

## Thesis

To obtain the academic degree of Master of Science in Economics & Business

(Major in Marketing)

# Sharing Economy: Managing Uncertainty for the Adoption of Online Sharing Services

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# Preface

## Bismillah-irrahman-irrahim (In the name of Allah, the Beneficent, and the Merciful)

Not many people know about the hardship I have went through before starting this master year. Therefore, this master year actually started off with little motivation and concentration. However, with my faith in my heart and the help from my loving family I faced every obstacle and completed my journey to this final point. Therefore, in this part of the thesis I would like to thank my family and friends for supporting me throughout my master year.

Moreover, for the completion of my thesis paper, I would like to dedicate my sincere gratitude to my supervisor, Nuno Almeida Camacho, for assisting, comforting, and motivating me when facing obstacles during the writing process. I remember experiencing hardship from the beginning with choosing the right topic, and later on facing other obstacles, but every time I lost hope in continuing, Nuno helped me with getting back on track.

And last but not least, I would like to thank the Erasmus University for offering such an interesting and qualitative master program that helped increasing my knowledge and motivation to succeed in continuing my career.

- Ismael Ait Rian

Rotterdam, 2017

# Abstract

Although the sharing economy is working its way up globally, and research tells us more and more people are willing to participate in online sharing services, reality shows us that not many people do participate because of uncertainty or simply don't like the borrowers and therefore exclude them from participating. This thesis paper studies in what way lenders would be more willing to share their goods on online sharing services. Following the Uncertainty Reduction Theory of Berger and Calabrese (1975) and the 'Less is More' effect of Norton, Frost and Ariely (2007), this thesis paper will show that giving more information decreases uncertainty about borrowers and therefore increases the willingness to share goods. Furthermore, higher amounts of information increases liking of the borrower in the beginning, however, when more information is given, the effect almost stays the same or even decreases. Therefore, this study shows evidence of moderated mediation for the causal relationship between amount of information and willingness to share goods, that goes through uncertainty and liking which is affected differently by the type of good. Such research design has not been studied yet in this form and brings refreshing insights for firms and start-ups in the sharing economy.

**Keywords:** Sharing Economy, Uncertainty, Liking, Uncertainty Reduction Theory, Less is More effect, Online Sharing Services, Hedonic vs. Utilitarian

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# **Table of Contents**

List of Figures and Tables	5
1. Introduction	6
1.2 Scientific and Managerial Relevance	9
1.3 Structure of the Thesis	11
1.4 Research background	11
2. Theory and Hypotheses	12
2.1 Conceptual Framework	12
2.2 Dependent Variable	13
2.3 Independent Variables	14
3. Research Methodology	22
3.1 Experimental Design	22
3.2 Measurement scales	24
3.3 Method of Analysis	26
3.4 Data	26
3.4.1 Sample	26
3.4.2 Characteristics Respondents	27
4. Data Analysis and Results	29
4.1 Reliability and Validity	29
4.1.1 Cronbach's Alpha	29
4.2 Manipulation checks	
4.2.1 Willingness to Share Goods	31
4.2.2 Uncertainty	33
4.2.3 Liking	35
4.3 Regression Analysis	37
5. Conclusion	49
5.1 General Discussion	49
5.2 Academic Contribution	52
5.3 Managerial Implications	52
5.4. Limitations and Directions for Future Research	53
Reference List	55
Appendix I Stimuli Description + Theorems URT (1975)	59
Appendix II Questionnaire	63
Appendix III Cronbach's Alpha - Reliability	78
Appendix IV Three Two-Way ANOVAs	80
Appendix V Regression Analysis SPSS Output + Controls Lay Rationalism & Positiv	e Focus
	86

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## List of Figures and Tables

Figure 1. Growth Sharing Economy 2013-2015 (PwC, 2015) Figure 2. Conceptual Framework: Uncertainty Reduction (independent variable) on Willingness to Share Goods (dependent variable) Figure 3. The 21 theorems of Berger and Calabrese, 1975 (source: Bradac, 2001) Figure 4. Means Willingness to Share Goods per Condition Figure 5. Means of Uncertainty per Condition Figure 6. Means of Liking per Condition Figure 7. Example Mediation (source: Falk and Biesanz, 2016) Figure 8. Personal Profile 1 Attribute of Information NoPhoto Figure 9. Personal Profile 1 Attribute of Information Photo Figure 10. Personal Profile 5 Attribute of Information NoPhoto Figure 11. Personal Profile 5 Attribute of Information Photo Figure 12. Personal Profile 9 Attributes of Information NoPhoto Figure 13. Personal Profile 9 Attributes of Information Photo Table 1. Revenue Sharing Economy 2015 (PwC, 2015) Table 2. Axioms Berger and Calabrese (1975) Table 3. Measurement Scales & Reference of Prior Research Table 4. Descriptives Survey Respondents Table 5. Cronbach's Alpha Reliabilities Test Table 6. Descriptive - Mean Scores Two-Way ANOVA Table 7. Descriptive Two-Way ANOVA Willingness to Share Goods Table 8. Test of Between-Subject Effects - 'Willingness to Share Goods' Table 9. Descriptive Two-Way ANOVA 'Uncertainty' Table 10. Test of Between-Subject Effects - 'Uncertainty' Table 11. Descriptive Two-Way ANOVA 'Liking'. Table 12. Test of Between-Subject Effects - 'Liking'' Table 13. Regression 1 Manipulation Variables + Control Variables on 'Willingness to Share Goods' (Y) Table 14. Regression 2 Manipulation Variables + Hedonic vs. Utilitarian + Interaction Terms on 'Uncertainty' (Y) Table 15. Regression 3 - Manipulation Variables + Hedonic vs. Utilitarian + Interaction Terms on 'Liking' (Y) Table 16. Regression 4 - Manipulation Variables + Control Variables + Hedonic vs. Utilitarian + Uncertainty (M1) + Liking (M2) + Interaction Terms on 'Willingness to Share Goods' (Y)

# 1. Introduction

Need a ride to the club? Ask an Uber! Ever dreamt of sleeping in an ancient British castle? You might find it on Airbnb.com. Lending a Porsche 911 from one of your neighbours? RelayRides.com may have the solution for you. Sharing is becoming more and more interesting for people nowadays, which shows a shift in consumer values from ownership to access. These so-called online peer-to-peer platforms (Uber, Airbnb, RelayRides etc.), also collectively known as part of the "sharing economy", have enabled online consumers to collaboratively use under-utilized inventory via fee-based sharing (Zervas et al., 2017).

The sharing economy is expected to allay problems such as pollution, hyperconsumption, and poverty by lowering the cost of economic allocation within communities (Hamari, et al., 2016), however the dark side of the sharing economy shows the market and regulatory failures that allow parts of the market to gain unfair advantage over others (Malhotra and Van Alstyne, 2014). As you may understand the sharing economy can bring a lot of good things to the world, on the other hand there are still some disadvantages overlapped by the dark side of the sharing economy. The main advantages and disadvantages are shown below.

Advantages of the sharing economy:

- Unused capacity could be used more efficiently
- The sharing economy could create more social engagement through online communities
- Ecologically, there is no need for overproduction (pollution), unused capacity can be used in a more durable way
- Less unemployment, people can work online from home on own terms and more flexible working hours
- Creates new business, which are crowd funded through profit and non-profit organizations

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Disadvantages of the sharing economy:

- Could take away sales from existing traditional businesses
- Participants within the sharing economy are not accounted any benefits like paid leaves, sick pay and bonuses which normally are part of a full-time employment
- Governments lose revenue, because not everyone in the world who earns an income through sharing services pay taxes since a lack of regulations
- Sharing services are still amenable for scams or fraud

According to Nielsen (2014, N= 30.000, and 60 different countries world-wide) more than two-third (68%) of global adults are willing to share or rent their personal assets for financial gain. As opposed 66% of the adults were likely to utilize the products and services from others. The Millennials (ages 21-34) are the largest segment who are participating within this sharing economy, but this does not mean they are the only one. The elderly are also getting involved, in fact, 17% are Generation X (ages 35-49), and 7% Baby Boomer (ages 50-64).

In 2015, PwC conducted an analytical paper about the economic scale and growth of the sharing economy. PwC found, that based on the peer-to-peer accommodations, peer-to-peer transportation, on-demand household services, on demand professional services and collaborative finance, generated revenues are estimated of nearly  $\notin$ 3.6 billion and facilitated  $\notin$ 28 billion of transactions values within Europe in 2015 (Table 1). This shows a growth of 77% (Figure 1) since 2013 and a platform revenue growth of 97%. According to Credit Suisse (2015), globally, the sharing businesses had reach \$219 billion by mid-2015 and is estimated by PwC to grow at 25% per year over the next decade and may reach \$335 billion by 2025 (PwC, 2015).

Sector	Rev	/enue 2015 (m)		Value 2015 (m)
P2P Accommodation	€	1,150	€	15,100
P2P Transportation	€	1,650	€	5,100
On-demand household services	€	450	€	1,950
On-demand professional services	€	100	€	750
Collaborative Finance	€	250	€	5,200
Total	€	3,600	€	28,100

Table 1. Revenue Sharing Economy 2015 (source: PwC, 2015)

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Figure 1. Growth Sharing Economy 2013-2015 (source: PwC, 2015)

Sharing services involve three interested stakeholders namely; consumers, online marketplaces and the suppliers (EY, 2015). According to Ernst and Young (2015), from the consumer point of view, trust and safety standards are still a major challenge which restrains them from participating on these sharing marketplaces. At the suppliers' point of view insurance and security of assets are very important to motivate them to share their goods or services. Consistent service and quality service experience are important for both demand and supply side.

## **1.1.Problem Statement and Research Question**

Despite a growing interest and buzz surrounding the sharing economy, one could consider that the sharing economy is still in its infancy and there is tremendous potential for growth. For example, the University of Amsterdam (UvA) conducted a research (N=1787) in collaboration with ShareNL about the participation of Dutch people within the Sharing Economy. They found that 78% of the respondents are willing to participate on online marketplaces. However, only 4% are participating on these online marketplaces against the 88% whom already share offline with friends and family. The reason for this, is that people are simply not aware of these online platforms, but furthermore don't really trust them, because of uncertainty about the person they would share their goods with (Van de Glind, Stofberg, ShareNL, 2017).

One of the most important stakeholders within these sharing services are the suppliers. Without the suppliers, there are no goods which could be shared. If there aren't any goods to be shared, then there is no need for any online marketplace. Because these online marketplaces induce suppliers to share their car with strangers, they are forced to take a decision under uncertainty. Therefore, during the initial stages, there could be some instinctive uncertainty about the consumer who is borrowing a certain good.

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According to Berger and Calabrese (1975), in the initial stages of relationship development people intend to seek information for uncertainty reduction. Therefore, requiring information about the consumer (borrower) in the form of a personal profile is one way to provide suppliers with information which could take away uncertainty. However, according to Norton, Frost and Ariely (2007), giving to much information, could work the other way around, knowing more about someone could also change the interests in another person and therefore may take away the willingness to share a certain good. The sharing economy sites can also reproduce class, gender, and racial biases, which could mean that suppliers will only share their goods with consumers they either know or like and therefore exclude others from participating (Schor, 2016).

Building upon previous studies, this research paper mainly focuses on the effect of amount of information on the willingness to share goods. More specifically, this research paper examines to what extent online marketplaces (sharing economy platforms) should offer information to lenders about borrowers. Thereupon, the research question for this study is:

To what extent should sharing economy platforms offer lenders personal information about the borrower to increase the willingness to share of a certain good?

## **1.2 Scientific and Managerial Relevance**

According to Nielsen (2014), the cornerstone of success for the sharing economy is built on a foundation of reputation and trust. The following was said:

"While the ability to build trust between strangers in the digital world is the foundation for share community success. It's increasingly vital for every other business model, too," said Burbank "And when it comes to reciprocal feedback shared via the Internet, consumers are not shy about voicing their opinions" (Nielsen, 2014)

A few studies have been conducted on how to create trust and getting more people participating in the sharing economy. For example, according to Malhotra and Van Alstyne (2014), creating trust for the viability of shared services depends on the quality of the review systems because people rely on others reviews to decide whether and what to purchase. This also refers to the quotation of Nielsen (2014).

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A recent study by Ert et al. (2016), conducted an empirical analysis of Airbnb's data and a controlled experiment in which they examined the impact of hosts' photo on Airbnb guests' decisions. They observed that a more trustworthy photo leads to a higher price and increased chance to purchase. Review scores were also affecting guests' decisions only when varied experimentally (Ert et al., 2016).

Even though the sharing economy is getting more important and is still growing every year, there is still a lack in quantitative research on the factors that drive the effect of consumers' attitudes and intentions. Furthermore, according to Lamberton & Rose (2012), commercial sharing system managers are not able to rely on marketing scholarships (as a guide), because they do not empirically determine how consumers evaluate differently designed sharing plans, and neither do they have theoretical frameworks that classify commercial sharing systems as different from traditional ownership modalities. Therefore, from the scientific point of view, this research paper sheds light on the importance of providing information by online sharing services based on the perspective of Berger and Calabrese's (1975) Uncertainty Reduction Theory and the perspective of Norton, Frost and Ariely (2007) on the so-called "Less is More" effect.

Such contradictory of giving information about others, in a setting for sharing purposes instead of relation building, has not been researched yet in previous studies and could bring refreshing insights for start-ups as well as existing online marketplaces in the sharing economy. Furthermore, the difference between goods being shared (Hedonic vs. Utilitarian) are also taken in account as a moderator.

Based on literature and empirical evidence, this research paper aims on explaining online marketplaces (sharing services) the importance of providing lenders information about borrowers to a certain extent. Furthermore, this research paper gives pragmatic recommendations on how the management can balance the depth of information through a personal profile to get more suppliers to share their goods. Right amount of information (personal profile) could be the deciding factor in the decision-making process for the suppliers to join a sharing service. Therefore, optimizing this part of the decision-making process could increase sharing moments which results in higher commission fees for the online marketplaces.

### **1.3 Structure of the Thesis**

This thesis paper started off with an introduction about the sharing economy and discussed the problem statement with the research question. Followed up with explanation about the scientific and managerial contribution. The second chapter of this thesis will discuss the theoretical framework with a review on the existing literature, and furthermore summarizes the study in a conceptual framework. Within this chapter, the dependent variable and the key independent variables, as well as the relations between them will be clarified. The third chapter focusses on the research methodology. This part outlines the empirical research and explains which tools will be used for the analysis of the data. This brings us to the fourth chapter of the thesis 'Data Analysis and Results'. Chapter four embodies the statistical analysis and gives an overview of the results. Finally, chapter five will discuss the conclusions, which includes the general findings, managerial implications, limitations and directions for future research.

### **1.4 Research Background**

Consumer behaviour through sharing has been going on for a while now (Rudmin, 2016). Even though property continues to exist, consumers prefer the access of goods instead of owning them. Therefore, consumers pay for temporarily accessing the experience (Bardhi, & Eckhardt, 2012). Sharing nowadays is more and more being viewed as a sustainable and profitable alternative to ownership (Lamberton and Rose, 2012; Belk, 2007; Botsman and Rogers ,2010). According to Hamari, et al. (2016), because of the development of information and communication technologies, a new pathway to sharing has opened with "*peer-to-peer-based activity of obtaining, giving, or sharing the access of goods and services, which is organized through community-based online services*". For example, nowadays platforms like Snapp Car, RelayRides, and Airbnb are taking over the traditional suppliers. These so-called online peer-to-peer platforms, also collectively known as part of the "sharing economy" (alternative names: platform economy, collaborative consumption, access economy, gig-economy), have enabled online consumers to collaboratively use under-utilized inventory via fee-based sharing (Zervas et al., 2017; Hamari et al., 2016).

According Darcy Allen, "the sharing economy is a suite of emerging software platforms acting as an intermediary between private buyers and private sellers, allowing them to share their existing resources—hence, a 'sharing' economy". The sharing economy is

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directed by software and algorithms that matches potential lenders and borrowers to share goods with each other. Because of this, platforms within the sharing economy rely on the demand and supply generated by people. Furthermore, these software models are based on software regulation mechanisms such as insurance, a secure payment service, and reputation-based accountability (Allen, 2015).

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The businesses within the sharing economy mainly own goods or provide services that they rent to customers, often on a short-term basis, or create peer-to-peer platforms connecting providers and users for the exchange, purchase, or renting of goods and services. Segments within the sharing economy are people/skills, household goods, health, education, logistics, transportation, financial services, and accommodations (EY, 2015).

# 2. Theory and Hypotheses

## **2.1 Conceptual Framework**

The conceptual framework (Figure 2) shows the *total effect* of 'Amount of Information' on the 'Willingness to Share Goods'. The construct 'Amount of information' was based on three levels; 1, 3 and 9 attributes. As you can see, the *total effect* is mediated by two separated mechanisms' (mediators) namely; 'Uncertainty' and 'Liking'. Furthermore, other control variables like age, gender, experience, positive focus and lay rationalism, were also taken in account, because they may affect the willingness to share goods. Finally, the moderating construct 'Type of Good' was based on the levels 'Hedonic vs. Utilitarian', which were added to test whether they affect the *main effect* of amount of information on the mediating variables 'Uncertainty' and 'Liking'.



