Master thesis

Updating advertising towards baby boomers: Should baby boomers be addressed different than the elderly now?

MSc International Marketing
ESE Erasmus University

Date:
Content

PREFACE ........................................................................................................................................3

EXECUTIVE

SUMMARY ..................................................................................................................................................4

1  INDUCEMENT ........................................................................................................................................11

1.1 SHORT INTRODUCTION ..................................................................................................................11

2  THEORETICAL BACKGROUND AND LITERATURE REVIEW ...................................................14

2.1 DEFINITION BABY BOOMERS, ELDERLY AND MODERN ELDERLY .....................................14

2.2 BACKGROUND FINDINGS ................................................................................................................15

2.3 TIMELY THEORIES ..............................................................................................................................16

2.3.1 INITIAL OBJECTIVES OF COMMERCIALS AND ADVERTISEMENTS ..............................16

2.3.2 THEORIES AND LITERATURE ABOUT ELDERLY ............................................................17

2.3.3 MODERN ELDERLY .......................................................................................................................19

2.4 PROBLEM DEFINITION .....................................................................................................................20

2.4.1 RESEARCH OBJECTIVE ..............................................................................................................20

2
6 REFERENCES .......................................................... 43

6.1 PAPERS .......................................................... 43
6.2 BOOKS .......................................................... 48
6.3 INTERNET SITES .................................................. 48

APPENDIX A .................................................. 50

APPENDIX B .................................................. 51

APPENDIX C .................................................. 54

APPENDIX D .................................................. 57

APPENDIX E .................................................. 61

APPENDIX F .................................................. 63

APPENDIX G .................................................. 65
Preface

This thesis is the final chapter not only of the master program International Marketing of the Erasmus School of Economics, but also the final chapter of my entire student life and the beginning of my career. The process of creating this thesis and the road to this final thesis has been long and was characterized by many bumps, detours and delays, but the final destination has been reached.

I wanted to investigate this upcoming segment not only because of my Master choice, but also because I firmly believe it is necessary to pay more attention to generations “above” us and understand how they make decisions in their lives. They have worked their entire life and paid their dues to society to give us the possibility to live and enjoy our current life. Combining this with my commercial mindset, I believe that the baby-boom-market is the most profitable market for managers and companies. I genuinely hope that the motivation and implication of my research will encourage other researchers to carry on studying this subject resulting in more (marketing) attention towards baby boomers and their endless opportunities.

Coaching and guiding students through writing their Master thesis is one of many tasks of PhD students and professors. Some might say this is one of the more standardized tasks, but this particular case, my thesis, was an exception. Tailored coaching was needed. During the entire process I took many de-tours and had many delays and changes. I would like to thank my coach, Mirjam van Ginkel-Bieshaar, for her flexibility, understanding and her tailored coaching which was essential for the completion of my thesis.
Last I would like to thank Doménique for her patience, time and unconditional support and help during the creation of this thesis, as well as my parents for their support and everlasting encouragement to do more.

Alexander Voorhorst
Rotterdam, Spring 2011
Executive summary

Baby boomers have unintentionally disrupted markets in the past, for example the labor market (Welch, 1979) and the housing market (Mankiw and Weil, 1989). Now the baby boomers have reached the age where the first are retiring and they are at the point of age where disruption of the market could is part to happen again. Baby boomers have more time and more money to spend than any other generation (Kochkin, 1999; Nyren, 2005 and US Census Bureau, 2008). With advertising agencies and managers ignoring this segment (Nyren, 2005), I believe that these agencies and managers are missing out a great opportunity to enter this market strategically and profit from it. This is where this study connects.

Baby boomers are becoming the new elderly, but will be more modern (using laptops, mobile- and smart phones). I believe that baby boomers should be seen as a new type of elderly, modern elderly, as this study calls them. Where current theories state that elderly are cranky and senile (Nasser, 1988), modern elderly will not be.

To invalidate current theories stating elderly to be cranky, senile and are associated with negative images (e.g. Nasser, 1988; Kite and Johnson, 1988), this study will examine the attitude and purchase intention of baby boomers and current elderly, to look for differences. This study consists of three factors, favorability, credibility (together attitude) and purchase intention. To address specifically the baby boomers and elderly, two types of advertisements are developed. A regular (emotional meaning) advertisement, as one could find in magazines, focusing on the product (avoiding negative emotion- association). The regular advertisement is more general and suited for elderly. The second advertisement is a tailored advertisement and contains more informational text (knowledge-related). The tailored advertisement focuses
on ageing and could also be found in magazines. Both advertisements will show a shampoo product and the same model, but visually different in age.

With these advertisements, baby boomers are expected to show a higher attitude towards the tailored than to the regular advertisement. They are also expected to show a more positive attitude towards both advertisements than elderly because of their more modern life style. Elderly are anticipated to score higher on attitude for the regular advertisement than for the tailored advertisement. This, because the tailored advertisement more focused on aging and facts than the regular advertisement. According to Fung and Carstensen (2003), knowledge related facts are more preferred by younger people the by elderly. Because I expect the baby boomers to react more positively to the tailored advertisement, the baby boomers will have higher purchase intention for the product in the tailored advertisement than the product in the regular advertisement.

Results show that the manipulation of the tailored advertisement does not work as expected, although some difference in the estimated age of the model was found. The difference between the two advertisements is marginal ($t(138)=-1.96, p=0.06$). The factors favorability, credibility and purchase intention are appropriate, all three form a reliable factor ($\alpha_{\text{fav}}=0.85$, $\alpha_{\text{cred}}=0.72$ and $\alpha_{\text{pi}}=0.88$). Unexpected is that the attitude of baby boomers is not higher than the elderly’s attitude (for all values apply, $p>0.20$).

As for the evaluation, baby boomers evaluate favorability marginal higher ($t(138)=1.43, p=0.08$) for the tailored advertisement and credibility showed no significant difference ($t(111.79)=0.25, p>0.20$). As expected, purchase intention is perceived higher by the baby boomers for the tailored advertisement than elderly by the tailored advertisement
(t(138)=2.06, p=0.02). But purchase intention for the participants in general is perceived higher by elderly than by baby boomers, this is in line with current theories (Greco, 1993; Milliman and Erffmeyer, 1990). Expected was that baby boomers prefer the product higher than elderly because of the tailored advertisement is expected to be perceived better by baby boomers. Results show that the preference of both the baby boomers and the elderly in the tailored advertisement is higher than the preference for the regular advertisement, but only partial. Product relevance is perceived only marginal higher, whereas willingness to try is perceived highly significant and willingness to buy too, see figure 1.1 for significance levels.

Further calculations show that baby boomers’ favorability and credibility influence purchase intention ($\beta_{favbb}=0.38$, $p=0.00$; $\beta_{credbb}=0.31$, $p=0.01$). Where this is only significant for credibility by elderly ($\beta_{favedl}=0.141$, $p>0.20$; $\beta_{credel}=0.47$, $p=0.00$).

