sozialökologisch produziert

CONSUMER AND BUYER BEHAVIOR: WINTER SEMESTER 2013-2014

How powerful are words?

Upcycling vs. Second-Hand vs. Vintage

Student IDs: 0954558, 0852095, 0850785, 1353452

2/11/2014

Word Count: 4766

Abstract: The present research was designed to explore whether consumers' perceptions regarding the positioning and labelling of upcycled and reused products influence their attitudes towards the products. Previous research (Baksi & Bose, 2007) indicates that consumers are willing to pay more for sustainable goods produced in an environmentally friendly way. Since the upcycling process shows exactly these characteristics in its recycling of old materials, it can be assumed that upcycled products are especially attractive to consumers. The study assesses the impact of the labels "Upcycling", "Vintage", and "Second Hand", on variables like Quality, Design, and Willingness to Pay, as well as compares these labels with the results from a control group who views products without labels. The research proved that labels were not as important as assumed regarding the dependent variables. Nevertheless interesting conclusions about the target group for upcycled products could be drawn and it is evident that there is still consumer education to be done to spread the word about Upcycling.

European Union
European Regional Development Fund

creating the future
Programm zur grenzüberschreitenden Kooperation ÖSTERREICH - UNGARN 2007-2013
AUSZTRIA - MAGYARORSZÁG Határon Átnyúló Együttműködési Program 2007-2013

Table of Contents

1. Introduction

As the competitors of the world marketplace strive to capture the attention of today's most modern consumers, they seek new strategic advantages. The newly developed "upcycling" is a prime example of such strategies, in this case positioning products by identifying their unique backgrounds. Oxford Dictionary defines upcycling as "reus[ing] (discarded objects or material) in such a way as to create a product of higher quality or value than the original" (Oxford University Press). The influence of a label such as "upcycling" on consumer attitudes is however at question, given the potentially limited awareness and/or mixed connotations associated with the term. The question then arises as to whether another term might enhance consumer attitudes toward and perceived quality of the products, therefore also increasing their purchase intention and willingness to pay. In collaboration with *sozial produziert* and *auferstanden*, two Austrian suppliers and manufacturers of upcycling products, our study aims to test the effects of substituting the label "Upcycling" with such terms as "Vintage" and "Second Hand," as well as removing the label altogether.

2. Conceptual Background

A literature review was conducted for a conceptual background on labelling, and although no research was found on upcycling labelling specifically, related research on "green" products shows, that people are on average willing to pay more for eco-labels (Baksi & Bose, 2007), which indicate sustainability or environmentally friendly production processes among other characteristics. As the process of upcycling is friendly to the environment in its recycling of old materials, one could infer that upcycled products could also be sold at a premium.

The difficulty with eco-labels is that many companies use the suggested premium pricing strategy, although their products are in fact only minimally "green." Ultimately there exists a certain buyer-seller information asymmetry, since the consumer can never be sure of the degree to which a product qualifies as being environmentally friendly. Researchers reference the four categories of green advertising, which include "ambiguous," "omission," "false/lying" and "acceptable" (Purohit, 2012). Therefore, it is extremely important for the consumer to perceive the label of a green product as "acceptable" (justifiable, honest, demonstrating true sustainability) in order to ensure his/her willingness to pay a premium for a product.

These findings present a great opportunity for upcycled products, since their history is very explicit relative to other sustainable products. In example, the concept shop *auferstanden* almost always includes a picture of the old product and information on the materials used to create a new upcycled product. Such a presentation eliminates the information asymmetry, hopefully better convincing consumers of the "greenness" and therefore justifying a potential increase in price.

Upcycling vendors may continue to struggle as people remain unaware of the concept of "Upcycling", perhaps minimizing the above-mentioned effect. Pirohit also mentions the categories of diffusion of innovation as being extremely influential in the realm of eco-labels. Perhaps only innovators and early adopters are currently purchasing upcycled products, and until awareness of this new, exciting term

increases, the general population will be a less-profitable target group. In conclusion, labelling has a strong impact on consumers' attitudes towards products and willingness to pay.

3. Objectives

The objective of this study is to examine whether consumers' perceptions regarding the positioning and labeling of upcycled and reused products influences their attitudes towards the products. While the term "attitude" is often defined loosely and used to reference various areas of consumer behavior, we refer to cognitive, affective and behavioral components of the concept, specifically focusing on the following aspects:

- Perceived product quality
- Attitude towards design of the product
- Willingness to pay
- Purchase intention
- Psychological ownership
- Qualitative interpretation of products and their labels

The study will assess the impact of the labels Upcycling, Vintage, and Second Hand, as well as compare these labels with the results from a control group who views products without labels.

4. Methodology

The research design consisted of an online Unipark survey to directly reach a large number of qualified participants. Using both email and Facebook, participants were invited to complete a short questionnaire (see Appendix A) consisting of twenty questions related to products found in the *auferstanden* inventory. To incentivize participation in the survey, subjects could submit their email addresses to be part of a raffle for one of five "surprise gifts."

The test units were primarily non-students and entirely residents of Austria who speak German. It was important to avoid student participants so as to capture a more representative picture of consumer attitudes. Only residents of Austria (and mostly Vienna) qualified for participation in the study, focusing on the primary geographic region of both *sozial produziert* and *auferstanden*. Finally, the survey was conducted in German with the assumption that participants would best understand and be able to openly respond to questions in their native language (and/or the language of the country where they live, as is the case with many foreigners).

Participants were randomly assigned to four conditions of approximately 45 participants each. The four conditions (serving as the independent variable) were the following product labels:

- Upcycling
- Second Hand

- Vintage
- Control Group (No such product label)

This between-subject design allowed the comparison of the various conditions without the potential negative effects of learning/experience. Furthermore, a within-subject variation was used by including two different product categories for each sample group to try and eliminate product category as an influential variable.

The stimuli were pictures of an upcycled bag made of a hose and an upcycled lamp made of computer parts, which were named “Fire Hose” and “Hard Drive” respectively:

Exhibit 1

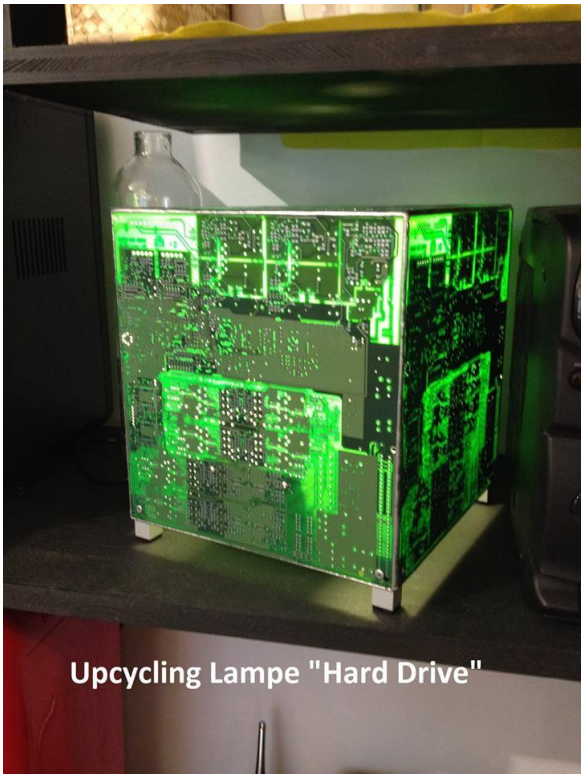


Exhibit 2

To strengthen the manipulation and be sure that the four conditions were effectively understood, the labels were reinforced through the survey, both on the picture (as shown above) and each time a question was asked:

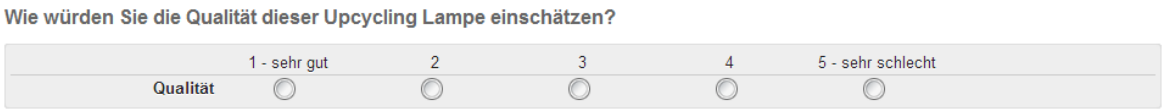


Exhibit 3

Gender-neutral products were intentionally selected to avoid the distortion of data by gender-specific preferences and instead obtain more realistic results from both genders.

Demographics and general perceptions of the given label were collected in addition to testing the main dependent variables. Demographics allowed the comparison of various groups within the sample population and ensure that participants were in fact qualified to participate (i.e.: do not live abroad). The gathering of qualitative data on the various labels gave participants the opportunity to explain their own personal associations with these terms. The study therefore controls for and makes comparisons based on the awareness and understanding (or lack thereof) of each label, without excluding participants who incorrectly identified the meaning of the label, since these consumers are equally eligible targets for upcycled products.

5. Results and Analysis

In the following chapter, the results of the analysis on the dependent variables are shown. The variables gender and age are included in our analysis, because interaction effects are assumed. In addition, the tested knowledge about the three different terms (Vintage, Second Hand and Upcycling) is included. The authors of this study made the assumption that females, younger people and people who know what the terms mean influence the dependent variables more positively than males, older people and people who do not know (exactly) what the terms mean.