Figure 2. Conceptual Framework: Amount of Information (independent variable) on Willingness to Share Goods (dependent variable) 12

## **2.2 Dependent Variable**

Within this section, the dependent variable 'Willingness to Share Goods' will be explained in the context of the sharing economy. The dependent variable will explain to what extent people are willing to share their goods with strangers. First, there will be an explanation based on existing literature streams about sharing in general and why people collaborate in sharing activities. Secondly, there will be an explanation on how sharing overtime led to 'the sharing economy'.

## Willingness to Share Goods

We share things for as long as we exist with friends, family and acquaintances. According to Belk (2007, 126), sharing is "the act and process of distributing what is ours to others for their use and/or the act and process of receiving or taking something from others for our use". More precisely, according to Rudmin (2016), sharing might best be defined as "the simultaneous or sequential use of goods (e.g., cars, books, food, water), spaces (e.g., living rooms, gardens, decades, websites), or intangibles (e.g., experiences, beliefs, identities, heredity) by more than one individual. The shared resources may be moveable material resources (e.g., tools, clothes, apples, slaves), or may be territorial resources (e.g., desk drawers, apartments, neighbourhoods, countries), or may be immaterial resources (e.g., languages, designs, narratives, bitcoins)". Therefore, sharing is a comprehensive term which describes several ways of exchanging different goods and services. Furthermore, sharing can be seen as an interpersonal process and is often a behaviour which is learned through culture (Belk, 2007).

Sharing from a culture point of view is most of the time driven by the necessity to help and do good for other people (Prothero et al., 2011; Belk, 2007). However, sharing has also functional reasons like survival, saving money, free-riding and facilitating access to resources (Hamari, et al., 2016; Fine, 1980). According to Rudmin (2016), existing literature describes sharing as 'relatively rare' or 'revolutionary' and sees private use of possessions as normal. However, Rudmin suggests sharing has always been the norm and exclusive resources are relatively rare. For example, while driving your friends to a house party, you already share your car with others, taking in mind going to a party in someone else house.

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According to Nielsen (2014), consumers are still uncertain about the sharing economy and don't really trust the strangers they will be lending their goods to. Therefore, some consumers are still not willing to share their goods with others. The 'Willingness to Share' as dependent variable in most cases has been tested within the context of information, data or knowledge. However, this thesis paper will test the willingness to share of a certain good within the sharing economy.

## **2.3 Independent Variables**

As shown in Figure 2 (Conceptual Framework), the total effect of 'Amount of Information' (independent variable) on 'Willingness to Share Goods' (dependent variable) could be mediated by the two independent variables 'Uncertainty' and 'Liking'. Within section 2.3 these key independent variables will be discussed. First off all, the mediating variable 'Uncertainty' will be explained based on the Uncertainty Reduction theory of Berger and Calabrese (1975) and its relationship with the amount of information given and how this effects the willingness to share goods. Secondly, the mediating variable 'Liking' will be explained based on the 'Less is More' effect of Norton, Frost and Ariely (2007) and how the amount of information effects 'Liking', which may influence the willingness to share goods. Beside the mediating variables, the control variables 'Age', 'Gender', 'Experience', 'Lay Rationalism' and 'Positive Focus' will be explained based on literature and their relationship with the willingness to share goods. These control variables are not particular important but could influence the outcome. Furthermore, the moderating variable 'Type of Good' will be discussed based on the levels 'Hedonic vs. Utilitarian' to show how this could affect the amount of information given differently.

## **Uncertainty Reduction Theory**

In 1975, Charles Berger and Richard Calabrese introduced their uncertainty reduction theory (URT). This theory intends to explain the initial interpersonal communication process between two strangers and claim that the moment we interact with people we gain more information and therefore reduce our uncertainties. According to Berger and Calabrese (1975), uncertainty can be defined as *"having a number of possible alternative predictions or explanations"*. In other words, the larger alternatives someone has in that particular situation could lead to the greater degree of uncertainty.

According to Bradac (2001), "uncertainty refers to an interactant's subjective sense of the number of alternative predictions available when thinking about a partner's future behavior. For example, the number of alternative explanations available when thinking about a partner's past behavior. A greater number of perceived alternatives should produce a greater sense of uncertainty and a stronger drive to reduce this uncertainty". Within the context of the sharing economy, suppose, a supplier called Michael has made the decision to join an online marketplace and start offering his car for a monetary compensation. A week later, someone called David shows interests in the car and asks the supplier to lend his car for three days. At that moment, the initial interaction starts and Michael tries to get to know this person, before lending his personal good. Certain questions emerge, such as, will he turn my car back on time? Will he not damage my car? Will he keep my car clean? At that moment, the supplier remains with multiple alternative predictions or explanations and therefore intend to seek for information about the strangers they are lending their goods to, to predict their behavior and reduce uncertainty. This brings us to the first hypothesis of this thesis paper:

## <u>H1a: Lower Uncertainty about Borrowers in an Online Sharing Economy Platform</u> <u>Increases Lenders' Willingness to Share Goods</u>

According to Berger and Calabrese (1975), there are two ways of applying uncertainty reduction: *proactive* (intends to explain what predictions people make of the actions someone might take before the interaction), and *retroactive* (the process in which someone makes explanations for the behavior of the other person and tries to interpret the meaning of someone's behavioral choices after or during the interaction). Based on these types of uncertainties, Berger and Calabrese (1975) lists seven variables (qualities) within their theory that are associated with uncertainty during the initial stages of a certain interaction. These seven variables are the basis of the theory and are combined to create axioms<sup>1</sup> (statements) which are based on previous research and common sense. According to the Berger and Calabrese (1975) these variables or so-called axioms are being explained in Table 2.

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<sup>&</sup>lt;sup>1</sup> Axioms are statements or propositions of a relationship between variables that are assumed to be true (Blalock, 1969; Redmond, 2015)

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Axioms	Variable	Explanation
Axiom 1.	Verbal communication	Given the high level of uncertainty present at the onset of the entry phase, as the amount of verbal communication between strangers increases, the level of uncertainty for each interactant in the relationship will decrease. As uncertainty is further reduced, the amount of verbal communication will increase.
Axiom 2.	Nonverbal affiliative expressiveness	As nonverbal affiliative expressiveness increases, uncertainty levels will decrease in an initial interaction situation. In addition, decreases in uncertainty level will cause increases in nonverbal affiliative expressiveness.
Axiom 3.	Information seeking	High levels of uncertainty cause increases in information seeking behavior. As uncertainty levels decline, information seeking behavior decreases.
Axiom 4.	Intimacy level of communication content	High levels of uncertainty in a relationship cause decreases in the intimacy level of communication content. Low levels of uncertainty produce high levels of intimacy.
Axiom 5.	Reciprocity	High levels of uncertainty produce high rates of reciprocity. Low levels of uncertainty produce low reciprocity rates.
Axiom 6.	Similarity	Similarities between persons reduce uncertainty, while dissimilarities produce increases in uncertainty.
Axiom 7.	Liking	Increases in uncertainty level produce decreases in liking; decreases in uncertainty level produce increases in liking.

## Table 2. Axioms Berger and Calabrese (1975)

Based on these seven axioms, Berger and Calabrese combined all possible combinations which lead to 21 theorems (Appendix 1). According to Redmond (2015), in general, axioms are not being tested and could be considered self-evident or obvious. Therefore, the theory builder refers to previous research and theory to support the validity of the axiom and combines axioms with theorems to support the core of the theory. For example, the theory builder concludes axiom X to be A=B and axiom Y to be B=C, which should result in the theorem: A=C. This form is also called Figure 3. The 21 Theorems of Berger and Calabrese (1975) (source: Bradac, 2001)

Verbal Comm	unication ***> + Nonverbal Affiliative Expressiveness (T1)
	***> + Intimacy of Content (T2)
	***> - Information-seeking Behavior (T3)
	***> - Reciprocity (T4)
	***> + Liking (T5)
Nonverbal Af	Aliative Expressiveness ***>+ Intimacy of Content (17) ***> - Information Seeking (18) ***> - Reciprocity (19) ***> + Liking (T10)
Similarity ***	<ul> <li>+ Verbal Communication (T6)</li> <li>+ Nonverbal Affiliative Expressiveness (T11)</li> </ul>

- +++> + Nonverbal Affiliative Expressiveness (T11)
  +++> + Intimacy of Content (T15)
  +++> Information Seeking (T18)
  +++> Reciprocity (T20)
  +++> + Liking (T21)
- Intimacy of Content \*\*\*> Information Seeking (T12) \*\*\*> - Reciprocity (T13) \*\*\*> +Liking (T14)
- Information Seeking \*\*\*> +Reciprocity (T16) \*\*\*> - Liking (T17)

Reciprocity \*\*\*> - Liking (T19)

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a syllogistic. In terms of the sharing economy and in extension of hypothesis H1a, combining axiom 1 (verbal communications) and 3 (information seeking), will lead to theorem 3 (Amount of communication and information-seeking behavior are inversely related) shown in Figure 3 (Bradac, 2001). This would mean that in the initial interactions of sharing, strangers generally should experience reciprocal uncertainty and have low amounts of verbal information (communication), and therefore seek for information to reduce uncertainty. Inversely, high amounts of verbal information (communication) would reduce uncertainty, and therefore decreases information seeking. Therefore, the second hypothesis of this thesis report is:

## <u>H1b: Higher Amounts of Verbal Communication (information) about the Borrower Leads</u> to a Decrease in Uncertainty for the Lender and Therefore an Increase in Willingness to <u>Share Goods</u>

The URT also explains with axiom 6 that similarities between persons reduces uncertainty and furthermore approves with theorem 6 that amount of communication and similarity are positively related. This could mean that lenders who find more similarities with borrowers, experience less uncertainty and therefore are more willing to share a certain good. Therefore, one of the control variables within the conceptual framework of this study is 'Similarity'. Furthermore, axiom 7 shows that decreases in uncertainty level produce increases in liking and theorem 5 explains that the amount of communication and liking are positively related, which means that giving more information leads to less uncertainty and eventually to more liking. Based on this theorem (5) and axiom (7), one could say that lender is more willing to share with a person who he likes more. However, this is triggered by the amount of information given, which intends to decrease uncertainty.

One could argue, that the axioms of the uncertainty reduction theory seems obvious and logical, however, according to Sunnafrank (1986) and past research, the basic axioms of the uncertainty perspective regarding to initial interactions is weak and questionable. For example, for theorem 3, which is discussed before, both axioms should be valid to have a correct theorem. This is not always the case. It also works the other way around, if the theorem intends to fail, the other two axioms are also being questioned (Redmond, 2015). Another study by Redmond and Vrchota (1997), studied the URT, and did not find any support for axiom 7 (Liking). This axiom claims that an increase in liking would decrease uncertainty, however this has not been proven nor tested. Furthermore, according to

Bradac (2001), the theory is restricted and self-limiting, and questions the assumption that people strive to reduce uncertainty.

You could say that having more information about someone else reduces uncertainty, however, in certain situations more information could increase uncertainty (Redmond, 2015). For example, getting back to the example of Michael and David earlier on. Michael (age= 43) starts to consider sharing his car with David (age= 32). He starts with looking at the personal profile of David and finds out that beside age, gender and photo, he only has one year of driving experience and is a smoker. Therefore, Michael is getting more uncertain on David's driving skills, which could mean that David is inexperienced (partner uncertainty). Furthermore, Michael is not a smoker and hates the smell of cigarettes. In this case, he could restrict David from smoking in the car, however this could increase the behavioral uncertainty about what David will do, because he may not obey the restriction. However, if Michael didn't know about the fact that David was a smoker and had only one year of driving experience, these questions and uncertainty would never pop-up.

## 'Less is More' Effect

In this section, there will be a transition to the opposite theory, which questions the amount of information, giving the fact that more information leads to less liking. Therefore, giving less information should lead to more liking based on the so-called 'less is more' effect (Norton, Frost, & Ariely, 2007). But then again does this also count for the sharing economy platforms and to what extent? You could argue whether someone, in this case Michael, is prepared to share his car with a stranger, without knowing much about this person.

In the extension of the uncertainty reduction theory and previous research in psychology, giving more information should lead to familiarity, which leads to more liking. In theory, familiarity can be seen as an antecedent of trust and is a principal factor for making decisions (Gefen, 2000). This could also be the case for sharing services. Suppliers may only want to share their goods with familiar people. However, these sharing platforms are trying to make it possible to share with everyone, without excluding others. Being more familiar with this person should lead to an increase in willingness to share goods.

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However, according to Norton, Frost, & Ariely (2007), familiarity could also breed contempt. Having more knowledge about another person could, on average, lead to less liking of the person. Therefore, they propose that the relationship between knowledge and liking within individuals is in fact negative. Which also means, that the less information (knowledge) someone has about another person, on average, leads to higher liking.

Norton, Frost, & Ariely (2007) have done five studies in which they explain why more information about others leads to less liking. In study 1A and 1B they tested the difference across and within individuals. The results of this study showed that people intuitively think that they choose to like the person whom they know more information about (1A). However, they falsely believe that learning more about any individual will lead to higher liking (1B). Study 2 showed that randomly assigned information in general would lead to less liking. In study 3 they concluded that the moment people were assigned with more information about another person in which they shared similarity they liked them more. Therefore, dissimilarity would lead to less liking. However, this is without regard to the valence of the information given. This means that positive information does not automatically lead to more similarity and therefore to more liking. For example, according to Herbst, Gaertner, and Insko, (2003), people who seem to good are liked less, which shows that an increase in positive information can lead to less liking. In study 4 they found the cascading nature of dissimilarity. This study showed that the moment someone did not find similarity in the first certain trait (information) about another person, were also likely to see other traits as dissimilar. This would mean that the moment more information is given about another person while dissimilarity has been noticed, someone will keep feeling less similarity with that person the moment more information is given. Finally, in study 5 they used data from an online dating site, in which they tested a pre-and postdate based on knowledge, liking and similarity. Logically, they found that people knew more about the other person in the postdate than in the predate. However, like the other studies, they found that an increase in knowledge would lead to a decrease in liking. This was measured with ratings. They gave their date a significant lower rating in the postdate than in the predate (the drop-in rating for men was lower than for women). Furthermore, this study also showed that the moment more information was given, the perception of similarity would also decrease. The findings of this study brings us to the next hypotheses:

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<u>H2a: Higher Liking of Borrower by Lender in an Online Sharing Economy Platform</u> <u>Increases Lenders' Willingness to Share Goods</u>

<u>H2b: Lower Amounts of Information about the Borrower Leads to Higher Liking by</u> <u>Lender and Therefore Increases Lender's Willingness to Share Goods</u>

## Hedonic vs. Utilitarian

As explained in the introduction the type of good being shared could influence to the the mediating variables and therefore the dependent variable 'Willingness to Share Goods'. In this section, the difference between hedonic and utilitarian goods are being explained, and how this could affect the causal relation between amount of information and the willingness to share through the mediating variables uncertainty and liking.

In general consumers choose their products based on hedonic and utilitarian needs (Dhar and Wertenbroch, 2000). For example, some people care about utilitarian aspect of a certain product which are more functional, like long battery life or healing (medicine). However, other people may choose certain products based on hedonic attributes like unique design or exclusivity. You could say utilitarian products are more likely to be instrumental and functional, for example laptops, minivans or kitchen tools. Whereas, hedonic goods are more for fun, pleasure and excitement (e.g., luxury cars, exclusive designer clothes, expensive Yachts, etc.; Dhar and Wertenbroch, 2000; Hirschman and Holbrook, 1982; Strahilevitz and Myers, 1998).

However, according to Dhar and Wertenbroch (2000), consumers don't automatically characterize some products as utilitarian or others as hedonic. Dhar and Wertenbroch suggest, that the consumption of hedonic goods is more likely characterized as "an effective and sensory experience of aesthetic or sensual pleasure, fantasy, and fun". Whereas with utilitarian goods, "the consumption is more cognitively driven, instrumental, and goal oriented and accomplishes a functional or practical task". Furthermore, consumers are more likely to categorize between "affective preferences ("wants") and cognitive or reasoned preferences ("shoulds") that underlie consumer choice" (Bazerman, Tenbrunsel, and Wade Benzoni (1998); Dhar and Wertenbroch, 2000). Therefore, consumers would see utilitarian goods more as products they really need and 'should' have. Whereas, hedonic goods will be more classified as what they 'want' for a certain moment.