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<thead>
<tr>
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<th>t(138)</th>
<th>p</th>
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<td>0.12</td>
</tr>
<tr>
<td>Willingness to try</td>
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<td>0.01</td>
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<tr>
<td>Willingness to buy</td>
<td>2.02</td>
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Figure 1.1: Significance levels factor purchase intention

Concluding, results suggest that baby boomers do not show a significant higher positive attitude or purchase intention for the tailored advertisement than for the conventional advertisement. Therefore shampoo advertisements specially addressed to baby boomers will not affect them more positively then the current regular advertisements as this study has tested. Deriving this fact, current studies concerning elderly and their behavior cannot be invalidated as thought to be outdated, in order to expect baby boomers to become different elderly as we know them now.
Elderly did not react more negatively towards tailored advertisement than to the regular advertisement. This could implicate for (marketing) managers to broaden their focus-spectrum and address baby boomers and elderly more than the (marketing) managers do now. This in order to gain more market share and gain more profits.
1 Inducement

1.1 Short introduction

Obsolescence has become a point of interest in politics as well as for marketing managers and organizations. Politicians are discussing how to close the gap between baby boomers and the next generation concerning the workforce. Managers and organizations on the other hand are looking for new opportunities to sell more products, increase market share and profits and are looking for creating and serving new markets before their competition.

Baby boomers have disrupted some markets before, for example in the US when they entered the workforce between 1967 and 1975. The result then was a dramatic drop of the average age and the accompanied wage (Welch, 1979). This was followed by a disruption in the housing market. Between 1970 and 1980 the housing prices rose up to 32% in a single year (Mankiw and Weil, 1989). These changes also accrued in consumption, social programs and savings (Bakshi and Chen, 1994). Just like these examples, a shift in marketing focus is caused by the growing number of aging baby boomers.

This paper will focus on a similar trend, soon the first baby boomers are retiring and they will have more time on their hands and money to spend. In fact, this generation has significantly more monetary capital than any other generation (Kochkin, 1999; Nyren, 2005 and US Census Bureau, 2008). Research also found that new retirees change their expenditure-behavior which increases (Hopkins, Roster and Wood, 1984). This market could be an interesting and profitable new market to serve for managers and organizations.
Advertising is an important part of modern business strategies. Advertising expenditures have a large positive influence on results of companies (Chauvin and Hirschey, 1993). There is room for development of more effective marketing strategies especially for the approach of the elderly (Oates, Shufeldt, Vaught, 1996). Deducting Chauvin’s and Hirschey’s and Oates et al’s research, this could suggest that investing in marketing specially addressed to elderly could have positive influences on (marketing) results. So by addressing baby boomers more specifically than is currently done, better results for managers and organizations is possible. By “addressing specifically” I aim at advertisements and commercials tailored solely for baby boomers, unlike current advertisements designed for a broader audience. The baby boom segment does not get enough commercial attention, let alone specified focus (Green, 2003). Advertising agencies are overlooking or deliberately not focusing on the baby boom audience (Nyren, 2005). As Nyren (2005) states, changes have to be made on informing, for example prescriptions for drug, discussions about retirement and advertisements. In other words, advertisements can be made more appealing to maturing consumers (Nyren, 2005).

In chapter two a literature review summarizes modern and older papers and theories. This chapter provides information on how theories used to be, mainly before the baby boom phenomenal. In this chapter, the reader will see that nowadays the actual outline and performance of the older population, in which baby boomers are aging into, could have changed over the years as well as the literature addressing this segment. Because the behavior and attitudes of baby boomers may have changed, I believe that by addressing the baby boomers different will have a positive effect on results of companies, like Chauvin and Hirschey state (1993). This chapter is followed by chapter three where the problem definition
and hypotheses are outlined. With that as a foundation the research method and structure of the study are explained followed by the results in chapter four and discussion and limitations in chapter five.
2 Theoretical background and literature review

2.1 Definition baby boomers, elderly and modern elderly

There are many definitions used for baby boomers. Some examples are ‘leading-edge baby boomers’ (Easterlin, Schaeffer and Macunovich, 1993), ‘early-baby boomers’ (Lusardi and Mitchell, 2006) or ‘post-baby boomers’ (Blais, Gidengil, Nevitte and Nadeau, 2004). The period of time too differs from author to author (e.g. between 1946 and 1965 (Quine and Carter, 2006), between 1946 and 1954 (Blais et al, 2004), between 1945 and late ‘60’s (Easterlin, Schaeffer and Macunovich, 1993) and between 1946 and 1964 (Gale, 1997)). The majority of academic authors use people born between 1946 and 1964 like Gale (1997), Santos and Cox (2000), Bouvier and De Vita (1991) and Mankiw and Weil (1989) use. For this study, people born between 1946 and 1964 will be used as age-criteria for baby boomers.

The purpose of the theoretical background and literature review is to shortly summarize past features on advertisements, marketing strategies and theories on elderly and how previous research dictates elderly should be viewed and handled. To avoid confusion, later in this report, there are three terms that are important to separate. First there is the term ‘elderly’ which in this thesis is referred to as the elderly people (65+ years of age, so born before 1946, US Census Bureau) as mentioned in theories and papers (e.g. Nassar, 1988; Mills, 1972) with accompanying traditional ‘elderly-behavior’, which will be addressed in chapter 2.2.2. The second term is ‘baby boomers’. ‘Baby boomers’ refer to people born between 1946 and 1964. The third term is ‘modern elderly’ which is used to describe baby boomers that are becoming the new elderly of today and must be seen as different people as the ‘elderly’ as mentioned
above. This because of their modern way of thinking and behaving, which I believe differs from the 'elderly' as mentioned in theories and papers.

2.2 Background findings

The initial setup for this research was that elderly are underrepresented in general advertising (Peterson and Ross, 1997; Bradley and Longino, 2001) and the attention of those advertisements to the elderly should be increased. This idea was fueled by some studies that confirm the assumptions that older people appear in smaller proportions in advertisements than their proportion share of the population (England, Kuhn and Gardner, 1981; Gantz, Walter, Gartenberg and Rainbow, 1980; Swayne and Greco, 1993; Ursic, Ursic and Ursic, 1986). As the number of elderly increased over the past years (Exter, 1990), it was anticipated that the use of elderly in advertisements increased too, but it did not (Ursic et al, 1986). Next to that, this segment is becoming more important, economical-wise: US statistics indicated that in 1990, that this group has grown by 23% within ten years, compared to 14% for the rest of the US population (Milliman and Erfmeyer, 1990). Recent research has confirmed this: one out of eight Americans was elderly (in 2005) and this will increase to 1:5 in 2030 (US Census Bureau, 2010). In monetary terms, elderly have an annual income of $60,000 or greater and this has grown 35% over the last decade (Kochkin, 1999), compared to $46,000 national average (US Census Bureau, 2008). 77% of the financial assets of all US households are from people aged 55 years or older (Lazer, 1987). In the Netherlands these figures are similar. The Dutch population exists of over 5.9 million baby boomers which is 35.70% of the Dutch population (CBS, 2010).
These facts endorse the initial setup for this research to give recommendations for marketing strategies and focus towards this segment.

