it would be interesting to perform this research in smaller towns and villages. It might be the case that the results differ among people living in a city or those living in smaller places.

This research project puts the proclaimed new socioeconomic groundswell of CC in the context of transition theory. Consumer behaviour is one of the pillars necessary for such a transition (Rotmans, 2012). However, another pillar is policy support. A study on policy support for Collaborative Consumption would be valuable for all parties involved in the CC space ,as there is an urgent need for clarity among CC-platform owners, dominant businesses , law-makers and politicians themselves, about how governments should deal with CC. Furthermore, such research would provide results for another pillar and thus contribute to the assumption on which the research objective of this research is based: the assumption that, if CC is truly a new socioeconomic groundswell, then there is a transition going on from a society based on hyper consumption, towards a society based on Collaborative Consumption.

*Recommendations for CC-platforms, regular business and politicians are provided separately from this thesis in actions reports.*

## Chapter seven - Epilogue

*The crisis is what makes these platforms really successful. The world is too small for the way we are currently dealing with stuff. We simply have to share. I believe that in five years, it will be the most normal thing we know. Of course, for long we were sitting in our cocoons believing we can do everything by ourselves. Everybody on an island, contacts lost. Then came Facebook and suddenly people were seeing people they had not heard from for years. Because in the end, we do need each other and will not make it alone. I read in the newspaper that there will no longer be nursing homes in 2020 and that we are going to have to take care of our parents ourselves. And also take care of a sick neighbour. Those things, we could start working towards that now. It should be self-evident to take care of your neighbours (T8).*

*I was with a friend, 2004, a big journey, South America, at some point a pure conversation started. We were sitting there high on a tree trunk, rippling water beneath us, falling starts above us. Beer and cigarettes, head on a tree trunk in the middle of the Andes. Philosophizing while looking at the sky, fantastic. My friend said, "whatever happens, even if they take everything away from you and there is nothing left, they can take everything from you but what they can never take are your stories."*

*How nice would it be if you, through small things, let people experience something nice. It does not have to be much but that is where people live for, that extra dimension. Maybe it sounds more beautiful than it is but I truly believe that this is the added value of sharing (K13).*

*Come gather 'round people  
Wherever you roam  
And admit that the waters  
Around you have grown  
And accept it that soon  
You'll be drenched to the bone.  
If your time to you  
Is worth saving  
Then you better start swimming  
Or you'll sink like a stone  
For the times they are a-changing  
Bob Dylan*

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### Preparatory interviews

In preparation of this research, project interviews with owners of CC-based businesses were performed on barriers and best practices of CC in the Netherlands. In the table below the basic details of those interviews are provided:

Company	Shareyourmeal	Toogethr	Backseatsurfing	Meerijden	De Windvogel	Peerby	Konnektid
Respondent	Marieke Hart	Martin Voorzanger	Anton Boutkam	Nico Oudshoorn	Siward Zomer	leteke Schouten	Michel Visser
Date	12-12-2012	13-12-2012	12-12-2012	13-1-2013	15-1-2013	24-1-2013	12-2-2013



## Appendix A – The consumer potential of Collaborative Consumption: The measuring instrument that was used in Amsterdam

NOTE: The original measuring instrument was written in Dutch. The instrument was translated by the researcher in collaboration with Mark Stradmann, Carine van Oosteren and Jim Bishop. Mark is studying English Language and Culture: Education and Communication at Utrecht University. Carine is senior research advisor at the research and statistics department (O+S) of the municipality of Amsterdam. Jim is a native English speaker. The original Dutch version of the questionnaire can be retrieved by sending an e-mail to Pieter@shareNL.nl

V1 The following statements concern the neighbourhood you live in. Please state to what extent you agree with them.							
		totally agree	agree	neither agree / nor disagree	disagree	totally disagree	I don't know
	The people in this neighbourhood barely know each other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The people in this neighbourhood interact in a pleasant manner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I live in a (cozy) neighbourhood which has a lot of solidarity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I feel at home with the people living in this neighbourhood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I interact intensely with my direct neighbours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

V2 What is your opinion on how people with different ethnic and cultural backgrounds interact in your neighbourhood?

- 1 Very good
- 2 Good
- 3 Moderately
- 4 Bad
- 5 Very bad
- 6 I don't know
- 7 Not applicable

V5 To what extent can you trust the people in your neighbourhood?