Dhar and Wertenbroch (2000), studied the difference between acquisition and forfeiture choices, in which they research how consumers' choice between hedonic and utilitarian goods is influenced. The study showed that a hedonic good is relatively preferred over the same utilitarian good in forfeiture choices than in acquisition choices, which has been supported in two choice experiments. This could mean that consumers of hedonic goods show more interest in keeping their goods than forfeiting it. Furthermore, a field survey showed, that owners of hedonic cars value their car more than owners of utilitarian cars do. This could mean that there is a distinctive difference between owner of hedonic goods and utilitarian goods, which moderates the effect of amount of information on uncertainty and liking. Therefore, the next hypotheses are:

H3: The Positive Effect of Sharing Borrowers' Information on the Perceived Uncertainty about Borrowers is Stronger for Hedonic than for Utilitarian Products

H4: The Negative Effect of Sharing Borrowers' Information on the Perceived Likeliness of Borrowers is Stronger for Hedonic than for Utilitarian Products

## **Overview Table of Hypotheses**

#	Hypotheses
Hla	Lower Uncertainty About Borrowers in an Online Sharing Economy Platform
	Increases Lenders' Willingness to Share Goods
H1b	Higher Amounts of Verbal Communication (information) About the Borrower
	Leads to a Decrease in Uncertainty for the Lender and Therefore an Increase
	in Willingness to Share Goods
H2a	Higher Liking of Borrower by Lender in an Online Sharing Economy Platform
	Increases Lenders' Willingness to Share Goods
H2b	Lower Amounts of Information about the Borrower Leads to Higher Liking
	by Lender and Therefore Increases Lender's Willingness to Share Goods
H3	The Positive Effect of Sharing Borrowers' Information on the Perceived
	Uncertainty about Borrowers is Stronger for Hedonic than for Utilitarian
	Products
H4	The Negative Effect of Sharing Borrowers' Information on the Perceived
	Likeliness of Borrowers is Stronger for Hedonic than for Utilitarian Products

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## 3. Research Methodology

This chapter will describe the research methodology used to empirically test the hypotheses presented in chapter 2 and answer the research question. The empirical analysis will be based on an experimental survey. Therefore, this chapter begins with explaining the experimental design. Thenceforth, this chapter explains how I have tested for the hypothesized mediation and moderation between the variables.

## **3.1 Experimental Design**

The aim of this study is to examine to what extent lenders are willing to share their goods based on the amount of information given about the borrower and how this is mediated by the mechanisms 'Uncertainty' and 'Liking'. Furthermore, this study examines whether the type of good (Hedonic vs. Utilitarian) could also moderate the effect of amount of information on the mediating variables uncertainty and liking. To increase my capacity to make causal inferences, and due to my lack of access to secondary data on online sharing services, in this study I rely on experimental design to test my theory-based hypotheses. According to Babbie (2013), an experiment can be defined as a mode of observations that enables research to probe causal relationships. Furthermore, using an experimental design gives the possibility to manipulate (control) factors (independent variables) and works good on internal validity.

Within the experimental design, I manipulated the construct 'Type of Good' betweensubjects using three levels: General/undefined product (control group), utilitarian good (Minivan group) and hedonic product (Sports car group). A key advantage of a betweensubject design setting over a within-subject design is that within-subject design can contain carry-over and demand effects (Charness, Gneezy, & Kuhn, 2012). The manipulation worked as follows. These three groups were given the same survey, however, I manipulated the introduction text in three diverse ways. The control group had a general introduction about sharing goods in general, whereas experimental group 1 and 2 where given an introduction that clearly described the hedonic or and utilitarian goods.

Even though between-subjects design has some advantages, it also creates some difficulty with the sample size. This has to do with the fact, that each level of a construct adds additional sample size requirements, due to statistical power (Bonnet and Price, 2002). Therefore, I manipulated the independent variable 'Amount of Information' using a within-subjects design, based on three levels: 1, 5 or 9 attributes of information in a

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personal profile. Furthermore, I also manipulated an additional variable, which is also related with the information provided by a borrower, within-subjects: whether or not the borrower included a photo of herself (2 levels: Photo or NoPhoto). However, to tackle the problem discussed above about within-subjects design containing carry-over and demand effects, I randomized the experimental conditions within the survey, showing the personal profiles (1, 5 or 9 attributes; Photo and NoPhoto) with questions in a different order (Charness, Gneezy, & Kuhn, 2012). The full factorial design results in six different conditions (3 x 2). For additional details on the experimental stimuli I used, see Appendix I.

The survey (Appendix I) was made and distributed online, using randomizations to create different groups and showing the conditions randomly to cancel out carry-over effects. The advantage of distributing it online, is that you can reach a wider audience within a short amount of time without travelling and often with low cost. However, the disadvantage of an online survey, is that because of low involvement of the researcher, you can end up with a low response rate (Couper, 2000). To tackle the low-response rate problem, part of the sample was gathered pro-actively. The online survey was also possible to make on a Smartphone, therefore, some of the respondents were gathered through face-to-face conversations. During this conversation, the respondent was send an anonymous link through WhatsApp and asked to fill in the survey.

According to Rogelberg & Stanton (2007) privacy concerns holds potential respondents back from participating a survey. Therefore, before the questionnaire started, respondents were informed that their responses were recorded anonymously and only used for research purposes. Moreover, a survey length of 10 - 15 minutes was communicated and some of the respondents could win a free pizza coupon (from work) as an incentive to activate them to participate (Pickreign & Whitmore, 2012). Furthermore, social media platforms like LinkedIn, Facebook, Instagram and Twitter were used to gather as much respondents as possible from different ages and backgrounds.

### **3.2 Measurement Scales**

The online survey, which is available in its full form in Appendix II, started off with the control variables Gender, Age and Experience. Question 1 about Gender was logically set up with two options (men or women). However, question 2 (Age) and question 3 (Experience) were based on previous research. Inspired by Nielsen (2014), Age was categorized by generations (Under 20 (Generation Z), 21 - 34 (Millennials), 35 - 49 (Generation X), 50 - 64 (Baby Boomer), 65+ (Silent Generation)) and Experience was created from a previous study by Hamari et al. (2015) about the participation in collaborative consumption. Furthermore, the control variables 'Lay Rationalism' (Hsee et al., 2014) and 'Positive Focus' (Nenkov et al., 2008) were already used at the end of the survey. In line with the published scales just cited, Lay Rationalism was measured with six statements based on a 5-point scale ranging from strongly disagree (1) to strongly agree (5). Positive Focus was measured with three statements also based on the same 5-point scale.

Willingness to Share Goods, Uncertainty and Liking were measured independently with the same three questions per condition. To show a distinct difference between the manipulation variables in the six different conditions, each question was measured on a 7-point scale instead of a 5-point scale (Colman et al., 1997). However, the dependent variable 'Willingness to Share Goods', was mediated by the variables 'Uncertainty' and 'Liking'. Therefore, effect measured for Uncertainty and Liking were supposed to explain the effect between the manipulation variables (independent) and the dependent variable 'Willingness to Share Goods'.

The 7-point scale was based on previous research but slightly modified in a way making the questions for the experiment complete. For example, question 1 about 'Willingness to Share Goods' was used by Belk (1985) but modified to a 7-point Likert scale ranging from definitely not willing to definitely willing (1= Definitely not willing, 2= Not willing, 3= Slightly not willing, 4= I am not sure, 5= Slightly willing, 6= Willing, 7= Definitely willing). Uncertainty, was also used by Jacoby et al. (1994), but again slightly modified on a 7-point scale ranging from 1= I feel very uncertain about this borrower and 7= I feel very certain about this borrower. Furthermore, Liking was also based on a 7-point scale ranging from 1= I feel that this borrower is an extremely unlikeable person and 7= I feel that this borrower is an extremely unlikeable person and 7= I feel that this borrower is an extremely unlikeable person and 7= I feel that this borrower is an extremely unlikeable person and 7= I feel that this borrower is an extremely unlikeable person and 7= I feel that this borrower is an extremely unlikeable person and 7= I feel that this borrower is an extremely unlikeable person and 7= I feel that this borrower is an extremely unlikeable person and 7= I feel that this borrower is an extremely unlikeable person and 7= I feel that this borrower is an extremely unlikeable person and 7= I feel that this borrower is an extremely unlikeable person and 7= I feel that this borrower is an extremely unlikeable person and 7= I feel that this borrower is an extremely unlikeable person and 7= I feel that this borrower is an extremely unlikeable person and 7= I feel that this borrower is an extremely unlikeable person and 7= I feel that this borrower is an extremely unlikeable person and 7= I feel that this borrower is an extremely unlikeable person and 7= I feel that this borrower is an extremely unlikeable person and 7= I feel that this borrower is an extremely unlikeable perso

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research of Her and Page (2004). Table 4 shows a full overview of the measurement scales and reference of prior research per variable.

Variables	Measurement Scale	Reference
Age (control)	1. Under 20 2. 21 - 34 3. 35 - 49 4. 50 - 64 5. 65+	Nielsen (2014).
Experience (control)	<ol> <li>Not at all</li> <li>Once</li> <li>Twice</li> <li>More than two times</li> </ol>	Hamari et al. (2015)
Willingness	Definitely Not Willing (1) - Definitely Willing (7)	Belk (1985)
Uncertainty	I feel very uncertain about this borrower (1) - I feel very certain about this borrower (7)	Jacoby et al. (1994)
Liking	I feel that this borrower is an extremely unlikeable person (1) - I feel that this borrower is an extremely likeable person. (7)	Her and Page (2004)
Lay Rationalism (control)	<ol> <li>Statements used:         <ol> <li>When making decisions, I like to analyse financial costs and benefits and resist the influence of my feelings.</li> <li>When choosing between two options, one of which makes me feel better and the other better serves the goal I want to achieve, I choose the one that makes me feel better. (R)</li> <li>When making decisions, I think about what I want to achieve rather than how I feel.</li> <li>When choosing between two options, one of which is financially superior and the other "feels" better to me, I choose the one that is financially better.</li> <li>When choosing between products, I rely on my gut feelings rather than on product specifications (numbers and objective descriptions). (R)</li> <li>When making decisions, I focus on objective facts rather than subjective feelings.</li> </ol> </li> </ol>	Hsee et al. (2014)
Positive Focus (control)	<ol> <li>Statements used:         <ol> <li>I keep a positive attitude that things always turn out all right.</li> <li>I prefer to think about the good things that can happen rather than the bad.</li> <li>When thinking over my decisions I focus more on their positive end results.</li> </ol> </li> <li>Measurement Scale: Strongly Disagree (1) – Strongly Agree (7)</li> </ol>	Nenkov et al. (2008)

## Table 3. Measurement Scales & Reference of Prior Research

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You may have noticed that the variables 'Willingness to Share Goods', 'Uncertainty' and 'Liking' were measured with single-item measures, while 'Positive Focus' and 'Lay Rationalism' were measured on multi-item measures. The reason for multi-item measures was to capture more information than can be provided by a single-item measure. Whereas, the single-item measures were used because the attribute of the constructs were concrete and the predictive validity was satisfactory (Bergkvist and Rossiter, 2007). In addition, Rossiter (2002) argues that a single-item measure is sufficient if the construct is such, that in the minds of the respondents it can be imagined easily and uniformly. Furthermore, according to Bergkvist and Rossiter (2007), using single-item measures can help avoid common methods bias.

### 3.3 Method of Analysis

This study contains a mediation and moderation analysis. This was done by firstly running three two-way ANOVAs, to compare the variances and test the effect of the manipulated variables (Amount of Information, Type of Good and DummyPhoto) on the dependent variables (Willingness to Share Goods and in this case Uncertainty and Liking were also measured as dependent variables to measure mediation). Furthermore, this test was chosen because of the between-subject design setting, making all treatments independent from each other. For this thesis, the variables 'Willingness to Share Goods', 'Uncertainty', 'Liking' variables were measured using a 7-point Likert scale to show a distinct difference in choice, based on the different experimental cases. The control variables 'Lay Rationalism' and 'Positive Focus' were measured on a 5-point Likert scale, keeping them the same according to previous studies.

## 3.4 Data

#### 3.4.1 Sample

The data has been collected through an experimental survey which is created in Qualtrics and is analysed with SPSS. As explained in section 3.1, there were three surveys distributed among a random a-select group of people (sample) in the Netherlands. In total 214 respondents participated in the online survey. This was enough data to test the hypotheses based on the statistical power and effect size which should be used for marketing research (Sawyer and Ball, 1981). This group was gathered through different channels, containing males and females from different ages and diverse backgrounds. The survey was conducted over a period of three weeks and was equally distributed in three

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groups (General, Minivan and Sports car), using Qualtrics' randomizer option (see start of Appendix II). Unfortunately, the surveys were not completed by all respondents. Therefore, incomplete responses were deleted from the sample and removed from the data to keep the sample reliable and complete. Given, that the survey was equally distributed across groups (and within-subjects manipulations randomized), non-response is by definition uncorrelated with the variables I manipulate, reducing concerns with nonresponse bias. In terms of data preparation, please note that I have six repeated observations per subject (the within-subject conditions). Therefore, when decoding the results in SPSS, the completed surveys had to be arranged in six different rows, which eventually created 810 cases

## 3.4.2 Characteristics Respondents

The characteristics of the respondents are described in Table 3. All the respondents were selected and assigned randomly to the three groups (General, Minivan and Sports car). As you can see in Table 3, there was a slightly bias towards males (males = 56% and females = 44%), however, I control for it in the model later. On average (58%) most of the respondents are aged between 21 and 34 years, which are collectively known as "The Millennials". This particular group was already discussed in the theory section, as the largest segment participating in the sharing economy. As expected, on average most (62%) of the respondents haven't participated in sharing economy, because online sharing services are still upcoming in the Netherlands, and not known by all Dutch people.

DESCRIPTIVES					IUIAL
		General	Minivan	Sports car	_
GENDER	Male	53%	53%	60%	56%
	Female	47%	47%	40%	44%
	Total	100%	100%	100%	100%
AGE	Under 20	20%	27%	13%	20%
	21 - 34	53%	60%	60%	58%
	35 - 49	7%	13%	20%	13%
	50 - 64	20%	0%	7%	9%
	Total	100%	100%	100%	100%
	Once	33%	7%	20%	20%
	Twice	7%	7%	13%	9%
	More than two times	0%	13%	13%	9%
	Total	100%	100%	100%	100%

#### **Table 4. Descriptives Survey Respondents**

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There are not big differences between the three groups. The only real difference between the groups are found in the variable 'Experience', which could lead to a different effect in willingness to share goods. Given that subjects were randomly allocated to the three groups (General, Minivan and Sports Car), and that they answered questions about gender, age and experience before they even saw the stimuli, the differences in experience across groups was driven by chance.

To reduce concerns with any type of bias, besides the ANOVA analyses, I also run a regression analysis where I control for these variables. In order to get a better insight on the attitude of the respondents and how this was related with the willingness to share goods, two other control (Positive Focus and Lay Rationalism) variables were added to test the effects of two psychological traits of the lender in her willingness to share goods: elaboration on potential outcomes based on the lay rationalism of the respondents and their positive focus (Nenkov et al., 2008) and the lay rationalism of the respondents; (Hsee et al., 2014). This showed that, on average, the respondents had a positive mindset on outcomes (M=3,93, St.d.=,734) and showed that the respondents were slightly more led by emotion then by rationality.

# 4. Data Analysis and Results

## 4.1 Reliability and Validity

### 4.1.1 Cronbach's Alpha

Before using a factor analysis to validate the survey, the reliability of the multi-item scales were checked. In other words, reliability here means that a measure should consistently reflect the construct that it is measuring (Field, 2013). One way to validate the used variables in the experimental design, is Cronbach's Alpha ( $\alpha$ ) (Cronbach, 1951). Cronbach's Alpha is used to test the internal reliability of a scale, and therefore tests how closely a set of items is related as a group (Tavakol, & Dennick, 2011). The execution and interpretation of the test was done along the lines Field (2013) is presenting in his book.

First of all, when analysing the Cronbach's Alpha in SPSS, it's important to look for items that don't correlate with the overall score from the scale (values less than about ,3). Luckily this wasn't the case, all data had item-total correlations above ,3. Secondly, the column labelled *'Cronbach's Alpha if Item is Deleted'* showed the values of the overall  $\alpha$  if that items isn't included in the calculation. This reflects the change in Cronbach's  $\alpha$ , if the particular item was deleted. The output didn't show any higher  $\alpha$ , therefore no items were deleted. Finally, the value of the  $\alpha$ , which shows the overall reliability of the scale, was observed. According to Field (2013), an  $\alpha$  with a value of ,7 to ,8 indicates a good reliability.

As you can see in Table 5, the variables 'Lay Rational' and 'Positive Focus' measured on multi-item scales all had high reliabilities, all Cronbach's  $\alpha = ,782$ ;  $\alpha = ,763$ . The results of all tests can be found in appendix II

## Table 5. Cronbach's Alpha Reliabilities Test

Reliability Statistics							
Cronbach's Alpha		Cronbach's Alpha Based on	N of Items				
		Standardized Items					
Positive Focus	,782	,797	3				
Lay Rationalism	,763	,763	6				

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### **4.2 Manipulations**

This chapter will discuss the manipulations, using two-way ANOVA, to verify whether the variables 'Amount of Information' and 'DummyPhoto' are successfully manipulated. The aim of the two-way ANOVA, was to test the existence of significant differences between the personal profiles (1, 5 or 9 attributes of information), and the conditions with or without photo. This thesis paper, discusses the mediation of the manipulation variables on the willingness to share goods through the intervening variables 'Uncertainty' and 'Liking'. Therefore, this chapter will discuss three separate two-way ANOVAs. One twoway ANOVA performed on the 'Willingness to share Goods', one on the first mediator 'Uncertainty' and one on the second mediator 'Liking'. An overview of the mean scores of all three two-way ANOVAs are shown in Table 6.