2.3 Timely theories

2.3.1 Initial objectives of commercials and advertisements

As World War II ended and income rose, spending power began to increase. With this change, consumer preference changed from utility-driven consumption to status-driven consumption, which gradually became a more important part of the overall consumer spending (Mason, 1995). This meant that advertisements towards consumers had to change. Between the 40’s and 60’s advertising aimed mainly at product recall by short musical rhyming, phrases and jingles playing over and over (Goldman and Papson, 1994). During this time, advertising can be described as a hegemonic stage of commodity culture during which time “space outside the world of consumption” inexorably disappeared (Goldman and Papson, 1994). Later, the viewers belonging to the baby boom generation, have also adopted stances of indifference toward advertisements mode of address, both for purposes of negotiating the meaning of ads and defending themselves (start of skeptical and belligerent viewers) towards advertisement. In this period of time, literature for the supply-side was ample and there was little to no attention to the demand preference, consumer preference and consumption (Mason, 1995). This meant that there was little to none analysis of consumer behavior.

In the 60’s and 70’s advertisements became more specialized, streamlined and rationalized formulas for assembling and delivering commodity signs repeatedly build on interpretative procedures – abstraction, equivalency and reification (Goldman and Wilson, 1983). Summarizing, it can be stated that the general market environment changed from a ‘sellers
power’ to a ‘consumers power’ market where the consumers became more active in the buying-decision process. This change in the advertisement-environment was very similar to Goodyear’s conceptual model of brand evolution (1996). This model consists of six stages: unbranded goods, brand as reference, brand as personality, brand as icon, brand as company and brand as policy (Goodyear, 1996). Linking this evolution towards the evolution of advertisements after World War II, advertising has become a more sophisticated and substantiated technique over time.

2.3.2 Theories and literature about elderly

As advertising became a more explored and an academically researched area, new markets and segments started to arise. Advertising agencies adopted these researches and created specialized commercials and ads for several specially selected target markets, mainly for the greater part of the population at the time, the working force (age between 16 and 65 years). In this part research and statements are summarized which explain why older people are under presented in commercials.

Research has shown that elderly consumers are active processors of information in making product-related decisions (French and Crask, 1977) and are in better physical- and mental condition than any previous generation (Robinson and Umphrey, 2006). Other research has shown that elderly depend considerably on advertisements for information and that 45% are heavily influenced in their purchase decisions by advertisements and 75% switch brands and experiment with new products (Milliman and Erffmeyer, 1990). So baby boomers which are becoming the modern elderly, will be influenced by advertisements, but why is there not more attention paid to this segment?
In the past, several brands actually attempted to reach out and focus on this specific age group, with consequences. H.J. Heinz developed baby-food-like meals for the elderly but failed, just like Johnson’s Affinity shampoo. Copywriters were to blame. At the time, the copywriters were only 35 years and had trouble writing ads for the elderly-market, that market was seen as cranky and senile (Nasser, 1988). Next to that, attitudes towards elderly were more negatively than attitudes towards younger people (Kite and Johnson, 1988). This explains and confirms prior research that elderly are underrepresented in advertisements. Reason for this is younger people hold a negative attitude toward the elderly, later research with different age groups confirmed this (Mills, 1972). Older models in advertisements significantly affect the believability of advertisements viewed by the youth market. The youth perceive older people as less credible than younger models (Jordan, 1983). But for the older market the contrary was true. Patterns exist that elderly associate and closely identify with others of similar age. Older models appearing in various types of media advertisement serve as role models. These models are a very crucial reference group and serve as an important ‘external stimulus’ (Schreiber and Boyd’s, 1980).

There are several researches that show that modern elderly are different from the former generation elderly, as discussed in the introduction of chapter two. The modern elderly are more active, healthy and may not wish to be identified as a separate and different market segment (Greco, 1993; Barak and Stern, 1985; French and Fox, 1985; Gelb, 1977). Also Greco’s analysis (1993) showed that elderly appear in smaller proportions in television advertisements. Greco (1993) developed a matrix, the Audience – Product Matrix, which he used to explain why elderly are underrepresented. The matrix can be used to utilizes the
development of advertisements for elderly and different product categories. By sheltering the audience, the chance of conflicting messages received by the audience, can by minimized (Greco, 1993), see Appendix A for the matrix. The central part of the matrix is sheltering the audience and the ability to isolate the target. It is more difficult to exclude certain viewers on television to create a sheltered audience than, for example in magazines. There are typical magazines that are only read by elderly, here the message can be tailored to the needs of the target market (Greco 1993). If not, a more general, or as the matrix states, a ‘trans-generational’ messages should be used.

2.3.3 Modern elderly

Modern elderly nowadays are different from the elderly of past generations. The modern elderly are more active, healthy and socially connected (Nyren, 2005). Research has shown that modern elderly are active processors of information in making product-related decisions (French and Crask, 1977). This could result in fewer consumption differences among elderly and other age-groups. Elderly as referred to by older studies (e.g. Barak and Stern, 1985; French and Fox, 1985; Gelb, 1977) could also have changed to fewer consumption difference and therefore their studies could be outdated. This assumption is supported by the findings of Greco (1993) that 63% of the advertising agencies increased elderly characters in their advertising, although the advertisement itself was not changed to address the elderly.

According to Nyren (2005), many advertisements leave the older generation cold, because the elderly misunderstand the humor or they do not care about deciphering the advertisement. Nyren states that a reason for this could be that advertisement makers are from generation ‘X’ and ‘Y’. ‘Modern elderly’ process information differently from other generations. Baby
boomers live at a faster pace than their parents’ generation but they are willing to pay more attention than their children’s generation. Baby boomers like facts delivered in a direct and straightforward manner (Nyren, 2005).

2.4 Problem definition

2.4.1 Research objective

Modern elderly seem to be a different segment although they do not want to be identified as a separate segment, as mentioned before. Remarkable is that most of the above mentioned studies date between the late 70’s and early 90’s. This can be seen as quite outdated in marketing-terms, since marketing strategies are renewed every year to 5 years. The goal of this research is to invalidate these ‘older’ papers and statements, as mentioned in chapter 2.3.2 by proving that there are now modern elderly resided. The secondary purpose of this study is to give a recommendation on whether or not to discard the current theories. In order to update the view and marketing strategies for special tailored advertisements towards modern elderly, a similar research setup will review the state of these modern elderly.

Based on the issues discussed in the theoretical background and literature review, it can be assumed that the elderly people such as described in chapter 2.2.1 and 2.2.2 could have changed over the years and have become more modern and will not react negatively on tailored advertisements. As we see around us, many of them own computers, laptops, mobile- or even smart-phones and know how to use them. Baby boomers are becoming these modern elderly and are therefore the central focus in the research objective. The research objective of this study is to answer the following problem definition:
"Is the attitude of baby boomers towards tailored advertisements more positive than their attitude towards conventional advertisements?"

‘Tailored advertisements’ are advertisements specially developed to address the baby boomers and focused on the aging process. Whereas ‘conventional advertisements’ is referred to as standard advertisements which could currently be found in magazines. See chapter 2.4.4 for more detailed information concerning the two types of advertisements.

2.4.2 Attitude

The ‘attitude’ of the participants as mentioned in the main research question will be measured according to research setup as done between the late 70’s and early 90’s. ‘Attitude’ will be itemized by the two following dependent variables: favorability and credibility.