5.1. Definition of Terms

In the survey design implemented, the respondents were asked to give an explanation of the terms Vintage, Second Hand or Upcycling, dependent on their group. The answers to these questions were grouped into three categories: 1) right, 2) half right/half wrong and 3) wrong/don't know. This categorized variable was used to identify any significant differences due to the knowledge about the labels. Results are shown in this chapter later on. Regarding the definition of Upcycling, surprisingly 57% gave a correct answer (see Appendix B: Interesting Data Points).

Exhibit 4 shows the knowledge about the labels of the respondents by group:

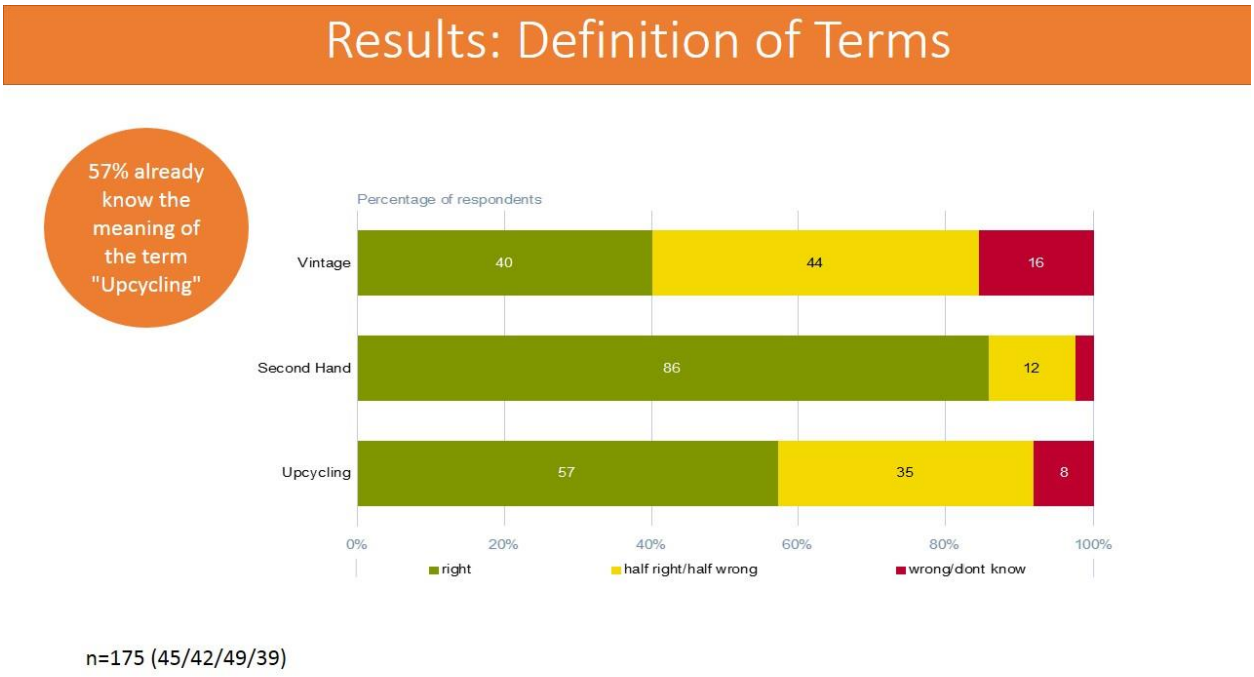


Exhibit 4

Please note that the assessment of definitions did not incorporate awareness perception, so the results do not reflect how certain participants were about the answers they gave.

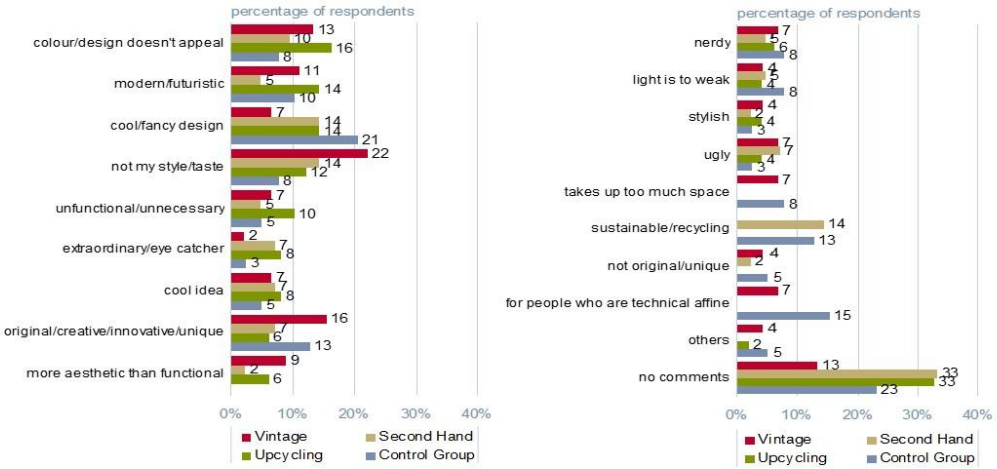
5.2. Qualitative Associations

Within the questionnaire, respondents were asked about their associations with the products (lamp and bag) for each manipulation condition (Vintage, Second Hand, Upcycling, Control Group). The answers were coded and illustrated in graphs. No significant differences were found between the groups for either product (ANOVA, $p \geq 0.05$).

Answers polarized for both products. On the one hand, many respondents claimed that the lamp was not their style, and on the other hand the lamp was described as original, creative, unique and innovative. With the bag, many people associated adjectives like useful, practical and robust. Interestingly in nearly every group the shown bag was often identified as a fake of the well-known FREITAG bag (see Appendix B: Interesting Data Points).

Exhibits 5 and 6 show the associations for both products by groups:

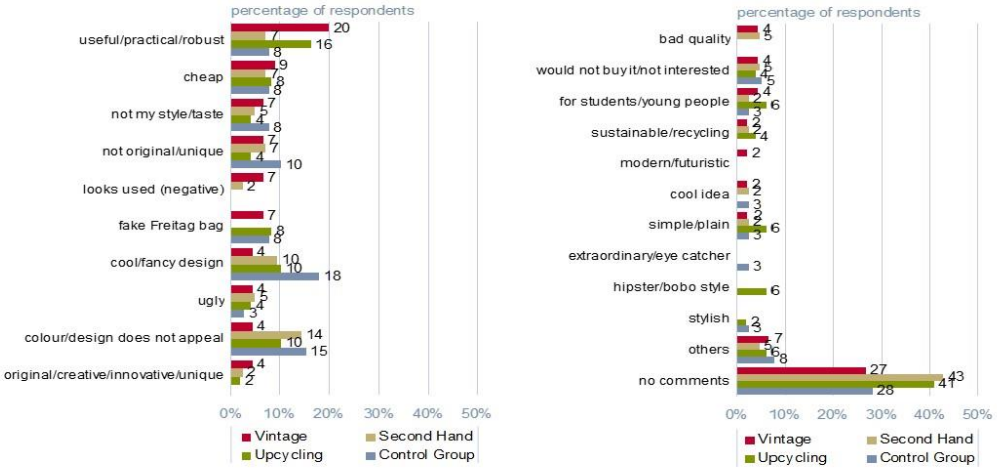
Results: Associations with Lamp



n=175 (45/42/49/39)

Exhibit 5

Results: Associations with Bag



n=175 (45/42/49/39)

Exhibit 6

5.3. Product Quality

Lamp:

In comparing the four different manipulation groups (Vintage, Second Hand, Upcycling and Control Group), no significant differences were found between groups for the lamp (ANOVA, $p \geq 0.05$). What is more, no significant results were found within the groups by gender, age or knowledge about the labels.

However, two two-way ANOVAs (IV: manipulation groups with age and manipulation groups with gender, respectively) were calculated to identify interaction effects. The analysis resulted in a significant disordinal interaction effect between the manipulation groups and age ($p < 0.05$), which can be seen in Exhibit 7:

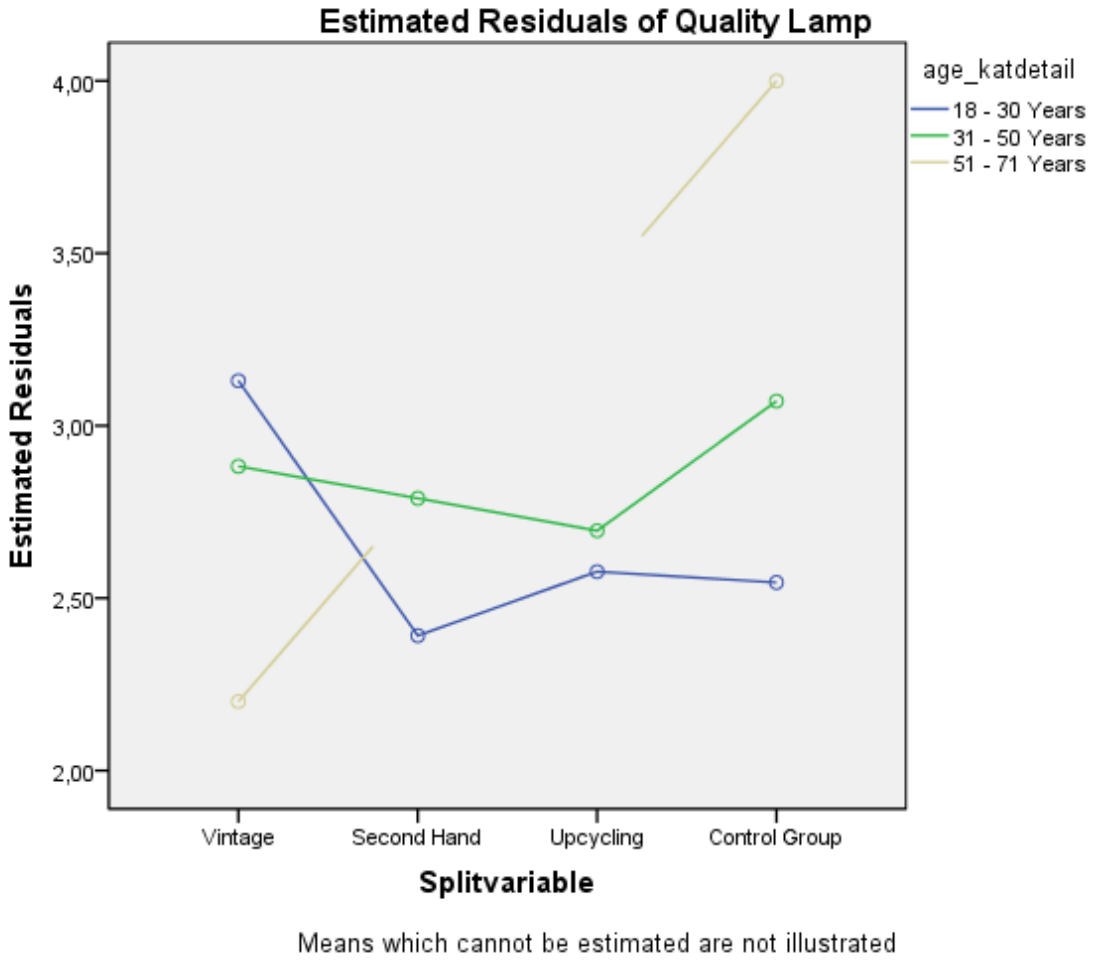
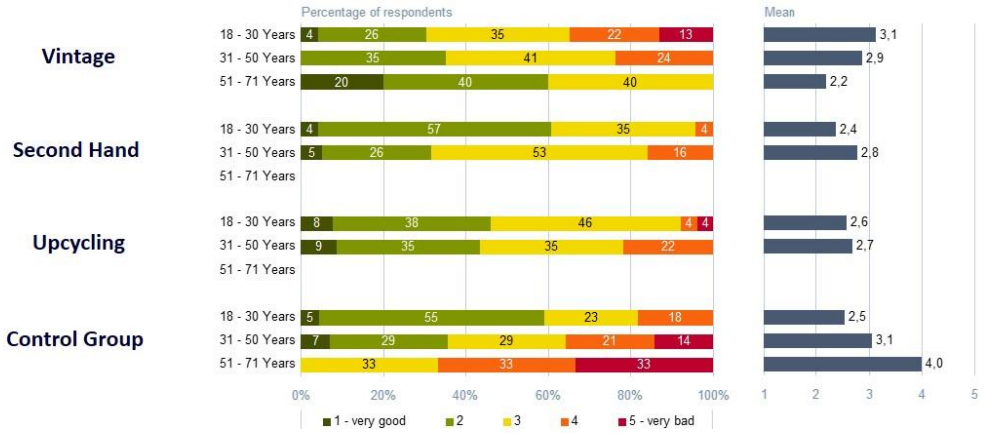


Exhibit 7

Exhibit 8 shows the distribution of means within the groups by age:

Results: Quality of Lamp by Age



n = 45 (23/17/5), 42 (23/19/0), 49 (26/23/0), 39 (22/14/3)

= significant difference (p<0,05)

Exhibit 8

Bag:

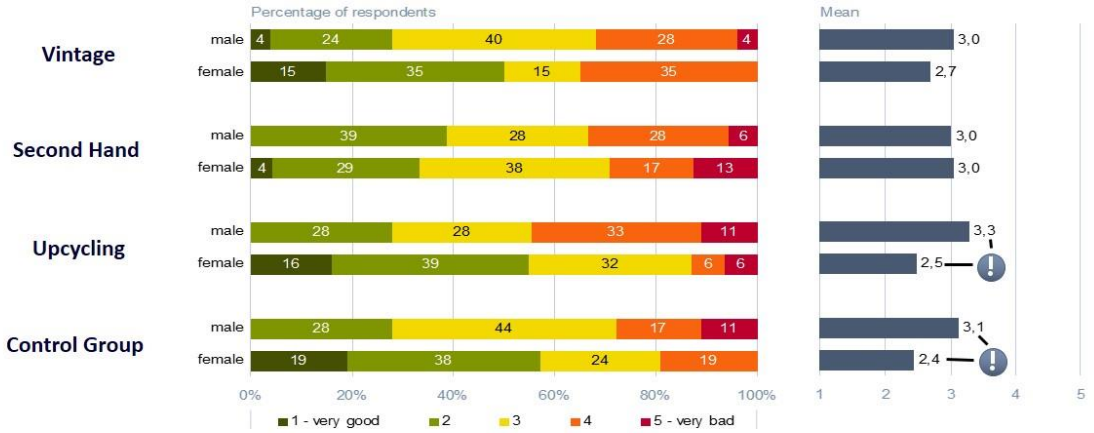
An ANOVA was conducted to compare results of the four different manipulation groups, but no significant differences were found for the bag ($p \geq 0.05$).

Within the groups, significant differences were found in means by gender and age, but not for knowledge about the labels. In the Upcycling Group and in the Control Group, females perceived the quality of the bag to be significantly higher than males did (T-Test, $p<0.05$). In addition, people of the age group 51-71 years perceived the quality to be significantly higher than people of the age group 31-50 years did (ANOVA, $p<0.05$).

However, no interaction effects were found on the dependent variable **Quality** (two two-way ANOVAs, IV: manipulation groups with age and manipulation groups with gender, respectively, $p \geq 0.05$).

Exhibits 9 and 10 show the significant differences within the groups by gender and age:

Results: Quality of Bag by Gender

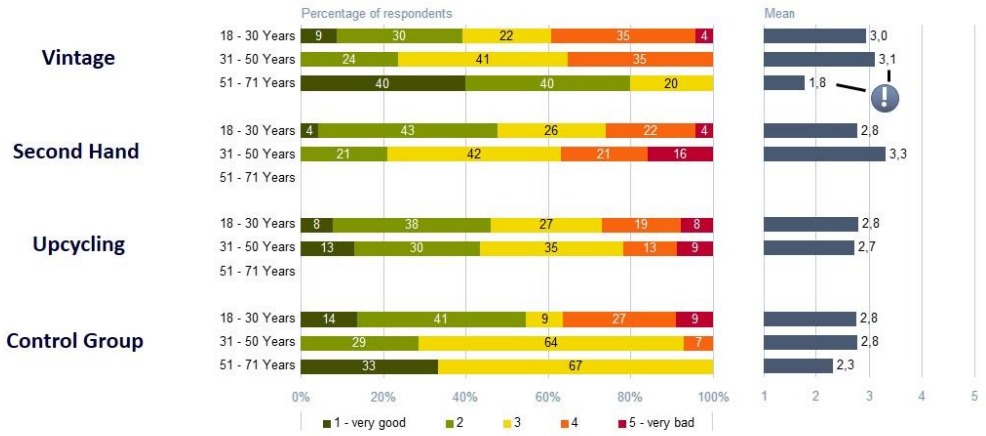


n = 45 (25/20), 42 (18/24), 49 (18/31), 39 (18/21)

= significant difference (p<0,05)

Exhibit 9

Results: Quality of Bag by Age



n = 45 (23/17/5), 42 (23/19/0), 49 (26/23/0), 39 (22/14/3)

= significant difference (p<0,05)

Exhibit 10

5.4. Product Design

Lamp:

Regarding **Design**, no significant differences were found between the four manipulation groups (ANOVA, $p \geq 0.05$).

What is more, no significant results were found within the groups by gender, age or knowledge about the labels, nor were there interaction effects on the dependent variable **Design** (two two-way ANOVAs, IV: manipulation groups with age and manipulation groups with gender, respectively, $p \geq 0.05$).

Bag:

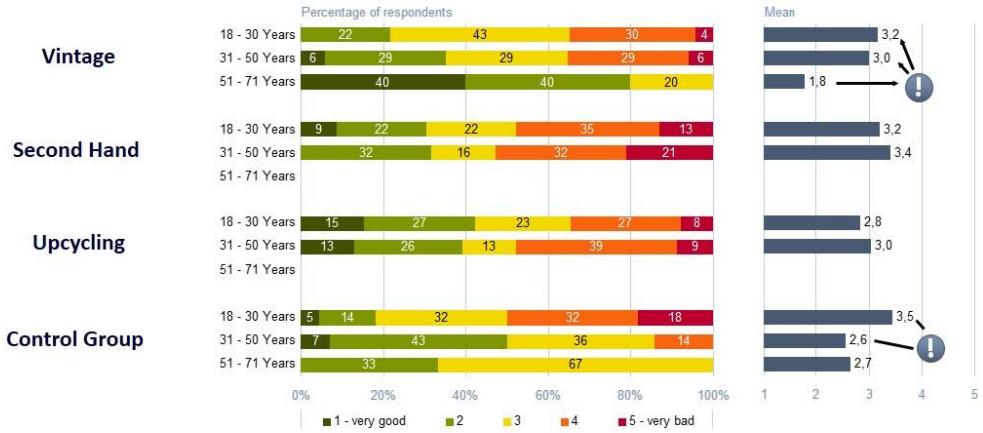
Between the four manipulation groups, no significant differences regarding design were found for the bag ($p \geq 0.05$).