- 1 Totally
- 2 A fair amount
- 3 A little
- 4 not
- 5 I don't know

V6 Could you indicate to what extent the following statements are applicable to you?							
		totally agree	agree	neutral	disagree	totally disagree	I don't know
	I accept help from others easily	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I regularly help other people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I regularly share goods I have with others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I know who my neighbours are	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I like receiving compliments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

V11 Do you occasionally use online market places like Ebay and Amazon to buy or sell goods?

- 1 Yes, to sell goods
- 2 Yes, to buy goods
- 3 No
- 4 I don't know

V12 Do you occasionally visit flea markets or brocantes to buy or sell goods?

- 1 Yes, to sell goods
- 2 Yes, to buy goods
- 3 No
- 4 I don't know

- V13 Do you occasionally visit second-hand stores to buy or sell goods?
- 1 Yes, to sell goods
  - 2 Yes, to buy goods
  - 3 No
  - 4 I don't know

V15 Could you indicate to what extent the following statements are applicable to you?							
		totally applicable	applicable	neutral	not applicable	totally not applicable	I don't know
	In order to decrease industrial pollution I would be willing to pay ten percent more for products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I usually travel in the most environment friendly manner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	When I am getting cold at home I put on another garment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In order to improve the quality of the natural environment I would be willing to pay an additional percentage income tax	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I limit the throwing away of goods as much as possible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I recycle as much as possible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Now we'll ask you some questions about the buying, renting and borrowing of goods and services. For each and every question, assume that you are in need of these goods and services. For example, if the question states "imagine you need a grinding machine," then answer as if you actually need it, even if you already own one in real life. Furthermore, you can assume for all the questions that the transaction is 100 percent secure. You do not run any risk.

V17_1 Imagine you temporarily need a car and the possibility exists to rent a car from a neighbour. How likely is it that you would do this?								
		very likely	likely	neutral	unlikely	very unlikely	I don't know	not applicable
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

V17_2 How do the following considerations affect this decision?								
		very much	to some extent	neutral	a little	negligible	I don't know	not applicable
	Saving money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Meeting people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Contributing to a healthy natural environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	It is recommended to you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other considerations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

V17\_and Are there any other relevant considerations?  
ers

V18_1 Imagine you need to go somewhere and a neighbour offers you a lift in his/her car {for free / for a small fee}. How likely it is that you would do this?								
		very likely	likely	neutral	unlikely	very unlikely	I don't know	not applicable
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

V18_2 How do the following considerations affect this decision?								
		very much	to some extent	neutral	a little	negligible	I don't know	not applicable
	Saving money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Meeting people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Contributing to a healthy natural environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	It is recommended to you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other considerations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

V18\_and Are there any other relevant considerations?  
ers

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<b>V16_1</b>	<b>Imagine you need a {power drill / bicycle} and it is possible to {rent / lend} this from someone in your neighbourhood. How likely is it that you would do this?</b>							
		very likely	likely	neutral	unlikely	very unlikely	I don't know	not applicable
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>V16_2</b>	<b>How do the following considerations affect this decision?</b>							
		very much	to some extent	neutral	a little	negligible	I don't know	not applicable
	Saving money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Meeting people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Contributing to a healthy natural environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	It is recommended to you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other considerations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**V16\_and** Are there any other relevant considerations?  
ers

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<b>V19_1</b>	<b>Imagine, somebody in your neighbourhood is cooking a meal and you can pick up a portion for a small fee. How likely is it that you would do this?</b>							
		very likely	likely	neutral	unlikely	very unlikely	I don't know	not applicable
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>V19_2</b>	<b>How do the following considerations affect this decision?</b>							
		very much	to some extent	neutral	a little	negligible	I don't know	not applicable
	Saving money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Meeting people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Contributing to a healthy natural environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	It is recommended to you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other considerations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**V19\_and** Are there any other relevant considerations?  
ers

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<b>V20_1</b>	<b>Imagine you need a garden and a neighbour offers to rent you theirs in exchange for money or sharing vegetables. How likely is it that you would do this?</b>							
		very likely	likely	neutral	unlikely	very unlikely	I don't know	not applicable
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>V20_2</b>	<b>How do the following considerations affect this decision?</b>							
		very much	to some extent	neutral	a little	negligible	I don't know	not applicable
	Saving money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Meeting people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Contributing to a healthy natural environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	It is recommended to you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other considerations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**V20\_and** Are there any other relevant considerations?  
ers