		Predictors					
		Willingne	ss to Share	Uncerta	inty	Liking	
		Goods					
Treatments		Mean	Std.	Mean	Std.	Mean	Std.
1 Attribute of	NoPhoto	1,84	,897	1,96	,992	3,09	1,212
Information	Photo	3,42	1,129	3,44	1,111	3,69	,868
	Total	2,63	1,289	2,70	1,289	3,39	1,094
5 Attributes of	NoPhoto	3,87	1,208	4,04	1,036	4,04	,732
Information	Photo	5,00	1,058	5,16	,871	4,96	,897
	Total	4,43	1,268	4,60	1,106	4,50	,936
9 Attributes of	NoPhoto	4,96	1,354	5,40	,908	3,98	,748
Information	Photo	5,84	1,036	5,96	,668	4,58	,859
	Total	5,40	1,283	5,68	,843	4,28	,858
Total	NoPhoto	3,56	1,739	3,80	1,723	3,70	1,020
	Photo	4,76	1,470	4,85	1,382	4,41	1,022
	Total	4,16	1,718	4,33	1,647	4,06	1,079

Table 6. Descriptive - Mean Scores Two-Way ANOVA

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## 4.2.1 Willingness to Share Goods

The first two-way ANOVA was performed using manipulation variables 'Amount of Information' and 'DummyPhoto' on the dependent variable 'Willingness to Share Goods'. The descriptives in Table 7, already shows a difference in means for both manipulation variables, which means that different amounts of information have different effects. Furthermore, showing a personal profile with photo instead of no photo showed higher means for every increase in attributes of information.



**Figure 4. Means Willingness to Share Goods per Condition** 

		Willingness	to Share Goods	
Treatments		Mean	Std.	
1 Attribute of Information	NoPhoto	1,84	,897	
	Photo	3,42	1,129	
	Total	2,63	1,289	
5 Attributes of Information	NoPhoto	3,87	1,208	
	Photo	5,00	1,058	
	Total	4,43	1,268	
9 Attributes of Information	NoPhoto	4,96	1,354	
	Photo	5,84	1,036	
	Total	5,40	1,283	

Table 7. Descriptive Two-Way ANOVA Willingness to Share Goods

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Table 8 shows *Test of Between-Subjects Effects*, which's tells us whether any of the independent variables have influenced the dependent variable 'Willingness to Share Goods'. The first thing to notice is that there is a significant main effect for Amount of Information (AOI; p.<,05) and DummyPhoto (p.<,05). The F-ratios are highly significant, indicating that the amount of information significantly affect the willingness to share goods. This is also the case for DummyPhoto. Table 8 shows the interaction between Amount of Information and DummyPhoto is also significant (p.=,000). This means, that the effect of amount of information on the willingness to share goods was significantly higher for the conditions with photo than without photo.

	Willingness to Share Goods							
Source	Type III Sum of	df	Mean Square	F	Sig,			
	Squares							
Corrected Model	1372,667a	5	274,533	217,735	,000			
Intercept	13987,600	1	13987,600	11093,677	,000,			
AOI	1064,600	2	532,300	422,171	,000,			
DummyPhoto	291,600	1	291,600	231,270	,000,			
AOI*DummyPhoto	16,467	2	8,233	6,530	,002			
R Squared = $,575$								

### Table 8. Test of Between-Subject Effects - 'Willingness to Share Goods'

Furthermore, to show clearly where the difference in means come from, the Post Hoc test of Tukey (full table can be found in Appendix III) was also performed. The results clearly show the differences in means between the amount of information given. From 1 attribute to 5 attributes there is a significant (p.=,000) increase of 1,80, and from 1 attribute to 9 attributes there is a significant (p.=,000) increase of 2,77. However, when going from 5 attributes to 9 attributes there is smaller increase of ,97 but still highly significant (p.=,000).

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#### 4.2.2 Uncertainty

The second two-way ANOVA was performed using manipulation variables 'Amount of Information' and 'DummyPhoto' on the dependent variable 'Uncertainty'. The descriptives in Table 9 also shows a difference in means for both manipulation variables, which means that different amounts of information have different effects. Furthermore, showing a personal profile with photo instead of no photo showed higher means for every increase in attributes of information. However, the increase for the condition with photo slightly decreases when 9 attributes of information are given.



Figure 5. Means of Uncertainty per Condition

		Uncertainty		
Treatments		Mean	Std.	
1 Attribute of Information	NoPhoto	1,96	,992	
	Photo	3,44	1,111	
	Total	2,70	1,289	
5 Attributes of Information	NoPhoto	4,04	1,036	
	Photo	5,16	,871	
	Total	4,60	1,106	
9 Attributes of Information	NoPhoto	5,40	,908	
	Photo	5,96	,668	
	Total	5,68	,843	

Table 9. Descriptive Two-Way ANOVA 'Uncertainty'

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Table 10 shows us the *Test of Between-Subjects Effects*, which tells us whether any of the independent variables have influenced the dependent variable 'Uncertainty'. The first thing to notice is that there is a significant main effect for Amount of Information (AOI; p.<,05) and DummyPhoto (p.<,05). The F-ratios are highly significant, indicating that the amount of information significantly affect the uncertainty of a lender. This is also the case for DummyPhoto. Table 10 also shows the interaction between Amount of Information and DummyPhoto is also significant (p.=,000). This means, that the effect of amount of information on the uncertainty of the lender was significantly higher for the conditions with photo than without photo.

Source	Uncertainty						
	Type III Sum of	df	Mean Square	F	Sig,		
	Squares						
Corrected Model	1481,289a	5	296,258	334,225	,000		
Intercept	15158,044	1	15158,044	17100,656	,000		
AOI	1227,489	2	613,744	692,400	,000		
DummyPhoto	224,044	1	224,044	252,757	,000		
AOI*DummyPhoto	29,756	2	14,878	16,784	,000,		

## Table 10. Test of Between-Subject Effects - 'Uncertainty'

Furthermore, to show clearly where the difference in means come from, the Post Hoc test of Tukey (full table can be found in Appendix III) was also performed. The results show that the means are slightly higher for this case, compared to the case with 'Willingness to Share Goods' From 1 attribute to 5 attributes there is a significant (p.=,000) increase of 1,90, and from 1 attribute to 9 attributes there is a significant (p.=,000) increase of 2,98. However, when going from 5 attributes to 9 attributes there is smaller significant increase (p.=,000) of 1,08.

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## 4.2.3 Liking

The third two-way ANOVA was performed using manipulation variables 'Amount of Information' and 'DummyPhoto' on the dependent variable 'Uncertainty. The descriptives in Table 11 also shows a difference in means for both manipulation variables, which means that different amounts of information have different effects. Furthermore, showing a personal profile with photo instead of no photo showed higher means for every increase in attributes of information. However, the increase from 5 attributes to 9 attributes of information surprisingly shows a slightly decrease, especially marked if no photo is shown. This means that giving more information doesn't necessarily increases the likability of a borrower.



Figure 6. Means of Liking per Condition

		Liking		
Treatments		Mean	Std.	
1 Attribute of Information	NoPhoto	3,09	1,212	
	Photo	3,69	,868	
	Total	3,39	1,094	
5 Attributes of Information	NoPhoto	4,04	,732	
	Photo	4,96	,897	
	Total	4,50	,936	
9 Attributes of Information	NoPhoto	3,98	,748	
	Photo	4,58	,859	
	Total	4,28	,858	

Table 11. Descriptive Two-Way ANOVA 'Liking'.

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Table 12 shows us the *Test of Between-Subjects Effects*, which tells us whether any of the independent variables have influenced the dependent variable 'Liking'. Again, the first thing to notice is that there is a significant main effect for Amount of Information (AOI; p.<,05) and DummyPhoto (p.<,05). The F-ratios are highly significant, indicating that the amount of information significantly affect the Likability of a borrower. This is also the case for DummyPhoto. Table 12 also shows the interaction between Amount of Information and DummyPhoto. In this case, it's not significant (p.=<,05). This means, that the effect of amount of information on the Likability of the lender was not different for the conditions with photo or without photo.

Liking						
Type III Sum of	df	Mean Square	F	Sig,		
Squares						
291,300a	5	58,260	71,930	,000		
13322,500	1	13322,500	16448,541	,000		
186,667	2	93,333	115,233	,000		
100,278	1	100,278	123,807	,000		
4,356	2	2,178	2,689	,069		
	<b>Type III Sum of</b> <b>Squares</b> 291,300a 13322,500 186,667 100,278 4,356	Type III Sum of Squares         df           291,300a         5           13322,500         1           186,667         2           100,278         1           4,356         2	Liking           Type III Sum of df         Mean Square           Squares         13322,500           13322,500         1         13322,500           186,667         2         93,333           100,278         1         100,278           4,356         2         2,178	Liking           Type III Sum of df         Mean Square         F           Squares         5         58,260         71,930           13322,500         1         13322,500         16448,541           186,667         2         93,333         115,233           100,278         1         100,278         123,807           4,356         2         2,178         2,689		

## Table 12. Test of Between-Subject Effects - 'Liking''

R Squared = ,309

Furthermore, to show clearly where the difference in means come from, the Post Hoc test of Tukey (full table can be found in Appendix III) was also performed. As discussed earlier on, the mean becomes higher in case of 5 attributes but actually stayed the same or even decreased when 9 attributes were shown. From 1 attribute to 5 attributes there is a significant (p.=,000) increase of 1,11, and from 1 attribute to 9 attributes there is also a significant (p.=,000) increase of ,89. However, when going from 5 attributes to 9 attributes to 9 attributes there is smaller significant increase (p.=,012) in mean of just ,22.
#### 4.3 Regression Analysis

This section will discuss the regression analysis which has been conducted through SPSS, to examine the size effect of the variables 'Amount of Information', 'DummyPhoto', 'Uncertainty', 'Liking', while controlling for the variables 'Age', 'Gender', 'Experience' and interaction terms on the 'Willingness to Share Goods' in six different conditions. Moreover, the results are being observed to test the hypotheses from chapter 2. The regression analysis is used to create an empirical model based on the independent variables, that predicts the value outcomes of the dependent variable (Willingness to Share Goods). For this thesis paper the following regression model (equation) was made:

Willingness to Share Goods<sub>i</sub>

$$\begin{split} &= \beta_0 + \beta_1 Amount Of Information_i + \beta_2 Dummy Photo_i + \beta_3 Type of Good_i \\ &+ \beta_4 Age_i + \beta_5 Gender_i + \beta_6 Experience_i + \beta_7 Uncertainty_i + \beta_8 Liking_i \\ &+ \beta_9 Dummy Hedonic_i + \beta_{10} AOI_D ummy Hedonic_i \\ &+ \beta_{11} Photo_D ummy Hedonic_i + \beta_{12} AOI_D ummy Photo_i + \varepsilon_i \end{split}$$

To the interpret the output of the regression analysis, the book of Andy Field (Discovering statistics using SPSS, 2009) was consulted to have better understanding and draw the right conclusions. Therefore, in the beginning the assumptions (variable types, non-zero variance, multicollinearity, homoscedasticity, etc.) were checked and the sample size was calculated based on the rule of thumb Andy Field uses in his book (at least 15 cases per predictor).

When interpreting the results of the SPSS output of the regression analysis, it is important to assess whether the model fits the data well. Therefore, the value of the  $R^2$  and the model parameters are being discussed. According to Field (2009), the value of  $R^2$  tells us how much percent the independent variables can account for the variation of the dependent variable. Furthermore, the model parameters (Beta values) explains to what degree each predictor affects the outcome of the regression model if all other predictors are held constant (ceteris paribus), where a positive beta (coefficient) shows a positive relationship (vice versa). For example, if the predictor variable is increased by one unit, then the model predicts that the outcome will increase or decrease by the given beta value.

However, these model parameters are more importantly used in this thesis paper to explain the mediation and moderation effect, which are explained above. According to Baron and Kenny (1986), Judd and Kenny (1981), and James and Brett (1984), there are

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four steps that should be discussed for establishing mediation. Alongside, these four steps the data are being interpreted and explained in this section, performing four regressions. In short, step 1 should show that the causal variable is correlated with the outcome. Step 2, should show that the causal variable is correlated with the mediator. Step 3 should show that the mediator affects the outcome variable. Step 4 should show that the effect of X (causal variable) on Y (the outcome) controlling for M (the mediator) will be zero, to establish complete mediation. However, if the first three steps are met but step 4 isn't completely (the effect of the causal variable on the dependent variable becomes weaker or less significant, but still statistically significant, when the mediators are added), then partial mediation is indicated. Figure 7 below visually shows how the mediation works. As you can see *a* represents the change caused by X on M and *b* represents the change caused by M on Y. In this figure, *a* and *b* are also known as coefficients. The product of these coefficients (*ab*) is called the indirect effect of X on Y, which passes through M. Path *c*' which goes from X to Y is called the direct effect (Falk and Biesanz, 2016)



Figure 7. Example Mediation (source: Falk and Biesanz (2016))

Furthermore, the moderating variable 'hedonic vs utilitarian' is tested by creating separate dummy variables testing whether they affect the main effect of the independent variable (amount of information) on the dependent variables (uncertainty and liking). To have a moderation effect, one of the two dummy variables should significantly interact.

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#### **Regression Analysis Condition 1 - Effect to be Mediated**

To show the effect to be mediated for step 1, the first regression analysis was performed with the manipulation variables (Amount of Information and DummyPhoto), the moderating variables (DummyHedonic and DummyUtilitarian) and the control variables (Gender, Age, Experience) on the dependent variable 'Willingness to Share Goods' (Y). As explained above, in this case, the effects of the manipulation variables need to be significant (at least one of them) for mediation to exist.

Table 13 of the regression analysis show a model with a  $R^2$  value of ,756, which tell us that the independent variables 'Amount of Information', DummyPhoto (with interaction term AOI\_DummyPhoto) and control variables can account for 75,6% of the variation in willingness to share goods. In other words, this model cannot explain 24% of the variation willingness to share goods by these variables alone, and therefore it indirectly tells us that there must be other variables that also influence the willingness to share goods.

	Unstandardized Coefficient	Standardized Coefficient	t	<i>p</i> -value
Constant	,503		2,156	,031
Amount of Information	1,556	,740	22,612	,000
DummyPhoto	1,889	,550	8,987	,000
AOI_DummyPhoto	-,344	-,232	-3,540	,000
Gender	-,103	-,030	-1,269	,205
Age	,114	,055	2,206	,028
Experience	-,113	-,064	-2,561	,011
DummyUtilitarian	,194	,053	1,939	,053
DummyHedonic	-,088	-,024	-,884	,377

 Table 13. Regression 1 Manipulation Variables + Control Variables on Willingness

 to Share Goods (Y)

*R-Square:* ,567

Dependent Variable: Willingness to Share Goods

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As you can see in Table 13, the  $b_0$  which is the intercept in the equation, also known as the constant, gives a value of B=,503. This means that even if no information was given the model predicts that 'Willingness to Share Goods' already starts with ,503. Five from the eight predictors in the model show a significant effect, and therefore only these predictors will be discussed. However, it's important to mention that both DummyUtilitarian and DummyHedonic aren't significant, further explanation will be given in chapter 5.4 (Limitation and Future Research). The five significant predictors are shown below.

- Amount of information (β =1,556; p.=,000): the calculated value of this predictor indicates that in the three conditions (1, 5 and 9 attributes of information) the willingness to share goods increases with a value of 1,556 per condition. Therefore, one could say that giving more attributes of information about the borrower, increases the willingness to share goods of the lender.
- DummyPhoto (β=1,889; p.=,000): the calculated value of this predictor indicates that when a photo is shown of the borrower in the experimental conditions (Personal Profile), the willingness to share goods of the lender increases with 1,889.
- Age (β =,114; p.=,028): the calculated value of this predictor indicates that an increase in age significantly affects the willingness to share goods. However, age was measured in five different generations. So, in this case, an increase in generation (higher age) increases the willingness to share goods with a value of ,114.
- Experience ( $\beta$  =-,113; *p*.=,011): the calculated value of this predictor indicates that when someone has more experience with online sharing platforms, the willingness to share decreases with a value of -,113.
- AOI\_DummyPhoto (β =-,344; p.=,000): the calculated value of this predictor shows us that Amount of information and DummyPhoto interact with each other, with a value of -,467.

As expected the manipulation variables (Amount of Information and DummyPhoto) show a significant effect, and therefore step 1 is approved for mediation to exist. Furthermore, experience also showed a significant negative effect, which means that the more experience with sharing services leads to a decrease in willingness to share goods.

#### **Regression Analysis Condition 2a - Mediator 1 Uncertainty**

In this case, the second regression analysis was performed with the manipulation variables (Amount of Information' and 'DummyPhoto'), the moderating variable (Hedonic vs Utilitarian) and the interaction terms between manipulation variables and DummyHedonic on the first mediator, in this case, dependent variable 'Uncertainty' (Y). For mediation to exist, the effects of the manipulated variables need to be significant. For moderated mediation to exist, on top of that, the interaction between manipulated variables and DummyHedonic needs to be significant.

