The role of self-congruity on emotional brand attachment in hedonic product categories.

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Abstract
In this research, the role of actual self-congruence and ideal self-congruence on emotional brand attachment on branded products in hedonic product categories is investigated. The results are compared with conducted data about utilitarian product categories in this research and previous results found by Malär et al. (2011). The used method is a survey-based questionnaire where respondents evaluated two (randomized) brands. In total six brands were evaluated of which four were hedonic and two were utilitarian brands. Based on the answers of 331 respondents, it can be concluded that both actual self-congruence and ideal self-congruence play a role in creating emotional brand attachment. The authentic branding strategy (based on actual self) seems to work better in most situations than the aspiration branding strategy (based on ideal self). However, two exceptions were found: Hugo Boss and Colgate. These brands were from a different product category (hedonic vs. utilitarian) and therefore, the role of the product category seems limited. It can be concluded that mainly brands in the personal care and make up industry can benefit from an aspirational branding strategy because of psychological factors.

The two tested moderators, product involvement and self-esteem, both seem to have a fairly limited influence on the creation of emotional brand attachment, since the effects are only found for one of the brands. High product involvement led to a stronger relationship between self-congruence and emotional brand attachment, for both actual self-congruence and ideal self-congruence. The second moderator, self-esteem, only had a (negative) effect on the relationship between actual self-congruence and emotional brand attachment. The lower the self-esteem of a consumer, the weaker emotional brand attachment became. The found effect can be explained by the verification theory (Swann, 1983) because consumers with a low self-esteem do not want to verify their actual situation since this will not make them feel better about themselves.
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1. Introduction

Over the past few decades, the discretionary income of the Dutch population has increased. Compared to the early 90’s, the discretionary income in 2016 increased with 14% (CBS, 2016). The increase of the discretionary income created a shift in the consumption of products: from necessities to both necessities and hedonic products (Goncalves, 2009). Compared to necessities, hedonic products provide more of an emotional experience and contain values of aesthetics, pleasure and fun (Hirschman and Holbrook, 1982) and are usually more luxurious.

Consumers often use products and brands to express themselves and show the world who they are. Therefore, it is important for them that the product or brand possesses images that are similar with the self-concept, which is “the totality of the individual’s thoughts and feelings having reference to himself as an object” (Sirgy, 1982, p.287) of the consumer (Belk et al., 1982; cited in Richins, 1994).

Over the past couple of decades, much research has been conducted about the role of self-concept and the influence of self-congruity. The majority of these researches focused on the outcome of loyalty or (brand) attachment. The actual self and the ideal self both have been found to influence brand attachment, satisfaction and loyalty (Malär et al., 2011; Jamal and Goode, 2001; Achouri and Bouslama, 2010). The actual self represents a perceived reality of oneself at the current time (Malär et al., 2011) while the ideal self represents an aspirational self, shaped by imagination (Zinkhan and Hong, 1991). Results show mainly the actual self influences brand attachment (Malär et al., 2011). However, the authors did find that the ideal self-congruence played a role in certain situations, for example when consumers’ self-esteem is low, when product involvement is low and when consumers have a low public self-consciousness. Furthermore, research by Higgins (1987) showed that a larger gap between the actual and ideal self (high self-discrepancy) leads to a greater the pursuit of the ideal self.

Although extensive research has been conducted on the role of self-congruity on brand attachment, it is not free from limitations that are interesting to investigate further. One key restriction of research conducted by Malär et al. (2011) was the focus on utilitarian product categories rather than hedonic product categories. Since these product categories provide different purposes as stated above, there are indications that results found by Malär et al. (2011) may differ for hedonic product categories. It is expected ideal self-congruence leads to stronger emotional brand attachment than actual self-congruence because in general hedonic
product categories are focused on the ideal image in their communication also known as aspirational branding (Bhat and Reddy, 1998). Malär et al. (2011) state in their limitations that the “effects of self-congruence may be more important for hedonic and symbolic products and not as important for utilitarian products in which other functions play a role (e.g., technical aspects)” (p. 45).

Conducting a research that is focused on hedonic product categories in combination with the relative impact of the actual and ideal self can therefore fill the gap in the literature. Especially because, as discussed above, there is reason to believe that different outcomes may arise from research on this category. The results will provide a framework that can be implemented by marketing- and brand managers within hedonic product categories, like the cosmetics and (fashion) accessories markets.

The objective of this research is thus to investigate the role of actual and ideal self-congruity on brand attachment for branded products within hedonic product categories. In order to conduct a feasible research, four hedonic brands and products are chosen: Adidas (sportswear / apparel), Apple (smartwatch), Samsung (S7) and Hugo Boss perfume. The categories are chosen based on the general image of their degree of hedonism and because all brands are in general well known. Furthermore, two utilitarian products are chosen to test the statistical difference between the two categories. The chosen utilitarian products are: toothpaste from Colgate and laundry detergent from Persil. Therefore, the research question is as follows:

“Are the effects of actual and ideal self-congruence on emotional brand attachment as found in utilitarian product categories different for branded products within hedonic product categories?”

1.1 Relevance

Results of this research will fill the current gap in the literature. It is an extension of previous research about the role of self-congruity on consumer behaviour and will eventually lead to a better understanding of the customer and the role of self-congruity on emotional brand attachment. When looking at current literature, the overall limitation is that there is usually no distinction made between different product categories (hedonic vs. utilitarian). However, the majority of the studies do support the influence of self-concept on satisfaction, loyalty and purchase intention. Therefore, it would be good to study whether there is a difference in the influence of the actual self and the ideal self on different product categories. Malär et al. (2011) investigated the influence of the self-congruity on emotional brand attachment
previously, however this research was mainly focused in utilitarian product categories. Results are expected to differ due to the different purposes of brands in hedonic product categories and different branding strategies. Hedonic product categories often use the aspirational branding strategy where there is a larger focus on the ideal self. Because of this, current literature about the utilitarian categories cannot be transferred to the hedonic categories without further investigation. Therefore, this research will focus on the relative impact of the actual self and ideal self on emotional brand attachment of branded products within hedonic product categories. The results of this thesis will provide a framework that can be implemented by marketing- and brand managers within the hedonic product categories, like the cosmetics and (fashion) accessories markets. Furthermore, current theories about the influence of self-congruity, including the two moderators, can be supported or rejected by comparing the results from this thesis with previous research.