What is more, no interaction effects were found on the dependent variable **Design** (two two-way ANOVAs, IV: manipulation groups with age and manipulation groups with gender, respectively, $p \geq 0.05$).

Although no significant results were found for gender within the groups, significant differences were discovered for age (ANOVA, $p < 0.05$) and knowledge about the labels (ANOVA, $p < 0.05$). People between 51 and 71 years evaluated the design of the Vintage bag significantly better than the other two age groups (18-30 years, 31-50 years). In addition, 31-50-year-olds evaluated the design of the Control Group bag significantly better than the 18-30-year-olds. The results of knowledge about the label in the Vintage condition showed that people who did not know exactly what Vintage means evaluated the design of the bag significantly better than those who did not know at all or gave a wrong answer.

The significant differences by age and knowledge about the labels are shown in Exhibits 11 and 12:

Results: Design of Bag by age

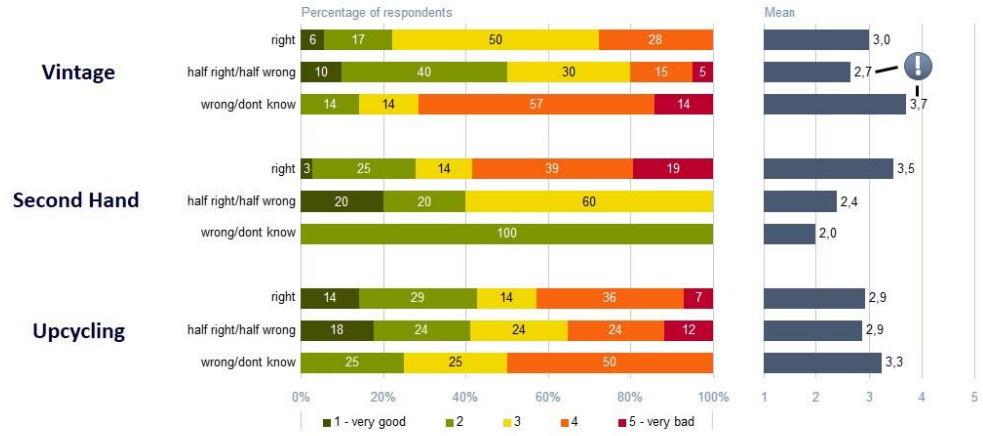


n = 45 (23/17/5), 42 (23/19/0), 49 (26/23/0), 39 (22/14/3)

= significant difference (p<0,05)

Exhibit 11

Results: Design of Bag by Knowledge



n = 45 (18/20/7), 42 (36/5/1), 49 (28/17/4)

Exhibit 12

5.5. Willingness to Pay (WTP)

Lamp:

Comparing the four different manipulation groups, no significant differences were found between the groups regarding **WTP** in the lamp condition (ANOVA, $p \geq 0.05$). What is more, no interaction effects were found on the dependent variable **WTP** (two two-way ANOVAs, IV: manipulation groups with age and manipulation groups with gender, respectively, $p \geq 0.05$), and no significant differences were found within the groups by knowledge about the labels.

However, significant differences were discovered within the groups by gender (T-Test, $p < 0.05$) and age (ANOVA, $p < 0.05$). In the Upcycling Group, females had a significantly higher **WTP** than males. Furthermore, 51-71-year-olds had a significantly higher **WTP** than 18-30-year-olds in the Vintage Group.

Exhibits 13 and 14 show the significant results by gender and age:

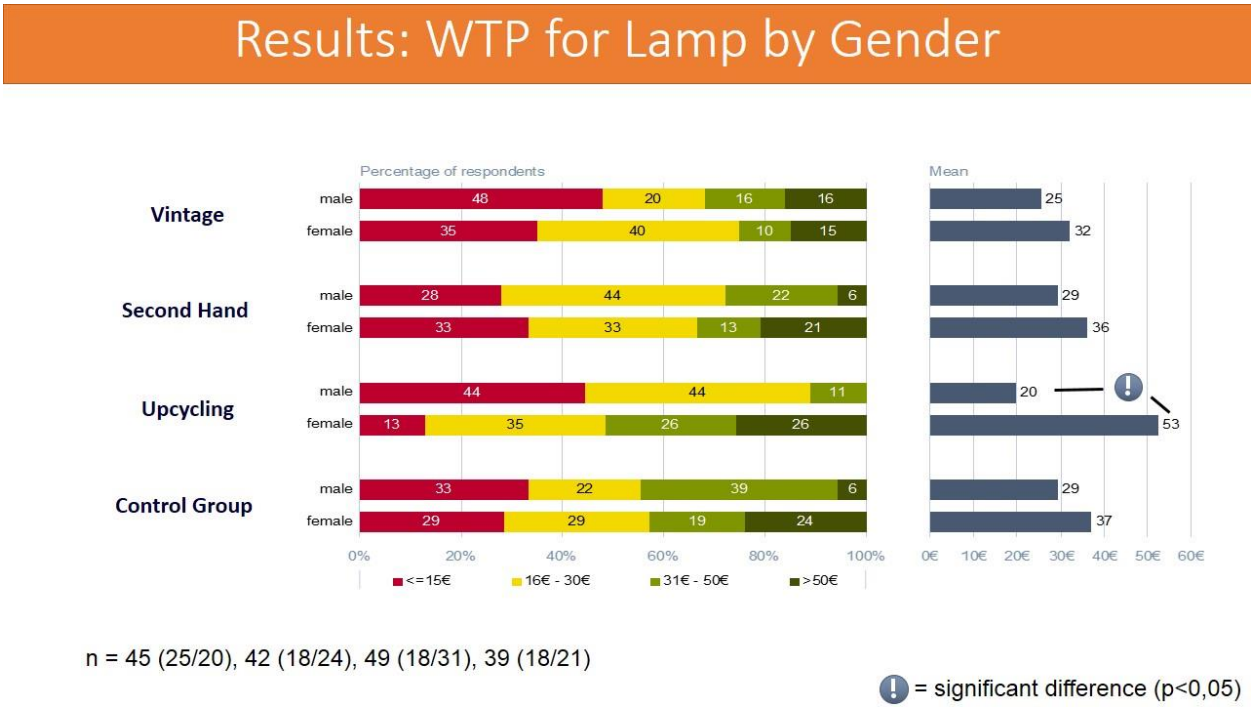


Exhibit 13

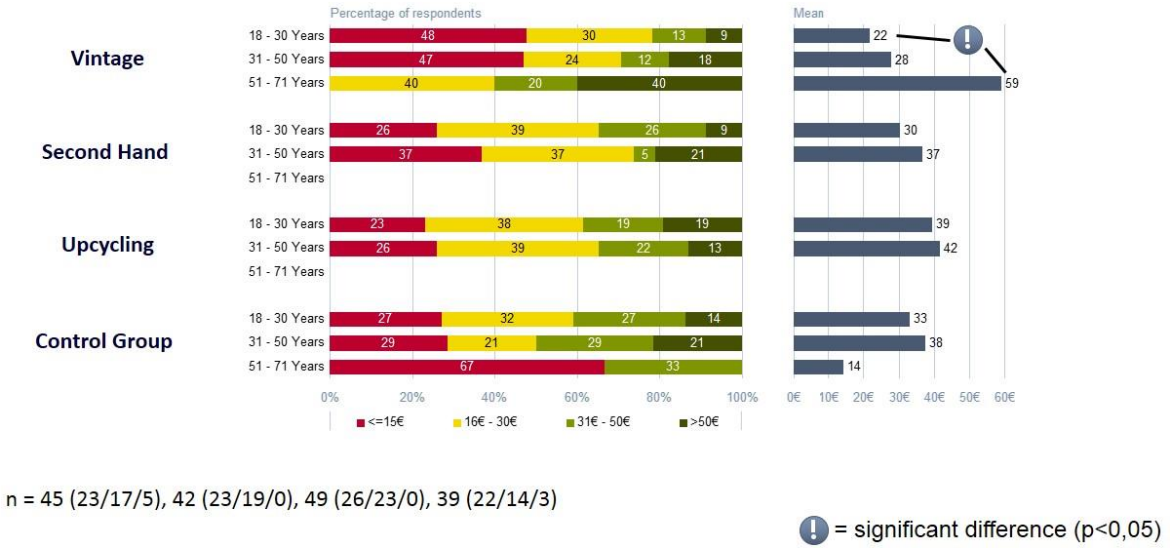


Exhibit 14

Bag:

Regarding **WTP** in the bag condition, significant differences occurred between the groups ($p<0.05$). Respondents in the Control Group had a significantly higher **WTP** than respondents in the Second Hand Group.