Motivation to advertise differs for each producer and product. One wants’ to increase market share, consumer quantity, brand awareness or brand recognition, in the end all to increase consumption and revenues. Every advertisement consists of certain information and communication what the producer wants the consumer to know. In other words, the producer tries to change the belief of the consumer which is the way to change the attitude of the consumer in a certain direction (Perner, 2008). Attitude of the buyer towards a brand is the evaluation of how he satisfies his or her motives of the brand (Howard and Sheth, 1969). Only in the last few years marketing researchers are beginning to understand the attitudes and behavior of consumers. Attitude-change is the most effective strategy marketers can use to determine the behavior into their direction (Mazis, Ahtola and Klippel, 1975).
Considering these statements and summarizing them with Kraus’ findings; attitudes significantly and substantially predict future behavior (Kraus, 1995). Measuring the attitude and purchase intention to calculate if ‘modern elderly’ differ from current elderly in attitude and purchase intention is therefore a rational conclusion.

In order to follow the research setup as done between the late 70’s and early 90’s, the same subjects for each item of attitude are used. Favorability will be subjected by the following four items; appeal, impressiveness, attractiveness and the extent to which the ad is eye catching (Milliman and Erffmeyer, 1990). There are three items subjected for credibility, namely believability, informative and clarity. To change attitude, an action on the affective basis of preference is needed (Zajonc and Markus, 1982). In order to see the result of the attitude, a third factor is needed to control favorability and credibility, namely preference. Preference towards the product will determine if favorability and credibility influence the participant. Preference will be measured by a third factor: purchase intention. Purchase intention is subjected by three items, willingness to try the product, willingness to buy the product and relevance.

2.4.3 Product and medium

To measure the attitude, the product in the advertisements should fit appropriately, in order to address both, baby boomers and elderly. A general product used by the entire population will be chosen and not a specific “elderly-product” as the example mentioned in 2.2.2. Cosmetics and shampoo are products which are more than average used by older people (Greco, 1993) and therefore fits appropriately. Because attitude will be measured for both sexes with the
same advertisements, cosmetics are less preferable than shampoo. Next to that is shampoo in general a more undenominational product.

There are roughly two fields to divide media into, traditional media and new-media (Grant, 2008). The first field exists of written-, motion- and audio media, whereas the later literally is a new type of media. New-media is a network-based computer and electronic communication media (Grant, 2008). Written media are in magazines, billboards, newspapers and trade journals. Motion media is mostly on television and cinemas, whereas audio is radio media (Bakker and Scholten, 2009). New-media is interactive television, e-mail, internet and mobile phone media (Grant, 2008). Research showed that consumers obtain information for shampoo in the following order: television, magazines, newspapers, internet, and radio (Yoon and Kim, 2001). Connecting Yoon and Kim’s research with Greco’s Product-Audience Matrix (1993) as mentioned in 2.3.2., the participants are better sheltered when using magazine advertisements than television advertisement. For this study we therefore use magazine as medium for the advertisement.

2.4.4 Regular and tailored ad

In order to measure differences in attitude and purchase intention, two advertisements were developed, as this is done by other researches for similar studies (Baker, Churchill, 1977; Milliman and Erffmeyer, 1990). Two types of appeal in advertisements will be used, one that emphasizes the emotional meaning of the product and one knowledge-related version (Fung and Carstensen, 2003). According to Fung and Carstensen (2003), these two types are best used when examining age differences and attitude in advertisements. Fung and Carstensen mention that elderly (older people, 65 years or older as stated by Fung and Carstensen, 2003)
prefer emotionally meaningful advertisements where younger people prefer knowledge-related versions. Elderly prefer if advertisements avoid negative emotions in advertisements whereas younger people do not show this reaction (Williams and Drolet, 2005).

When developing the advertisement for the baby boomers, the tailored advertisement will contain more facts (knowledge-related version) and focus on ageing (negative emotion association) than the regular ad for the elderly. In the regular advertisement, less focus on facts and more on the model (emotional meaning) and less focus on aging and more focus on the product will be shown (avoiding negative emotion association). These main two differences will occur in the slogan and sub-text, the different (age-) look of the model and difference in background. The vibrant background of the tailored ad will not affect the younger people where as it could affect the older people negatively on their attitude toward the advertisement. The model used in both advertisements needed to be physical attractive. The gender does not impact the respondents overall liking of the advertisement (Petroshius and Crocker, 1989). See Appendix B for the regular advertisement and Appendix C for the tailored advertisement.

2.4.5 Hypotheses

Because baby boomers are becoming modern elderly, in this study, they are in the spotlight for potential new theories and statements concerning modern elderly. The main research question will be answered by accepting or rejecting the following hypotheses that are derived from the main question.

H1a: Baby boomers have a higher favorability towards tailored advertisements than to conventional advertisements
H1b: Baby boomers have higher *credibility* towards tailored advertisements than to conventional advertisements

In order to compare the group baby boomers with the elderly, the same questions will be asked for both groups and results can be compared. I expect that the results will be different, namely that the elderly will have a lower *favorability* and *credibility* towards tailored advertisements than to conventional advertisements, H2 will expect the opposite of hypothesis H1a and H1b.

H2a: Elderly have a higher *favorability* towards conventional advertisements than to tailored advertisements

H2b: Elderly have a higher *credibility* towards conventional advertisements than to tailored advertisements

As hypothesis H1 and H2 are expected to be opposing, baby boomers have a younger point of view and as research mentioned, baby boomers are willing to pay more attention, spend more time and thought on advertisements (Nyren, 2005). I expect this to result in different attitude scores between the two groups.

H3: Baby boomers evaluate advertisements more positive than elderly
Because I expect Baby boomers to evaluate both advertisements higher, the preference of the product for Baby boomers should be higher than the preference of the Elderly.

H4: Baby boomers prefer the *product* in the tailored advertisement over the product in the conventional advertisement

I expect baby boomers to differ in preference for both advertisements, since the tailored advertisement is designed for them, whereas the regular advertisement is more focused on the elderly’s preferences. See figure 2.1 for the hypothesis and age group overview.

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<thead>
<tr>
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<th>Baby boomers</th>
<th>Elderly</th>
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<td>H1a &amp; H1b</td>
<td>H2a &amp; H2b</td>
</tr>
<tr>
<td><strong>Credibility</strong></td>
<td>H1a &amp; H1b</td>
<td>H2a &amp; H2b</td>
</tr>
<tr>
<td><strong>Purchase intention</strong></td>
<td>H3 &amp; H4</td>
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Figure 2.1: Hypothesis
3 Methodology

3.1 Prior to the questionnaire

Two tests were conducted prior to the questionnaire. The first test was done to control the items for interpretation. Because this study is partly based on the study of Milliman and Erffmeyer (1990), the first part is to translate all items from English to Dutch and this had to be checked in order to avoid misunderstandings and translation-error. Three individuals that are all fluent in both English and Dutch were asked to translate the items to Dutch. Result was 18 out of 21 items matched. After this first translation a second translation-test was done, namely from Dutch back to English. This was done by three English students, 19 out of 21 items matched. The second test was conducted to see if the manipulation of the tailored advertisement worked. The six students were asked to estimate the age of the model in both ads. The model in the regular ad was estimated to be 46.08 (StDv=5.66) years and the tailored model was estimated to be 58.92 (StDv=1.73) years. The regular ad-model was perceived significantly younger than the model in the tailored ad (t(12)=-9.22, p=0.00).