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<b>V21_1</b>	<b>Imagine you are travelling and local residents rent out their homes for a reasonable price. How likely is it that you would do this?</b>							
		very likely	likely	neutral	unlikely	very unlikely	I don't know	not applicable
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>V21_2</b>	<b>How do the following considerations affect this decision?</b>							
		very much	to some extent	neutral	a little	negligible	I don't know	not applicable
	Saving money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Meeting people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Contributing to a healthy natural environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	It is recommended to you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other considerations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**V21\_and** Are there any other relevant considerations?  
**ers**

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<b>V22_1</b>	<b>Imagine you want to learn French and a francophone neighbour offers an exchange for money / another language exchange (for example teaching English). How likely is it that you would do this?</b>							
		very likely	likely	neutral	unlikely	very unlikely	I don't know	not applicable
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>V22_2</b>	<b>How do the following considerations affect this decision?</b>							
		very much	to some extent	neutral	a little	negligible	I don't know	not applicable
	Saving money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Meeting people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Contributing to a healthy natural environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	It is recommended to you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other considerations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**V22\_and** Are there any other relevant considerations?  
**ers**

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The following questions look similar to the previous ones. However, there is a clear distinction. The next questions concern the selling, renting out, and lending out of goods and services. For each and every question you can assume that you are in possession of these goods and services. For example, if the question states: "imagine somebody in your neighbourhood needs a grinding machine," then answer as if you actually own this, even if you do not own one in real life. Furthermore, you can again assume for all questions that the transaction is 100 percent secure. You do not run any risk.

<b>V24_1</b>	<b>Imagine a neighbour needs a car and you are able to rent out yours. How likely is it that you would do this?</b>							
		very likely	likely	neutral	unlikely	very unlikely	I don't know	not applicable
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>V24_2</b>	<b>How do the following considerations affect this decision?</b>							
		very much	to some extent	neutral	a little	negligible	I don't know	not applicable
	Saving money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Meeting people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Contributing to a healthy natural environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	It is recommended to you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Other considerations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**V24\_and** Are there any other relevant considerations?  
ers

<b>V25_1</b>	Imagine a neighbour needs to go somewhere and you are able to let this person drive with you {for free / in exchange of a small fee}. How likely is it that you would do this?							
		very likely	likely	neutral	unlikely	very unlikely	I don't know	not applicable
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>V25_2</b>	How do the following considerations affect this decision?							
		very much	to some extent	neutral	a little	negligible	I don't know	not applicable
	Saving money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Meeting people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Contributing to a healthy natural environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	It is recommended to you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other considerations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**V25\_and** Are there any other relevant considerations?  
ers

<b>V23_1</b>	Imagine a neighbour needs a {bicycle / power drill} and you are able to {rent / lend} one out to this person. How likely is it that you would do this?							
		very likely	likely	neutral	unlikely	very unlikely	I don't know	not applicable
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>V23_2</b>	How do the following considerations affect this decision?							
		very much	to some extent	neutral	a little	negligible	I don't know	not applicable
	Saving money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Meeting people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Contributing to a healthy natural environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	It is recommended to you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other considerations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**V23\_and** Are there any other relevant considerations?  
ers

<b>V26_1</b>	Imagine it is possible to sell a portion of a meal cooked by you to somebody in your neighbourhood. How likely is it that you would do this?							
		very likely	likely	neutral	unlikely	very unlikely	I don't know	not applicable
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>V26_2</b>	How do the following considerations affect this decision?							
		very much	to some extent	neutral	a little	negligible	I don't know	not applicable
	Saving money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Meeting people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Contributing to a healthy natural environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	It is recommended to you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Other considerations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**V26\_and** Are there any other relevant considerations?  
ers

<b>V27_1</b>	Imagine you can to rent out your garden to somebody in your neighbourhood in exchange for {money / sharing vegetables}. How likely is it that you would do this?							
		very likely	likely	neutral	unlikely	very unlikely	I don't know	not applicable
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>V27_2</b>	How do the following considerations affect this decision?							
		very much	to some extent	neutral	a little	negligible	I don't know	not applicable
	Saving money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Meeting people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Contributing to a healthy natural environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	It is recommended to you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other considerations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**V27\_and** Are there any other relevant considerations?  
ers