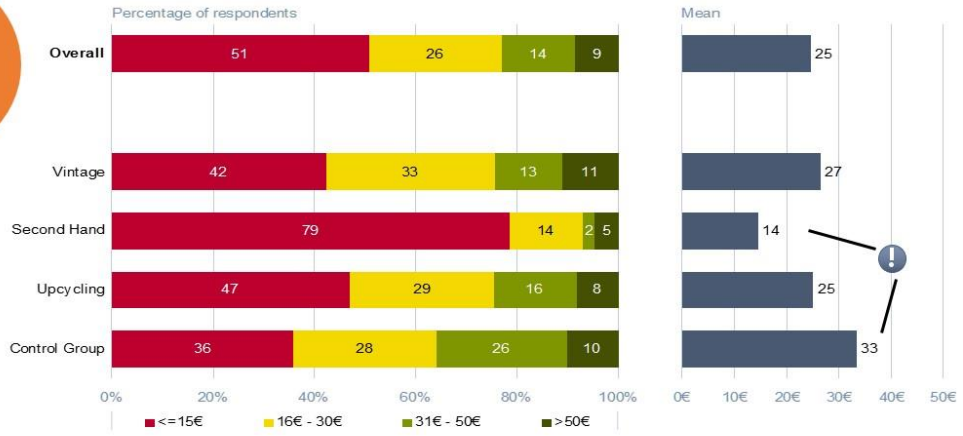
In addition, T-tests and an ANOVA revealed significant differences regarding gender and age. In the Upcycling Group, women had a higher **WTP** than men (T-Test, $p<0.05$) and in the Vintage Group, 51-71-year-olds had a significantly higher **WTP** (ANOVA, $p<0.05$) than the other two groups (18-30 years, 31-50 years).

However, no significant differences were found within the groups by knowledge about the labels, and no significant interactions effects were discovered (two two-way ANOVAs, IV: manipulation groups with age and manipulation groups with gender, respectively, $p\geq0.05$).

In Exhibits 15, 16 and 17, the significant differences between the groups and within the groups by gender and age are illustrated:

Results: WTP for Bag

Control Group has a significantly higher WTP than Second Hand

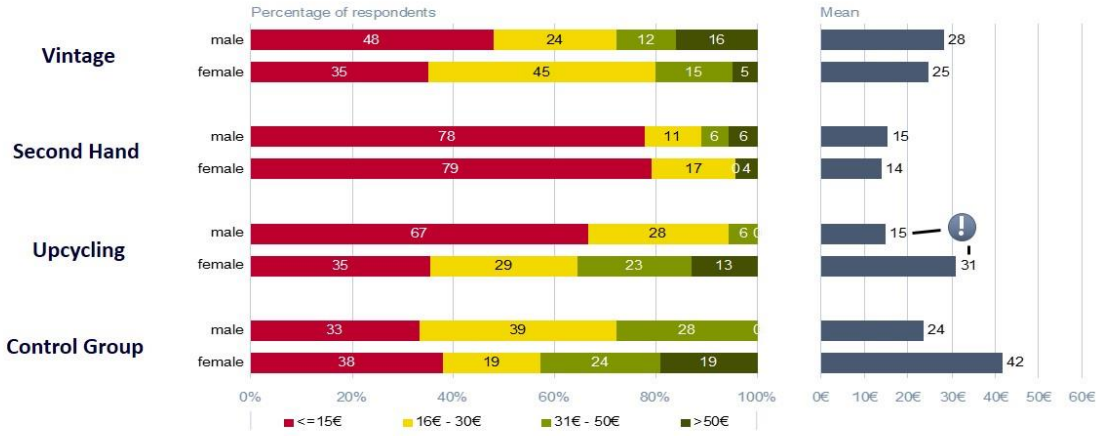


n=175 (45/42/49/39)

= significant difference (p<0,05)

Exhibit 15

Results: WTP for Bag by Gender



n = 45 (25/20), 42 (18/24), 49 (18/31), 39 (18/21)

= significant difference (p<0,05)

Exhibit 16

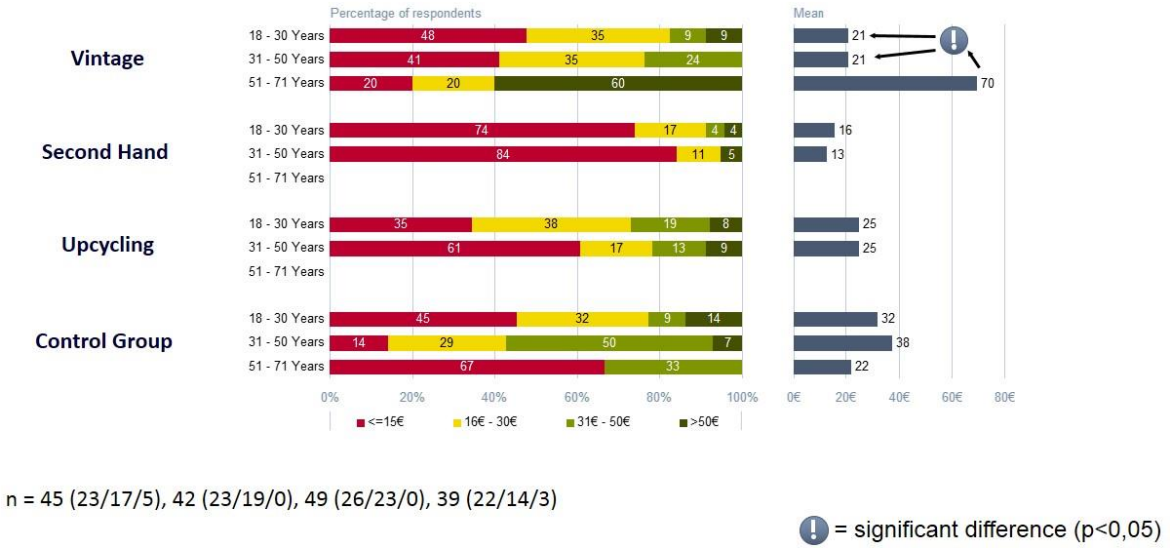


Exhibit 17

5.6. Purchase Intention

Lamp:

In the lamp condition, no significant differences were discovered between the manipulation groups regarding **Purchase Intention**. Furthermore, no significant differences were found within the groups by age and knowledge about the labels (ANOVA, $p \geq 0.05$).

Regarding the differences within the groups by gender, interesting significances were found. For the Upcycling bag, women had a significantly higher **Purchase Intention** than men (T-Test, $p<0.05$), but for the Second Hand bag, the results were vice versa (T-Test, $p<0.05$).

Furthermore, an analysis was run to determine if there were any interaction effects between the manipulation groups and gender or age. (two two-way ANOVAs, IV: manipulation groups with age and manipulation groups with gender, respectively). There was no significant interaction effect for age ($p \geq 0.05$), but a significant disordinal interaction effect was found for gender ($p<0.05$).

Exhibits 18 and 19 show the disordinal interaction effect by gender and the results for the manipulation groups by gender:

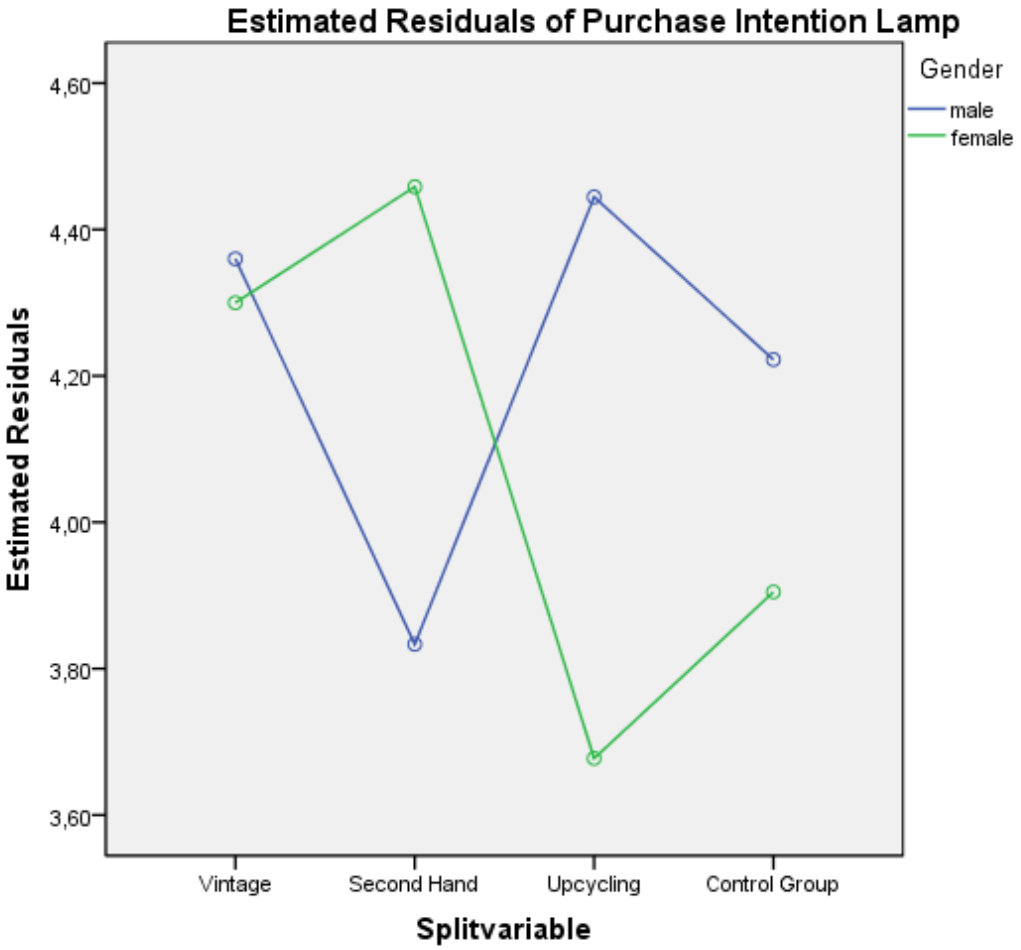

Estimated Residuals of Purchase Intention Lamp
Gender
male
female
Estimated Residuals
4,60
4,40
4,20
4,00
3,80
3,60
Vintage
Second Hand
Upcycling
Control Group
Splitvariable