Since emotional brand attachment is one of the key aspects of a customer-brand relationship (Park, MacInnis, Priester, Eisingerich and Iacobucci, 2010), it is important to get a better understanding of this phenomenon. Companies nowadays focus more on building a sustainable relationship with the customers due to the increasing amount of competitors and in order to remain competitive, a sustainable relationship with the customer is needed. Customers who have an emotional bond with the brand are in general more willing to pay a higher price (Thomson et al., 2005), which can lead to competitive advantages for the company because they will get a higher revenue.

1.2 Structure
Section 2 of this thesis contains theoretical background, where the concept of self-congruity will be further explained. Furthermore section 3 will be focused on methodology. Section 4 shows the main results of the research and section 5 contains a discussion and conclusion.
2. Theoretical background

2.1 Self-concept

The influence of self-concept, a central concept in this research, in buying behaviour has been researched in several studies over the past decades (Sirgy, 1982; Belk, 1988; Jamal and Goode, 2001; Achouri and Bouslama, 2010; Malär et al., 2011). The most used definition of self-concept stems from Rosenberg (1979): “the totality of the individual’s thoughts and feelings having reference to himself as an object” (Sirgy, 1982, p.287). One possible way for consumers to express themselves is through their possessions and brand choice. Products do not just contain functional characteristics; they also convey an image or personality (Zinkhan and Hong, 1991). Therefore, consumers often use products to express themselves. Research by Belk et al. (1982) found that consumers have a preference for products that possess images that are similar with their self-concept.

Previous research (Achouri and Bouslama, 2010; Jamal and Goode, 2001) distinguishes four dimensions of self-image, however in order for the research to remain feasible due to the short time period, only two of them will be used in this thesis. The actual self represents a perceived reality of oneself at the current time while the ideal self represents an aspirational self, shaped by imagination (Zinkhan and Hong, 1991). Another reason these two dimensions have been chosen is because previous research by Malär et al. (2011), which forms the basis of this research, only used the actual and ideal self-concepts as well. In order to compare the results in a later stage, it is important to use the same concepts.

2.2 Self-congruity theory

The second important theory used in order to answer the research question is the self-congruity theory. Self-congruity theory can be interpreted as an extension of the self-concept (Uşakli and Baloglu, 2010). Self-congruity is “the match between the product’s value-expressive attributes (product-user image) and the audience’s self-concept” (Sirgy 1991, cited in Klipfel, Barclay, and Bockorny 2014, p.130). Self-congruity is often called the self-image/product image congruity, because it creates a link between the self-image of a consumer (self-concept) and the brand image. Brand image refers to “the set of associations linked to the brand that consumers hold in memory” (Keller, 1993, p.2).

According to Sirgy et al. (1991), self-image congruence models are based on a cognitive match between the attributes of a product that express value and the self-concept of a consumer. The models are used for prediction of consumer behaviour like attitude, intention,
behaviour and loyalty (Sirgy et al., 1991). Based on the self-concept, there are four dimensions in the self-congruity theory (Sirgy et al., 1982). Actual self-congruity is the fit between the actual self of a consumer and the brand’s personality (image) while ideal self-congruity means there is congruity between the ideal self of a consumer and the brand’s personality (image) (Sirgy et al., 1982). Social self-congruity is the congruence between the (actual) social self of a consumer and the brand’s personality while ideal social self-congruity focuses on congruence between the ideal social self of a consumer and the brand’s personality (Sirgy et al., 1982). Actual self-congruence is based on self-verification theory (Swann, 1983), where consumer search for experiences and products that verify and validate their self-concept. In order to verify and validate their self-concept, consumers are more likely to purchase brands whose personality fits with the consumers’ actual self. In contrast to the self-verification theory, there is the self-enhancement theory. This is the underlying theory for ideal self-congruence (Ditto and Lopez, 1992, as cited in Malär et al., 2011). According to the self-enhancement theory, people attempt to find experiences that enhance their self-esteem and therefore increase their perceived personal worth. In situations where a brand’s personality reflects the ideal self of a consumer, the brand can give a consumer the feeling of getting closer to their ideal self. Therefore, consumers focused on the ideal self are more likely to consume brands that communicate this ideal self-image.

Self-congruity plays a role in creating emotional brand attachment (Malär et al., 2011). They state that consumers strive for consistency in their beliefs and behaviours in order to reduce feelings of unpleasantness and tension (Malär et al., 2011). As said before, consumers have a preference for products that possess images that are similar with their self-concept (Belk et al., 1982).