3.2 Sample

161 participants voluntarily participated in an online survey. 4 participants were deleted from the dataset, as their answers were incomplete and 17 participants were deleted as they did not match the required minimum age of 47 (born before 1965). Of the remaining 140 participants, 54 were females, (M_{agef}=62.72, StDv=9.90) and 86 males, (M_{agem}= 65.30, StDv=8.74). The average age of the baby boomer was 57.90 (StDv=5.54) and of the elderly 72.61 (StDv=5.86). The average age of the participants who viewed regular ad was 64.33 (StDv=8.91, N_{reg}=76)
and for the tailored ad 64.31 (StDv=9.25, N_{tail}=64). Remarkable is that there participated noteworthy more males 61.40%, where in the Netherlands the distribution for the male gender of baby boomers and elderly is 49.49% (Dutch population of 45 years or older; CBS, 2010). This skewed deviation of gender is not optimal, but is does not impact the effectiveness and evaluation of the product or advertisement (Petroshius and Crocker, 1989). The greater part of the participants are well educated, 33.60% own a Bachelor’s degree (or similar) and 38.60% a Master’s degree (or similar). Only 52.50% of the elderly is retired. This is unexpected because in the Netherlands the retiring age is 65 years. Since the average age of the participated elderly is 72.61 years (StDv=5.86), one would expect more elderly to be retired. An overview of all scores on the different items measured in the survey are attached in appendix D.

3.3 Survey

Participants were asked several standard demographical questions in order to adjust to and get comfortable with the survey (see Appendix D for all survey questions). Next to that, these demographic questions are used to organize the participants and to check if the respondents fall within the scope of the study.

In the second part of the survey, a (print) advertisement for a shampoo brand was shown. The survey-system randomly selected the regular or the tailored ad, independent of the respondent and his or her demographic answers. In these ads, a relatively unknown model is used. This is done to avoid recognition of the model from other advertisements, movies or influential news and gossips. The brand of the shampoo is fictive, to avoid prior attitudes towards the advertisement. The choice of the less known model and unknown shampoo brand is done in order to increase the external validity and to generalize the outcome of the study. This was
followed by asking the participant to estimate the age of the corresponding model. Both advertisements showed the same model, but the age of the model in the two pictures differed.

In chapter 2, two scales were identified to measure attitude, ‘favorability’ and ‘credibility’. To measure favorability a four-item seven-point Likert scale like the study of Milliman and Erffmeyer (1990) was used (the four items are appeal, impressiveness, attractiveness and the extent to which the ad is eye catching). This scale was administered after the respondents had studied the advertisement thoroughly. The administration of the favorability scale after carefully studying the ad is an approach also used by Milliman and Erffmeyer (1990). Because the different items of favorability may be correlated, a Factor Analysis with Varimax rotation was conducted. After measuring favorability, item credibility is measured. This is done with a three-item seven-point Likert scale, the three items are believability, informativeness and clarity. Because these different items of credibility may also be correlated, a Factor Analysis with Varimax rotation was conducted.

Ending the survey, three final questions were asked to measure the purchase intention of the participant. A three items seven-point Likert scale was used; willingness to try, willingness to buy and personal relevance. Because the different items of purchase intent are expected to be correlated, a Factor Analysis with Varimax rotation was conducted.
4 Results

4.1 Manipulation check

The pre-test showed that the age of the two models was perceived as different, where the manipulation of the tailored ad worked. Participants were asked to estimate the age of the model in the advertisements to check the manipulation. The estimated age of the regular ad was indeed perceived younger for the tailored ad ($M_{\text{reg}}=48.71$, $\text{StDv}=6.66$ and $M_{\text{tld}}=50.95$, $\text{StDv}=6.87$), but this difference was marginal ($t(138)=-1.96$ and $p=0.06$). Despite the assumption from the pre-test, that the questionnaire would result in an evident difference, it can be stated that the manipulation of the tailored advertisement in the questionnaire did not work as intended.

As the manipulation check in chapter 3.1 showed, an average age of 46.08 years for model in the regular ad was estimated. According to Albin (1985), the estimated age was too high to use for the survey. Albin indicated in his research that many elderly do not identify themselves in terms of their chronological age, but rather in terms of a cognitive age, which is ten to fifteen years younger than their chronological age (Albin, 1985). The average age of the participated baby boomer is 57.90 years which, according to Albin’s research (1985), indicates that their chronological age should be between 42.90 and 47.90. With the estimated average age of 46.08 years for the model in the regular ad, this means that the used model is acceptable, although it is close to the upper end of the interval.
4.2 Three factors

As mentioned in chapter 3.3, a Factor Analysis with Varimax rotation was done. Both the Eigenvalue and the Scree-plot indicated a one-factor solution (the Eigenvalue for component one was larger than one, see Appendix E for the Scree-plot, the items and factor loadings of the Pattern Matrix). Given the theory, one factor is appropriate, which was named favorability (Eigenvalue=2.77). This factor explains 69.28% of the variance and forms a reliable scale (Cronbach’s α=0.85). For each of the four above-mentioned items, participants were asked to indicate to what extent they agreed with different statements (1=strongly disagree, 7=strongly agree). All scores for the four items is merged in one factor score, using unit weighting of items.

For credibility, both the Eigenvalues and the Scree-plot indicates a one-factor solution (the Eigenvalues for component 1 is larger than two, see Appendix F for the Scree-plot, the items and factor loadings of the Pattern Matrix). Again, one factor is appropriate, which is credibility (Eigenvalue=2.16) and is a reliable scale (Cronbach’s α=0.72). Just like for favorability, participants were asked to indicate to what extent they agreed with different statements belonging to credibility (1=strongly disagree, 7=strongly agree). All scores for the four items were merged in one factor score, using unit weighting of items.

Lastly, purchase intention is measured. Both the Eigenvalue and the Scree-plot indicates a one-factor solution (see Appendix G for the Scree-plot, the items and factor loadings of the Pattern Matrix). For purchase intention, a one factor is appropriate (Eigenvalue=2.44). This factor explains 81.19% of the variance and forms a reliable scale (Cronbach’s α=0.88). After all questions were answered, respondents were thanked for their participation.
4.3 Baby boomers’ attitude

Baby boomers are expected to have a higher favorability towards the tailored ad than to the regular ad. Results however are different, baby boomers do not favor tailored advertisement over regular advertisement, elderly show even a slightly higher favorability than baby boomers, but this difference is not significant \((t(77)=-0.06, p>0.20)\). For credibility too, was expected that baby boomers score higher for the tailored advertisement than for the regular advertisement. The result do not support this hypothesis \((t(77)=0.38, p>0.20)\).

Elderly were thought to have a higher favorability toward regular advertisements than to tailored advertisement. Results however show no significant difference between the two advertisements \((t(59)=0.30, p>0.20)\). For credibility, the results are similar, no significant difference resulted \((t(59)=-0.94, p>0.20)\). When looking at the interaction of the attitude-items separately, we see that that there is no interaction of the baby boomers on favorability \((F(20)=0.67, P>0.20)\), credibility \((F(14)=0.31, P>0.20)\) or a interaction of favorability and credibility \((F(26)=0.17, p>0.20)\).

Summarized, baby boomers did not show a more positive attitude towards the tailored ad than towards the regular ad. The attitude of the elderly showed no significant difference between the regular and the tailored ad. The interaction between the two items of attitude, favorability and credibility was not significant, as was the interaction of favorability and credibility.

