

How to create a Recycler of textiles?

The determinants on how to stimulate textile recycling motivation and behaviour

Abstract:

The Fast Fashion business strategy introduced lower prices, shorter life cycles and higher demand from the consumer for new fashion trends to the fashion market. Due to these changes, the amount of textile waste is growing. But although almost 100% of textiles is recyclable, still many consumers don't recycle them. This Study tried to provide an insight in the recycling textiles behaviour and motivation in relation to demographic variables and how to approach the consumer in the most effective way. For Study 1 (N=69), the Transtheoretical Model of Behaviour Change was used to evaluate the recycling behaviour of the participants in relation to the demographic variables: age, gender and education. For Study 2 (N=76), two types of information on recycling were randomised between the participants. Their motivation was evaluated afterwards, also in relation to the demographic variable gender. From the results it seems that women and older people tend to be further in the process to perform the desired recycling behaviour. No clear answer was found on how to approach the consumer in the best way to motivate them to recycle textiles. This could be investigated in further research where more kinds of information could be included in the Study.

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HOW TO CREATE A RECYCLER OF TEXTILES?	0
INTRODUCTION	2
RESEARCH QUESTIONS	3
2.1 CENTRAL RESEARCH QUESTION STUDY 1	3
2.1.1 Sub questions Study 1	3
2.2 CENTRAL RESEARCH QUESTION STUDY 2	3
2.2.1 Sub questions Study 2	3
LITERATURE	4
3.1 RECYCLING BEHAVIOUR	4
3.2 TRANSTHEORETICAL MODEL OF BEHAVIOUR CHANGE	6
3.3 AWARENESS AND IMPLEMENTATION INTENTIONS	7
3.4 MOTIVATION TO RECYCLE	8
3.5 CONCEPTUAL MODEL STUDY 1	10
3.6 CONCEPTUAL MODEL STUDY 2	11
METHOD STUDY 1	13
4.1 PARTICIPANTS	13
4.2 PROCEDURE	13
4.3 MEASUREMENTS	13
4.4 DATA ANALYSIS	14
RESULTS STUDY ONE	16
5.1 GENDER	16
5.2 AGE	17
5.3 EDUCATION	18
5.4 DISCUSSION	18
METHOD STUDY 2	20
6.1 PARTICIPANTS & DESIGN	20
6.2 PROCEDURE	20
6.3 MEASUREMENTS	20
6.3.1 The demographic variables	21
6.3.2 The manipulation	21
6.3.3 Motivational constructs	22
6.4 DATA ANALYSIS	23
RESULTS STUDY 2	24
DISCUSSION	26
8.1 DISCUSSION STUDY 1	26
8.2 DISCUSSION STUDY 2	27
CONCLUSION	31
REFERENCES	32
APPENDIX A: STUDY 1 QUESTIONNAIRE	37
APPENDIX B: STUDY 2 QUESTIONNAIRE	40

Introduction

In 2001, Madonna performed for three weeks in different countries in Europe. During her later performances, teenage girls in the crowd were wearing knock-off outfits similar to the outfit Madonna was wearing in her first show. So, between her first show and her later shows fast fashion brands copied Madonna's outfits, produced them and sold them in only a few weeks of time. This phenomenon is called fast fashion: a business strategy that shortens the production life-cycle of fashion and makes the newest trends available for the lowest prices (Barnes and Lea-Greenwood, 2010; Cachon and Swinney, 2011; Joung, 2014).

The fast fashion industry is booming. Inditex (the parent company of brands like Zara, Pull&Bear, Massimo Dutti and more) sales rose with 15.4% and made a profit of 2.88 billion euros in 2015 ("Financial results - inditex.com", 2016). But, while fast fashion brands are growing, so is the amount of textile waste. The clothes bought by people are worn for a shorter period of time, due to low quality of the clothes, the need to stay up to date with new fashion trends or because the clothes were only bought for a one-time event (Birtwistle and Moore, 2007; Morgan and Birtwistle, 2009; Joung, 2014). In 2013 the waste of textiles in Europe was 5.8 million tonnes and only 25% of the 5.8 million tonnes was recycled; the other 75% percent was going to landfill or incineration ("Aluminium, cotton and lithium needlessly wasted - new report", 2013). Although almost 100% of textiles are suited to be recycled, still many consumers don't recycle them (Joung, 2014). So, the fast fashion industry is growing, the waste of textiles is growing, but the recycling behaviour of the consumer is not growing proportional to the industry and the waste. This lack of growth will create a problem in the long-term for the environment and therefore for the consumer himself.

So, the recycling behaviour of the consumer needs to be addressed in order to decrease the waste of textiles. There are many variables that influence recycling behaviour. In the literature several demographic variables were pointed out as influencers for people's recycling behaviour (Akil, Foziah, & Ho, 2015; Singhirunnusorn, Donlakorn, & Kaewhanin, 2012; Owens, Dickerson, & Macintosh, 2000). Often is referred to the demographic variables: gender, age and education. In literature, there are many ambiguous findings on which demographic factor is most determining in people's recycling behaviour.

This Study is divided into two studies. The first Study aims to investigate which is the most determining demographic factor of people's textile recycling behaviour when looking at the demographic variables gender, age and education. The second Study examines how the consumer can be motivated to reuse and recycle their clothes in relation to the demographic variable gender. Two kinds of information will be used to investigate the motivation: (a) raising the awareness of the consumer by providing more information about the environmental need to reuse and recycle their clothes, and (b) providing information on when, where and how to recycle textiles in order to stimulate the individual to implement recycling behaviour into their life. The information this research will provide can play an important role in addressing the issue of textile recycling in practice. Fast fashion brands and the government can use this information on recycling motivation and behaviour in order to approach the consumer in the right way so they will perform the desired recycling behaviour.

Research questions

2.1 Central research question Study 1

What is the most determining demographic factor of people's textile recycling behaviour?

2.1.1 Sub questions Study 1

How does age affect people's textile recycling behaviour?

How does gender affect people's textile recycling behaviour?

How does education affect people's textile recycling behaviour?

2.2 Central research question Study 2

What is the most effective way of communicating information to consumers in order to motivate them to recycle textiles?

2.2.1 Sub questions Study 2

What is the effect of awareness information on the motivation of the consumer?

What is the effect of implementation intention information on the motivation of the consumer?

What is the effect of awareness information or implementation intention information on the motivation of the consumer in relation to gender?

Literature

3.1 Recycling behaviour

The first form of textile recycling is originated in the West Riding of Yorkshire around 200 years ago. In that time, the “rag and bone” men collected rags, metal and other household articles at every door in town. From the 1970’s, the concern on environmental and ethical issues started to rise and during the 1980’s and 1990’s, these concerns gained acceptance within society (Birtwistle & Moore, 2007). According to the Oxford dictionary, the term recycling means “to convert waste into reusable material” nowadays. Today there are a lot more options to recycle textiles than 200 years ago. The first option is to reuse textiles by giving, for example, your old clothes to a thrift shop or by selling them on, for example, United Wardrobe. The second option is to repurpose textiles. This includes the trend to use old clothes to make new clothes and wear them again. The third option is to recycle textiles. This term is very broad, but an example is that the clothes thrift shops can’t sell will be cut in rags and used as industrial wipers by industrial companies (Bennett, 2016). Recycling options that are available are not the only important part of the recycling process. Also, the consumer needs to be willing to integrate recycling in their behaviour pattern.