2.3 Emotional brand attachment

“Emotional brand attachment reflects the bond that connects a consumer with a specific brand and involves feelings toward the brand” (Malär et al., 2011, p.36). Emotional brand attachment contains three elements: connection, affection and passion (Thomson, MacInnis, and Park, 2005). According to research by Park et al. (2010), emotional brand attachment is important for brands because it is one of the key aspects of a customer-brand relationship. It can help to grow a brand’s profitability and the customer lifetime value (Park et al., 2010). The growth of profitability and customer lifetime value could be partly explained by the willingness of consumers to pay a higher price for products when they feel emotionally attached to the brand (Thomson et al., 2005). Furthermore, consumers are in general more
committed to maintain a relationship when they are strongly attached to a person or object (Johnson and Rusbult, 1989; Miller, 1997). Commitment is defined as “the degree to which an individual experiences long-term orientation toward a relationship, including intent to persist through both ‘good and lean times,’ feelings of psychological attachment, and implicit recognition that one ‘needs’ a relationship” (Van Lange, Rusbult, Drigotas and Arriaga, 1997, p.1374). A relevant indicator of commitment in a marketing context is consumer loyalty towards a brand (Garbarino & Johnson, 1999). Loureiro et al. (2012) conceptualize loyalty in terms of intention to repurchase and positive word-of-mouth. Furthermore, Loureiro et al. (2012) show brand attachment results in feelings of brand love, which in turn can lead to commitment, trust, and loyalty. The conceptualization of brand love by Loureiro et al. (2012) is similar to the conceptualization of brand attachment by Thomson et al. (2005). Both authors state that the concept includes feelings of passion and positive evaluations.

2.4 Hedonic vs. utilitarian product categories

Product categories can be distinguished in two categories, namely hedonic product categories and utilitarian product categories. The utilitarian product categories, also known as necessity product categories consist of categories consumers purchase based on their functional aspects and these products tend to relieve an unpleasant state of discomfort (Kivetz and Simonson, 2002). Examples of utilitarian products are microwaves, personal computers and detergents (Dhar and Wertenbroch, 2000). Hedonic product categories, which are in general more luxurious, provide a more experiential consumption. Products that fall into this category are for example designer clothes, (luxurious) watches, sports cars etc. (Dhar and Wertenbroch, 2000). As stated by Lim and Ang (2008, p. 226), “A hedonic benefit claim describes an affective benefit that satisfies hedonic needs for sensory pleasure”. It is expected that the role of the ideal self is larger in hedonic product categories compared to utilitarian product categories because it is more focused on the emotional benefits and uses aspirational branding more frequently.

Current knowledge about the influence of self-congruence cannot be transferred to the hedonic product category without further investigation because of the different purposes and because the products are evaluated on different aspects. Consumers purchase utilitarian goods to fulfil their (practical) needs while they purchase hedonic products for the sensory experience. Hedonic products are evaluated on for example aesthetics, symbolic meaning and taste (Holbrook and Moore, 1981), while utilitarian products are evaluated on their
functionality. Further research is therefore needed to investigate whether the influence of self-congruity is indeed different in hedonic product categories.

2.5 The influence of self-concept and self-congruity on consumer behaviour.

Over the past decades, a lot of research has been conducted about the influence of self-concept / self-congruity on consumer behaviour. Research by Jamal and Goode (2001) and Achouri and Bouslama (2010) shows congruence between brand personality and the consumer’s self-image leads to higher satisfaction (a positive feeling a customer experiences after consumption) and higher loyalty (the intention to purchase a brand or a product and encourage others to do so as well). Furthermore, congruence between the actual self and the brand personality leads to higher brand attachment in utilitarian product categories (Malär et al., 2011).

A literature review by Achouri and Bouslama (2010) shows congruence between the brand personality and the consumer’s self-image has a crucial role in the relationship between the brand and the consumer. As stated before, consumers prefer brands that possess images that are similar to their self (Belk et al., 1982). Research by Jamal and Goode (2001) found that self-image congruity is a good predictor for brand preference in the jewellery industry in the UK. Respondents who had a high level of self-image congruity were more likely to evaluate the brand higher and were more satisfied compared to the respondents who had a low level of self-image congruity. Both evaluations and satisfaction are indicators for emotional brand attachment and therefore it can be assumed that similar results will occur in this research. Moreover, people generally strive for consistency in their beliefs and behaviours (Malär et al., 2011) and are therefore more motivated to form a bond with a brand that validates their self-concept rather than creating a bond with a brand that is further away from their actual self. As explained before, there is a reason to believe that actual self-congruence leads to emotional brand attachment, due to the self-verification theory. Therefore, the first hypothesis is as follows:

H1a: Congruence between the actual image of a consumer and the brand’s personality leads to emotional brand attachment for branded products within hedonic product categories.

Furthermore, there is reason to believe ideal self-congruence also leads to emotional brand attachment due to the self-enhancement theory. The self-enhancement theory shows that in situations where a brand’s personality reflects the ideal self of a consumer, the brand can give a consumer the feeling of getting closer to their ideal self (Malär et al., 2011). Consumers are
trying to find experiences that enhance their self-esteem and that way increase their perceived personal worth (Ditto and Lopez, 1992). In general, hedonic product categories seem to focus more on aspirational branding and more likely to focus on ideal self-congruence and therefore it is expected that ideal-self congruence leads to stronger emotional brand attachment.

**H1b: Congruence between the ideal image of a consumer and the brand’s personality leads to stronger emotional brand attachment than congruence between the actual image of a consumer and the brand’s personality for branded products within hedonic product categories.**

Additionally, consumers who have a high self-discrepancy (HSD) are likely to purchase material possessions in order to achieve their ideal self (Yu, Jing, Su, Zhou and Nguyen, 2016) because it increases their happiness. When a consumer has high self-discrepancy it means there is a large gap between their actual self and their ideal self. Self-discrepancy is often associated with low self-esteem. Because material possessions fulfil both functional and psychological consumer needs and are more effective in achieving an ideal self because of the tangibility and (social) symbolism, HSD-consumers are more likely to buy hedonic products. This way the consumers can use possessions to express themselves and to remind themselves of who they are (Belk 1982, cited in Richins, 1994). As stated in H1b, it is assumed the ideal self plays a role in emotional brand attachment. Research by Malär et al. (2011) indicates congruence between the ideal self and the brand’s personality increases emotional brand attachment in certain situations. When a consumer has a low self-esteem, self-enhancement is more likely to occur. In order to increase their perceived personal worth, consumer attempt to find experiences that enhances their self-esteem. Congruence between the brand’s personality and the ideal self of a consumer, gives the consumer a feeling of getting closer to their ideal self and therefore the consumer is likely to be more attached to the brand. Consequently, the following hypothesis is formulated:

**H2a: Congruence between the ideal image of a consumer and the brand’s personality increases emotional brand attachment for branded products within hedonic product categories when the consumers’ self-esteem is low.**

Whereas it is assumed ideal self-congruence has a positive effect on emotional brand attachment within hedonic product categories, actual self-congruence might have a contrasting effect. Previous research by Malär et al. (2011) shows congruence between the
actual image of a consumer and the brand’s personality leads to emotional brand attachment, however the authors investigated utilitarian product categories. The authors assume differences might appear in hedonic product categories, as mentioned in the limitations of their research. Since actual self-congruence is based on the self-verification theory, where consumer search for experiences and products that verify and validate their self-concept, actual self-congruence is less likely to lead to emotional brand attachment when self-esteem is low. If the actual self of a consumer with low self-esteem is congruent with the brand’s personality, the consumer is less likely to verify his or her situation by purchasing the brand. They are more likely to avoid these products, since it might lead to an even lower self-esteem. Hence, the following hypothesis if formulated:

\[ H2b: \text{Congruence between the actual image of a consumer and the brand’s personality has a negative effect on emotional brand attachment for branded products within hedonic product categories when the consumers’ self-esteem is low.} \]

Malär et al. (2011) indicate not only self-esteem is an important moderator, but also (low) product involvement could play a role in increasing emotional brand attachment when there is congruence between a consumer’s ideal self and a brand’s personality. Consumers can use the brand’s positive image to enhance their own self-image, without elaborating about their own ideal self in detail (Malär et al., 2011). If a customer is highly involved with a product, self-evaluation can become lower, which increases the chance of negative emotions to occur if the ideal image is not congruent with the brand’s personality. “Self-evaluation examines the process through which people can maintain positive self-evaluations when facing potentially threatening comparisons with others” (Malär et al., 2011, p. 39). Consumers are less likely to engage in a detailed comparison process when product involvement is low and can therefore experience the positive emotions associated with the brand. Consequently, this will lead to higher emotional brand attachment. Therefore, the third hypothesis is as follows:

\[ H3a: \text{Congruence between the ideal image of a consumer and the brand’s personality increases emotional brand attachment for branded products within hedonic product categories when product involvement is low.} \]

Compared to the relationship described above, it is expected the actual image has a less positive effect on emotional brand attachment. Due to less positive spillover effects between the actual image and the positive brand image, the effect is expected to be less strong when there is ideal self-congruence. Furthermore, consumers with high product involvement are
more likely to invest in the cognitive capacity that is needed for self-verification while consumers with low product involvement are leaning more towards brands that are congruent with their ideal self in order to enhance themselves (Malär et al., 2011). Hence, the last hypothesis is formulated:

**H3b**: *Congruence between the actual image of a consumer and the brand’s personality has a less positive effect on emotional brand attachment for branded products within hedonic product categories when product involvement is low than congruence between the ideal image of a consumer and the brand’s personality.*

Furthermore, a distinction can be made between men and women. However, this will not be addressed in a hypothesis, but will be analysed after data is collected. This distinction could be relevant for this research because women tend to have a higher level of brand commitment, hedonic consumption and impulse buying than men (Tifferet and Herstein, 2012). One of the main reasons women buy hedonic products is to relief from dissatisfaction with one’s self-image (Apaolaza et al., 2011). This again indicates the self-enhancement theory plays a role.

Moreover, both hedonic as well as utilitarian products categories will be investigated. As stated before, there are assumptions results could differ in the different product categories. Differences can occur because hedonic product categories are mainly used for sensory experiences while utilitarian products are usually purchased based on their functional aspects. In order to test statistical differences, data from both categories will be collected. However, this subject is not addressed in a hypothesis, but the data will be analysed.

2.7 Conceptual framework

Based on previous research by Malär et al. (2011), the following conceptual framework has been designed, where the moderators product involvement and self-esteem are included. The conceptual framework shows a visualisation of the formulated hypothesis and the expected relationship between the variables. The independent variables in the framework are congruence between a consumer’s actual image and the brand’s personality and congruence between a consumer’s ideal image and the brand’s personality. It is assumed these variables both have an effect on the dependent variable: emotional brand attachment. The relationship between ideal self-congruence and the brand’s personality is moderated by low self-esteem and low product involvement and the relationship is expected to be positive in these situations. The relationship between actual self-congruence and the brand’s personality,
moderated by low self-esteem, is expected to be negative and the relationship between actual self-congruence and emotional brand attachment, moderated by low product involvement is expected to be less positive than the relationship between ideal self-congruence and emotional brand attachment, moderated by low product involvement.

Figure 1: Proposed framework linking self-congruence to emotional brand attachment, including two moderators.
3. Methodology

In order to answer the research question, data will be collected via an online survey. This method has been chosen because individual attitudes and orientations for a large population can be measured via a survey (Babbie, 1995).