Table 14 of the regression analysis shows a model with a  $R^2$  value of ,668, which tell us that the independent variables (Amount of Information, DummyPhoto, AOI\_DummyPhoto, DummyUtilitarian, DummyHedonic, and interaction terms between manipulation variables and DummyHedonic) can account for 66,8% of the variation in Uncertainty. This value is high and shows us that the manipulation variables and type of good can account for a large part of the uncertainty.

	Unstandardized Coefficient	Standardized Coefficient	t	<i>p</i> -value
Constant	,711		3,873	,000
Amount of Information	1,600	,794	19,484	,000
DummyPhoto	1,889	,574	9,390	,000
AOI_DummyPhoto	-,467	-,327	-5,683	,000
DummyUtilitarian	-,522	-,150	-2,248	,025
DummyHedonic	-,544	-,156	-2,344	,019
AOI_DummyHedonic	,150	,096	1,491	,136
AOI_DummyUtilitarian	,217	,139	2,154	,032
Photo_DummyHedonic	,067	,015	,406	,685
Photo_DummyUtilitarian	,222	,050	1,353	,176

Table 14. Regression 2 Manipulation Variables + Hedonic vs. Utilitarian +Interaction Terms on Uncertainty (Y)

*R-Square: ,668* 

Dependent Variable: Uncertainty (Reverse Coded: Higher Values Means Lower Uncertainty)

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As you can see in Table 14, the  $\beta_0$  which is the intercept in the equation and also known as the constant gives a value of  $\beta$  =,711. This means that even if no information was given the model predicts that 'Uncertainty' (note: higher values mean lower uncertainty, or higher certainty) already starts with a value of ,711. Six from the nine predictors in the model show a significant effect, and therefore only these predictors will be discussed. The six significant predictors are: *Amount of Information* ( $\beta$  =1,600; *p*.<,05), *DummyPhoto* ( $\beta$  =1,889; *p*.<,05), *DummyUtilitarian* ( $\beta$  =-,522; *p*.<,05) *DummyHedonic* ( $\beta$  =-,544; *p*.<,05), and interaction terms *AOI\_DummyPhoto* ( $\beta$  =-,467; *p*.<,05), *AOI\_DummyUtilitarian* ( $\beta$  =,217; *p*.<,05)

- Amount of information ( $\beta = 1,600$ ; *p*.=,000): the calculated value of this predictor indicates that in the three conditions (1, 5 and 9 attributes of information) the lender becomes more certain, with a value of 1,600 per condition. Therefore, one could say that giving more attributes of information about the borrower, decreases the uncertainty of the lender.
- DummyPhoto (β=1,889; p.=,000): the calculated value of this predictor indicates that when a photo is shown of the borrower in the experimental conditions (Personal Profile), the lender becomes more certain with a value of 1,889.
- DummyUtilitarian (β =-,522; p.=,025): the calculated value of this predictor doesn't really say much. However, this is one of the main effects that should be included to test the moderation effect. It indicates that lenders with a utilitarian good show a significant main effect on uncertainty, with a value of -,522.
- DummyHedonic ( $\beta$  =-,544; p.=,019): Like DummyUtilitarian, the calculated value of this predictor also doesn't say much. However, this is one of the main effects that should be included to test the moderation effect. It indicates that lenders with a hedonic good show a significant main effect on uncertainty, with a value of -,544.
- AOI\_DummyPhoto (β =-,467; p.=,000): the calculated value of this predictor shows us that Amount of information and DummyPhoto interact with each other, with a value of -,467.
- AOI\_DummyUtilitarian ( $\beta$  =,217; p.=,032): the calculated value of this interaction term shows us that lenders with a utilitarian good become more certain with a value increase of ,217, when more information is given.

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As expected the manipulation variables (Amount of Information and DummyPhoto) show a significant effect. Furthermore, the main effects of DummyHedonic and DummyUtilitarian are significant, but of all the interaction terms AOI DummyUtilitarian is the only term that is also significant. This means step 2 also indicates that uncertainty mediates the effect of amount of information provided by the borrower on the lender's willingness to share goods. Moreover, the interaction of utilitarian good and amount of information is significant (p = 0.032), which means that we have evidence of moderated mediation. In other words, lenders react (positively) to an increase in amount of information, especially in the case of utilitarian (rather than hedonic) goods, a moderating effect that is mediated by lenders' perceived uncertainty with respect to, and liking of, the borrower.

#### **Regression Analysis Condition 2b - Mediator 2 Liking**

The third regression analysis was also performed with the manipulation variables (Amount of Information and DummyPhoto), the moderating variable (Hedonic vs Utilitarian) and the interaction terms between manipulation variables and DummyHedonic, but now on the second mediator, in this case, dependent variable 'Liking' (Y). Again, for mediation to exist, the effects of the manipulated variables and the interaction between manipulated variables and hedonic dummies need to be significant.

Table 15 of the regression analysis show a model with a  $R^2$  value of ,468, which tell us that the independent variables (Amount of Information, DummyPhoto, AOI\_DummyPhoto, DummyUtilitarian, DummyHedonic, and interaction terms between manipulation variables and DummyHedonic) can account for 46,8% of the variation in Uncertainty. This value is lower compared to the mediator 'Uncertainty' and shows us that the manipulation variables and type of good do not really account that much alone, and therefor indicates that there have to be other variables that also influence the Likability.

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	Unstandardized Coefficient	Standardized Coefficient	t	<i>p</i> -value
Constant	3,267		20,201	,000
Amount of Information	,267	,202	3,808	,000
DummyPhoto	,644	,299	5,636	,000
DummyUtilitarian	-,244	-,107	-1,069	,285
DummyHedonic	-1,111	-,486	-4,859	,000
AOI_DummyUtilitarian	,133	,130	1,346	,179
AOI_DummyHedonic	,400	,391	4,039	,000
Photo_DummyHedonic	,378	,131	2,336	,020
Photo_DummyUtilitarian	-,200	-,069	-1,237	,217

# Table 15. Regression 3 - Manipulation Variables + Hedonic vs. Utilitarian +Interaction Terms on Liking (Y)

*R-Square:* ,468

Dependent variable: Liking

As you can see in Table 15, the  $\beta_0$  which is the intercept in the equation and also known as the constant gives a value of  $\beta = 3,267$ . This means that even if no information was given the model predicts that Liking starts with a value of 3,267. Five from the nine predictors in the model show a significant effect, and therefore only these predictors will be discussed. The five significant predictors are: *Amount of Information* ( $\beta = ,267; p.<,05$ ), *DummyPhoto* ( $\beta = ,644; p.<,05$ ), *DummyHedonic* ( $\beta = -1,111; p.<,05$ ), and interaction terms *AOI\_DummyHedonic* ( $\beta = ,400; p.<,05$ ), *Photo\_DummyHedonic* ( $\beta = ,378; p.<,05$ )

- Amount of information ( $\beta$  =,267; *p*.=,000): the calculated value of this predictor indicates that in the three conditions (1, 5 and 9 attributes of information) the lender becomes more certain, with a value of ,267 per condition. Therefore, one could say that giving more attributes of information about the borrower, slightly increases the borrowers likability.
- DummyPhoto (β =,644; p.=,000): the calculated value of this predictor indicates that when a photo is shown of the borrower in the experimental conditions (Personal Profile), the lender likes the borrower more with a value increase of ,644.

- *DummyHedonic* ( $\beta$  =-1,111; *p*.=,000): the calculated value of this predictor doesn't say much. However, this is one of the main effects that should be included to test the moderation effect. It indicates that lenders with a hedonic good show a significant main effect, with a value of -1,111.
- AOI\_DummyHedonic (β =,400; p.=,000): the calculated value of this interaction term shows us that lenders with a hedonic good become more certain with a value increase of ,400, when more information is given.
- *Photo\_DummyHedonic* (β=,378; p.=,020): the calculated value of this interaction term shows us that lenders with a hedonic good become more certain with a value increase of ,378, when a profile photo is added.

In this case, the manipulation variables also show a significant positive effect on 'Liking', which means that giving more attributes of information affects the likability of a borrower in a positive way. However, the values of the manipulation variables (Amount of information ( $\beta$  =,267) and DummyPhoto ( $\beta$  =,644)) are a lot less than the case with mediator 1 (Uncertainty; Amount of information ( $\beta$  =1,600) and DummyPhoto ( $\beta$  =1,889)). This means step 2 also indicates that liking mediates the effect of amount of information provided by the borrower on the lender's willingness to share goods. Moreover, the interaction of hedonic good and amount of information is significant (p = ,000), which means that we have evidence of moderated mediation, however, this time the other way around. In other words, lenders react (positively) to an increase in amount of information, especially in the case of hedonic (rather than utilitarian) goods, a moderating effect that is mediated by lenders' perceived liking with respect to, and uncertainty of, the borrower. This is also the case with interaction term Photo\_DummyHedonic, however, instead of amount of information, showing a photo increases the effect.

#### **Regression Analysis Condition 3 - Full Model: Willingness to Share Goods**

The fourth regression analysis was also performed with the manipulation variables (Amount of Information and DummyPhoto), the control variables (Gender, Age, Experience), Mediator 1. Uncertainty, Mediator 2. Liking, the moderating variable (Hedonic vs Utilitarian) and the interaction terms between manipulation variables and DummyHedonic on the dependent variable 'Willingness to Share Goods' (Y). For mediation to exist, the effects of the manipulated variables on the dependent variable "Willingness to Share Goods" should disappear or become weaker once the mediators are included.

# Table 16. Regression 4 - Manipulation Variables + Control variables + Hedonic vs.Utilitarian + Uncertainty (M1) + Liking (M2) + Interaction Terms on Willingness toShare Goods

	Unstandardized	Standardized	t	n voluo
	Coefficient	Coefficient		<i>p</i> -value
Constant	-,881		-4,059	,000
Amount of Information	,196	,093	2,662	,008
DummyPhoto	,286	,083	1,738	,083
TypeofGood	,192	,091	2,745	,006
Gender	,055	,016	,955	,340
Age	,122	,058	3,341	,001
Experience	-,069	-,039	-2,229	,026
Uncertainty	,730	,700	20,493	,000
Liking	,193	,141	5,222	,000
DummyHedonic	,107	,029	,535	,593
AOI_DummyHedonic	-,221	-,136	-3,025	,003
Photo_DummyHedonic	,071	,015	,596	,551
AOI_DummyPhoto	-,008	-,006	-,116	,907

*R-Square:* ,791

Dependent Variable: Willingness to Share Goods



Table 16 of the regression analysis shows a model with a R<sup>2</sup> value of ,791, which tell us that the independent variables (Amount of Information, DummyPhoto, AOI\_DummyPhoto, DummyUtilitarian, DummyHedonic, and interaction terms between manipulation variables and DummyHedonic) can account for 79,1% of the variation in 'Willingness to Share Goods'. This value is a lot higher than step 1 and 2, which means that the variables added in this model account for most of the variance. This is a strong model that shows how the willingness to share goods is affected.

As you can see in Table 16, the  $\beta_0$  which is the intercept in the equation and also known as the constant gives a negative value of  $\beta$  =-,881. This means that even if no information was given the model predicts that dependent value 'Willingness to Share Goods' starts with a value of -,881. Seven from the twelve predictors in the model show a significant effect. The seven significant predictors are: *Amount of Information* ( $\beta$  =,196; *p*.<,05), *TypeofGood* ( $\beta$  =,192; *p*.<,05), *Age* ( $\beta$  =,122; *p*.<,05), *Experience* ( $\beta$  =-,069; *p*.<,05), Uncertainty ( $\beta$  =,730; *p*.<,05), *Liking* ( $\beta$  =,193; *p*.<,05), and interaction term *AOI\_DummyHedonic* ( $\beta$  =-,221; *p*.<,05)

- Amount of information (β =,196; p.=,008): the calculated value of this predictor indicates that in the three conditions (1, 5 and 9 attributes of information) the lender becomes more certain, with a value of ,739 per condition. Therefore, one could say that giving more attributes of information about the borrower, slightly increases the borrower's likability.
- *TypeofGood* (β =,192; p.=,006): the calculated value of this predictor indicates that the type of good shows a significant effect on the willingness to share goods. However, it's not completely clear which type of good is creating this effect and were this effect is coming from.
- Age (β =,122; p.=,001): the calculated value of this predictor indicates that an increase in age significantly affects the willingness to share of goods. However, age was measured in five different generations. So, in this case, an increase in generation (higher age) increases the 'Willingness to Share Goods' with a value of ,122.
- Experience (β =-,069; p.=,026): the calculated value of this predictor shows that having more experience with online sharing platforms decreases the willingness to share goods.

- Uncertainty (β=,730; p.=,000): the calculated value of this predictor indicates that when more information about the borrower is given, the lenders' uncertainty decreases and therefore increases the willingness to share goods with a value of ,730.
- *Liking* ( $\beta$  =,193; *p*.=,000): the calculated value of this predictor indicates that when more information about the borrower is given, lenders will like the borrower more and therefore increases the willingness to share goods with a value of ,193.
- AOI\_DummyHedonic (β =-,221; p.=,000): the calculated value of this interaction term shows us that when more information is given about the borrower, lenders with a hedonic good are less willing to share their good (with a decrease in value of -,221).

Step 3 and 4 are completed, therefore mediation can be tested and indicate how manipulation variables affect the willingness to share goods. As you can see in the model of regression output 4, a lot has changed in values, and the predictors can account a lot more for the variance of the 'Willingness to Share Goods'. In step 1 the manipulation variables were significant and showed the next values: Amount of information  $\beta = 1,600$ (p=,000) and DummyPhoto  $\beta = 1,889$  (p=,000). However, this changed when in step 3 the significant mediators (Uncertainty ( $\beta = ,730$ ; p.=,000) and Liking ( $\beta = ,193$ ; p.=,000 : were added. The magnitude of Amount of information decreased visibly to a value of  $\beta$ =,196 at a significance level of p.=,008 (also lower). Therefore, in this case, we can talk of partial mediation. DummyPhoto even became insignificant (p.=,083) with a decreased value of  $\beta$  =,286, and therefore showed full mediation. Furthermore, control variable Age was significantly affecting the willingness to share goods positively, whereas Experience was significantly affecting willingness to share goods negatively. Type of goods also showed a significant effect, this indicated that a different type of good also caused a different and stronger effect on the willingness to share goods. In this case, it showed that when more information was given about the borrower, lenders with a hedonic good were less willing to share their good (AOI DummyHedonic ( $\beta = -,221$ ; p.=,000)).

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# 5. Conclusion

This chapter will discuss the research question which has been formulated in chapter 1 (Introduction), asking *to what extent sharing economy platforms should offer lenders personal information about the borrower to increase the willingness to share of a certain good?* This has been empirically tested through a survey experiment. Therefore, this chapter will draw the conclusions from the results and answers the research question. Furthermore, there will be an additional explanation on the academic and managerial contribution of this thesis. At the end, the limitation and directions will be discussed for future research.

#### **5.1 General Discussion**

To test the hypotheses from chapter 2 (Theory and Hypotheses) and to answer the research question, this thesis analysed the impact of amount of information on the willingness to share goods, by using an experimental design. The experimental design contained a between-subject setting (for testing moderation between Type of Good) and a within-subject design (for testing the effect of 1, 5 and 9 attributes of information). The results have been analysed by using three two-way ANOVA's to test the significant differences in mean scores. Furthermore, four regression analysis were performed to test the size effects of the independent variables on the dependent variable 'Willingness to Share Goods' and to test the (moderated) mediation.

The first part of the analysis discussed the reliability test of the control variables 'Lay Rationalism' and 'Positive Focus' using Cronbach's Alpha. The results of this test showed that the perceived credibility measures used all showed internal consistency (reliable). In the second part of the analysis, the results of the three two-way ANOVA's were shown. All three analysis showed that the manipulations had different variances and were significantly effecting the dependent variables willingness to share goods, uncertainty and liking. The third part of the analysis discussed the regression analysis. To test mediation, four different regressions were performed alongside the four steps of Baron and Kenny (1986), Judd and Kenny (1981), and James and Brett (1984).

The obtained results from the first regression analysis showed that step 1 approved for effect to be mediated, showing that the amount of information did influence the willingness to share goods positively, and so were the control variables age and experience. To test step 2, the second and third regression analysis were performed on the mediator's uncertainty and liking. The results obtained from the analysis showed that the manipulation variables significantly affect both uncertainty and liking. Furthermore, the interaction terms were differently effecting for utilitarian and hedonic goods, showing evidence of moderated mediation. It seemed that amount of information helps to increase the willingness to share goods, however, through different routes. First, step 2 showed that for utilitarian products the effect of amount of information on willingness to share goods goes through uncertainty. In other words, higher amounts of information, decreases to share goods goes through liking. In other words, higher amounts of information on willingness to share goods goes through liking. In other words, higher amounts of information on willingness to share goods goes through liking. In other words, higher amounts of information, information, increases liking and therefore increases the willingness to share goods.