The recycling behaviour of the consumer is influenced by many different factors. According to Hornik, Cherian, Madansky, and Narayana (1995), those factors can be classified in four different categories. The first category are extrinsic incentives, this are incentives that are stimulated from the outside world such as economic rewards and social influence. The second category are intrinsic incentives, this relates to an individual’s intrinsic motivation to recycle. Examples are the satisfaction someone gets from doing good for the community and satisfaction from avoiding waste. The third category are internal facilitators. These are cognitive variables that permit an individual to recycle, like awareness and knowledge about recycling options. The fourth category are external facilitators. These are personal resources an individual has to spend in order to perform recycling behaviour. Those resources could, for example, be time, money and effort that is needed to prepare. Besides those categories, recycling behaviour can also be influenced by other variables such as demographic variables (Akil, Foziah, & Ho, 2015; Singhirunnusorn, Donlakorn, & Kaewhanin, 2012). Multiple studies reported mixed findings on the relationship between demographic variables and recycling behaviour (Singhirunnusorn, Donlakorn, & Kaewhanin, 2012; Saphores, 2006). The most frequently researched demographic variables are gender, age and education. Below the findings on the demographic variables gender age and education in relation to recycling behaviour will be discussed. Due to the

lack of literature on specific textile recycling behaviour, the following findings are based on general recycling behaviour. That is to say, the findings are not build on specific textile recycling behaviour, but on all kinds of recycling behaviour that are being interpreted as general recycling behaviour.

The findings about gender seem to be very inconsistent with each other. Schultz, Oskamp, & Mainieri (1995) report that in five studies there was an unanimous finding of no significant relationship between gender and recycling behaviour. So, men and women were equally likely to recycle in this study. Likewise, Singhirunnusorn, Donlakorn, & Kaewhanin (2012) showed in their study that gender did not demonstrate significant differences in recycling behaviour. But contrary to these findings, Pakpour, Zeidi, Emamjomeh, Asefzadeh, & Pearson (2014) report that gender is a significant predictor of waste behaviours. According to their findings, men tended to recycle more than women. Also, the study of Schahn and Holzer (1990) suggests that there is higher participation in recycling activities among women than among men, which shows that gender can be a predictor of recycling behaviour.

The demographic variable age has also shown mixed results. Werner & Makela (1998) found that the demographic variable age produced no significant association in relation to the attitude towards recycling and recycling behaviour itself. But the study of Margai (1997) showed that age was an important predictor of the waste reduction behaviour of the residents in East Harlem, New York, following a public outreach program. Also, Vining & Ebreo (1990) investigated what topics distinguishes recyclers from non-recyclers. They found, among other topics, that recyclers differed from non-recyclers in age. Recyclers seemed to be somewhat older than non-recyclers. Likewise, Saphores (2006) reports that age makes a difference in the willingness to recycle e-waste. In this study was found that people between 36 and 65 were more likely to recycle e-waste than people who are younger than 36 and older than 65.

The third demographic variable is education. Werner and Makela (1998) reported that there is no significant relation between education and recycling behaviour. But according to Owens, Dickerson, & Macintosh (2000), a higher level of education contributed to recycling behaviour. Saphores et al. (2006) report that education is one of the key factors that demonstrates the willingness of the public to drop off e-waste at recycling places. They found that people with no college education were less likely to recycle. So, for the third demographic variable ambiguous findings were found as well.

Regardless of all these ambiguous findings, demographic variables remain an effective segmentation tool to determine the characteristics of recyclers and non-recyclers (Akil, Foziah, & Ho, 2015). The use of demographic variables to evaluate a sample is convenient, because information on demographic factors tend to be more commonly accessible (Grazhdani, 2016). Also, when compared to other segmentation tools, demographic variables are segmentation tools that lend themselves for many different problems and therefore is easy to use (Diamantopoulos, Schlegelmilch, Sinkovics & Bohlen, 2003).

3.2 Transtheoretical Model of Behaviour Change

Previous literature shows that recycling behaviour is influenced by many different factors. But it's also important to understand how recycling behaviour itself is constructed and which is the course of change that individuals have to undergo in order to show optimal recycling behaviour. When you want to change the behaviour of an individual, then this behaviour has to go through different stages of change before it is actually changed. The Transtheoretical Model of Behaviour Change, which shows these stages, was originally developed by Prochaska and DiClemente (1983). According to Prochaska (2008), it includes six different stages of behavioural change.

The first stage is known as the precontemplation stage. In this stage, people do not try to change their behaviour and tend to be unaware of the problem that their behaviour is causing. In the case of recycling behaviour, this could mean that an individual is not aware of the problem.

The second stage is the contemplation stage. The individual is now aware of the problem and is considering to overcome the problem. The individual has not taken any action to fulfil this, but intends to do this within the next six months. In the case of recycling behaviour, the individual tends to be aware of the problem and thinks about recycling in the future.

The third stage is the preparation stage. Here, the individual will take action in the immediate future and the individual has made a plan of action. In the case of recycling behaviour, this could mean that the individual has collected the recycling material at home, but did not bring it to the recycling bin yet.

The fourth stage is the action stage. In this stage, the individual has made a specific change in his behaviour. In the case of recycling behaviour this means that the individual has recycled the material he wanted to recycle.

The fifth stage is the maintenance stage. Here, the individual tries to maintain the changed behaviour and will try to avoid a relapse to previous behaviour. In the case of recycling it could mean that the individual has recycled multiple times and tries not to relapse into his old behaviour.

Finally the sixth stage is the termination stage. Here the individual's behaviour is 100 percent self-sufficient. In the case of recycling behaviour this could mean that the individual now would never relapse to his old behaviour of not recycling. But this stage is very difficult to reach, so many people remain in fifth stage their whole life ("Theories of Behaviour Change", 2016).

There are also other variations of the Transtheoretical Model of Behaviour Change. In the research of Lerdal et al. (2009), two pre-contemplation stages were included: the precontemplation stage with non-believers and the precontemplation stage with believers. The termination stage was excluded as, like mentioned before, it is unlikely that many people reach this stage of behaviour. This variation of the Transtheoretical Model of Behaviour Change is called the URICA-E2.

In the literature there is no record found of a study that used the Transtheoretical Model of Behaviour Change in relation to recycling. In many studies the Transtheoretical Model of Behaviour Change has been used in relationship to behaviour that is unhealthy or to promote behaviour that is healthy. For example, the Transtheoretical Model of Behaviour Change has been used in relation to a dietary program made to treat obesity among Mexican American women (Surís, del Carmen Trapp, Diclemente, & Cousins, 1998) and to test the effects of an exercise programme for older adults (Yang et al., 2015).

The literature sections "Recycling behaviour" and "Transtheoretical Model of Behaviour Change" are exploratory research for the central question and the sub questions of Study 1. Due to the ambiguous findings, no hypotheses can be formulated for those questions. The outcome of Study 1 should give a clear result of how age, gender and education affect people's textile recycling behaviour and which of those three demographic variables are most determining.

3.3 Awareness and Implementation intentions

For the second Study, the third category internal facilitators from the study of Hornik, Cherian, Madansky, and Narayana (1995) will be investigated, particularly the subject awareness and the subject knowledge on recycling options. Those subjects were pointed out as two subjects that cause non-recycling behaviour.