Exhibit 18

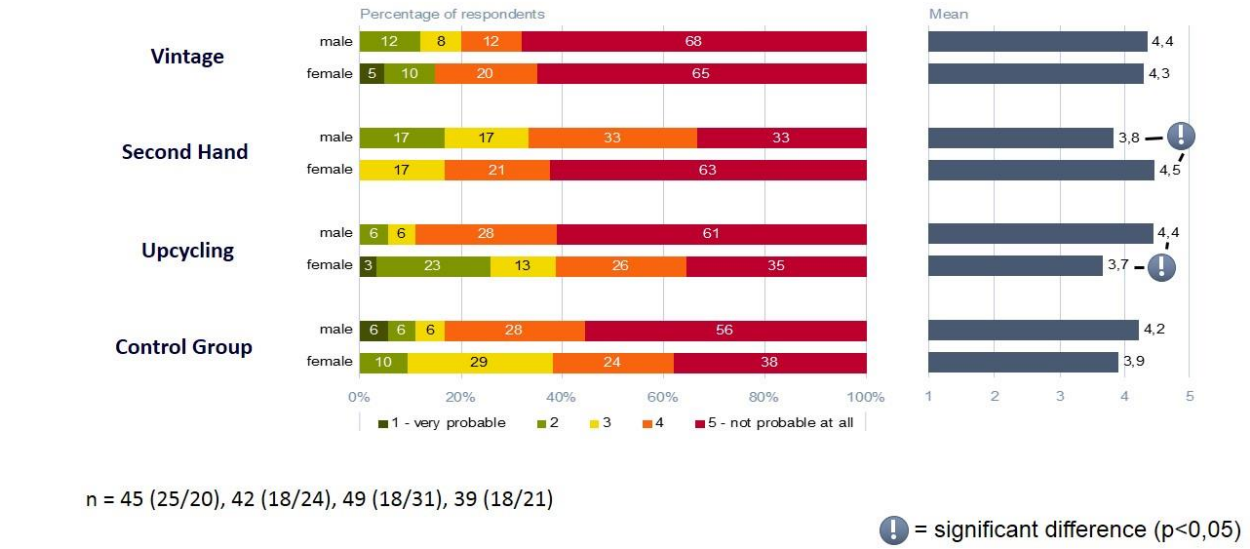


Exhibit 19

Bag:

In the bag condition, no significant differences between the groups and within the groups by age, gender and knowledge were found (ANOVA, T-Test, $p \geq 0.05$).

What is more, no significant interaction effects were discovered (two two-way ANOVAs, IV: manipulation groups and age respectively manipulation groups and gender, $p \geq 0.05$).

5.7. Product Differences

To analyze the within-subject component of the experiment, the results between the lamp and the bag conditions were compared for each of the four main dependent variables: Q**uality, Design, WTP** and **Purchase Intention**.

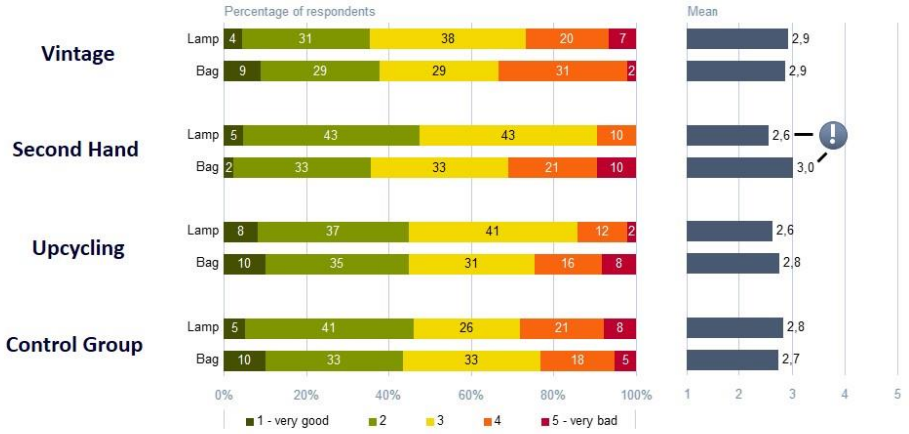
In the Vintage and Control Groups, no significant differences were found between the lamp and the bag condition.

However, in the Second Hand and Upcycling Groups, significant differences were discovered. In the Second Hand Group, the respondents evaluated the **Quality** and the **Design** of the lamp significantly better than those of the bag. In addition, the **WTP** was also significantly higher for the lamp than for the bag.

Furthermore, in the Upcycling Group, the respondents had a significantly higher **WTP** for the lamp than for the bag.

Exhibits 20-23 illustrate the differences between the two products:

Results: Quality of Lamp and Bag

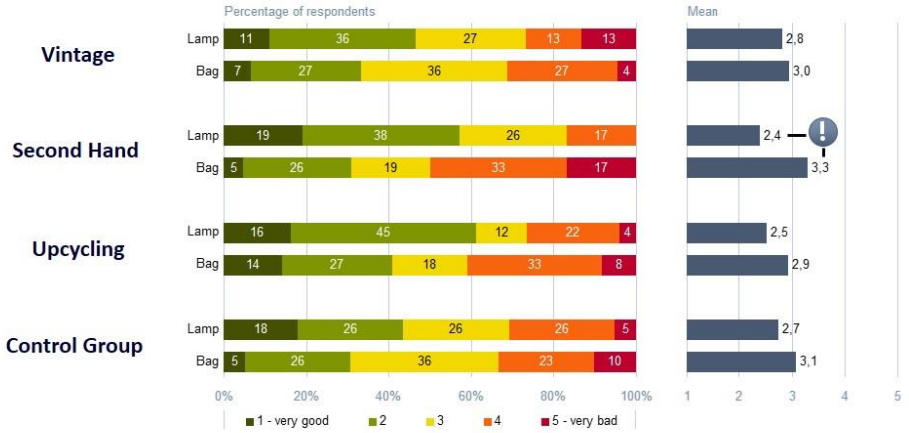


n = 45/42/49/39)

= significant difference (p<0,05)

Exhibit 20

Results: Design of Lamp and Bag

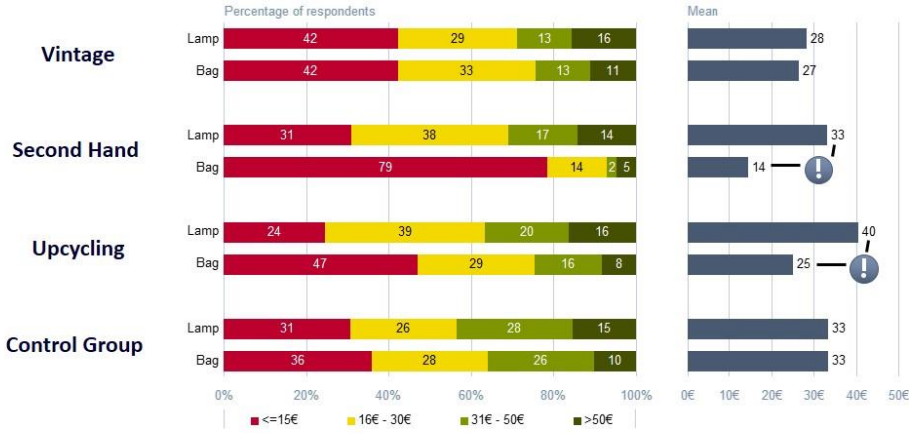


n = 45/42/49/39)

= significant difference (p<0,05)

Exhibit 21

Results: WTP for Lamp and Bag



n = 45/42/49/39)

= significant difference (p<0,05)

Exhibit 22

Results: Purchase Intention for Lamp and Bag

n = 45/42/49/39)

= significant difference (p<0,05)

Exhibit 23

5.8. Psychological Ownership

Within the questionnaire, the extent of **Psychological Ownership** was determined using the following four statements:

- Ich habe das Gefühl, diese Lampe/Tasche gehört MIR
- Ich empfinde diese Tasche eher als MEINE Lampe/Tasche und nicht nur als EINE Lampe/Tasche
- Mir kommt es so vor, als würde ich diese Lampe/Tasche besitzen.
- Diese Lampe/Tasche ist NICHT MEIN Eigentum.

For each product, a reliability check was run, which was positive in both cases. To compare the results between and within the groups, a mean variable was calculated over the four variables. Using ANOVAs to analyze differences, no significant differences were found between the manipulation groups or within the groups.