For step 3 and 4 the fourth regression analysis was performed to create the full model. The full model showed whether mediation existed and indicates how the manipulation variables affect the willingness to share goods. The results from the last regression showed that there was partial mediation through the manipulation variable amount of information and full mediation through the manipulation variable DummyPhoto. Furthermore, the full model showed that the control variables age and experience were also significantly affecting the willingness to share goods.

As explained in the theory section, the Uncertainty Reduction Theory of Berger and Calabrese (1975) showed that giving more information should decrease uncertainty. The results of the first and second regression analysis indeed showed that lower uncertainty about the borrower in an online sharing platform led to an increase in willingness to share goods of the lender. Furthermore, higher amounts of information about the borrower led to a decrease in uncertainty and therefore increased the willingness to share goods of the lender. Therefore, hypotheses H1a and H1b were not rejected and approved to be true. One could say, that in the initial stages of uncertainty reduction, giving more information about the borrower would naturally lead to lower uncertainty. However, the two-way

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ANOVA showed us that the increase becomes less when more information is given (going from 5 to 9 attributes of information).

The third regression was performed on liking. The results also showed an increase in liking when more information about the borrower was given. Furthermore, higher liking led to a higher willingness to share goods of the lender. Therefore, hypothesis H2a was not rejected and approved to be true, while H2b was rejected, saying from the theory point of view (Norton, Frost and Ariely, 2007), that lower amounts of information about the borrower should lead to higher liking and therefore increases the lender's willingness to share goods. However, this may be partially true. The two-way ANOVA showed a significant lower increase per amount of information (1, 5 or 9 attributes) for liking compared to mediator 1 (uncertainty). Moreover, it showed that the means almost stayed the same and in the photo condition even slightly decreased in mean, when going from 5 attributes to 9 attributes of information. We can conclude, that giving more information increases liking in the beginning (going from 1 to 5 attributes of information) liking becomes less or in some cases decreases.

Furthermore, the second and third regression analysis were also used to test the moderating effect of 'Type of Good' (Hedonic vs. Utilitarian). When the dummies were added in the model, it showed in the second regression (which was focussed on mediator 1 Uncertainty) that there was evidence of moderated mediation which goes from utilitarian rather than hedonic goods. This means that the moderated mediation of amount of information on willingness to share goods goes for utilitarian products through uncertainty. Therefore, hypothesis H3 is rejected, because it works the other way around. It was stronger for utilitarian products instead of hedonic products. For liking, we saw that there was also evidence of moderated mediation, however, this time through hedonic rather than utilitarian goods. It showed that the moderated mediation for hedonic goods goes via liking. Therefore, hypothesis 4 was partially correct and not rejected, because it showed a stronger effect for hedonic than for utilitarian products on the perceived likeliness of borrowers, however, this effect was not completely negative as explained above.

#### **5.2 Academic Contribution**

The thesis paper adds some interesting insights for the academic literature. First of all, it extends previous research of Berger and Calabrese's uncertainty reduction theory, scoping on sharing services, which hasn't been studied yet. This study sheds light on the importance of amount of information, which shows refreshing insights on how the willingness to share of goods is influenced, apart from reputation and trust (Nielsen, 2014). With empirical research, this thesis paper approves evidence of the uncertainty reduction theory, showing that more information led to a decrease in uncertainty and therefore increases the willingness to share of goods.

Secondly, this thesis paper discussed the less is more effect of Norton, Frost and Ariely (2007), suggesting that more information should lead to less liking. This study showed that this wasn't completely true for sharing services. It showed that more information led to higher liking, however, the magnitude of this effect was significant lower compared to uncertainty, and in some cases even decreased liking, approving the less is more effect. Furthermore, this study argued on the difference in type of good (Utilitarian vs. Hedonic),

based on the literature of Dhar and Wertenbroch (2000). The literature suggested that hedonic goods were valued higher than utilitarian goods, and therefore should show a stronger effect for hedonic rather than utilitarian goods. However, section 5.2 General Discussion, explained that this wasn't completely true.

#### **5.3 Managerial Implications**

One of the purposes of this thesis paper was to create managerial value for online sharing services and in particular car sharing start-ups. However, the results of this study go beyond, and creates value for start-ups from all segments working with personal information for sharing purposes. The goal of this thesis paper was to develop insights in decreasing uncertainty through offering just enough information about the borrower to increase the lenders' willingness to share of goods. Previous research showed that trust and reputation were key factors for the sharing economy, however, the ways of building up this trust and reputation was still limited; therefore, managers nowadays can't completely rely on existing literature.

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This thesis paper started off with an introduction about the sharing economy and it's potential, giving managers insights on the current situation. Starting off with this information and discussing the problem statement gives managers the possibility to work on the latent need of information for uncertainty reduction from their potential customers. This will make it possible for managers to create trust and take away uncertainty, to get people over the threshold of really participating on online sharing services.

Having better understanding of the causal relation between amount of information on the willingness to share goods helps to manage consumer behaviour, to get consumers interact with each other in such way making it beneficial for all stakeholders without excluding others from participating. Therefore, online sharing platforms should make it compulsory for borrowers to include personal information (for example; age, mutual friends, distance, college degree, etc.) to take away uncertainty in the initial stages of sharing. However, managers should still be aware that giving more and more information could also lead to less liking and actually decreases the size effect of uncertainty reduction. Based on the findings of this thesis paper, managers could adjust their amount of information given from the personal profiles to find that optimum point of willingness to share goods, and create more sharing moments (includes commission fees) which generates more revenue.

Furthermore, this thesis paper shows that managers should take in account that there could be a distinct difference in effects based on the type of good which is being shared. Being aware of this difference helps to counteract miscalculated consumer behaviour and prevents potential customers from choosing for another sharing platform. Therefore, I would advise managers to take in mind which goods their customers are sharing and adjust the amount of information given to have a higher willingness to share from the lenders.

#### 5.4. Limitations and Directions for Future Research

Apart from the results and insights of this thesis paper, we still stumble upon a few limitations that restrain us from certain obscurities, and more importantly help us to give directions for future research. First of all, the majority of respondents were the generation 'Millennials', therefore the results of this thesis paper may not be representative for all age groups. Secondly the experimental design within-subjects showed six different

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controlled personal profiles with fictitious attributes of information, which could have some limitations as well. The experiment helped to control the factors to establish strong causality, which resulted in a good internal validity. However, the attributes of information may not fully represent realistic personal profiles in sharing services and lack on the external validity, and therefore may not be generalizable to a larger population. Therefore, researchers could use this experimental study for future research in a real-life setting for higher external validity.

Furthermore, the construct 'Type of Good', which represented the difference between hedonic and utilitarian goods was tested in a between-subjects experimental design. Within the survey, three different groups were randomly assigned to the respondents (General (Control), Minivan (experimental group 1) and Sports car (experimental group 2)). However, as explained in section 2.3, consumers categorize hedonic and utilitarian goods based on affective preferences ("wants") and cognitive or reasoned preferences ("shoulds") (Dhar and Wertenbroch, 2000). Therefore, some respondents may not classify Minivan as a utilitarian product and Sports car as a hedonic good. For future research, I would suggest performing a pre-test with some respondents, to come up with the right examples for a hedonic good and a utilitarian good that are generalizable to the larger population.

When performing the first regression for testing 'effect to be mediated', I found that DummyUtilitarian and DummyHedonic weren't significant. One might say that without an effect to be mediated, there is no point in further testing whether X on Y is mediated by M. However, according to Zhao et. al, (2010), Baron and Kenny's approach fail to detect mediation precisely because, in this step, there are some (relatively infrequent but clearly non-negligible) situations in which the effect to be mediated may not be there even though there is mediation going on. It happens when the effect of the causal variable on the mediator and of the mediator on the DV have different signs, for example, which is called competing mediation by Zhao, Lynch Jr. and Chen (2010). For future research, I would suggest keeping both approaches in mind before drawing conclusion. I think both literatures could help to understand mediation very well and therefore makes researches aware of setting up the right research design to test stronger full mediation.

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# Appendix I Stimuli Description + Theorems URT (1975)

The experimental conditions were set in the form of a personal profile. Each personal profile contained 1, 5 or 9 attributes of information. For this study, the valance of each attribute and its effect was actually not relevant. This study aimed on showing whether the amount of information was significantly effecting the willingness to share goods. Therefore, this experiment showed each group three different personal profiles. However, to show that each attribute of information has an underlying effect one control attribute 'Photo' was manipulated in such way, that in each condition there was a photo shown or not. Therefore, the experimental design contained six different conditions; three personal profiles with photo and three personal profiles without photo.

#### Personal Profile 1

This personal profile contained only one attribute of information, which was the name of the borrower (David Strumpf). A random name was given just to test whether one attribute information could have a certain effect on the willingness to share goods. However, in this case the name of the borrower could have positive or negative associations based on another person they know with a similar name (Watson, Appiah and Thornton, 2011). Therefore, manipulating the personal profile this way could help to test the effect of 1 attribute on the willingness to share goods. Because the control attribute 'Photo' was introduced, this personal profile contained 2 attributes in the condition with photo and just 1 attribute in the condition without photo. This also applies for the other two personal profiles. Figure 8 and 9 show the personal profiles with 1 attribute of information.

#### Figure 8. Personal Profile 1 Attribute of Information NoPhoto



#### **Figure 9. Personal Profile 1 Attribute of Information Photo**



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#### Personal Profile 2

Personal profile 2 contained five different attributes of information about the borrower. These were; Name (David Strumpf ), Gender (male), Age (32), Distance (less than 500 meters away from you) and a photo of the borrower. Same here, each attribute of information was randomly made-up and was expected to have a different effect. However, distance for example, was explicitly chosen because a study about trust showed that people trust other people more from a nearer distance (Glaeser, et al., 2000) and another study showed that photo effected choice (Ert, Fleischer and Magen, 2016). Figure 10 and 11 show the personal profiles with 5 attributes of information.

#### Figure 10. Personal Profile 5 attribute of Information NoPhoto



#### **Figure 11. Personal Profile 5 Attribute of Information Photo**



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#### Personal Profile 3

Figure 12 and 13 show the personal profiles with 9 attributes of information. These profiles contained 9 different attributes of information which were; Name (David Strumpf ), Gender (male), Age (32), Distance (less than 500 meters away from you), a photo of the borrower, College degree (MSc. Economics and Business), Mutual friends (3 mutual friends on Facebook), Nationality (German) and Smoker. Again, here Mutual friends, Nationality and College degree where chosen with the purpose to manipulate the personal profile in such way that people could give an opinion about this person, which should show an effect on the willingness to share goods.

#### Figure 12. Personal Profile 9 Attributes of Information NoPhoto



**Figure 13. Personal Profile 9 Attributes of Information Photo** 



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#### **Uncertainty Reduction Theory Theorems (Berger & Calabrese, 1975)**

Theorem 1: Amount of verbal communication and nonverbal affiliative expressiveness are positively related.

Theorem 2: Amount of communication and intimacy level of communication are positively related.

Theorem 3: Amount of communication and information seeking behavior are inversely related.

Theorem 4: Amount of communication and reciprocity rate are inversely related.

Theorem 5: Amount of communication and liking are positively related.

Theorem 6: Amount of communication and similarity are positively related.

Theorem 7: Nonverbal affiliative expressiveness and intimacy level of communication are positively related.

Theorem 8: Nonverbal affiliative expressiveness and information seeking inversely related.

Theorem 9: Nonverbal affiliative expressiveness and reciprocity rate are inversely related.

Theorem 10: Nonverbal affiliative expressiveness and liking are positively related.

Theorem 11: Nonverbal affiliative expressiveness and similarity are positively related.

Theorem 12: Intimacy level of communication content and information seeking are inversely related.

Theorem 13: Intimacy level of communication content and reciprocity rate are inversely related.

Theorem 14: Intimacy level of communication content and liking are positively related.

Theorem 15: Intimacy level of communication content and similarity are positively related.

Theorem 16: Information seeking and reciprocity rate are inversely related.

Theorem 17: Information seeking and liking are negatively related.

Theorem 18: Information seeking and similarity are negatively related.

Theorem 19: Reciprocity rate and liking are negatively related.

Theorem 20: Reciprocity rate and similarity are negatively related.

Theorem 21: Similarity and liking are positively related.

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# Appendix II Questionnaire

#### **Survey Programmed with Qualtrics**

#### **Survey Flow**

Standard: Introduction (1 Question) Standard: Block 1. Demographics (3 Questions)

BlockRandomizer: 6 -

Block: Block 2. Introduction Survey General (1 Question)

BlockRandomizer: 6 -

Block: Block 3. 1 attribute of information (General) (4 Questions) Block: Block 4. 5 attributes of information (General) (4 Questions) Block: Block 5. 9 attributes of information (General) (4 Questions) Block: Block 3.1 1 attribute of information (General) (4 Questions) Block: Block 4.1 5 attributes of information (General) (4 Questions) Block: Block 5.1 9 attributes of information (General) (4 Questions)

Block: Block 2. Introduction Survey Minivan (1 Question)

BlockRandomizer: 6 -

Block: Block 3. 1 attribute of information (Minivan) (4 Questions) Block: Block 4. 5 attributes of information (Minivan) (4 Questions) Block: Block 5. 9 attributes of information (Minivan) (4 Questions) Block: Block 3.1 1 attribute of information (Minivan) (4 Questions) Block: Block 4.1 5 attributes of information (Minivan) (4 Questions) Block: Block 5.1 9 attributes of information (Minivan) (4 Questions)

Block: Block 2. Introduction Survey Sports car (1 Question)

BlockRandomizer: 6 -

Block: Block 3. 1 attribute of information (Sports car) (4 Questions) Block: Block 4. 5 attributes of information (Sports car) (4 Questions) Block: Block 5. 9 attributes of information (Sports car) (4 Questions) Block: Block 3.1 1 attribute of information (Sports car) (4 Questions) Block: Block 4.1 5 attributes of information (Sports car) (4 Questions) Block: Block 5.1 9 attributes of information (Sports car) (4 Questions)

Block: Block 6 Personality - Lay Rationalism, Positive Focus, Negative Focus (3 Questions)

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# Introduction

Thank you for taking part in this survey about the willingness to share goods on Online Sharing Platforms. An Online Sharing Platform is a website where people can share certain goods or services with each other against a monetary compensation or any other compensation preferred (for example; Airbnb, Snapp car, Uber etc.) This survey should take only 5 - 10 minutes to complete. All your answers will be kept anonymous.

**End of Block** 

#### **Block 1. Demographics**

Q1 What is your gender?

O Male (1)

O Female (2)

Q2 What is your age?

Under 20 (1)
21 - 34 (2)
35 - 49 (3)
50 - 64 (4)
65+ (5)

Q3 Have you ever participated in one or more sharing activities on an online sharing platform?

O Not at all (1)

Once (2)

O Twice (3)

O More than two times (4)

**End of Block** 



# **Block 2. Introduction**

Imagine, you are considering whether or not to lend a good using an Online Sharing Platform\* (think of it as an "Airbnb for goods in general"). You have a request from a borrower. You will now see different personal profiles with information, followed by a few simple questions. There are no right or wrong answers, just answer the first response that comes to mind. \*An Online Sharing Platform is a website where people can share certain goods with each other against a monetary compensation or any other compensation preferred.

#### **End of Block**

## **Block 2. Introduction Minivan**

Try to imagine having a Minivan. Let's say you came to the decision to share this Minivan on an Online Sharing Platform. Your Minivan is not really special and is just more functional for transportation from A to B. At a certain moment, a borrower shows interest in the Minivan you want to share. However, like many other people you sometimes feel uncertain about the borrowers in sharing websites. Therefore, before you agree to share your Minivan, you first examine a borrower's Personal Profile.



You will now see several hypothetical situations with different personal profiles, please indicate your perceptions regarding each of these personal profiles and whether or not you would share your minivan with each of them. There are no right or wrong answers, just answer the first response that comes to mind.

**End of Block** 

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# **Block 2. Introduction Sports Car**

Try to imagine having a Sports car. Let's say you came to the decision to share this Sports car on an Online Sharing Platform. Your Sports car is pretty special which is more for fun and of course for showing off with friends. At a certain moment, someone shows interest in the Sports car you want to share. However, like many other people you sometimes feel uncertain about the borrowers in sharing websites. Therefore, before you agree to share your Sports car, you first examine a borrower's Personal Profile.



You will now see several hypothetical situations with different personal profiles, please indicate your perceptions regarding each of these personal profiles and whether or not you would share your Sports car with each of them. There are no right or wrong answers, just answer the first response that comes to mind.

Block	3.	1	Attribute	of	Information
	Pe	ersonal Profile	Borrower		
·	Name: David Strur	npf			

Q4 Based on the Personal Profile above. How <u>willing</u> are you to share your (Good + Minivan + Sports car) with this borrower? Points ranging from (1) definitely not willing and (7) definitely willing.

- 1. Definitely not willing (1)
- 2. Not willing (2)
- 3. Slightly not willing (3)
- $\bigcirc$  4. I am not sure (4)
- 5. Slightly willing (5)
- 6. Willing (6)
- $\bigcirc$  7. Definitely willing (7)

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Q5 Please indicate whether you feel a low or high <u>uncertainty about this borrower</u>? Please indicate your answer using a score from 1 to 7 where 1 = I feel very uncertain about this borrower and 7 = I feel very certain about this borrower.