4.4 Advertisements’ evaluation

Baby boomers are anticipated to evaluate both advertisements more positively than elderly do. The outcome showed that baby boomers do not implicitly evaluate both advertisements higher
than elderly. Favorability was evaluated marginal higher \((t(138)=1.43, p=0.08)\) on the tailored ad. Credibility was evaluated somewhat higher on the tailored ad, but not significant \((t(111.79)=0.25, p>0.20)\). Purchase intention however was evaluated differently for both advertisements. As expected, baby boomers score significantly higher than elderly \((t(138)=2.06, p=0.02)\). An Univariate Analysis of Variance shows a similar result \((F(1)=4.48, p=0.04)\).

### 4.5 Product preference

Expected is that baby boomers prefer the product higher than elderly do. Factor purchase intention is not preferred different for the two advertisements \((t(138)=-1.15, p>0.20)\). The means of both advertisements are very close to each other \((M_{reg}=2.17, Sd=1.27; M_{tail}=2.44, Sd=1.53)\). But when looking at each item of the factor separately, willing to try is significantly higher on the tailored ad than for the regular ad \((t(113.96)=2.28, p=0.01)\). Willing to buy too is higher for the tailored ad than for the regular ad \((t(138)=2.02, p=0.02)\). Product relevance is only marginal different perceived \((t(138)=1.18, p>0.12)\).

In order to reveal what the influence of favorability and credibility is on purchase intention, three regression analysis are conducted. Looking at the total group together, favorability and credibility are predicted to have positive effect on purchase intention. Significant effects of favorability and credibility on purchase intention are found \((\beta_{fav}=0.32, p=0.00; \beta_{cred}=0.35, p=0.00)\). When separating the baby boomers and elderly, a difference on favorability and credibility comes forward. So the attitude of baby boomers is of significant influence on purchase intention \((\beta_{favbb}=0.38, p=0.00; \beta_{credbb}=0.31, p=0.01)\), whereas for the elderly only credibility is of significant influence \((\beta_{faveld}=0.141, p>0.20; \beta_{credel}=0.47, p=0.00)\).
4.6 Differences between advertisements & age groups

4.6.1 Regular and Tailored advertisement

On average, participants did not differ in attitudes between the two advertisements. Only the item eye catching is higher for the regular advertisement (M=3.72, Se=0.20) than the tailored advertisement, but this difference is only marginally significant (M=3.42, Se=0.21, t(138)=1.03, p=0.15). Purchase intention however is perceived different. Participants more willing to try the product in the tailored advertisement (M=2.59, Se=0.21) than the product in the regular advertisement (M=2.33, Se=0.17), although this difference is marginally significant (138)=0.97, p=0.16. Item willing to buy too is perceived marginal different between the two advertisements. Tailored ad is marginally higher (M=2.41, Se=0.20) than the regular ad (M=2.12, Se=0.16), t(125.72)=1.11, p=0.14. Last item of purchase intention, relevance of the product, too is marginally higher (t(124.14)=0.99, p=0.16) for the tailored advertisement (M=2.33, Se=0.21) than for the regular advertisement (M=2.07, Se=0.16).

4.6.2 Baby boomer and Elderly

Attitude is partial different between the two age groups, so none of the credibility-items are perceived different (for all values apply p >0.20). For favorability, some remarkable results come forward. So experience elderly appealing significantly higher than baby boomers (M_el=4.54, Se=0.23; M_bb=3.97, Se=0.19; t(138)=1.92, p=0.03). Item attractive show the same results (M_el=3.89, Se=2.11; M_bb=3.49, Se=0.18) which is marginally significant (t(138)=1.44), p=0.07). This is quite surprising. Since the baby boomers were thought to be more favorable in general than elderly. Elderly find on average both advertisements more eye catching than baby boomers do (M_el=3.87, Se=0.23; M_bb=3.37, Se=0.19; t(138)=1.71,
Only item impressive is perceived better by baby boomers than by elderly ($M_{bb} = 3.04$, $Se = 0.17$; $M_{el} = 2.90$, $Se = 0.19$), only not significant, $t(138) = -0.54$, $p > 0.20$.

Elderly experience higher willingness to buy than baby boomers, which is consistent with previous research (Greco, 1993). So elderly are for example more willing to try the product than baby boomers ($M_{el} = 2.80$, $Se = 0.22$; $M_{bb} = 2.18$, $Se = 0.16$; $t(113.96)$, $p = 0.01$). On average, elderly are more willing to buy the product than baby boomers ($M_{el} = 2.54$, $Se = 0.21$) ($M_{bb} = 2.03$, $Se = 0.15$; $t(115.12) = 1.97$, $p = 0.03$). Remarkable after seeing the willingness to try and buy, that relevance is perceived just slightly higher for elderly than for baby boomers ($M_{el} = 2.36$, $Se = 0.20$; $M_{bb} = 2.05$, $Se = 0.17$; $t(138) = 1.18$, $p = 0.12$).

### 4.7 Conclusions

The purpose of this study is to examine if baby boomers should be seen as different elderly than the elderly as we know them now, the so-called modern elderly. In order to state a founded verdict on that matter, this study tested if baby boomers react more positively towards tailored advertisements than to conventional advertisements. The results deducted from this study suggest the following.

The answer to the problem definition [Is the attitude of baby boomers towards tailored advertisements more positive than their attitude towards conventional advertisements?], the short answer is no. As table 4.1 shows, baby boomers do not have a significantly more positive attitude toward tailored advertisements than to regular advertisements. Elderly were expected to have a more positive attitude toward regular advertisements than to tailored advertisements, yet results show that also elderly show no significant difference between both advertisements.
<table>
<thead>
<tr>
<th>Baby boomers' Attitude</th>
<th>Regular advertisement</th>
<th>Tailored advertisement</th>
<th>Elderly's Attitude</th>
<th>Regular advertisement</th>
<th>Tailored advertisement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Favorability</strong></td>
<td>3.46(1.18)*</td>
<td>3.48(1.45)*</td>
<td><strong>Favorability</strong></td>
<td>3.85(1.41)*</td>
<td>3.74(1.48)*</td>
</tr>
<tr>
<td><strong>Credibility</strong></td>
<td>3.48(1.24)*</td>
<td>3.37(1.25)*</td>
<td><strong>Credibility</strong></td>
<td>3.31(1.49)*</td>
<td>3.69(1.66)*</td>
</tr>
<tr>
<td><strong>Purchase intent</strong></td>
<td>2.08(1.16)*</td>
<td>2.09(1.42)*</td>
<td><strong>Purchase intent</strong></td>
<td>2.29(1.42)**</td>
<td>2.87(1.57)**</td>
</tr>
</tbody>
</table>

* Corresponding value is not significant (p>0.20)
** Corresponding value is marginal significant (p=0.07)

Table 4.1: Attitude of baby boomers and elderly on regular and tailored advertisement

Baby boomers do not react more positive on tailored advertisements than to regular advertisement as hypotheses 1a [Baby boomers have a higher favorability towards tailored advertisements than to conventional advertisements] and 1b [Baby boomers have a higher credibility towards tailored advertisements than to conventional advertisements] state. There were no conclusive differences found to support this hypothesis. Elderly also show no
significant difference between both advertisements through what hypothesis 2a [Elderly have a higher favorability towards conventional advertisements than to tailored advertisements] and 2b [Elderly have a higher credibility towards conventional advertisements than to tailored advertisements] are rejected.