The first subject is the awareness of the environmental need to recycle and reuse textiles. Awareness means that an individual knows and realizes the existence of a situation or subject. When an individual is not aware of a situation or subject, this can be influenced by giving the individual information about the subject or situation. Results of Miafodzyeva, Brandt, & Olsson (2010) show that in the region of

Minsk, Belarus, a large number of individuals have no strong awareness about recycling which influences their behaviour. Several studies suggested that the non-awareness on the environmental problems that are created by not recycling textiles, is caused due to the lack of media attention given by fast fashion retailers, government and other media (Bianchi & Birtwistle, 2011; Morgan & Birtwistle, 2009).

The second subject that was pointed out for causing non-recycling behaviour is the lack of knowledge people have on recycling options. Research showed that even though people were interested in the environment, they did not know the different options on how to recycle textiles (Joung, 2014). This problem can be addressed by creating implementation intentions. Implementation intentions are an approach that translate intentions into action. When a critical situation appears ('if'), the appropriate behavioural response ('then') is formulated in advance, to stimulate the desired kind of behaviour (Armitage, 2007). The implementation theory does not change the motivation phase of the individual where he decides to act, but it influences the volitional phase where an individual plans on how to make a decision become reality (Gollwitzer, 1993; Gollwitzer, 1999). The knowledge on recycling options can stimulate individuals to live up to the intention of recycling textiles and so make the decision become reality.

When looking at those two subjects in relation to gender, different information could be more effective for different gender groups. According to Oztekin et al. (2017), women have demonstrated to be more pro-environmental in comparison to men in private circumstances. In order to develop pro-environmental behaviour, environmental knowledge is required that can form positive attitudes and values towards environmental protection (Izagirre-Olaizola, Fernández-Sainz and Vicente-Molina, 2014). The information on the environmental need to recycle and reuse textiles could be useful for men in order to develop positive attitudes and values which can lead into the desired recycling behaviour.

For women who are more pro-environmental in private circumstances, the intentions are a complication as women intend to not carry out their intentions in relation to recycling behaviour (Oztekin et al., 2017). Therefore, the information on recycling options could stimulate women to carry out their intention and perform the desired recycling behaviour.

3.4 Motivation to recycle

According to Chen (2012), psychologists consider the strength of behaviour associated with the concept of motivation. Suggested is that motivation is used to indicate an individual's persistence of

a certain type of behaviour. So, when an individual is not performing the desired behaviour such as recycling textiles, it can indicate a low level of motivation. Although the result of not recycling textiles is the same, the cause can be different and the different causes need different interventions. According to Vining, Linn & Burdge (1992), two factors may affect the motivation for recycling behaviour. The first factor is the solid waste management stage of the community. The influence of this factor depends on public perception that is created by the government through, for example, campaigns to raise awareness. It is also influenced by the recycling opportunities that are available to the community. This information suggests that the motivation to recycle textiles of an individual is influenced by the awareness perception and recycling options that are available. These factors correspond to the findings that influence recycling behaviour, namely knowledge on the environmental need to recycle and knowledge on the recycling options. Thus, these factors might also influence the motivation of the individual to recycle.

The second factor that influences the motivation of recycling behaviour are demographic variables through various mechanisms. The influence of demographic variables on recycling behaviour have been discussed in the first section of the literature.

The construct motivation consists of many different factors. For this Study, three constructs were chosen to determine people's motivation. The three constructs are: intention, self-efficacy and knowledge. They should be able to evaluate people's motivation to recycle textiles. For this research, only these constructs were chosen, to make the Study more clarifying and because these constructs match the subjects awareness and the implementation intentions very well. The following constructs are explained further below: intention, self-efficacy and knowledge.

Intention An intention is an immediate determinant of behaviour that captures the motivational factors of behaviour. When an appropriate measure of intention is obtained, it will provide the most accurate prediction of behaviour. Intentions are positively related to behaviour, the stronger the intention the more predictable it is that the behaviour will be performed (Ajzen and Fishbein,1980 ; Ajzen, 1991)

Self-efficacy One aspect of motivation is the perceived competence or efficacy that people receive when they are performing a certain behaviour, also known as self-efficacy (Werner & Makela, 1998). The model in the study of Tabernero and Hernandez (2010) suggests that self-efficacy relates to

recycling directly. Taberero et al. (2015) reports the importance of developing self-efficacy within the population, as it affects the motivation on recycling behaviour.

Knowledge In research of Wright (2011), a significant correlation was found between knowledge and recycling behaviour. This correlation showed that knowledge on recycling is an effective indicator on the likelihood of an individual's recycling behaviour. Gamba & Oskamp (1994) found in their research on factors that influence participation in recycling programs, that knowledge was the most significant predictor of realized recycling behaviour among the participants. Also, the results of Vining & Ebreo (1990) suggest that one of the things that sets a recycler apart from a non-recycler is the knowledge they have on recycling options, locations and materials.

From the findings in the literature, the following hypothesis can be composed for the sub questions of Study 2:

H2.1: The effect of awareness information on the motivation of the consumer is that the consumer has a higher score on the knowledge construct than on the intention and self-efficacy constructs that influences their motivation.

H2.2: The effect of implementation intentions information on the motivation of the consumer is that the consumer has a higher score on the intention construct than on the self-efficacy and knowledge constructs that influences their motivation.

H2.3.1: Men who saw the awareness information manipulation will have a higher score on the motivational construct knowledge in comparison with women who saw the same manipulation.

H2.3.2: Women who saw the implementation intention information manipulation will have a higher score on the motivational construct intention in comparison with men who saw the same manipulation.

3.5 Conceptual model Study 1

Study 1 wants to investigate which demographic factor (gender, age or education) is most determining for the recycling behaviour of people. The recycling behaviour will be determined with the stages of Transtheoretical Model of Behaviour Change. The dependent variable of this research are the stages

of the Transtheoretical Model of Behaviour Change and the independent variables are the demographic variables: age, gender and education (See Figure 1).

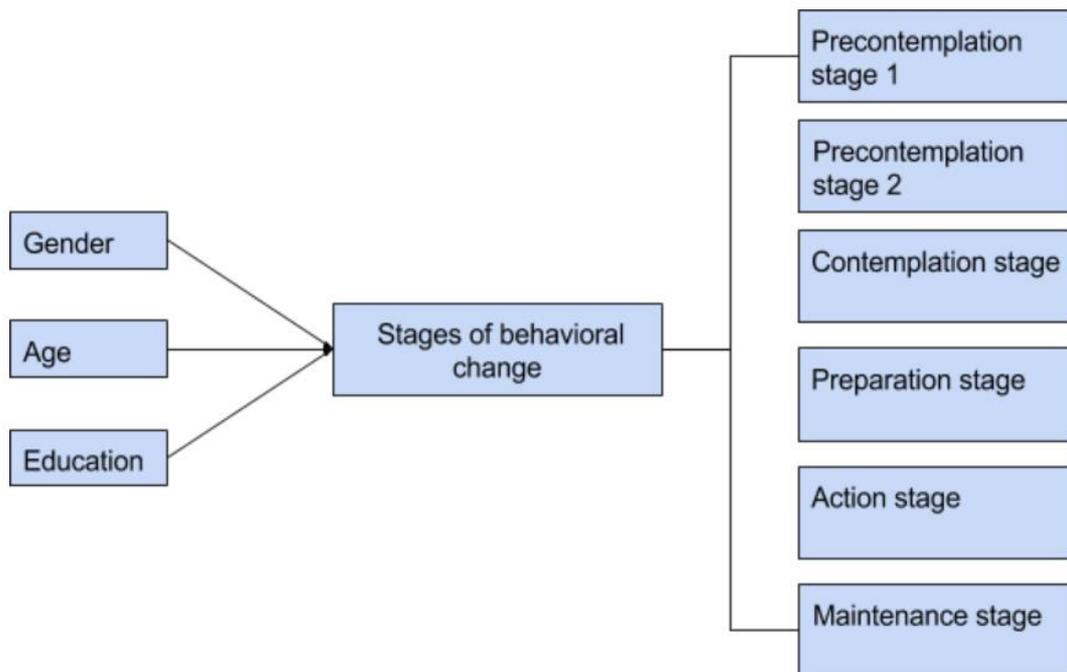


Figure 1. The conceptual model of Study 1.