1. I feel very uncertain about this borrower (1)

- $\bigcirc$  2. I feel uncertain about this borrower (2)
- $\bigcirc$  3. I feel slightly uncertain about this borrower (3)
- $\bigcirc$  4. I am not sure (4)
- 5. I feel slightly certain about this borrower (5)
- 6. I feel certain about this borrower (6)
- 7. I feel very certain about this borrower (7)

Q6 Please indicate <u>how likeable do you find this borrower</u>? Please indicate your answer using a score from 1 to 7 where 1 = I feel that this borrower is an extremely unlikeable person and 7 = I feel that this borrower is an extremely likeable person.

 $\bigcirc$  1. I feel that this borrower is an extremely unlikeable person (1)

2. I feel that this borrower is an unlikeable person (2)

 $\bigcirc$  3. I feel that this borrower is slightly unlikeable (3)

 $\bigcirc$  4. I am not sure (4)

 $\bigcirc$  5. I feel that this borrower is slightly likeable (5)

 $\bigcirc$  6. I feel that this borrower is a likeable person (6)

 $\bigcirc$  7. I feel that this borrower is an extremely likeable person. (7)

**End of Block** 

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# **Block 4. 5 Attributes of Information**

	Personal Profile Borrower
• N	lame: David Strumpf
• G	iender: Male
• A	ge: 32
• D	istance: Less than 500 meters away from you

Q7 Based on the Personal Profile above. How <u>willing</u> are you to share your (Good + Minivan + Sports car) with this Borrower? Points ranging from (1) definitely not willing and (7) definitely willing.

- 1. Definitely not willing (1)
- $\bigcirc$  2. Not willing (2)
- 3. Slightly not willing (3)
- $\bigcirc$  4. I am not sure (4)
- 5. Slightly willing (5)
- 6. Willing (6)
- $\bigcirc$  7. Definitely willing (7)

Q8 Please indicate whether you feel a low or high <u>uncertainty about this borrower</u>? Please indicate your answer using a score from 1 to 7 where 1 = 1 feel very uncertain about this borrower and 7 = 1 feel very certain about this borrower.

1. I feel very uncertain about this borrower (1)

- 2. I feel uncertain about this borrower (2)
- 3. I feel slightly uncertain about this borrower (3)
- $\bigcirc$  4. I am not sure (4)
- 5. I feel slightly certain about this borrower (5)
- $\bigcirc$  6. I feel certain about this borrower (6)
- $\bigcirc$  7. I feel very certain about this borrower (7)

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Q9 Please indicate <u>how likeable do you find this borrower</u>? Please indicate your answer using a score from 1 to 7 where 1 = I feel that this borrower is an extremely unlikeable person and 7 = I feel that this borrower is an extremely likeable person.

1. I feel that this borrower is an extremely unlikeable person (1)
2. I feel that this borrower is an unlikeable person (2)
3. I feel that this borrower is slightly unlikeable (3)
4. I am not sure (4)
5. I feel that this borrower is slightly likeable (5)
6. I feel that this borrower is a likeable person (6)
7. I feel that this borrower is an extremely likeable person. (7)

**End of Block** 

## **Block 5. 9 Attributes of Information**



Q10 Based on the Personal Profile above. How <u>willing</u> are you to share your (Good + Minivan + Sports car) with this borrower? Points ranging from (1) definitely not willing and (7) definitely willing.

- 1. Definitely not willing (1)
- $\bigcirc$  2. Not willing (2)
- 3. Slightly not willing (3)
- $\bigcirc$  4. I am not sure (4)
- $\bigcirc$  5. Slightly willing (5)
- 0 6. Willing (6)
- 7. Definitely willing (7)

-zafino

Q11 Please indicate whether you feel a low or high <u>uncertainty about this borrower</u>? Please indicate your answer using a score from 1 to 7 where 1 = I feel very uncertain about this borrower and 7 = I feel very certain about this borrower.

1. I feel very uncertain about this borrower (1)

- $\bigcirc$  2. I feel uncertain about this borrower (2)
- $\bigcirc$  3. I feel slightly uncertain about this borrower (3)
- $\bigcirc$  4. I am not sure (4)

○ 5. I feel slightly certain about this borrower (5)

- 6. I feel certain about this borrower (6)
- 7. I feel very certain about this borrower (7)

Q12 Please indicate <u>how likeable do you find this borrower</u>? Please indicate your answer using a score from 1 to 7 where 1 = I feel that this borrower is an extremely unlikeable person and 7 = I feel that this borrower is an extremely likeable person.

 $\bigcirc$  1. I feel that this borrower is an extremely unlikeable person (1)

 $\bigcirc$  2. I feel that this borrower is an unlikeable person (2)

- $\bigcirc$  3. I feel that this borrower is slightly unlikeable (3)
- $\bigcirc$  4. I am not sure (4)
- 5. I feel that this borrower is slightly likeable (5)
- $\bigcirc$  6. I feel that this borrower is a likeable person (6)
- $\bigcirc$  7. I feel that this borrower is an extremely likeable person. (7)

#### **End of Block**

zafing

# Block 3.1 1 Attribute of Information

	Personal Profile Borrower
• Nar	ne: David Strumpf

Q13 Based on the Personal Profile above. How <u>willing</u> are you to share your (Good + Minivan + Sports car) with this borrower? Points ranging from (1) definitely not willing and (7) definitely willing.

- 1. Definitely not willing (1)
- $\bigcirc$  2. Not willing (2)
- 3. Slightly not willing (3)
- $\bigcirc$  4. I am not sure (4)
- $\bigcirc$  5. Slightly willing (5)
- 0 6. Willing (6)
- 7. Definitely willing (7)

Q14 Please indicate whether you feel a low or high <u>uncertainty about this borrower</u>? Please indicate your answer using a score from 1 to 7 where 1 = I feel very uncertain about this borrower and 7 = I feel very certain about this borrower.

- 1. I feel very uncertain about this borrower (1)
- $\bigcirc$  2. I feel uncertain about this borrower (2)
- $\bigcirc$  3. I feel slightly uncertain about this borrower (3)
- $\bigcirc$  4. I am not sure (4)
- 5. I feel slightly certain about this borrower (5)
- 6. I feel certain about this borrower (6)
- 7. I feel very certain about this borrower (7)

zafino

Q15 Please indicate <u>how likeable do you find this borrower</u>? Please indicate your answer using a score from 1 to 7 where 1 = I feel that this borrower is an extremely unlikeable person and 7 = I feel that this borrower is an extremely likeable person.

- 1. I feel that this borrower is an extremely unlikeable person (1)
  2. I feel that this borrower is an unlikeable person (2)
  3. I feel that this borrower is slightly unlikeable (3)
- 4. I am not sure (4)
- 5. I feel that this borrower is slightly likeable (5)
- $\bigcirc$  6. I feel that this borrower is a likeable person (6)
- $\bigcirc$  7. I feel that this borrower is an extremely likeable person. (7)

# **Block 4.1 5 Attributes of Information**



Q16 Based on the Personal Profile above. How <u>willing</u> are you to share your (Good + Minivan + Sports car) with this borrower? Points ranging from (1) definitely not willing and (7) definitely willing.

- 1. Definitely not willing (1)
- 2. Not willing (2)
- 3. Slightly not willing (3)
- $\bigcirc$  4. I am not sure (4)
- 5. Slightly willing (5)
- 6. Willing (6)
- 7. Definitely willing (7)
-zafing

Q17 Please indicate whether you feel a low or high <u>uncertainty about this borrower</u>? Please indicate your answer using a score from 1 to 7 where 1 = I feel very uncertain about this borrower and 7 = I feel very certain about this borrower.

1. I feel very uncertain about this borrower (1)

- $\bigcirc$  2. I feel uncertain about this borrower (2)
- $\bigcirc$  3. I feel slightly uncertain about this borrower (3)
- $\bigcirc$  4. I am not sure (4)
- 5. I feel slightly certain about this borrower (5)
- 6. I feel certain about this borrower (6)
- $\bigcirc$  7. I feel very certain about this borrower (7)

Q18 Please indicate <u>how likeable do you find this borrower</u>? Please indicate your answer using a score from 1 to 7 where 1 = I feel that this borrower is an extremely unlikeable person and 7 = I feel that this borrower is an extremely likeable person.

 $\bigcirc$  1. I feel that this borrower is an extremely unlikeable person (1)

- $\bigcirc$  2. I feel that this borrower is an unlikeable person (2)
- $\bigcirc$  3. I feel that this borrower is slightly unlikeable (3)
- $\bigcirc$  4. I am not sure (4)

 $\bigcirc$  5. I feel that this borrower is slightly likeable (5)

- $\bigcirc$  6. I feel that this borrower is a likeable person (6)
- $\bigcirc$  7. I feel that this borrower is an extremely likeable person. (7)

**End of Block** 

zafino

# **Block 5.1 9 Attributes of Information**

	Personal Profile Borrower
•	Name: David Strumpf
•	Gender: Male
•	Age: 32
•	Distance: Less than 500 meters away from you
•	College Degree: MSc Economics and Business
•	Mutual friends: 3 mutual friends on Facebook
•	Nationality: German
•	(Non) Smoker: Smoker

Q19 Based on the Personal Profile above. How <u>willing</u> are you to share your (Good + Minivan + Sports car) with this borrower? Points ranging from (1) definitely not willing and (7) definitely willing.

0	1.	Defi	nitely	/ not	willing	g (	1)

2. Not willing (2)

O 3. Slightly not willing (3)

 $\bigcirc$  4. I am not sure (4)

○ 5. Slightly willing (5)

○ 6. Willing (6)

7. Definitely willing (7)

Q20 Please indicate whether you feel a low or high <u>uncertainty about this borrower</u>? Please indicate your answer using a score from 1 to 7 where 1 = 1 feel very uncertain about this borrower and 7 = 1 feel very certain about this borrower.

1. I feel very uncertain about this borrower (1)

- $\bigcirc$  2. I feel uncertain about this borrower (2)
- $\bigcirc$  3. I feel slightly uncertain about this borrower (3)
- $\bigcirc$  4. I am not sure (4)
- 5. I feel slightly certain about this borrower (5)
- 6. I feel certain about this borrower (6)
- $\bigcirc$  7. I feel very certain about this borrower (7)

Lapus

Q21 Please indicate <u>how likeable do you find this borrower</u>? Please indicate your answer using a score from 1 to 7 where 1 = I feel that this borrower is an extremely unlikeable person and 7 = I feel that this borrower is an extremely likeable person.

 $\bigcirc$  1. I feel that this borrower is an extremely unlikeable person (1)

- $\bigcirc$  2. I feel that this borrower is an unlikeable person (2)
- $\bigcirc$  3. I feel that this borrower is slightly unlikeable (3)
- $\bigcirc$  4. I am not sure (4)
- $\bigcirc$  5. I feel that this borrower is slightly likeable (5)
- $\bigcirc$  6. I feel that this borrower is a likeable person (6)
- $\bigcirc$  7. I feel that this borrower is an extremely likeable person. (7)

**End of Block** 

Carry

# Block 6 Personality - Lay Rationalism, Positive Focus, Negative Focus

Lay Rationalism Please rate your agreement with each of the statements below using the 5-point scale that ranges from (1) *strongly disagree* to (5) *strongly agree*.

	1`. Strongly disagree (1)	2. Disagree (2)	3. Neither agree nor disagree (3)	4. Agree (4)	5. Strongly agree (6)
When making decisions, I like to analyze financial costs and benefits and resist the influence of my feelings. (1)	0	0	0	0	0
When choosing between two options, one of which makes me feel better and the other better serves the goal I want to achieve, I choose the one that makes me feel better. (R) (2)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
When making decisions, I think about what I want to achieve rather than how I feel. (3)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
When choosing between two options, one of which is financially superior and the other "feels" better to me, I choose the one that is financially better. (4)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
When choosing between products, I rely on my gut feelings rather than on product specifications (numbers and objective descriptions). (R) (5)	0	$\bigcirc$	$\bigcirc$	0	0
When making decisions, I focus on objective facts rather than subjective feelings. (6)	0	$\bigcirc$	0	$\bigcirc$	0

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	1. Strongly disagree (1)	2. Disagree (2)	3. Neither agree nor disagree (3)	4. Agree (4)	5. Strongly agree (5)
I keep a positive attitude that things always turn out all right. (1)	0	0	0	0	$\bigcirc$
I prefer to think about the good things that can happen rather than the bad. (2)	0	0	0	0	$\bigcirc$
When thinking over my decisions I focus more on their positive end results. (3)	0	0	$\bigcirc$	0	$\bigcirc$

Positive Focus Please rate your agreement with each of the statements below using the 5-point scale that ranges from (1) *strongly disagree* to (5) *strongly agree*.

# Appendix III Cronbach's Alpha - Reliability

# **Reliability Lay Rationalism**

# Scale: ALL VARIABLES Lay Rationalism

#### **Reliability Statistics**

	Cronbach's	Alpha	
	Based	on	
Cronbach's Alpha	Standardized	Items	N of Items
,763	,763		6

#### Item Statistics

	Mean	Std. Deviation	N
Lay_Rationalism_1	3,62	,950	810
Lay_Rationalism_2	3,82	1,305	810
Lay_Rationalism_3	3,91	1,190	810
Lay_Rationalism_4	4,00	1,492	810
Lay_Rationalism_5	3,64	1,418	810
Lay_Rationalism_6	3,72	1,185	810

#### Scale Statistics

	Varianc	Std.	N d	of
Mean	е	Deviation	Items	
22,72	26,546	5,152	6	

## Inter-Item Correlation Matrix

	Lay_Rationalis m_1	Lay_Rationalis m_2	Lay_Rationalis m_3	Lay_Rationalis m_4	Lay_Rationalis m_5	Lay_Rationalis m_6
Lay_Rationalism_1	1,000	,215	,462	,377	,082	,294
Lay_Rationalism_2	,215	1,000	,248	,400	,423	,203
Lay_Rationalism_3	,462	,248	1,000	,514	,403	,429
Lay_Rationalism_4	,377	,400	,514	1,000	,421	,420
Lay_Rationalism_5	,082	,423	,403	,421	1,000	,351
Lay_Rationalism_6	,294	,203	,429	,420	,351	1,000

#### **Item-Total Statistics**

					Cronbach's
	Scale Mean if	Scale Variance if	Corrected Item-	Squared Multiple	Alpha if Item
	Item Deleted	Item Deleted	Total Correlation	Correlation	Deleted
Lay_Rationalism_1	19,10	22,114	,395	,288	,755
Lay_Rationalism_2	18,90	19,791	,435	,252	,747
Lay_Rationalism_3	18,81	18,920	,600	,425	,705
Lay_Rationalism_4	18,72	16,608	,634	,408	,690
Lay_Rationalism_5	19,07	18,432	,502	,350	,731
Lay_Rationalism_6	19,00	19,980	,487	,266	,733

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# **Reliability Positive Focus**

# Scale: ALL VARIABLES Positive Focus

#### **Reliability Statistics**

	Cronbach's Alph	a
	Based o	'n
	Standardized	
Cronbach's Alpha	Items	N of Items
,782	,797	3

#### Item Statistics

	Mean	Std. Deviation	Ν
Positive_Focus_1	3,98	,616	810
Positive_Focus_2	3,89	,875	810
Positive_Focus_3	3,93	,712	810

#### Inter-Item Correlation Matrix

	Positive_Focus_	Positive_Focus_	Positive_Focus_
	1	2	3
Positive_Focus_1	1,000	,571	,606
Positive_Focus_2	,571	1,000	,523
Positive_Focus_3	,606	,523	1,000

#### Item-Total Statistics

					Cronbach's
	Scale Mean if	Scale Variance if	Corrected Item-	Squared Multiple	Alpha if Item
	Item Deleted	Item Deleted	Total Correlation	Correlation	Deleted
Positive_Focus_1	7,82	1,926	,671	,456	,678
Positive_Focus_2	7,91	1,418	,609	,376	,749
Positive_Focus_3	7,87	1,761	,626	,414	,699

#### **Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
11,80	3,452	1,858	3

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# Appendix IV Three Two-Way ANOVAs 1. Univariate Analysis of Variance – Willingness to Share Goods

#### **Between-Subjects Factors**

		Value Label	N
Amount of Information	1	1 attribute of information	270
	2	5 attributes of information	270
	3	9 attributes of information	270
DummyPhoto	0	NoPhoto	405
	1	Photo	405

#### Levene's Test of Equality of Error Variances<sup>a</sup>

Dependent Variable: Willingness to Share Goods

F	df1	df2	Sig.
1,913	5	804	,096

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

#### **Descriptive Statistics**

Dependent Variable: Willingness to Share Goods

Amount of Information	DummyPhoto	Mean	Std. Deviation	N
1 attribute of information	NoPhoto	1,84	,897	135
	Photo	3,42	1,129	135
	Total	2,63	1,289	270
5 attributes of information	NoPhoto	3,87	1,208	135
	Photo	5,00	1,058	135
	Total	4,43	1,268	270
9 attributes of information	NoPhoto	4,96	1,354	135
	Photo	5,84	1,036	135
	Total	5,40	1,283	270
Total	NoPhoto	3,56	1,739	405
	Photo	4,76	1,470	405
	Total	4,16	1,718	810

# **Homogeneous Subsets**

#### Willingness to Share Goods

Tukey HSD<sup>a,b</sup>

		Subset		
Amount of Information	N	1	2	3
1 attribute of information	270	2,63		
5 attributes of information	270		4,43	
9 attributes of information	270			5,40
Sig.		1,000	1,000	1,000

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#### **Tests of Between-Subjects Effects**

Dependent Variable: Willingness to Share Goods

	Type III Sum of					Partial E	Eta
Source	Squares	df	Mean Square	F	Sig.	Squared	
Corrected Model	1372,667ª	5	274,533	217,735	,000	,575	
Intercept	13987,600	1	13987,600	11093,677	,000,	,932	
NrAttributes	1064,600	2	532,300	422,171	,000,	,512	
DummyPhoto	291,600	1	291,600	231,270	,000,	,223	
NrAttributes *	40 407	2	0.000	0.500	000	010	
DummyPhoto	10,407	2	0,233	0,000	,002	,010	
Error	1013,733	804	1,261				
Total	16374,000	810					
Corrected Total	2386,400	809					

a. R Squared = ,575 (Adjusted R Squared = ,573)

# **Post Hoc Tests - Amount of Information**

#### **Multiple Comparisons**

Dependent Variable: Willingness to Share Goods

#### Tukey HSD

				Mean		-	95% Confidence I	nterval
(I)	Amount	of	(J) Amount of	Difference (I-				
Inform	nation		Information	J)	Std. Error	Sig.	Lower Bound	Upper Bound
1 attril	oute of informatic	on	5 attributes of information	-1,80 <sup>*</sup>	,097	,000	-2,03	-1,57
			9 attributes of information	-2,77*	,097	,000	-2,99	-2,54
5	attributes	of	1 attribute of information	1,80*	,097	,000,	1,57	2,03
inform	ation		9 attributes of information	-,97*	,097	,000	-1,19	-,74
9	attributes	of	1 attribute of information	2,77*	,097	,000,	2,54	2,99
inform	ation		5 attributes of information	,97 <sup>*</sup>	,097	,000	,74	1,19

Based on observed means.