Exhibit 24 illustrates the results and leads to the conclusion that the measurement of **Psychological Ownership** did not work in this particular research design or that the level of **Psychological Ownership** is pretty low in this setting:

Exhibit 24

5.9. Influence of Product Quality and Design on WTP and Purchase Intention

In addition to the previous analyses, regressions were run to identify significant influences of the **Perceived Quality** and **Design** on **WTP** and **Purchase Intention** for each group and condition.

Vintage:

Due to the multicolinearity between the variables **Quality** and **Design** for both products, simple regressions were used to identify significant influences. For the lamp as well as for the bag, **Quality** and **Design** had a significant influence on **WTP** and **Purchase Intention**. The better **Quality** and **Design** were evaluated, the higher were **WTP** and **Purchase Intention**.

Second Hand:

In the lamp condition, **Quality** and **Design** did not correlate with each other. The calculation of a simple as well as a multiple regression revealed the same output, proving a significant influence of **Design** on **Purchase Intention** only. The better the evaluation of the **Design** of the bag was, the higher was **Purchase Intention**.

Regarding the results for the bag, mulitcolinearity between **Quality** and **Design** appeared again, excluding the possibility of a multiple regression. Simple regressions state significant influences of **Quality** and **Design** on **WTP** and **Purchase Intention**. The better **Quality** and **Design** of the Second Hand bag were evaluated, the higher were **WTP** and **Purchase Intention**.

Upcycling:

The presence of multicolinearity between **Quality** and **Design** for the lamp as well as for the bag condition did not allow the calculation of multiple regressions, and therefore simple regressions were calculated to predict the influences.

In the lamp condition, there was only a significant influence of **Quality** and **Design** on **Purchase Intention**, but not on **WTP**.

In contrast to the lamp condition, **Quality** and **Design** had a significant influence on **WTP** and **Purchase Intention** in the bag condition. The better **Quality** and **Design** of the Upcycling bag were evaluated, the higher were **WTP** and **Purchase Intention**.

Control Group:

The Control Group shows the same characteristics as the Vintage Group. The presence of multicolinearity led to the calculation of a simple regression, which proved significant influences of **Quality** and **Design** on **WTP** and **Purchase Intention**. The better **Quality** and **Design** were evaluated, the higher were **WTP** and **Purchase Intention**.

6. Key Findings & Interpretation

57% of the respondents already know what “Upcycling” means, but 43% still do not know exactly what the term means, leaving great opportunity for growth in awareness of the concept.

The polarizing associations with the bag as well as with the lamp show the different attitudes towards various upcycled products, but in general a positive attitude is observed. Even respondents who do not like the style of the products appreciate the idea behind upcycling.

In general, it can be presumed that the product pictures and the products itself influenced the response behavior more than the labelling, but the research design is not sufficient to prove this theory.

Concerning the differences between the manipulation groups, almost no significant differences were discovered for the four main dependent variables, except for **WTP** in the bag condition (Control Group higher than Second Hand), but not for the lamp condition. Therefore, no explicit statement can be made for **WTP**. These different results could be a side effect of the product response behavior mentioned above.

The most interesting findings can be found within the groups. Significance tests were calculated to identify differences by age, gender and knowledge about the labels. Although nearly no significant differences were found between people who know the terms and those who do not, significant and interesting differences by gender and age were found. In nearly every group where differences appear, females have a higher perceived **Quality** and **Design**, a higher **WTP** and higher **Purchase Intention**. There is only one opposing result for **Purchase Intention**, but in general the trend shows females as an appropriate target, since they might have a higher commitment to the general thought of upcycling and recycling, the protection of the environment and – last but not least – decoration and trendy accessories.

Furthermore, people between ages 51 and 71 seem to be more interested in the products, resulting in a better perceived **Quality** and **Design** and a higher **WTP** than the younger age groups. In this case, the small sample size of the age group “51-71 years old” and the possible outliers have to be highlighted, as they might otherwise lead to a misinterpretation of the data. To prove these assumptions, further research with higher sample sizes is recommended.

Comparing the results of the four main dependent variables between the lamp and the bag condition, the lamp has a higher perceived **Quality**, **Design** and **WTP** than the bag in the Second Hand Group and a higher **WTP** in the Upcycling Group. The results for the Second Hand Group are especially interesting, because it can be presumed that people have more doubts about Second Hand products which are worn on the body like a bag (hygienic factors) than on Second Hand products which are not worn on the body like a lamp.

Last but not least, the measurement of **Psychological Ownership** has to be mentioned. In this research design, significant results were found neither between nor within the groups. It can be presumed that the used statements were not as applicable for the applied online research design, where tangibility of the

products was lost, although even a slight variation in psychological ownership can have a tremendous effect on attitudes. No such correlation was found in this study.

7. Conclusion: Implications

In general the study proved that labels seem not to be so important to consumers since there were almost no significant differences between the groups with respect to the dependent variables. It can therefore be assumed that the product itself is more important than a simple label.

The first major implication of our study is to target women with labelled upcycling products rather than men. The results showed that females have a higher willingness to pay, a higher perceived quality of the product and a higher purchase intention than men in the Upcycling Group. A reason for this might be that females value the work that goes into a bag more than men do.

Another implication is that associations with Second Hand should generally be avoided according to the motto "better safe than sorry". The study showed that people rate a Second Hand product higher or better when it is not worn on the body and therefore not "consumed" on the body. The nature of the two products also differs in that a bag is often an extension of self, which makes consumers much more sensitive to its label. Further research is suggested to elaborate this implication, but when sellers are unsure whether to label a product Second Hand or not, it might be better to avoid it. It is better to avoid the positioning as "already used", whereas it is advisable to stress the sustainability, the designer and the innovative aspect of the products. This also impacts the potential for pricing of upcycled goods, as shown by the fact that **WTP** for the bag in the Control Group was significantly higher than in the Second Hand Group. From simple connotations one can already conclude that term Second Hand rather goes down (as naming a product used for the second time) and Upcycling goes up (something better is created), and consumers may feel that pricing should reflect this change in value.

Again, preliminary research stated the importance for the consumer to perceive the label of a green product as "acceptable" (justifiable/honest/demonstrating true sustainability) in order to ensure his/her willingness to pay a premium for a product and that consumers' involvement (positively) influences motivation to purchase. To win consumers' trust and to involve them more it is therefore essential to provide them with detailed information about the products (life cycle, materials, etc.). The products can be provided with tags explaining the history of the material or the staff of a store can inform potential customers.

The study revealed that 43% of the respondents do not know exactly what upcycling means. In order for consumers to perceive the label of an upcycled, "green" product as "acceptable", it is necessary to first educate them about the meaning of upcycling. As soon as consumers know what upcycling is and why it makes sense, they should be given qualitative information about the product and its label. The more transparent the information is, the more consumers will perceive the label of the product as "acceptable" and the more willing they will be to pay a premium.

The education of consumers as a first step can be tackled even with a limited budget. Content marketing plays an important role, as well as effective PR. A subtle hint to a company selling upcycled products in an article about the upcycling phenomenon can help a lot. Moreover, social media is an important tool to explain new trends. On a Facebook fan page, an upcycling vendor should clearly state what upcycling is and why it is important. With such a hot topic, a viral internet campaign might work too, with a short video that summarizes the advantages of upcycling.

Interestingly, several respondents from the Vintage/Second Hand/Control Groups who were asked to explain the labels mentioned something about recycling and using old materials to make a new product (see Appendix B: Interesting Data Points). That means that some respondents learned through the survey and photos of the products that e.g. Second Hand meant something that they perhaps did not think it meant before. The implication of this finding is that the seller of a product can define the label for the buyer to a certain extent and make him/her think it is used correctly. Some respondents, though, mentioned that with Second Hand the wrong label was used and the products were recycled rather than second hand. Therefore this implication cannot be generalized.

From a consumer's point of view it is necessary to understand that differently labelled products have different warranties. Strictly speaking, the warranty only applies to the original purchaser. In case of a second hand product a consumer has to consider these legal regulations and should read the general terms and conditions before the purchase. Consumers should also keep in mind that a used product might not be as safe as a new product.

8. Conclusion: Limitations

It is necessary to consider the limitations of the survey. Firstly, the results should be treated as relative data instead of absolute values, only in comparison and not as single measures. For example, the differing results in **WTP** for the two groups, the numbers do not show the actual for each group, but rather which group is willing to pay more. Furthermore, **WTP** and **Purchase Intention** as evaluated in such a survey are never a completely reliable tool for estimating consumers' real willingness to pay, since they would use anchoring to determine an appropriate price and their likelihood of buying.

Since the survey was conducted online with numerous random participants, we cannot make implications for the actual target group. In fact, there was no clear target group in our study, so it can be assumed that results are representing more general thoughts rather than particular insights of targeted consumers.

Another important point to mention is the significance of the products themselves, rather than just labels. The choice of the actual products for the survey design was tough, since more or less feminine or masculine options could have biased the outcome. Time constraints also limited the quality of photographs used, which may have influenced results as well. Since the survey participants saw a photo of the products they could have guessed (and often did) how the product was actually made. This means that some participants could perceive the label Vintage as a lie because it seemed "recycled", which obviously affected their perceptions and potentially also their answers.

Certainly an increase in scope would reveal stronger results; with a wider product range, more generalizations could be made about the labels themselves and with a larger sample size, tendencies shown here may become significant and relevant.