3.6 Conceptual model Study 2

Study 2 wants to investigate which information manipulation (awareness information or implementation intention information) can motivate the consumer to recycle textiles. The motivation of the consumer will be measured in three constructs: intention, self-efficacy and knowledge. The interaction between the information manipulations and the demographic variable gender on the motivation of the consumer will also be investigated (see Figure 2).

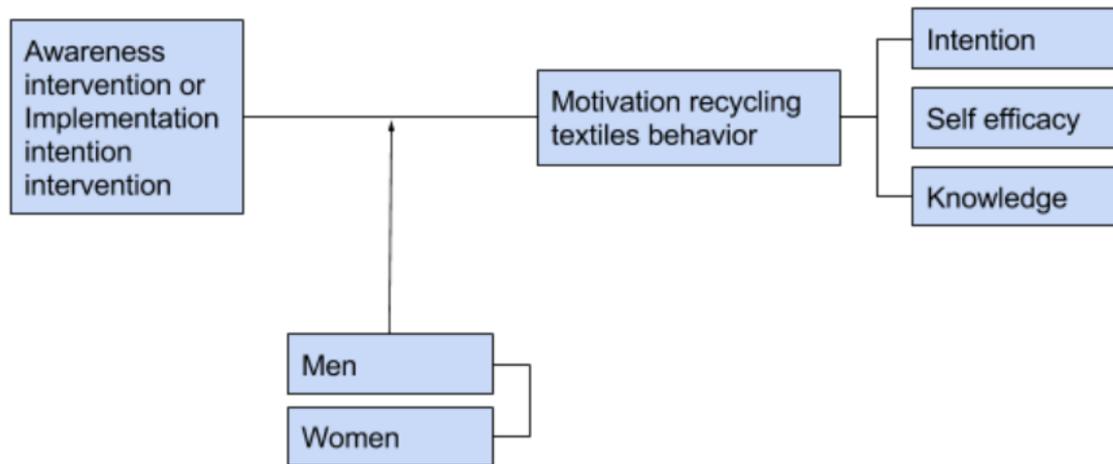


Figure 2. The conceptual model of Study 2.

Method Study 1

4.1 Participants

The sample for this research consisted of 113 participants. The participants of this research were people who buy clothes and discards clothes from time to time. From these 113 participants, 69 finished the questionnaire and their answers were used for the analysis. Of those 69 participants 23 were men and 46 were women. The average age among the participants was 30.7 years. This can be explained due to that 47 of the 69 participants were under 25. For the highest completed education, the participants were mostly divided into two groups: VWO (27 participants) and WO (25 participants). The other participants were divided over the other education options. The participants were selected from all different kind of geographical areas, which was possible due to the online distribution of the survey. The only demographic characteristics restriction for the participants were that the participants needed to be older than sixteen years old. When participants are younger than sixteen, parental approval is needed. Because of the online distribution of the questionnaire it was difficult to collect this parental approval. For this reason, it was decided to exclude participants who were younger than sixteen years old.

4.2 Procedure

People received a link through a social media channel or a questionnaire platform where they could click on. When they clicked on the link, the participants were sent to a Qualtrics questionnaire. First, the participants were shown a consent form where the research purpose of the Study was explained and where was stated that participation in the questionnaire was voluntary. After this form, the questionnaire started. First, the participants were asked to answer questions about the demographic variables (gender, age and education). Then, they read a brief explanation of the terms textiles and recycling textiles. Below that part was explained in which scale the following questions were answered. Then the 23 questions from the URICA-E2 questionnaire were asked. When the participants had answered all the questions, they finished the questionnaire and were thanked for their participation.

4.3 Measurements

The recycling behaviour of the respondent is evaluated with the Transtheoretical Model of Behaviour Change. The Transtheoretical Model of Behaviour Change is measured with URICA-E2 questionnaire

(Marcus, Selby, Niaura, & Rossi, 1992). Originally, the questionnaire was made to obtain information on in which stage of the Transtheoretical Model of Behaviour Change a respondent was in relation to exercise. To customize the URICA-E2 questionnaire for this Study, first the context of the questions needed to be changed from exercise behaviour to recycling behaviour. Then, the questions were translated to Dutch. This was done properly by first translating the questions to Dutch and then translating them back to English to make sure the same English questions were obtained. Originally, there were 24 questions in the URICA-E2 questionnaire of Marcus, Selby, Niaura, & Rossi (1992), but for this research it was decided to remove question 6 "I am satisfied with being a sedentary person". This question was unsuited to be customized into a question that was in relation to recycling. The answers for all the URICA-E2 questions were answered with a 5-point scale, wherein 1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree and 5 = Strongly Agree.

The questions on the demographic variables (age, gender and education) were asked on different scales. The age question was an open question where the participant could fill in his or her age. The gender and education questions were multiple-choice questions. The options for gender were: men/women. The options for education were: elementary school, VMBO, Havo, VWO, MBO, HBO or University.

4.4 Data analysis

The analysis of the data were performed with the help of the computer program SPSS. First the data needed to be adjusted before it can be analysed. All the respondents who did not complete the questionnaire were excluded from the data. In the questionnaire, 23 questions were asked on the textile recycling behaviour of the participants. Those 23 questions were divided into the six scales according to the stages of the Transtheoretical Model of Behaviour Change. Every scale included four questions except for the first precontemplation scale, that scale included three questions. For every scale, the Cronbach's alpha was calculated. For the precontemplation 1 stage ($\alpha = 0.78$), precontemplation 2 stage ($\alpha = 0.82$), the contemplation stage ($\alpha = 0.90$), the preparation stage ($\alpha = 0.78$), the action stage ($\alpha = 0.76$) and the maintenance stage ($\alpha = 0.95$) the Cronbach's alpha were high enough to conclude that the scales are reliable enough. So six new variables were created that calculated the mean that the respondent scored on the questions of the scale from the Transtheoretical Model of Behaviour Change. Now the data was ready to be analysed.

Descriptive statistics were performed to investigate the distribution of the participant's demographic characteristics and to examine the mean and standard deviation. The Pearson correlation was performed to determine the relationship between the new variables, which were the means that

respondents scored on the scales and the demographic variables. Then, a one-way ANOVA was performed to find significant differences between the groups within the demographic variables. The dependent variable was the new variable that was the mean that respondents scored on the scales and the factor was the demographic variable. For the age and education variable, a Tukey post hoc test was performed as well, to investigate between which groups the significant difference was observed.

Results Study one

The participants were able to answer the questions on the stages of the Transtheoretical Model of Behaviour Change on a five point Likert scale. The mean scores for all the stages of the Transtheoretical Model of Behaviour Change are shown in Table 1. The standard deviation was calculated in order to assess the distribution of the scores around the mean. Also the standard deviation is shown in Table 1.