The error term is Mean Square(Error) = 1,261.

\*. The mean difference is significant at the ,05 level.

# 2. Univariate Analysis of Variance – Uncertainty

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## **Between-Subjects Factors**

		Value Label	Ν
Amount of Information	1	1 attribute of information	270
	2	5 attributes of information	270
	3	9 attributes of information	270
DummyPhoto	0	NoPhoto	405
	1	Photo	405

Levene's Test of Equality of Error Variances<sup>a</sup>

Dependent Variable: Uncertainty

F	df1	df2	Sig.
2,278	5	804	,063

Tests the null hypothesis that the error variance of the dependent variable is equal across groups. a. Design: Intercept + NrAttributes + DummyPhoto

+ NrAttributes \* DummyPhoto

#### **Descriptive Statistics**

Dependent Variable: Uncertainty

Amount of Information	DummyPhoto	Mean	Std. Deviation	N
1 attribute of information	NoPhoto	1,96	,992	135
	Photo	3,44	1,111	135
	Total	2,70	1,289	270
5 attributes of information	NoPhoto	4,04	1,036	135
	Photo	5,16	,871	135
	Total	4,60	1,106	270
9 attributes of information	NoPhoto	5,40	,908	135
	Photo	5,96	,668	135
	Total	5,68	,843	270
Total	NoPhoto	3,80	1,723	405
	Photo	4,85	1,382	405
	Total	4,33	1,647	810

# **Homogeneous Subsets**

Uncertainty

Tukey HSD<sup>a,b</sup>

		Subset		
Amount of Information	N	1	2	3
1 attribute of information	270	2,70		
5 attributes of information	270		4,60	
9 attributes of information	270			5,68
Sig.		1,000	1,000	1,000

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#### **Tests of Between-Subjects Effects**

Dependent Variable: Unce	rtaintv
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Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Squared	Eta
Corrected Model	1481,289ª	5	296,258	334,225	,000	,675	
Intercept	15158,044	1	15158,044	17100,656	,000,	,955	
NrAttributes	1227,489	2	613,744	692,400	,000	,633	
DummyPhoto	224,044	1	224,044	252,757	,000,	,239	
NrAttributes * DummyPhoto	29,756	2	14,878	16,784	,000,	,040	
Error	712,667	804	,886				
Total	17352,000	810					
Corrected Total	2193,956	809					

a. R Squared = ,675 (Adjusted R Squared = ,673)

# **Post Hoc Tests - Amount of Information**

#### **Multiple Comparisons**

Dependent Variable: Uncertainty

Tukey HSD

		Mean			95% Confiden	ce Interval
	(J) Amount of	Difference (I-				
(I) Amount of Information	Information	J)	Std. Error	Sig.	Lower Bound	Upper Bound
1 attribute of information	5 attributes of information	-1,90*	,081	,000	-2,09	-1,71
	9 attributes of information	-2,98*	,081	,000	-3,17	-2,79
5 attributes of	1 attribute of information	1,90*	,081	,000,	1,71	2,09
information	9 attributes of information	-1,08*	,081	,000	-1,27	-,89
9 attributes of	1 attribute of information	2,98*	,081	,000	2,79	3,17
information	5 attributes of information	1,08*	,081	,000	,89	1,27

Based on observed means. The error term is Mean Square(Error) = ,886.

\*. The mean difference is significant at the ,05 level.

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# 3. Univariate Analysis of Variance – Likability

#### **Between-Subjects Factors**

		Value Label	Ν
Amount of Information	1	1 attribute of information	270
	2	5 attributes of information	270
	3	9 attributes of information	270
DummyPhoto	0	NoPhoto	405
	1	Photo	405

## Levene's Test of Equality of Error Variances<sup>a</sup>

Dependent Variable: Likability

F	df1	df2	Sig.
6,189	5	804	,000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + NrAttributes + DummyPhoto

+ NrAttributes \* DummyPhoto

#### **Descriptive Statistics**

Dependent Variable: Likability

Amount of Information	DummyPhoto	Mean	Std. Deviation	N
1 attribute of information	NoPhoto	3,09	1,212	135
	Photo	3,69	,868	135
	Total	3,39	1,094	270
5 attributes of information	NoPhoto	4,04	,732	135
	Photo	4,96	,897	135
	Total	4,50	,936	270
9 attributes of information	NoPhoto	3,98	,748	135
	Photo	4,58	,859	135
	Total	4,28	,858	270
Total	NoPhoto	3,70	1,020	405
	Photo	4,41	1,022	405
	Total	4,06	1,079	810

## **Homogeneous Subsets**

#### Likability

Tukey HSD<sup>a,b</sup>

-		Subset		
Amount of Information	N	1	2	3
1 attribute of information	270	3,39		
9 attributes of information	270		4,28	
5 attributes of information	270			4,50
Sig.		1,000	1,000	1,000

#### **Tests of Between-Subjects Effects**

	Type III Sum of					Partial	Eta
Source	Squares	df	Mean Square	F	Sig.	Squared	
Corrected Model	291,300 <sup>a</sup>	5	58,260	71,930	,000	,309	
Intercept	13322,500	1	13322,500	16448,541	,000,	,953	
NrAttributes	186,667	2	93,333	115,233	,000,	,223	
DummyPhoto	100,278	1	100,278	123,807	,000,	,133	
NrAttributes *	4.956	2	0.470	2 690	060	007	
DummyPhoto	4,300	2	2,178	2,089	,069	,007	
Error	651,200	804	,810				
Total	14265,000	810					
Corrected Total	942,500	809					

Dependent Variable: Likability

a. R Squared = ,309 (Adjusted R Squared = ,305)

# **Post Hoc Tests - Amount of Information**

#### **Multiple Comparisons**

Dependent Variable: Likability

#### Tukey HSD

				Mean			95% Confiden	ce Interval
(I)	Amount	of	(J) Amount of	Difference (I-				
Inform	nation		Information	J)	Std. Error	Sig.	Lower Bound	Upper Bound
1 attril	bute of information	on	5 attributes of information	-1,11*	,077	,000	-1,29	-,93
			9 attributes of information	-,89*	,077	,000	-1,07	-,71
5	attributes	of	1 attribute of information	1,11*	,077	,000,	,93	1,29
inform	ation		9 attributes of information	,22 <sup>*</sup>	,077	,012	,04	,40
9	attributes	of	1 attribute of information	,89 <sup>*</sup>	,077	,000	,71	1,07
inform	ation		5 attributes of information	-,22*	,077	,012	-,40	-,04

Based on observed means.

The error term is Mean Square(Error) = ,810.

\*. The mean difference is significant at the ,05 level.

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# Appendix V Regression Analysis SPSS Output + Controls Lay Rationalism & Positive Focus

**Regression 1 – Effect to be Mediated 'Willingness to Share Goods'** 

#### Model Summary

			Adjusted R	Std. Error of the
Model	R	R Square	Square	Estimate
1	,756 <sup>a</sup>	,571	,567	1,130

a. Predictors: (Constant), AOI\_DummyPhoto, DummyHedonic, Gender, Age, Experience, Amount of Information, DummyUtilitarian, DummyPhoto

#### **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1362,881	8	170,360	133,323	,000 <sup>b</sup>
	Residual	1023,519	801	1,278		
	Total	2386,400	809			

a. Dependent Variable: Willingness to Share Goods

b. Predictors: (Constant), AOI\_DummyPhoto, DummyHedonic, Gender, Age, Experience, Amount of Information, DummyUtilitarian, DummyPhoto

#### **Coefficients**<sup>a</sup>

Model		Unstandardized	Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	- (Constant)	,503	,234		2,156	,031
	Amount of Information	1,556	,069	,740	22,612	,000
	DummyPhoto	1,889	,210	,550	8,987	,000
	Gender	-,103	,081	-,030	-1,269	,205
	Age	,114	,052	,055	2,206	,028
	Experience	-,113	,044	-,064	-2,561	,011
	DummyUtilitarian	,194	,100	,053	1,939	,053
	DummyHedonic	-,088	,099	-,024	-,884	,377
	AOI_DummyPhoto	-,344	,097	-,232	-3,540	,000

a. Dependent Variable: Willingness to Share Goods

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# **Regression 2 – Mediator 1 Uncertainty**

### Model Summary

			Adjusted R	Std. Error of the
Model	R	R Square	Square	Estimate
1	,817ª	,668	,664	,954

**ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1465,656	9	162,851	178,883	,000 <sup>b</sup>
	Residual	728,300	800	,910		
	Total	2193,956	809			

a. Dependent Variable: Uncertainty

b. Predictors: (Constant), Photo\_DummyUtilitarian, Amount of Information, Photo\_DummyHedonic, AOI\_DummyHedonic, DummyUtilitarian, AOI\_DummyPhoto, AOI\_DummyUtilitarian, DummyPhoto, DummyHedonic

-		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	т	Sig.
1	(Constant)	,711	,184		3,873	,000
	Amount of Information	1,600	,082	,794	19,484	,000
	DummyPhoto	1,889	,201	,574	9,390	,000
	AOI_DummyPhoto	-,467	,082	-,327	-5,683	,000
	DummyUtilitarian	-,522	,232	-,150	-2,248	,025
	DummyHedonic	-,544	,232	-,156	-2,344	,019
	AOI_DummyHedonic	,150	,101	,096	1,491	,136
	AOI_DummyUtilitarian	,217	,101	,139	2,154	,032
	Photo_DummyHedonic	,067	,164	,015	,406	,685
	Photo_DummyUtilitarian	,222	,164	,050	1,353	,176

# **Coefficients**<sup>a</sup>

a. Dependent Variable: Uncertainty

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# **Regression 3 – Mediator 2 Liking**

#### **Model Summary**

			Adjusted R	Std. Error of the
Model	R	R Square	Square	Estimate
1	,500 <sup>a</sup>	,250	,242	,939

a. Predictors: (Constant), Photo\_DummyUtilitarian, Amount of Information, Photo\_DummyHedonic, AOI\_DummyHedonic, DummyUtilitarian, DummyPhoto, AOI\_DummyUtilitarian, DummyHedonic

#### **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	235,567	8	29,446	33,364	,000 <sup>b</sup>
	Residual	706,933	801	,883		
	Total	942,500	809			

a. Dependent Variable: Likability

b. Predictors: (Constant), Photo\_DummyUtilitarian, Amount of Information, Photo\_DummyHedonic,

AOI\_DummyHedonic, DummyUtilitarian, DummyPhoto, AOI\_DummyUtilitarian, DummyHedonic

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	3,267	,162		20,201	,000
	Amount of Information	,267	,070	,202	3,808	,000,
	DummyPhoto	,644	,114	,299	5,636	,000
	DummyUtilitarian	-,244	,229	-,107	-1,069	,285
	DummyHedonic	-1,111	,229	-,486	-4,859	,000,
	AOI_DummyUtilitarian	,133	,099	,130	1,346	,179
	AOI_DummyHedonic	,400	,099	,391	4,039	,000
	Photo_DummyHedonic	,378	,162	,131	2,336	,020
	Photo_DummyUtilitarian	-,200	,162	-,069	-1,237	,217

a. Dependent Variable: Likability

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# **Regression 4 Full Model: Willingness to Share Goods**

#### Model Summary

			Adjusted F	Std. Error of the
Model	R	R Square	Square	Estimate
1	,889 <sup>a</sup>	,791	,788	,791

a. Predictors: (Constant), AOI\_DummyPhoto, DummyHedonic, Gender, Age, Experience, Amount of Information, Likability, Photo\_DummyHedonic, Uncertainty, TypeofGood, AOI\_DummyHedonic, DummyPhoto

#### **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1887,353	12	157,279	251,182	,000 <sup>b</sup>
	Residual	499,047	797	,626		
	Total	2386,400	809			

a. Dependent Variable: Willingness to Share Goods

b. Predictors: (Constant), AOI\_DummyPhoto, DummyHedonic, Gender, Age, Experience, Amount of Information, Likability, Photo\_DummyHedonic, Uncertainty, TypeofGood, AOI\_DummyHedonic, DummyPhoto

#### **Coefficients**<sup>a</sup>

- -		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	-,881	,217		-4,059	,000
	Amount of Information	,196	,074	,093	2,662	,008
	DummyPhoto	,286	,165	,083	1,738	,083
	TypeofGood	,192	,070	,091	2,745	,006
	Gender	,055	,057	,016	,955	,340
	Age	,122	,036	,058	3,341	,001
	Experience	-,069	,031	-,039	-2,229	,026
	Uncertainty	,730	,036	,700	20,493	,000,
	Likability	,193	,037	,141	5,222	,000,
	DummyHedonic	,107	,200	,029	,535	,593
	AOI_DummyHedonic	-,221	,073	-,136	-3,025	,003
	Photo_DummyHedonic	,071	,119	,015	,596	,551
	AOI_DummyPhoto	-,008	,070	-,006	-,116	,907

a. Dependent Variable: Willingness to Share Goods

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## **Control Variables Lay Rationalism & Positive Focus**

	Ν	Minimum	Maximum	Mean	Std. Deviation
Positive_Focus_1	810	2	5	3,98	,616
Positive_Focus_2	810	1	5	3,89	,875
Positive_Focus_3	810	2	5	3,93	,712
Valid N (listwise)	810				

#### **Descriptive Statistics**

#### **Positive Focus statement 1**

I keep a positive attitude that things always turn out all right.

#### **Positive Focus statement 1**

I prefer to think about the good things that can happen rather than the bad.

#### **Positive Focus statement 1**

When thinking over my decisions I focus more on their positive end results.

#### **Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Lay_Rationalism_1 (R)	810	1	5	2,62	,950
Lay_Rationalism_2 (E)	810	2	5	3,82	1,305
Lay_Rationalism_3 (R)	810	1	5	2,91	1,190
Lay_Rationalism_4 (R)	810	2	5	3,00	1,492
Lay_Rationalism_5 (E)	810	1	5	3,64	1,418
Lay_Rationalism_6 (R)	810	1	5	2,72	1,185
Valid N (listwise)	810				

#### Lay Rationalism statement 1

When making decisions, I like to analyze financial costs and benefits and resist the influence of my feelings.

#### Lay Rationalism statement 2

When choosing between two options, one of which makes me feel better and the other better serves the goal I want to achieve, I choose the one that makes me feel better. (R)

#### Lay Rationalism statement 3

When making decisions, I think about what I want to achieve rather than how I feel.

#### Lay Rationalism statement 4

When choosing between two options, one of which is financially superior and the other "feels" better to me, I choose the one that is financially better.

#### Lay Rationalism statement 5

When choosing between products, I rely on my gut feelings rather than on product specifications (numbers and objective descriptions). (R)

#### Lay Rationalism statement 6

When making decisions, I focus on objective facts rather than subjective feelings.