The survey is based on the survey used by Malär et al. (2011) and is divided into five sections. Section one is used to measure the degree of hedonism of the product. This concept is measured via one item, where the respondent indicates whether s/he thinks the product is a necessity or a luxury. The item is measured using a 5-point Likert scale, ranging from ‘always a necessity’ to ‘always a luxury’. Even though a luxurious product is not the same as a hedonic product, hedonic products are usually more luxurious than utilitarian products. The second section is to measure the actual and ideal self-congruence. Both concepts will be measured via two identical questions, as can be seen in the survey (Appendix A and B). The two items together make up the construct actual self-congruence, which has a Cronbach’s alpha between .737 and .874 (different outcomes for each brand, all of the figures can be found in Appendix C). The construct of ideal self-congruence, also measured using two items, has a Cronbach’s Alpha between .811 and .939. The third section is focused on measuring emotional brand attachment. Emotional brand attachment will be measured by three components: affection, connection and passion. Malär et al. (2011) used six items in total to measure emotional brand attachment (Cronbach’s alpha between .868 and .939). Affection consisted of the items ‘affection’ and ‘love’. Connection consisted only one item, which was called ‘connection’ and passion was measured via three items: ‘passion’, ‘delight’ and ‘captivation’. Section four measured product involvement, which is one of the moderators in this research. This component is measured by five items with a Cronbach’s Alpha between .885 and .915. The other moderator, self esteem, is measured in section five. Four different items combined measure self esteem (Cronbach’s Alpha of .785). All response categories, except from the degree of hedonism as can be seen above, consist of a 5-point Likert scale, ranging from ‘strongly disagree’ to ‘strongly agree’. Even though research nowadays prefers a 7-point Likert scale, a 5-point Likert scale has been chosen in order to compare results to previous research by Malär et al. (2011).

The survey is pretested and further refined on the basis of the comments of ten master students at the Radboud University. In the survey, respondents answered all questions for six different brands. The decision has been made to test specific brands rather than general product categories, because a brand contains certain human traits consumers can identify
themselves with (Aaker, 1997). Four of the brands have products that are considered to be hedonic products and the other two brands are utilitarian brands. The following hedonic brands and products have been chosen: Adidas (sportswear/apparel), perfume by Hugo Boss, a smartwatch from Apple and a phone (S7) from Samsung. Furthermore the following utilitarian products and brands have been chosen: toothpaste (Colgate) and laundry detergent (Persil). The brands have been chosen based on the popularity and the likelihood that respondents were familiar with the brands. The brands were randomized through Qualtrics and were divided into two groups. The first group consisted of Adidas, Hugo Boss and Colgate, while the second group consisted of Apple, Samsung and Persil. The brands were combined this way because the chances of evaluating a hedonic brand was equal in both groups (66%). This choice has been made because the focus of this thesis is on hedonic product categories. Testing the utilitarian product categories as well has been chosen in order to compare the results and check whether the results by Malär et al. (2011) hold in a similar study. Furthermore, a statistical difference can be tested when comparing data from the two categories. This way, the research question can be answered.

The survey was distributed both in English and in Dutch (Appendix A and B). The used survey was translated from English to Dutch by an objective person and translated back to English again by another person. The back-translation method has been used to validate right translations of the used scales.

The self-administered survey gave respondents flexibility about when to answer the survey. Furthermore, this method has been chosen because the respondents remain anonymous and they are therefore less likely to give social desirable answers (Forza, 2002).

3.1 Sample

The respondents were contacted via social networks (Facebook and LinkedIn) and via the personal network of the researcher. These social media platforms are chosen because it has a large reach. In the Netherlands, more than 10 million people use Facebook, while LinkedIn is used by 4,3 million people (Newcom Research & Consultancy B.V, 2017).

In total, 384 respondents are needed when working with a confidence level of 95%. Therefore, the aimed amount of survey respondents for this thesis is 384. The participating respondents have a chance to win a Bol.com gift card. The incentive increases the chances of reaching the goal to get 384 respondents. There is an increased likelihood that the final sample will mainly consist of young adults/students, because of the biased network of the
researcher. However, in order to compare the results to the results found by Malär et al. (2011), a similar sample size has to be used. Since Malär et al. (2011) used a student sample; this restriction will not lead to any problems.

3.2 Data collection

The used data collection method was convenience sampling. Convenience sampling is one of the most used methods because it is fast, inexpensive and the subjects are readily available (Explorable, n.d.). Since the survey is spread via social media platforms, respondents remained anonymous and filled in the survey voluntarily. Respondents had the right to withdraw from the survey at any point in time. To win a Bol.com gift card, respondents had to leave their contact details (e-mail address), however this data was not linked to their given answers.

The main criticism on the used method is that the sample is usually not representative for the entire population. However, is does give insights for further research. Therefore, due to both time pressure and convenience, this method will be used.

3.3 Data analysis

The data collected via Qualtrics and exported to a SPSS file, where the data was analysed via several tests. The regression analysis is used to test the relationship between the variables. Furthermore, regression analyses included the moderators, were used to see whether the independent variables have a predictive characteristic for the dependent variable and whether they are moderated by other factors. Furthermore, the scores of the different groups (hedonic and utilitarian product categories and male vs. female) were compared using an independent T-test. The differences between the income categories are tested via an ANOVA.

3.4 Research ethics

As stated before, the respondents remained anonymous and they filled in the survey voluntarily. Respondents had the right to withdraw from the survey at any point in time. In order to win the Bol.com gift card, the respondents had to leave contact details. However, these contact details are not linked to their answers in any way.
4. Results

4.1 Sample
The final sample that is used for the analysis consisted of 331 respondents. Of the respondents who successfully completed the survey, 114 respondents were male while the rest (217) were female. The majority of the sample was between 21 and 25 years old (157). Furthermore, the age category 51-64 was well represented with 72 respondents. The income of the respondents was rather low (<20,000), which can be explained by the large amount of young adults (21-25 years old) who are likely to be students or have a relatively low income as a starter. Approximately 95% of the respondents was born and raised in The Netherlands (born: 314 and raised: 315). The remaining respondents were mainly from other European countries. The decision has been made to include all respondents in the analysis because location is not considered to be an important factor since both hedonic and utilitarian brands are tested within the same sample.

The six brands were randomized and an equal amount was asked. However, due to the large amount of unfinished surveys (188 of 519), the brands were not perfect equally distributed among respondents. 124 respondents evaluated Adidas, 106 respondents Hugo Boss, 101 respondents Colgate, 107 respondents Apple, 111 respondents Persil and 113 respondents evaluated Samsung.