<b>V28_1</b>	Imagine renting out your home in your absence to a tourist for a self-determined price. How likely is it that you would do this?							
		very likely	likely	neutral	unlikely	very unlikely	I don't know	not applicable
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>V28_2</b>	How do the following considerations affect this decision?							
		very much	to some extent	neutral	a little	negligible	I don't know	not applicable
	Saving money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Meeting people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Contributing to a healthy natural environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	It is recommended to you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other considerations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**V28\_and** Are there any other relevant considerations?  
ers

<b>V29_1</b>	Imagine a neighbour wants to learn English and you are able to teach them in exchange for {money / learning something else from that person (for instance French). How likely is it that you would do this??							
		very likely	likely	neutral	unlikely	very unlikely	I don't know	not applicable
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>V29_2</b>	How do the following considerations affect this decision?							
		very much	to some extent	neutral	a little	negligible	I don't know	not applicable
	Saving money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Meeting people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Contributing to a healthy natural environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	It is recommended to you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other considerations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**V29\_and** Are there any other relevant considerations?  
ers

<b>V30a</b>	<b>You have just answered a number of questions concerning Collaborative Consumption, or the sharing economy. There are several platforms (websites) active in Amsterdam that make this possible. Please indicate in the table below if you know any of these platforms.</b>			
		<b>I know this platform and I have subscribed</b>	<b>I know this platform but I have not subscribed</b>	<b>I don't know this platform</b>
	Konnektid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Peerby	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Snappcar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Thuisafgehaald	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Toogethr	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>V30</b>	<b>Please indicate what you own</b>	
	<b>yes</b>	<b>No</b>
	A {bicycle / power drill}	<input type="checkbox"/>
	A car	<input type="checkbox"/>
	A garden	<input type="checkbox"/>

**V31 To what extent have you mastered English?**

- 1 Good
- 2 Average
- 3 Not

**V32 To what extent do you like to cook?**

- 1 Very much
- 2 Much
- 3 Neutral
- 4 A little
- 5 Not at all

**V8 Are you a member of one or more social media websites on the internet, and if so, which ones?**

- 1 No, I am not a member
- 2 Yes, Hyves (Dutch variant of Facebook)
- 3 Yes, LinkedIn
- 4 Yes, Facebook
- 5 Yes, Twitter
- 6 Yes, Google+
- 7 Other, namely \_\_\_\_\_

<b>V9</b>	<b>Finally, could you indicate the extent to which you are following the news in the media listed below?</b>							
		<b>very thoroughl y</b>	<b>thoroughl y</b>	<b>not thoroughl y not volatile</b>	<b>volatile</b>	<b>very volatile</b>	<b>I do not follow this medium</b>	<b>I don't know</b>
	Television	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Radio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Free newspapers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Paid newspapers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Free news websites and/or free online newspapers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Paid online newspapers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Twitter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Facebook	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	LinkedIn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Hyves	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Google+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank you for filling in this questionnaire! You have contributed to one of the first, big research projects on Collaborative Consumption, worldwide. Collaborative Consumption makes the exchange of products and services between individuals possible.

**Comments** In this questionnaire several topics have been addressed. Perhaps there are topics that you missed in this questionnaire..  
Suggestions for improvements are welcome too. Feel free to use the space (vraag aan DCU: hoeveel ruimte krijgen ze?)

These were all the questions. Thank you very much for your cooperation.