Table 1
Descriptive table Study 1

Stage	Mean	Std. Dev.
Pre contemplation 1	2.082	0.790
Pre contemplation 2	2.598	0.873
Contemplation	2.826	0.959
Preparation	2.362	0.747
Action	2.348	0.729
Maintenance	3.116	1.224

N = 69

5.1 Gender

A Pearson correlation was run to determine the relationship between gender and the stages of the Transtheoretical Model of Behaviour Change. There was a positive correlation between the action stage and gender and the preparation stage and gender which were both statistically significant. The other stages (precontemplation 1, precontemplation 2, contemplation and maintenance) did not show a statistically significant correlation (see Table 2).

Table 2
Pearson Correlation between gender and the stages of the Transtheoretical Model

Stage	Correlation	<i>p</i>
Pre contemplation 1	-0.017	0.887
Pre contemplation 2	0.009	0.942
Contemplation	0.024	0.843
Preparation	0.263	0.029*
Action	0.414	0.000**
Maintenance	0.219	0.070

p* < .05, two-tailed. *p* < .01, two-tailed.

Then, a one-way ANOVA was executed. Statistically significant differences between groups were found in the preparation [$F(1, 66) = 4.542, p = 0.037$] and action stage [$F(1, 66) = 14.25, p = 0.000$]. In the precontemplation 1 stage [$F(1, 66) = 0.018, p = 0.895$], the precontemplation 2 stage [$F(1, 66) = 0.001, p = 0.974$], the contemplation stage [$F(1, 66) = 0.005, p = 0.943$] and the maintenance stage [$F(1, 66) = 3.394, p = 0.070$] the groups did not show a statistically significant difference. In the preparation stage the women group ($M=2.48, SD= 0.77$) scored higher than the men group ($M=2.09, SD=0.61$). And in the action stage also the women group ($M=2.57, SD=0.73$) scored higher than the men group ($M=1.92, SD=0.51$).

5.2 Age

For the demographic variable age, a Pearson correlation was run to determine the relationship between age and stages of the Transtheoretical Model of Behaviour Change. There was a negative statistically significant correlation found between age and the precontemplation 2 stage. The other stages (precontemplation 1, contemplation, preparation, action and maintenance) did not show a significant correlation (see Table 3).

Table 3
Pearson Correlation between age the stages of the Transtheoretical Model

Stage	Correlation	<i>p</i>
Pre contemplation 1	-0.095	0.439
Pre contemplation 2	-0.026	0.028*
Contemplation	-0.123	0.313
Preparation	0.044	0.717
Action	0.048	0.698
Maintenance	0.213	0.079

* $p < .05$, two-tailed.

Then, a one-way ANOVA was executed. There was a statistically significant difference between groups in the contemplation [$F(4,63) = 4.117, p = 0.005$] preparation [$F(4, 63) = 2.79, p = 0.034$] and action stage [$F(4,63) = 2.939, p = 0.027$]. In the precontemplation 1 stage [$F(4, 63) = 0.491, p = 0.743$], the precontemplation 2 stage [$F(4, 63) = 2.154, p = 0.085$] and the maintenance stage [$F(4, 63) = 2.063, p = 0.096$] the groups did not show a statistically significant difference. A Tukey post hoc test showed that age group of 56 and older ($M= 3.29, SD= 0.81$) scored higher than the 36-45 age group ($M= 1.58, SD= 0.52$) in the contemplation stage. For the preparation stage, the age group 56 and older ($M= 2.93, SD= 0.93$) scored higher than the 46-55 age group ($M= 1.87, SD= 0.65$). And also for the action stage

the age group 56 and older (M= 2.89, SD= 1.15) scored higher than the 46-55 age group (M= 1.75, SD= 0.58)

5.3 Education

For the last demographic variable education a Pearson correlation was run to determine the relationship between education and the stages of the Transtheoretical Model of Behaviour Change. There were no statistically significant correlations found between education and the stages (see Table 4).

Table 4
Pearson Correlation between education and the stages of the Transtheoretical Model

Stage	Correlation	p
Pre contemplation 1	-0.067	0.584
Pre contemplation 2	-0.082	0.505
Contemplation	-0.024	0.844
Preparation	-0.208	0.086
Action	-0.120	0.325
Maintenance	0.009	0.943

Then, a one-way ANOVA was executed. There was a statistically significant difference found between groups in the preparation stage [$F(4,63) = 3.454, p = 0.013$]. In the precontemplation 1 stage [$F(4, 63) = 1.213, p = 0.314$], the precontemplation 2 stage [$F(4, 63) = 2.162, p = 0.083$], the contemplation stage [$F(4, 63) = 0.309, p = 0.871$], the action stage [$F(4, 63) = 2.031, p = 0.101$] and the maintenance stage [$F(4, 63) = 1.974, p = 0.109$] the groups did not show a statistically significant difference. A Tukey post hoc test revealed that the HAVO education group (M= 3.35, SD= 0,99) scored higher than the WO (M= 2.21, SD= 0.6) and VWO (M= 2.21, SD= 0.58) education groups in the preparation stage.

5.4 Discussion

In Study 1 for the demographic variable gender, a significant difference was found between men and women in the preparation stage and the action stage. For the demographic variable age, a significant difference was found in the contemplation, preparation and action stage. And for the demographic variable education, a significant difference was found in the preparation stage. These results give insight on the differences between the demographic groups in terms of recycling behaviour. But it does not give insight on the best way to approach these groups in order to stimulate them to perform

recycling behaviour. Therefore, Study 2 investigates the most effective way of communicating information to the consumer to motivate them to recycle textiles. The effect of awareness information and implementation intention information on the motivation of the participants is evaluated. Also, Study 2 will proceed with the use of demographic variables and examines the most effective way of communicating information in relation to one of the demographic variables used in Study 1 namely the variable gender.

Method Study 2

6.1 Participants & design

The sample for this research consisted of 95 participants. The participants of Study 2 were also people who buy and discard clothes from time to time. From the 95 participants, 76 finished the questionnaire and their answers were used for the analysis. Of those participants, 23 were men and 53 were women. The average age among the participants was 24.2 years. This can be explained due to the fact that 60 of the 76 participants were under 25 years old. For the highest completed education, the participants were also in Study 2 mostly divided into two groups: VWO (20 participants) and WO (45 participants). The other participants were divided over the other education options. For Study 2, the participants were selected from all different kinds of geographical areas which was possible due to the online distribution of the survey. The same demographic restrictions were applied as in Study 1.

The design of Study 2 was a quantitative experimental design where there were two manipulations that tried to influence the outcomes. The independent variables in this research were the two manipulations and the dependent variable was the motivation of the participants that was measured with the three constructs: intention, self-efficacy and knowledge.

6.2 Procedure

The participants of Study 2 received a link through a social media channel or a questionnaire platform. When they clicked on the link the participants were sent to a Qualtrics questionnaire. First the participants were shown a consent form where the research purpose of the Study was explained and that participation was voluntary and anonymous. Then the questionnaire started. The participants were asked about their age, gender and their highest completed education. After that, they saw one out of two stimuli and were required to read the text that was stated on the stimulus. Next the participant was asked to answer 14 questions about the three constructs (intention, self-efficacy and knowledge). The questions on these three constructs were mixed over pages, so that the participant did not notice which question belongs to which construct. When they had answered all the questions they finished the questionnaire and were thanked for their participation.

6.3 Measurements

The measurements of Study 2 consisted of three parts: the demographic questions, the manipulation and the questions on the three motivational constructs (knowledge, intention and self-efficacy).