4.2 Hedonic or utilitarian
The six brands are generally seen as hedonic or utilitarian. In order to make sure the respondents agree with the general opinion about the brands, the item is measured with a 5-point Likert Scale. The respondents indeed consider the chosen hedonic brands as hedonic (Adidas: $M = 3,96$; Hugo Boss: $M = 4,68$; Apple: $M = 4,04$; Samsung: $M = 3,15$). The chosen utilitarian brands are considered as utilitarian (Colgate $M = 2,71$; Persil $M = 2,43$). In order to test the statistical difference between the two categories, the four hedonic brands are pooled together and the two utilitarian brands are pooled together. This leads to: $M = 3,9719$ for the hedonic category ($N = 303$) and $M = 2,5842$ for the utilitarian category ($N = 184$). The paired T-test is used to compare the scores, however due to the randomization of brands, some respondents evaluated two hedonic brands, some two utilitarian brands and others both a hedonic brand and a utilitarian brand. Therefore the N of the paired T-test is 155 (respondents who evaluated one hedonic brand and one utilitarian brand). Due to the different amount of respondents, the mean score changes a little for both (hedonic $M = 4,0513$; utilitarian $M = 2,6090$). The mean difference between the hedonic brands and utilitarian brands is 1,44231;
the T-value is 10.106 and $p < .01$. Therefore it can be concluded that there is a statistical
difference between the two types of brands and their degree of hedonism.

4.3 Reliability checks
In order to measure the reliability of the construct emotional brand attachment, the
Cronbach’s Alpha statistic is used. The Cronbach’s Alpha is calculated for all six brands, in
order to make sure the construct is reliable. The results range from .868 till .993, which
means the internal consistency is good for all brands, even excellent for two of the six brands
(full table can be found in Appendix C). After the brands were pooled together, the
Cronbach’s alpha resulted in a score of .919.

Self-congruence has been divided into two categories, actual self-congruence and ideal self-
congruence. Both constructs are measured by two items, which is based on previous research
by Malär et al. (2011). The construct actual self-congruence is again measured for all six
brands and has a Cronbach’s alpha that ranges between .737 and .874. After the brands were
pooled together, the Cronbach’s alpha resulted in a score of .857. The internal consistency of
actual self-congruence is therefore good.

The same procedure is completed for ideal self-congruence. The Cronbach’s alpha of the six
brands ranges between .811 and .939. After the brands were pooled together, the Cronbach’s
alpha resulted in a score of .894, which means the internal consistency is good.

Self-esteem is the first moderator that is going to be tested. However, to make sure the
internal consistency is acceptable, the Cronbach’s alpha statistic is used again. For self-
esteeem, only one test is needed because the items (4) were only asked the respondents once.
Cronbach’s alpha shows the internal consistency of this construct is acceptable (.785)

The last moderator, product involvement is a construct that exists of five items. In order to
test the internal consistency, the Cronbach’s alpha statistic is used again. All six brands are
tested and the Cronbach’s alpha ranges between .885 and .915. After the brands were pooled
together, the Cronbach’s alpha resulted in a score of .916, which means the internal
consistency is excellent.

4.4 Validity check
In order to assess the validity of the construct, a factor analysis is performed. The results of
the factor analysis can be found in the Appendix D. The common factor analysis is performed
because this considers the total variance and the error variance in the data, unlike the
principal component analysis. The common factor analysis is preferred since there is no knowledge about the variance in the data (Hair et al., 2014). All factors score above the required cut-off point of 0.5 on KMO. The Barlett’s Test of Sphericity shows all factors are significant \((p < .001)\) and the percentage explained variance ranges between 60% and 90%, which shows a strong interpretation of power (Field, 2013). In order to conduct the factor analysis, the brands are pooled together. The full table with results can be found in Appendix D, where it shows there are 4 factors in total. Actual self and ideal self are considered to be very similar, however the main goal of this research is to find difference between the actual and ideal self-congruence, therefore they are separated into two factors. This leads to a total of five factors: Emotional brand attachment, actual self-congruence, ideal self-congruence, product involvement and self-esteem.

4.4 Hypotheses results hedonic brands

The hypotheses are formulated to test the importance of self-congruence for hedonic brands, however in order to answer the research question, both hedonic and utilitarian brands are tested. The results for utilitarian brands can be found in section 4.5. The hypotheses are tested in a regression analysis, for which the assumptions are met (Appendix E).

4.4.1 Hypothesis H1a

This hypothesis predicted that actual self-congruence between a consumer and the brand’s personality leads to emotional brand attachment for branded products within the hedonic product categories. The effects are tested for all four hedonic brands with a regression analysis and the beta scores are used in the formulas. Actual self-congruence of the respondent with the brand Adidas shows a positive, moderate relation with emotional brand attachment \((\beta = .469, \ p < .01)\). The formula for Adidas is as follows: Emotional brand attachment = 1.453 + .469*actual self. Actual self-congruence between the brand Hugo Boss and the respondents shows a weak effect of actual self-congruence on emotional brand attachment \((\beta = .239, \ p < .01)\), which leads to the following formula: Emotional brand attachment = 1.281 + .239*actual self. Furthermore, the brands Apple \((\beta = .422, \ p < .01)\) and Samsung \((\beta = .439, \ p < .01)\) also both show a significant positive weak to moderate effect of actual self-congruence of the consumer and the brand’s personality on emotional brand attachment. The formula’s for Apple and Samsung are as follows:

Apple: Emotional brand attachment = .877 + .422*actual self.

Since the results of the brands are fairly similar, the four hedonic brands are pooled together. In order to show the effect of actual self-congruence on emotional brand attachment, the same equation has been used:

\[ Y = a + bx \]

The result of the regression analysis for the effect of actual self-congruence on emotional brand attachment is as follows:

Emotional brand attachment = 1,004 + (0.444 * actual self)

Therefore, hypothesis H1a can be confirmed.