## Appendix B – Results of the direct independent variables

Object	Taker				Provider			
	Mon.	Meet.	Env.	Rec.	Mon.	Meet.	Env.	Rec.
<b>Very much</b>	7,5	1,4	4,7	3,2	2,1	1,5	3,3	1,7
<b>To some extent</b>	23,4	9,7	20,9	15,8	5,3	11,9	15,9	10,6
<b>Neutral</b>	23,3	32,2	28,0	31,6	19,7	29,4	28,8	28,9
<b>A little</b>	16,2	22,8	16,2	14,6	15,4	15,9	10,5	9,7
<b>Negligible</b>	14,5	18,7	14,9	15,2	33,2	20,8	19,6	19,3
<b>I don't know</b>	,9	,9	,8	2,9	1,0	1,2	2,1	3,7
<b>Not applicable</b>	14,1	14,3	14,5	16,7	23,4	19,3	19,9	26,1
<b>Car</b>								
<b>Very much</b>	10,2	,7	6,1	2,7	3,7	,9	6,5	2,5
<b>To some extent</b>	32,1	8,5	29,8	20,1	14,4	8,6	21,7	13,1
<b>Neutral</b>	20,8	30,0	23,8	32,2	19,2	23,7	16,1	24,0
<b>A little</b>	11,2	19,8	13,6	13,6	14,0	14,4	10,1	8,9
<b>Negligible</b>	10,9	22,8	11,1	11,5	23,7	25,8	20,3	19,7
<b>I don't know</b>	,9	,9	,7	3,1	1,1	1,1	1,2	2,5
<b>Not applicable</b>	13,8	17,2	14,7	16,6	24,0	25,5	24,1	29,5
<b>Ride</b>								
<b>Very much</b>	6,6	2,7	8,6	2,1	1,8	2,7	5,7	1,8
<b>To some extent</b>	35,3	21,1	38,9	19,5	10,1	26,1	34,3	14,9
<b>Neutral</b>	24,6	38,0	28,5	38,0	24,7	34,2	25,5	33,7
<b>A little</b>	14,3	18,7	10,7	15,1	18,2	11,3	9,7	8,5
<b>Negligible</b>	12,5	14,0	8,4	12,2	25,6	11,6	10,6	13,1
<b>I don't know</b>			,2	2,3		,6	,6	4,6
<b>Not applicable</b>	6,6	5,4	4,7	10,9	19,6	13,5	13,5	23,4
<b>Meal</b>								
<b>Very much</b>	1,7	2,4	1,8	3,1	1,9	1,7	2,5	1,5
<b>To some extent</b>	11,6	24,4	12,2	22,8	7,9	16,5	8,9	7,7
<b>Neutral</b>	26,1	25,7	26,8	26,0	15,4	22,0	24,5	24,3
<b>A little</b>	18,8	14,1	18,2	12,3	17,0	14,2	13,2	12,2
<b>Negligible</b>	25,1	18,2	22,3	16,2	33,1	23,0	24,8	22,3
<b>I don't know</b>	1,1	1,1	2,0	2,5	1,1	1,5	2,1	4,4
<b>Not applicable</b>	15,6	14,0	16,7	17,2	23,7	21,1	24,0	27,5
<b>Garden</b>								
<b>Very much</b>	2,9	1,5	3,8	1,9	1,1	1,2	2,5	1,4
<b>To some extent</b>	10,3	11,8	16,0	13,8	6,1	10,2	10,6	8,0
<b>Neutral</b>	22,5	25,7	22,2	25,7	16,1	19,3	18,0	19,3
<b>A little</b>	14,8	15,6	11,8	9,3	16,4	13,8	12,6	10,8
<b>Negligible</b>	21,2	19,5	18,3	19,1	31,2	25,0	22,9	22,9
<b>I don't know</b>	2,8	1,9	2,0	2,9	2,6	3,0	3,8	5,5
<b>Not applicable</b>	25,7	24,0	26,0	27,4	26,5	27,5	29,6	32,1
<b>Accommodation</b>								
<b>Very much</b>	13,2	4,1	2,7	6,6	6,4	1,5	,8	1,9
<b>To some extent</b>	44,3	27,3	10,6	32,9	14,7	9,5	3,2	8,6
<b>Neutral</b>	17,1	31,0	36,5	27,0	12,4	18,1	19,3	20,1
<b>A little</b>	7,7	12,9	15,3	7,2	11,0	14,0	12,8	10,6
<b>Negligible</b>	8,1	12,9	16,1	11,3	31,2	30,6	30,7	26,8
<b>I don't know</b>	1,3	1,1	1,9	1,5	1,5	1,3	2,1	3,8
<b>Not applicable</b>	8,4	10,6	17,0	13,5	22,8	25,0	31,1	28,2
<b>Skill</b>								
<b>Very much</b>	4,9	4,9	1,4	4,7	4,5	3,9	1,2	2,3
<b>To some extent</b>	24,5	34,5	3,9	27,5	14,8	27,9	4,0	11,9
<b>Neutral</b>	27,5	24,8	27,7	26,6	24,2	24,2	25,2	28,9
<b>A little</b>	17,8	12,5	12,8	9,5	16,0	11,0	11,5	9,8
<b>Negligible</b>	11,6	11,3	18,8	11,3	23,1	16,6	22,9	18,1
<b>I don't know</b>	1,3	1,1	1,7	2,4	1,3	1,2	1,8	3,5
<b>Not applicable</b>	12,4	10,8	33,7	18,0	16,0	15,2	33,4	25,6