6.3.1 The demographic variables

The questions on the demographic variables age, gender and education were asked on different scales. The age question was an open question where the participant could fill in their age. The gender and education question were multiple choice questions. The options for gender were: men/woman. The options for education were: elementary school, VMBO, Havo, VWO, MBO, HBO or University.

6.3.2 The manipulation

Two kinds of manipulations were developed: the manipulation to raise awareness and the manipulation to stimulate implementation intentions. First, the information to encourage the manipulations was collected from different websites. Then, the information was processed into two short paragraphs that were expected to encourage one of the two subjects. These paragraphs were integrated into a flyer/poster to make it attractive to the participants. This flyer/poster was designed with Adobe comp CC. A general design of the flyer/poster was designed. The two different paragraphs were inserted in the design separately in order to create two different flyer/posters with the same design. The stimuli that were designed are shown in Figure 3 and 4.



Figure 3. The awareness manipulation.



Figure 4. The implementation intention manipulation.

6.3.3 Motivational constructs

Intention To evaluate the intention construct, four questions were asked to the participant. The questions for the intention construct were also obtained from the research of Philippsen (2015). These questions were customized and translated properly to Dutch in same way as the questions from the knowledge construct. An example of a question from the intention construct is “I intend to recycle my old textiles in the forthcoming 6 months”. The questions from the intention construct were also answered on a seven point Likert scale. The Cronbach's alpha for the intention construct was $\alpha = 0.95$.

Self-efficacy For the self-efficacy construct, four questions were derived from two studies. “Recycling my textile waste is convenient” and “I know where to take my household waste for recycling” were obtained from the research of Tang, Chen & Luo (2010). The other two questions “I believe I can change my textile recycling behaviour” and “I see myself as a person who is capable to recycle textiles” were derived from the research of Tabernero and Hernández (2010). These questions were customized for this Study and properly translated to Dutch. For the answers to these questions from the self-efficacy construct also a seven point Likert scale was used. The Cronbach's alpha for the self-efficacy construct was ($\alpha = 0.68$).

Knowledge To evaluate the knowledge constructs, five questions were derived from the research of Philippsen (2015). The questions were customized where needed, in order to fit this Study more accurately. The questions from Philippsen (2015) were translated to Dutch. This was done properly by first translating the questions to Dutch and then translating them back to English, to make sure the same English questions were obtained. An example of a question from the knowledge construct is “I know the reasons why I should recycle old textiles”. The questions from the knowledge construct were answered with a seven point Likert scale, wherein 1 = Entirely Disagree, 2 = Mostly Disagree, 3 = Somewhat Disagree, 4 = Neither Agree nor Disagree, 5 = Somewhat Agree, 6 = Mostly Agree and 7 = Entirely Agree. The Cronbach's alpha for knowledge construct was $\alpha = 0.65$.

6.4 Data analysis

The analyses of the data were performed with the help of the computer program SPSS. First, the data needed to be adjusted before it could be analysed. All the respondents who did not complete the questionnaire were excluded from the data. In the questionnaire, 14 questions were asked to the participants. Those 14 questions were divided into three scales: intention, self-efficacy and knowledge. The knowledge scale included 6 questions and the intention and self-efficacy scale consisted of 4 questions. For every scale, the Cronbach's alpha was calculated. The alpha for intention ($\alpha = 0.95$), self-efficacy ($\alpha = 0.68$) and knowledge ($\alpha = 0.65$) were fair enough to proceed with the research. Thus, three new variables were created that calculated the mean the respondent scored on the scales. Another a new variable was created that showed which manipulation was showed to the participants of the Study. After this, the data was ready to be analysed.

Descriptive statistics were performed to investigate the distribution of participants over the demographic characteristics and to examine the mean and standard deviation. Then, the Pearson correlation was performed to determine the relationship between the constructs of motivation: , intention, self-efficacy and knowledge. Next, a one-way ANOVA was performed to find a significant difference in the answers of the participants who saw the awareness manipulation and of the participants who saw the implementation intention manipulation. The dependent variables were the constructs intention, self-efficacy and knowledge, the factor was the new variable that determines which manipulation was showed to the participant. Also, a one-way ANOVA was performed to find a significant difference in the answers of men and women. The dependent variables were the constructs intention, self-efficacy and knowledge and the factor was the gender variable.

Results Study 2

The participants were able to answer the questions on motivational constructs: knowledge, intention and self-efficacy on a seven point Likert scale. The mean scores that were found for the three constructs are shown in Table 5. The standard deviations were calculated in order to evaluate the distribution of the scores around the means. These standard deviation is shown in Table 5.

Table 5
Descriptive table Study 2

Construct	Mean	Std. Dev.
Knowledge	4.957	0.819
Intention	5.014	1.623
Self-Efficacy	5.243	0.942

N = 74

A Pearson correlation was run to determine the relationship between the three constructs: knowledge, intention and self-efficacy. There was a positive correlation between knowledge and intention, intention and self-efficacy and knowledge and self-efficacy, which were all three statistically significant (see Table 6).

Table 6
Pearson Correlation between Knowledge, Intention or Self Efficacy

Construct	Correlation	P
Knowledge - Intention	0.719	0.000*
Intention – Self-Efficacy	0.640	0.000*
Self-Efficacy - Knowledge	0.400	0.000*

* $p < .01$, two-tailed.

Secondly, a two-way ANOVA was executed to determine the difference in scores between the participants who saw different manipulations. There was no statistically significant difference between the groups in the knowledge construct [$F(1,70) = 2.645$, $p = 0.108$], in the intention construct [$F(1,70) = 0.179$, $p = 0.674$] and in the self-efficacy construct [$F(1,70) = 1.649$, $p = 0.203$].

From the two-way ANOVA also was perceived the difference in scores between men and women. For the knowledge construct [$F(1,70) = 3.410$, $p = 0.069$] and for the self-efficacy construct [$F(1,70) = 2.668$, $p = 0.107$], no statistically significant difference between the groups was found. There was a

statistically significant difference observed between groups for the intention construct [$F(1,70) = 8.892, p = 0.004$]. For the intention construct the women group ($M=5.38, SD= 0.21$) scored higher than the men group ($M=4.22, SD=0.33$).

Lastly, from the two-way ANOVA could be determined the interaction of gender and the information the participant received (either awareness information or implementation information) on the three constructs knowledge, intention and self-efficacy. There was no statistically significant interaction between gender and the information the participant received on the knowledge construct [$F(1, 70) = 3.768, p = 0.056$], the intention construct [$F(1, 70) = 2.744, p = 0.102$] and the self-efficacy construct [$F(1, 70) = 0.873, p = 0.353$].

Discussion

8.1 Discussion Study 1

The purpose of this research was to find the determining demographic factor for recycling behaviour that could give insights on how to approach the consumer in order to stimulate them to execute the desired recycling behaviour. The hypothesis that is formulated for Study 1 was based on exploratory research in the literature. The results of Study 1 showed various findings. The demographic variable gender affects recycling behaviour of the participants in the preparation stage and the action stage. In those stages women scored higher than men. The demographic variable age affects recycling behaviour of the participants in the contemplation stage, the preparation stage and the action stage. In the contemplation stage, the 56 and older group scored higher than the 36-45 group. In the preparation stage and the action stage, the 56 and older group scored higher than the 46-55 group. The demographic variable education affects recycling behaviour in the preparation stage. In this stage, the HAVO groups scored higher than the VWO and WO group.

For the answer to the central research question on which the most determining demographic factor for recycling behaviour is, multiple answers could be applied. It could be the demographic variable age, because age showed significant differences between the groups in the three different stages. But it could also be gender as the most significant differences between the groups were found in the two stages for the demographic variable gender. There is not one clear answer to the central research question.