**4.4.2 Hypothesis H1b**

Hypothesis H1b predicted that ideal self-congruence between a consumer and the brand’s personality leads to higher emotional brand attachment compared to the results of actual self-congruence on emotional brand attachment. Three of the four hedonic brands do not support this hypothesis (Adidas: \( \beta = .103, p = .316 \); Apple: \( \beta = .237, p < .05 \); Samsung: \( \beta = .082, p = .555 \)). For both Adidas and Samsung, ideal self-congruence does not have a significant effect on emotional brand attachment. The following table gives an overview of the differences between the effect of actual self-congruence on emotional brand attachment and ideal self-congruence on emotional brand attachment.

<table>
<thead>
<tr>
<th>Brand</th>
<th>Actual self-congruence</th>
<th>Ideal self-congruence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adidas</td>
<td>.469**</td>
<td>.103</td>
</tr>
<tr>
<td>Hugo Boss</td>
<td>.239**</td>
<td>.353**</td>
</tr>
<tr>
<td>Apple</td>
<td>.422**</td>
<td>.237*</td>
</tr>
<tr>
<td>Samsung</td>
<td>.439**</td>
<td>.082</td>
</tr>
</tbody>
</table>

Apple does show a fairly weak relationship between ideal self-congruence between a consumer and the brand’s personality and emotional brand attachment. However, as can be
seen in the table 1 above, the $\beta$ of ideal self-congruence on emotional brand attachment of Apple is lower than the $\beta$ of actual self-congruence on emotional brand attachment and does therefore not support hypothesis H1b. One of the four brands however, Hugo Boss, did show a higher effect between ideal self-congruence on emotional brand attachment as predicted in the hypothesis ($\beta = .353, p < .01$).

To get more insights in the Hugo Boss result and whether the difference is significant, the effects are compared in a formula that calculates the difference in $t$. The $\beta$ of actual self-congruence ($x$) on emotional brand attachment ($y$) and the $\beta$ of ideal self-congruence ($z$) on emotional brand attachment are compared. To calculate this, the following beta scores are needed: $\beta_{xy}$, the relationship between actual self-congruence and emotional brand attachment (.239), $\beta_{zy}$, the relationship between ideal self-congruence and emotional brand attachment (.353) and $\beta_{xz}$, the relationship between actual self-congruence and ideal self-congruence (.694). The $t$-statistic is computed as:

$$t_{\text{Difference}} = (\beta_{xy} - \beta_{zy}) \sqrt{(N - 3)(1 + \beta_{xz}) / 2(1 - \beta_{xy}^2 - \beta_{xz}^2 - \beta_{zy}^2 + 2\rho_{xy}\rho_{xz}\rho_{zy})}$$

$t_{\text{Difference}} = (-.114) \sqrt{(169.4) / 2 (1 - .057121 - .481636 - .124609 + .117101396)} = -.337$

The critical value for $N - 3$, in this case 102 is 1.96 ($p = .05$) and 2.58 ($p = .01$). Therefore, it can be said that the effect of ideal self-congruence and emotional brand attachment is significantly higher than the effect of actual self-congruence and emotional brand attachment for the brand Hugo Boss.

The general differences between the effect of actual self-congruence on emotional brand attachment ($\beta_{xy} = .444$) and ideal self-congruence ($\beta_{zy} = .169$) on emotional brand attachment are also tested using the following equation:

$$t_{\text{Difference}} = (\beta_{xy} - \beta_{zy}) \sqrt{(N - 3)(1 + \beta_{xz}) / 2(1 - \beta_{xy}^2 - \beta_{xz}^2 - \beta_{zy}^2 + 2\rho_{xy}\rho_{xz}\rho_{zy})}$$

$t_{\text{Difference}} = (.275) \sqrt{(517.27) / 2 (1 - .197136 - .5329 - .028561 + .10955256) = 1.099356388}$

The critical value for $N - 3$, in this case 299, is 1.96 ($p = .05$) and 2.58 ($p = .01$). Therefore, it can be said that the effect of actual self-congruence on emotional brand attachment is significantly higher than the effect of ideal self-congruence on emotional brand attachment.
4.4.3 Hypothesis H2a
In hypothesis H2a, the first moderator ‘self-esteem’ is tested. In order to test the moderator effect, the SPSS program PROCESS, developed by Professor Andrew F. Hayes, is used. Hypothesis H2a predicted congruence between the ideal image of a consumer and the brand’s personality increases emotional brand attachment when a consumer’s self-esteem is low. There are no significant effects found for any of the brands when the consumer’s self-esteem is low (Adidas: $p = .6016$; Hugo Boss: $p = .1432$; Apple: $p = .4794$; Samsung: $p = .7373$) and therefore this hypothesis is rejected.

4.4.4 Hypothesis H2b
This hypothesis predicts congruence between the actual image of a consumer and the brand’s personality has a negative effect on emotional brand attachment when the consumers’ self-esteem is low. Only one significant result was found (Adidas: $p = .6016$; Hugo Boss: $p < .01$; Apple: $p = .3965$; Samsung: $p = .6638$). Further analysis of the significant results of Hugo Boss shows the low self-esteem indeed has a negative effect on emotional brand attachment when there is actual self-congruence between the consumer’s personality and the brand’s personality. As can be seen in the table below, the effect of actual self-congruence on emotional brand attachment decreases.

<table>
<thead>
<tr>
<th>Self-esteem</th>
<th>Emotional brand attachment * actual self</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low self-esteem</td>
<td>3,2123</td>
</tr>
<tr>
<td>Medium self-esteem</td>
<td>3,3317</td>
</tr>
<tr>
<td>High self-esteem</td>
<td>3,411</td>
</tr>
</tbody>
</table>

The results support hypothesis H2b because low self-esteem negatively moderates the effect of actual self-congruence on emotional brand attachment.