Because the results show that elderly did not react differently to the two advertisements, this could indicate that elderly are not so much negative towards more modern advertisements, as thought of before. With that in mind, we can say after acknowledging hypothesis 1 and 2, hypothesis 3 [Baby boomers evaluate advertisements more positive than elderly] is also rejected.

In general it can be said that, the expectations of the differences between the age groups and the differences between the attitudes of the advertisements with this dataset are not significant. Only the purchase intention is significantly different between the two groups, whereas elderly are more willing to purchase the product, than baby boomers. The overall attitude of baby boomers was expected to be higher than the overall attitude of elderly. However, there is no significant difference in attitude between baby boomers and elderly. Purchase intention however, is significantly different between the two groups. Elderly are more willing to purchase the product than baby boomers do, independent which advertisement they have seen. It must be said that for the baby boomers, purchase intention is not significantly different per advertisement. But looking at the items separately, willing to try and willing to buy are both significantly higher for the tailored advertisement than for the regular advertisement. Mention worthy is, both favorability and credibility are of significantly influence on the purchase intention for the product, both for baby boomers as for elderly.
Although there are some significant differences in purchase intentions between baby boomers and elderly, there are some limitations which could explain the lack of attitude differences. The current perception of behavior, view and attitude with respect to elderly as we know them now, is expected not to change when baby boomers will mature into the elderly segment.
5 Discussion

The major finding in this study is that there is no evidence that baby boomers react more positively towards tailored advertisements than towards regular advertisements. Continuing the results, elderly do not react more negatively towards tailored advertisement than towards regular advertisements. This could have the following implications for marketing managers and organizations.

If we acknowledge that there is not enough attention towards baby boomers at this moment as Green (2003) and Nyren (2005) state, marketing managers and organizations could use their current knowledge and know-how and focus more on baby boomers. Since baby boomers do not require special advertisements, there is no need to invest and develop special ads. The results show that there is no significant difference in attitude between the two groups. Also, baby boomers and elderly are willing to try and purchase the product after seeing the advertisement as Milliman and Erffmeyer (1990) state. With this in mind, (marketing) managers should apply their marketing efforts towards these groups and market shares expand and organizations will gain more profits.

As results of this study show, elderly do not change their attitude and purchase intention negatively after seeing a tailored advertisement. Managers could broaden their focus-spectrum and also address elderly, as an alternative of sheltering the audience and limiting the potential viewers of the advertisements as currently done.
The factors used in this study (favorability, credibility and purchase intention) are reliable elements which managers should take into account when advertising baby boomers and elderly in general. Especially favorability and credibility, these factors showed to be of significant influence on the purchase intention of the viewer.

5.1 Limitations

Every research encounters some setbacks or disappointments with regard to the data-set which limits the study, their results or conclusions. Although a lot of attention and effort is put into the advertisements and the difference between them and the manipulation-check prior to the survey, results show that it did not work out as expected. Reactions of the advertisements in general were not as expected. There were only few and small differences between attitude and purchase intention between the two advertisements and between the two groups. The advertisements were homespun and not professionally developed. Not only the layout, the positioning and the arranging of the layout were homespun, also the model-choice and (informational) texts around the advertisement. A professional touch on the advertisements could result in more and bigger differences between the advertisements themselves as the results between the groups.

Another limitation is the conceptual model of attitude and purchase intention of this study. Although the study is similar to the studies as done in the ‘70’s and late ‘90’s, this study does not explain all the variance. It seems that there are other variables which are not taken into account influences on the attitude and the purchase intention of the participants.
A different limitation is the generalizing use of the product. Although literature and the results show that shampoo is an appropriate product for this study (Greco, 1993), a more modern product like a laptop, mobile- or smart-phone, could bring more weight in the attitude- and purchase intention-difference between the baby boomers and the elderly.

The sample itself was not optimal. As results showed, there participated significantly more males. A better division is more desirable as this would generalize the representation of the population better. The background of the participants were also skewed. 62.20% owes a HBO or higher degree of education, where in the Netherlands the average HBO degree or higher for baby boomers and elderly is 2.16% (CBS, 2010).

Last limitation is the size of the dataset. The dataset does not count a large sample size, N=140. Research with a larger dataset will find more significant differences, whereas smaller differences in a larger sample size are more meaningful.

5.2 Recommendations for future research focus

Considering the limitations, the first recommendation is to improve the advertisements with a more professional design. The model of the new regular advertisement should be estimated more in the center of the cognitive age of the baby boomers whereas the estimated age of the tailored ad should be in the center of the actual age of the baby boomers. The two advertisements will differ more resulting in a more excessive outcome of results.

The product in the advertisements is also recommended to change. A modern product will show greater differences between the two groups. I still believe that baby boomers use this
product more than elderly and therefore are more adjusted to these modern times resulting in modern elderly.

Another recommendation is to investigate why elderly in this study did not react negative towards the tailored advertisement. Maybe the current elderly have adjusted somewhat to their environment and accepted modern advertisement. Continuing this thought, there could be a difference in attitude between elderly living at home (independently) and elderly living in service homes.

The last recommendation is to redo the survey with a larger sample size. This new sample size should have a normal distribution of gender and representative educational degree of the actual baby boom- and elderly population.
6 References

6.1 Papers


6.2 Books


6.3 Internet sites

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Appendix A
The Audience-Product Matrix by Greco (1993)

Top-left cell is ideal for products which can be used for all ages (age-neutral products) and can be specially addressed to the specific targeted audiences. If the product lends itself to be used for specialized advertisements, the same product can be used in different advertisements. For example, certain medicines where older models are used to address the older segment where the same product is promoted with younger models, to address younger audiences.

The bottom-left cell is used for products only used for elderly where the audience is sheltered. For example, electric mobility vehicles or discounts for stair lifts. In these advertisements, typically older models are used and the audience can better relate to the product without being offended.
Top-right cell is used for products which cannot be sheltered and uses younger models. This so the product is not branded as age-specific, unless the product needs certain credibility. In that case older models are used for the credibility purpose.

Bottom-right cell includes products where elderly are above average users, like body lotions, mouthwashes and various food products. Because younger audiences buy and use these products as well, the model should be younger than the elderly audiences, but old enough so they can relate to him or her.