What was remarkable is that for all three demographic variables (age, gender and education), a significant difference was found in the preparation stage. This could indicate that demographic variables have an effect in the preparation stage. So, for example, in order to move people from the preparation stage to the action stage, information should be provided that appeals to a specific demographic variable.

The literature research showed ambiguous findings on the demographic variables in relation to recycling. The results that were found for the demographic variables age and gender seem, however, to be consistent with some previous literature. For example, the review study on gender differences in environmental attitudes and behaviours of Zelezny, Chua & Aldrich (2000), reports that women show substantial more environmental attitude and behaviour than men. These findings show the same direction as the results of Study 1, where women scored higher than men in several stages of the Transtheoretical Model of Behaviour Change in relation to recycling behaviour. In a review of Diamantopoulos, Schlegelmilch, Sinkovics & Bohlen (2003) on six socio-demographics variables that

could indicate a green consumer, was observed that older people tend to execute more recycling activities than younger people. These findings are also in line with the results of Study 1 which show that older people score higher in several stages of the Transtheoretical Model of Behaviour Change in relation to recycling behaviour.

The results of Study 1 in relation to the Transtheoretical Model of Behaviour Change are difficult to compare with previously published research due to the fact that the Transtheoretical Model of Behaviour Change has not been used in relation to recycling before.

There are a few discussion points on the results that were found in Study 1. First, the mean scores that were found for all the stages of the Transtheoretical Model of Behaviour Change were quite low (Table 1). These mean scores were between 2.082 and 2.826. Only for the maintenance stage, the mean score was 3.116 which is somewhat higher. As the maintenance stage has the highest mean score, it could be said that participants might have slightly overestimated themselves, as this stage is the most difficult stage to reach in this form of the Transtheoretical Model of Behaviour Change. Also, it is difficult to interpret from the results in which stage which participant belongs. This might only be determined on individual level. For the demographic variable age, the results should be interpreted with care. This is due to that fact that the 56 and older group only consisted of seven participants. Moreover, the group of women was twice as big as the group of men in the sample of this research and, therefore, the gender results should be interpreted with care too.

For Study 1, the participants were asked to review their own recycling behaviour according to the questions of the Transtheoretical Model of Behaviour Change. For further research it could be useful to observe or report actual recycling behaviour that is executed. That information could be helpful to determine in which stage of the Transtheoretical Model of Behaviour Change an individual belongs. And this information could be compared with information on demographic factors in order to find where there are similarities between the stages and the demographic variables. Furthermore, more demographic variables could be included.

8.2 Discussion Study 2

The purpose of this research was to find the most effective way of communicating information to the consumer in order to motivate them to recycle textiles. For Study 2, four hypotheses were composed in order to answer the central research question and the three sub questions.

Hypothesis 2.1 proposes that the awareness information that is given to the participant will contribute to a higher score on the knowledge construct. However the results from Study 2 show that there is no effect of the awareness information on motivational construct knowledge. Hypothesis 2.2 proposes

that the implementation intention information that is given to the consumer will contribute to a higher score on the intention construct. The results from Study 2 show that the implementation intention information had no effect on the motivational construct intention. Furthermore, the results show that the awareness information and the implementation intention information had no effect on the motivational construct self-efficacy. The final two hypotheses proposed that men who saw the awareness information manipulation would have a higher score on the knowledge construct and that women who saw the implementation information manipulation would have a higher score on the intention construct. The results from Study 2 show no significant differences between the two gender groups and what information the participant received on the scores of the participants. Thus, no effect of the manipulations in relation to gender was observed in Study 2. However, a significant difference was found between men and women for the intention construct. In the intention construct, women scored significantly higher than men. The significant results from Study 1 that were found for the demographic variable gender also showed the same direction. In Study 1, women also scored significantly higher than men in two stages from the Transtheoretical Model of Behaviour Change. This similarity in the results could indicate that women are further in the process of executing the desired recycling behaviour due to their significantly higher scores in several constructs. It could indicate that women are more pro-environmental and are therefore one step ahead of men in the process. This was also suggested in the research of Oztekin et al. (2017).

There could be a few reasons why no effect was found in several results of Study 2. The first reason could be that the manipulations did not have enough impact on the participants. According to Ghaddar, Valerio, Garcia & Hansen (2011), a credible source is important in order to promote health literacy. In the case of Study 2 no source was mentioned and this could have affected the impact of the manipulation. Furthermore, the research of Berger and Mitchell (1989) suggests that people perform more subsequent behaviour when it is based on multiple advertisement exposure than when it is based on one advertisement exposure. The participants in Study 2 were only exposed one time to the information. It could be that in order to find a significant difference between the groups, the participants needed to be exposed multiple times to the information. Additionally, Study 2 did not include an attention check which is a measurement criteria that assesses the attention of the participant during the study. An attention check can exclude participants that are inattentive in the study (Thomas and Clifford, 2017). For example, an attention check in Study 2 could have been a question about the text that was stated on the manipulation in order to assess whether the participant would have read the information.

The second reason could be that only the manipulations awareness and implementation intentions have been used in Study 2. These are, however, not the only two subjects that can influence people's motivation to recycle textiles. For example, economic incentives, which are financial awards for recycling behaviour such as deposits for plastic bottles, could influence their motivation (Viscusi, Huber & Bell, 2011). According to Viscusi, Huber & Bell (2011), social norms, which is the behaviour that is normative appropriate in an individual's social environment, could affect the recycling behaviour of people.

Another reason that no effect was found in Study 2 could have to do with the construct motivation. For Study 2 was decided to use the constructs knowledge, intention and self-efficacy to measure the motivation of the participants. The construct motivation can, however, be interpreted as a broader term than those three constructs. According to Touré-Tillery & Fishbach (2014), motivation can be measured by the strength of goal related concepts that are accessible in the memory of an individual. When an individual likes to achieve a goal, it will be more likely that the individual will remember, notice or recognize objects or concepts that relate to that goal. Another way to measure motivation, reported by Touré-Tillery & Fishbach (2014), is the goal congruence in someone's behaviour. This could be measured with, for example, the pace at which someone performs a task or the level of performance. In short, there are many other ways of measuring motivation and for further research the concept of motivation could be used more broadly. Using other constructs to measure motivation could also be convenient due to the Cronbach's alphas that were found for the motivational constructs self-efficacy ($\alpha = 0.648$) and knowledge ($\alpha = 0.674$). These Cronbach's alphas were rather low, but decided was to not leave out any items from the constructs, because the alphas did not substantially increase and otherwise the constructs would be too small. Nevertheless, the results that were found for the constructs knowledge and self-efficacy should be interpreted with care due to the size of the alphas. Another limitation was the sample size of the Study as the group of women was more than twice as big as the group of men in this research. Therefore, the results for the demographic variable gender should be interpreted with care. Nevertheless, the significant difference between men and women for the intention construct was the most prominent finding in Study 2. It could be worth to perform further research on the demographic variable gender and then make sure that the sample is equally divided.

As the demographic variable gender did show a significant difference in both Study 1 and Study 2, this could indicate that the demographic variable gender should be investigated further in relation to recycling. In order to find what information suits best for each gender group, further research should include more different kinds of information. Furthermore, further research could explore how the

information should be conveyed to individuals in order to reach the most optimal effect on the motivation of the individual. They could take into account the limitations of this Study as a credible source (Ghaddar, Valerio, Garcia & Hansen, 2011), repeated exposure (Berger and Mitchell, 1989) and an attention check (Thomas and Clifford, 2017).