The last limitation of the study is the measurement of psychological ownership. It was challenging to measure the variable in an online survey. The tests did not show any significant differences between the groups. It was difficult for participants to evaluate the level of psychological ownership only with a photo at hand. In this case a face-to-face interview where respondents would be able to even touch the products could improve the results.

References

Baksi, Soham, and Pinaki Bose. "Credence Goods, Efficient Labelling Policies, and Regulatory Enforcement." *Environmental and Resource Economics* 37.2 (2007): 411-30. *ProQuest*. Web. 23 Jan. 2014.

Purohit, H. C. "Product Positioning And Consumer Attitude Towards Eco-Friendly Labeling and Advertisement." *Journal of Management Research* 12.3 (2012): 153-62. *ProQuest*. Web. 23 Jan. 2014.

"Upcycle." Def. 1. *Oxford Dictionaries*. Oxford University Press, Web. 24 Jan. 2014. <http://www.oxforddictionaries.com/definition/english/upcycle>.

Table of Exhibits

Appendices

Appendix A: Sample Questionnaire

A sample from the Upcycling questionnaire is shown below. The same questions were asked in the other three conditions with the terms Vintage, Second Hand, and (no label).

Vielen Dank, dass Sie sich bereit erklären an dieser kurzen Umfrage über **Upcycling Produkte** von Studenten der Wirtschaftsuniversität Wien teilzunehmen. Die Beantwortung der Fragen wird ca. 5 Minuten Ihrer Zeit in Anspruch nehmen. Ihre Daten werden selbstverständlich anonym behandelt und ausgewertet. Wir würden Sie bitten, während der Umfrage das Internet als Informationsquelle nicht zu benutzen. Unter allen Teilnehmern werden 5 Überraschungsgeschenke verlost.

Hier sehen Sie die **Upcycling** Lampe "Hard Drive".

Wie würden Sie die Qualität dieser Upcycling Lampe einschätzen?

	1 - sehr gut	2	3	4	5 - sehr schlecht
Qualität	○	○	○	○	○

Wie würden Sie das Design dieser Upcycling Lampe bewerten?

	1 - sehr gut	2	3	4	5 - sehr schlecht
Design	○	○	○	○	○

Wie viel wären Sie maximal bereit für diese Upcycling Lampe zu bezahlen?
Bitte geben Sie einen konkreten Preis und keine Preisspannen ein.

€

Wie wahrscheinlich ist es, dass Sie sich diese Upcycling Lampe kaufen würden?

	1 - sehr wahrscheinlich	2	3	4	5 - sehr unwahrscheinlich
Kaufwahrscheinlichkeit	○	○	○	○	○

In welchem Maße stimmen Sie den folgenden Aussagen zu?

	Ich stimme völlig zu.				Ich stimme überhaupt nicht zu.
Ich habe das Gefühl, diese Upcycling Lampe gehört MIR.	○	○	○	○	○
Ich empfinde diese Upcycling Lampe eher als MEINE Lampe und nicht nur als EINE Lampe.	○	○	○	○	○
Mir kommt es so vor, als würde ich diese Upcycling Lampe besitzen.	○	○	○	○	○
Diese Upcycling Lampe ist NICHT MEIN Eigentum.	○	○	○	○	○

Bitte beschreiben Sie mit ein paar Stichwörtern was Sie über diese Lampe denken.
(Optional)

Hier sehen Sie die **Upcycling** Tasche "Fire Hose".

Wie würden Sie die Qualität dieser Upcycling Tasche einschätzen?

	1 - sehr gut	2	3	4	5 - sehr schlecht
Qualität	◯	◯	◯	◯	◯

Wie würden Sie das Design dieser Upcycling Tasche bewerten?

	1 - sehr gut	2	3	4	5 - sehr schlecht
Design	◯	◯	◯	◯	◯

Wie viel wären Sie maximal bereit für diese Upcycling Tasche zu bezahlen?
Bitte geben Sie einen konkreten Preis und keine Preisspannen ein.

€

Wie wahrscheinlich ist es, dass Sie sich diese Upcycling Tasche kaufen würden?

	1 - sehr wahrscheinlich	2	3	4	5 - sehr unwahrscheinlich
Kaufwahrscheinlichkeit	◯	◯	◯	◯	◯

In welchem Maße stimmen Sie den folgenden Aussagen zu?

	Ich stimme völlig zu.				Ich stimme überhaupt nicht zu.
Ich habe das Gefühl, diese Upcycling Tasche gehört MIR.	○	○	○	○	○
Ich empfinde diese Upcycling Tasche eher als MEINE Tasche und nicht nur als EINE Tasche.	○	○	○	○	○
Mir kommt es so vor, als würde ich diese Upcycling Tasche besitzen.	○	○	○	○	○
Diese Upcycling Tasche ist NICHT MEIN Eigentum.	○	○	○	○	○

Bitte beschreiben Sie mit ein paar Stichwörtern was Sie über diese Tasche denken.
(Optional)

Bitte geben Sie an, was Sie unter dem Begriff "Upcycling" verstehen.

Bitte geben Sie Ihr Geschlecht an.

- männlich
- weiblich

Bitte geben Sie Ihr Alter an.

Jahre

Bitte geben Sie Ihr Nettoeinkommen pro Monat an.

0-499€

Bitte geben Sie Ihren Wohnort an.

Österreich

Wie würden Sie die Umgebung, in der Sie wohnen, einordnen?

Ländlich

Bitte geben Sie Ihren Beruf an.

Sonstiges

Bitte geben Sie Ihren höchsten Bildungsabschluss an.

Pflichtschule

Wenn Sie an dem Gewinnspiel mit 5 Überraschungsgeschenken teilnehmen möchten, geben Sie bitte Ihre Emailadresse an.

Vielen Dank für Ihre Teilnahme an unserer Umfrage!

Appendix B: Interesting Data Points

Definition Vintage
„Retro“
„etwas alt aber noch geil“
„Recycling“
„alt“
„gebraucht“
„Etwas aus einer anderen Zeit oder etwas das wiederverwendet wurde aber neu entwickelt oder imaginiert“

Definition Second Hand
„aus zweiter Hand, getragen vom Vorbesitzer, bei den hier vorgestellten Produkten geht es um Recycling und nicht um Second Hand, falscher Begriff“
„Artikel, die schon im Vorbesitz eines anderen waren und wieder verkauft werden - gebrauchte Waren“
„in erster linie: sachen aus zweiter hand (z.B. kleidungsstücke, die bereits von jemand anderem getragen wurden; möbel, die bereits jemand anderer verwendet hat) in dem kontext der gezeigten dinge bekommt aber der begriff second hand eine erweiterte bedeutung: nämlich aus früher anderwertig verwendeten dinge, neue produkte schaffen“
„Die gezeigten Dinge fallen in die Kategorie recycling, wiederverwertung, etc.“
„gebrauchtes, wieder verwertetes, recycling“

Definition Upcycling
„Analogie zu Recycling - abgenutzte Dinge neu verwerten und ein neues Produkt daraus herstellen, welches nichts mit dem ursprünglichen Verwendungszweck zu tun hat.“
„Klingt für mich nach einer Premiummarke für Fahrradprodukte. Kann aber auch daran liegen, dass ich leidenschaftlicher Radfahrer bin“
„recycling“
„raufradeln“
„Aufwertung von Recyclingstoffen durch Verarbeitung/Design“
„Upcycling ist Hersteller der Produkte, die fast exklusiv aus Recyclingmaterialien hergestellt sind. Das Wort Up zeigt, dass die Produkte sehr angesagt sind. Also Upcycling ist cool sowie auch umweltfreundlich.“
„positiver umweltgedanke“

Associations Vintage Lamp
„Für Technik-Nerds“
„modern“
„nicht mein Geschmack“

Associations Second Hand Lamp
„Für Matrixfans“
„ob second-hand oder nicht, ist in dem Fall unwichtig“

„up-recycling grundsätzlich gute idee“

Associations Upcycling Lamp
„Was ist eine Upcycling Lampe überhaupt?“
„Gute Idee“
„ein gutes gefühl etwas wiederverwertetes, kreatives zu besitzen.“

Associations Control Group Lamp
„schaut aus wie selber gebastelt“
„Recht originelle Idee im Sinne der Nachhaltigkeit.“
„Eine normale Lampe vom Ikea mit Platinen Design“
„Recycling-Produkt“
„Kreatives Design“

Associations Vintage Bag
„Flohmarkt“
„sieht aus als wäre sie aus recylebaren Materialien hergestellt“
„billig“
„wetterfest“

Associations Second Hand Bag
„Abnutzungserscheinungen”
„verarbeitung wirkt nicht besonders hochwertig“

Associations Upcycling Bag
„erinnert mich an FREITAG-Taschen“
„Was hat das ganze hier überhaupt mit Cycling zu tun?“
„robust“
„wiederverwertbar“
„Das Design sagt mir absolut nicht zu“
„Hipster Objekt“

Associations Control Group Bag
„Kopie der Freitag Taschen“
„schlichtes Design“
„unisex“

Appendix C: Raw Data

For raw data, please consult ".sav" extension attachment.

Appendix D: Complete Analysis of Data

For complete analysis of data, please consult ".pptx" extension attachment.