Appendix B

Used advertisement in questionnaire, regular
Capelli, om haar precies te geven wat nodig is

Om haar lang jong te houden zoals het nu is, zit Capelli vol met vitaminen en mineralen, maar om haar glansrijker en voller te maken, zit Capelli ook vol met gepatenteerde voedingsstoffen en proteïnen.
Appendix C

Used advertisement in questionnaire, tailored
Omdat haar geen rekening houdt met leeftijd, maar Capelli wel met haar

Capelli, de nieuwe shampoo die veroudering van haar tegen gaat

Door niet het haar maar de wortels te voeden met vitaminen, proteïnen en mineralen wordt de natuurlijke haargroei vanuit de wortels gestimuleerd.
## Appendix D

Overview survey questions

<table>
<thead>
<tr>
<th>Survey questions</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All participants</td>
</tr>
<tr>
<td>What is your gender? (% m/f)</td>
<td>61.43 / 38.62</td>
</tr>
<tr>
<td>What is your year of birth? (age)</td>
<td>64.31</td>
</tr>
<tr>
<td>How many children do you have?</td>
<td>2.82</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>3+</td>
</tr>
<tr>
<td>In what year is your youngest child born?</td>
<td>1961</td>
</tr>
<tr>
<td>What is your highest educational degree? (%)</td>
<td></td>
</tr>
<tr>
<td>MULO</td>
<td>5.70</td>
</tr>
<tr>
<td>MMS</td>
<td>1.40</td>
</tr>
<tr>
<td>HBS</td>
<td>12.10</td>
</tr>
<tr>
<td>Sector</td>
<td>1.40</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Gymnasium</td>
<td>1.40</td>
</tr>
<tr>
<td>LTS/LLS</td>
<td>0.70</td>
</tr>
<tr>
<td>MBO</td>
<td>6.40</td>
</tr>
<tr>
<td>HBO</td>
<td>33.60</td>
</tr>
<tr>
<td>WO</td>
<td>38.60</td>
</tr>
</tbody>
</table>

In what sector is your occupation? (%)

<table>
<thead>
<tr>
<th>Sector</th>
<th>30.00</th>
<th>12.70</th>
<th>52.50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retired</td>
<td>30.00</td>
<td>12.70</td>
<td>52.50</td>
</tr>
<tr>
<td>Self-employed</td>
<td>19.30</td>
<td>19.00</td>
<td>19.70</td>
</tr>
<tr>
<td>Education</td>
<td>4.30</td>
<td>6.30</td>
<td>1.60</td>
</tr>
<tr>
<td>Government</td>
<td>1.40</td>
<td>2.50</td>
<td>0.00</td>
</tr>
<tr>
<td>Construction</td>
<td>2.90</td>
<td>3.80</td>
<td>1.60</td>
</tr>
<tr>
<td>(Financial) services</td>
<td>13.60</td>
<td>21.50</td>
<td>3.30</td>
</tr>
<tr>
<td>Healthcare</td>
<td>5.00</td>
<td>7.60</td>
<td>1.60</td>
</tr>
<tr>
<td>ICT</td>
<td>3.60</td>
<td>3.80</td>
<td>3.30</td>
</tr>
<tr>
<td>Catering</td>
<td>0.70</td>
<td>-</td>
<td>1.60</td>
</tr>
<tr>
<td>Industrial or Energy</td>
<td>0.70</td>
<td>1.30</td>
<td>-</td>
</tr>
<tr>
<td>Not/housekeeping</td>
<td>7.10</td>
<td>10.10</td>
<td>3.30</td>
</tr>
<tr>
<td>Other</td>
<td>11.40</td>
<td>11.40</td>
<td>11.50</td>
</tr>
</tbody>
</table>
## Survey questions

### According to you, how old would you think this model is?

<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>Baby participants</th>
<th>Elderly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular / Tailored ad</td>
<td>49.70</td>
<td>49.80</td>
<td>49.70</td>
</tr>
</tbody>
</table>

### Favorability (M (StDv))

<table>
<thead>
<tr>
<th>Statement</th>
<th>All (M = 1.75)</th>
<th>Baby (M = 1.69)</th>
<th>Elderly (M = 1.79)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I find this ad appealing</td>
<td>4.22</td>
<td>3.97</td>
<td>4.54</td>
</tr>
<tr>
<td>I find this ad impressive</td>
<td>2.98</td>
<td>3.04</td>
<td>2.9</td>
</tr>
<tr>
<td>I find this ad attractive</td>
<td>3.66</td>
<td>3.49</td>
<td>3.89</td>
</tr>
<tr>
<td>In a different situation, this ad would catch my attention</td>
<td>3.59</td>
<td>3.37</td>
<td>3.87</td>
</tr>
</tbody>
</table>

### Credibility (M (StDv))

<table>
<thead>
<tr>
<th>Statement</th>
<th>All (M = 1.57)</th>
<th>Baby (M = 1.38)</th>
<th>Elderly (M = 1.79)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I find this ad believable</td>
<td>2.94</td>
<td>2.86</td>
<td>3.05</td>
</tr>
<tr>
<td>This ad informs me about the USE (or functionality) of the product</td>
<td>3.41</td>
<td>3.46</td>
<td>3.34</td>
</tr>
<tr>
<td>I find this ad clear</td>
<td>4.02</td>
<td>3.97</td>
<td>4.08</td>
</tr>
</tbody>
</table>

### Purchase intention (M (StDv))

<table>
<thead>
<tr>
<th>Statement</th>
<th>All (M = 1.60)</th>
<th>Baby (M = 1.42)</th>
<th>Elderly (M = 1.75)</th>
</tr>
</thead>
<tbody>
<tr>
<td>After seeing this ad, I would like to try this</td>
<td>2.45</td>
<td>2.18</td>
<td>2.8</td>
</tr>
<tr>
<td>Product</td>
<td>After seeing this ad, I would like to buy this</td>
<td>This product is (personally) relevant for me</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>---------------------------------------------</td>
<td>---------------------------------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.25 (1.52)</td>
<td>2.19 (1.54)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.03 (1.37)</td>
<td>2.05 (1.54)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.54 (1.66)</td>
<td>2.36 (1.53)</td>
<td></td>
</tr>
</tbody>
</table>
Appendix E

Factor analysis for item ‘favorability’

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Favorability</td>
</tr>
<tr>
<td>Appealing</td>
<td>0.86</td>
</tr>
<tr>
<td>Impressive</td>
<td>0.79</td>
</tr>
<tr>
<td>Attractive</td>
<td>0.89</td>
</tr>
<tr>
<td>Eye catching</td>
<td>0.78</td>
</tr>
</tbody>
</table>

Cronbach's $\alpha$ 8.85  
Eigenvalue 2.77  
Total variance explained (%) 69.28

* Extraction method: Principal Component Analysis;  
  Rotation method: Varimax.
Scree Plot Factor favorability with appealing, impressive, attractive and eye catching as items
## Appendix F

Factor analysis for item ‘credibility’

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Credibility</td>
</tr>
<tr>
<td>Believable</td>
<td>0.79</td>
</tr>
<tr>
<td>Informative</td>
<td>0.89</td>
</tr>
<tr>
<td>Clear</td>
<td>0.84</td>
</tr>
</tbody>
</table>

Cronbach's $\alpha$ 0.72  
Eigenvalue 2.12  
Total variance explained (%): 70.5

* Extraction method: Principal Component Analysis; Rotation method: Varimax.
Scree Plot Factor credibility with believability, informative and clear as items
# Appendix G

Factor analysis for item purchase intention

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willingness to try</td>
<td>0.90 Purchase</td>
</tr>
<tr>
<td>Willingness to buy</td>
<td>0.90</td>
</tr>
<tr>
<td>Relevance</td>
<td>0.66</td>
</tr>
</tbody>
</table>

Cronbach's $\alpha$ 0.88  
Eigenvalue 2.44  
Total variance explained (%) 81.19  

* Extraction method: Principal Component Analysis; Rotation method: Varimax.
Scree Plot Factor purchase intent with willing to try, willing to buy and relevance as items