Conclusion

As the fast fashion industry is growing, so is the textile waste. This growing amount of textiles waste needs to be recycled in an efficient way. But this can only be done when people start recycling their textile waste in an appropriate way. Therefore, information on the textile recycling motivation and behaviour of individuals is relevant information to have. Although recycling behaviour and motivation are broad concepts, this Study tried to provide information on determining demographic factors that influence recycling textiles behaviour and on what is the most effective way of communicating information to the consumer in order to motivate them. From the results of this Study it could be assumed that women are further in the process of performing the desired textile recycling behaviour than men. Furthermore, it could be assumed that people with an age of 56 and older are likewise further in the process of performing the desired textile recycling behaviour. It could be that women and older people have more knowledge on the subject and therefore tend to be readier for the next step in the process. The results might also indicate that demographic variables have an effect when people are already aware of the problem and are preparing to take action in the soon future. However, based on the results of this Study, no clear answer was found for the most effective way on how to approach the consumer. This could be an opportunity for further research. The information that is gathered in this Study could be used in practice. Governmental advertisement or advertisement by fast fashion labels could be fitted for specific demographic groups and could therefore be more effective on the behaviour and motivation of those groups.

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Appendix A: Study 1 Questionnaire

GENERAL INTRODUCTION

Beste Deelnemer,

Mijn naam is Sophie Beckers en voor mijn Bachelor scriptie doe ik onderzoek naar het recyclen van textiel. Allereerst zou ik u hartelijk willen danken voor de deelname aan dit onderzoek. Deze vragenlijst zal rond de 6 minuten duren.

Deelname aan deze enquête is vrijwillig en de data zal alleen worden gebruikt voor de onderzoeksdoelen van dit onderzoek. Als u nog een vraag heeft, twijfel dan niet om mij te contacteren via sophie.beckers@wur.nl

Nogmaals bedankt voor uw deelname!

AGE

Wat is uw leeftijd?

GENDER

Wat is uw geslacht?

Man Vrouw

EDUCATION

Wat is uw hoogst afgeronde opleidingsniveau?

Basisschool VMBO (B,K,gl,T) HAVO VWO MBO
HBO WO

GENERAL INTRODUCTION ON RECYCLING TEXTILES

Voor de komende vragen zal met "het recyclen van textiel" het volgende worden bedoeld;

Met het recyclen van textiel wordt elke activiteit bedoeld die ervoor zorgt dat textiel niet eindigt in de gebruikelijke/normale vuilnisbak. Met textiel wordt niet alleen kleding bedoeld maar ook beddengoed, gordijnen, badhanddoeken etc.

Klik nu verder om de vragen te beantwoorden. Per vraag kunt u 1 antwoord aanklikken.

QUESTIONS

The following questions are all answered on a five point Likert scale where 1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree and 5 = Strongly Agree.

Q1: Wat mij betreft, hoef ik geen textiel te recyclen

Q2: Ik recycle textiel al een lange tijd en ik ben van plan om hiermee door te gaan

Q3: Ik recycle textiel niet op dit moment en ik geef er niet om

Q4: Nu ben ik eindelijk begonnen met het recyclen van textiel

Q5: Ik ben succesvol in het recyclen van textiel en ik ben van plan hiermee door te gaan

Q6: Ik denk erover na dat ik misschien wil beginnen met het recyclen van textiel

Q7: Ik ben begonnen met het recyclen van textiel in de laatste 6 maanden

Q8: Ik zou textiel kunnen recyclen, maar ik ben niet van plan om het te doen

Q9: Sinds kort ben ik begonnen met het recyclen van textiel

Q10: Ik heb geen tijd en energie om textiel te recyclen op dit moment

Q11: Ik ben begonnen met het recyclen van textiel, en ik ben van plan om hiermee door te gaan

Q12: Ik denk erover na of het mogelijk is dat ik textiel ga recyclen

Q13: Ik heb een plan gemaakt om textiel te recyclen in de komende weken

Q14: In de laatste 6 maanden ben ik doorgedaan met het recyclen van textiel

Q15: Ik denk dat ik wil beginnen met het recyclen van textiel

Q16: Ik heb verschillende manieren gevonden om te beginnen met het recyclen van textiel binnen de komende weken

Q17: Ik heb de laatste 6 maanden textiel gerecycled

Q18: Ik weet dat het recyclen van textiel de moeite waard is, maar ik heb in de nabije toekomst geen tijd om het te doen

Q19: Ik ben opzoek naar opties zodat ik kan beginnen met het recyclen van textiel binnen de komende weken

Q20: Ik denk dat het recyclen van textiel goed is, maar op dit moment past het niet in mijn schema

Q21: Ik denk dat ik eraan moet werken om te kunnen beginnen met het recyclen van textiel in de komende 6 maanden

Q22: Ik ben me aan het voorbereiden om te beginnen met het recyclen van textiel in de komende weken

Q23: Ik ben bewust van het belang van het recyclen van textiel, maar ik doe het niet op dit moment

END

Bedankt voor uw deelname!

Appendix B: Study 2 Questionnaire

GENERAL INTRODUCTION

Beste Deelnemer,

Mijn naam is Sophie Beckers en voor mijn Bachelor scriptie doe ik onderzoek naar het recyclen van textiel. Allereerst zou ik u hartelijk willen danken voor de deelname aan dit onderzoek. Deze enquête bestaat uit 20 vragen en deelname duurt tussen de 3 en 5 minuten. Deelname aan deze enquête is vrijwillig en anoniem.

Mocht u nog vragen hebben, twijfel dan niet om mij te contacteren via sophie.beckers@wur.nl

Nogmaals bedankt voor uw deelname!

GENDER

Wat is uw geslacht?

Man Vrouw

AGE

Wat is uw leeftijd?

EDUCATION

Wat is uw hoogst afgeronde opleidingsniveau?

Basisschool VMBO (B,K,gl,T) HAVO VWO MBO HBO WO

MANIPULATION

*Then the participants saw the Awareness manipulation **or** the Implementation intention manipulation.*

QUESTIONS

All these questions were answered on a seven point Likert scale. Where 1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree and 5 = Strongly Agree.

Q1: Ik zie mezelf als een persoon die in staat is om textiel te recyclen

Q2: Ik ben van plan om textiel te recyclen in de komende 6 maanden

Q3: Als ik de ernst van het textielafval probleem zou weten, dan zou ik vaker mijn textiel recyclen

Q4: Ik geloof dat ik mijn textielrecycling gedrag kan aanpassen

Q5: Ik weet de redenen waarom ik textiel moet recyclen

Q6: Het is waarschijnlijk dat ik textiel recycle in de komende 6 maanden

Q7: Ik weet hoe ik textiel moet recyclen

Q8: Als ik de recycling opties voor textiel zou weten, dan zou ik textiel meer recyclen

Q9: Het recyclen van mijn textiel afval is gemakkelijk

Q10: Ik ga proberen om textiel te recyclen in de komende 6 maanden

Q11: Ik zou meer textiel recyclen, als ik meer kennis zou hebben over de textielrecycling opties

Q12: Ik weet waar ik mijn textiel heen moet brengen om het te laten recyclen

Q13: Ik plan om mijn textiel te recyclen in de komende 6 maanden

Q14: Ik zou meer textiel recyclen, als ik meer kennis had over het textielafval probleem

END

Bedankt voor de deelname aan het onderzoek!