4.4.5 Hypothesis H3a
Hypothesis H3a predicted the congruence between the ideal image of a consumer and the brand’s personality increases emotional brand attachment for branded products within hedonic product categories when product involvement is low. The moderator has a significant effect in only one of the four brands (Adidas: $p <.01$; Hugo Boss: $p = .3206$; Apple: $p =$
The slope of the regression line (Appendix F) shows the line of low product involvement is still lower than high product involvement even though it does increase; therefore this hypothesis can be rejected. A remarkable observation in the regression slope is that in situations where there is no congruence between the actual self and the brand’s personality, low product involvement does lead to higher emotional brand attachment compared to high product involvement.

4.4.6 Hypothesis H3b
The last hypothesis predicted a less positive effect on emotional brand attachment when there is actual self-congruence between the consumer and the brand and product involvement is low. The model has an R score of .6444, $R^2 = .4152$. A significant effect was found for one of the four brands (Adidas: $p < .05$; Hugo Boss: $p = .3257$; Apple: $p = .4590$; Samsung: $p = .8360$). In order to check the direction of the effect, the slope of the regression line has been analysed. As can be seen in Appendix G, the line of low product involvement is indeed lower than the line of high product involvement and therefore this hypothesis can be partially supported. Moreover, comparing the effect of actual self-congruence on emotional brand attachment when product involvement is low ($M = 3.2439$) and the effect of ideal self-congruence on emotional brand attachment when product involvement is low ($M = 3.4131$), it shows the effect of ideal self-congruence on emotional brand attachment is indeed higher.

4.5 Hypotheses tested for utilitarian brands
The same analyses as above are conducted for utilitarian brands, to see if there are different effects in the product categories and in order to answer the research question properly. The statistical differences are calculated in section 4.6.

4.5.1 Hypothesis H1a
The hypothesis predicted that actual self-congruence between a consumer and the brand’s personality leads to emotional brand attachment. Colgate shows a $\beta = .196, p = .169$ and Persil $\beta = .243, p < .05$). The effect of actual self-congruence on emotional brand attachment for Colgate is not significant, while Persil shows a weak effect. Since there is a significant effect found for Persil, hypothesis H1a is (partially) supported for utilitarian brands as well. Compared to branded products within hedonic product categories, the correlation between actual self-congruence and emotional brand attachment is lower for utilitarian product categories (hedonic $\beta = .444$; utilitarian $\beta = .169$).
4.5.2 Hypothesis H1b
Hypothesis H1b predicted that ideal self-congruence between a consumer and the brand’s personality leads to higher emotional brand attachment compared to the results of emotional brand attachment and actual self-congruence with the brand. In order to test this hypothesis, the unstandardized coefficient between ideal self-congruence and emotional brand attachment are tested first (Colgate: $β = .243$, $p < .10$; Persil $β = .144$, $p = .359$). The results show one of the effects is higher than the effect of actual self-congruence (Colgate ideal self-congruence, $β = .243$; Colgate actual self-congruence, $β = .196$) and therefore this hypothesis is partially supported. Branded products within hedonic product categories showed an average result of $β = .384$, while branded products within utilitarian product categories showed an average result of $β = .269$. Again, there is a difference between the categories and branded product categories within hedonic product categories show a higher correlation between ideal self-congruence and emotional brand attachment.

4.5.3 Hypothesis H2a
Hypothesis H2a predicted congruence between the ideal image of a consumer and the brand’s personality increases emotional brand attachment when a consumer’s self-esteem is low. No effect is found significant with an alpha of .05 (Colgate: $p = .5885$; Persil: $p = .0613$). Further analysis of the results shows the effect of ideal self-congruence on emotional brand attachment, moderated by self-esteem, increases when self-esteem is higher. Low self-esteem decreases emotional brand attachment when ideal self-congruence is high compared to high self-esteem. Therefore, this hypothesis can be rejected for utilitarian brands.

Table 3
Overview of moderating effect self-esteem, scale of 1 to 5

<table>
<thead>
<tr>
<th>Self-esteem</th>
<th>Emotional brand attachment * ideal self</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low self-esteem</td>
<td>3,5244</td>
</tr>
<tr>
<td>Medium self-esteem</td>
<td>3,6982</td>
</tr>
<tr>
<td>High self-esteem</td>
<td>3,8720</td>
</tr>
</tbody>
</table>
4.5.4 Hypothesis H2b
There is no significant relationship found between actual self-congruence with a brand’s personality and brand attachment moderated by self-esteem (Colgate: $p = .2561$; Persil: $p = .7451$).

4.5.5 Hypothesis H3a
There is no significant relationship found between ideal self-congruence with a brand’s personality and brand attachment moderated by product involvement (Colgate: $p = .6007$; Persil: $p = .2738$).

4.5.6 Hypothesis H3b
There is no significant relationship found between actual self-congruence with a brand’s personality and brand attachment moderated by product involvement (Colgate: $p = .8490$; Persil: $p = .1608$).

4.6 Statistical differences between branded products within hedonic product categories and utilitarian product categories
In order to test the statistical difference of the effect of actual self-congruence between branded products within hedonic product categories and branded products within utilitarian product categories, their corresponding 95% confidence intervals were estimated via bias corrected bootstrap (1000 re-samples). If the confidence intervals overlap is less than 50%, there is a statistical difference (Cumming, 2009). To evaluate the overlap precisely, half of the average of the overlapping confidence intervals was calculated (.0645) and added to the lower bound estimate of the effect of actual self-congruence on emotional brand attachment for branded products in hedonic product categories (.247), which is .3115. Since the upper bound of the effect of actual self-congruence on emotional brand attachment for branded products in utilitarian categories is .394, which exceeds the value of .3115, the difference between the two product categories and the effect of actual self-congruence on emotional brand attachment is not considered to be statistically different.

The same procedure has been followed for ideal self-congruence. Half of the average of the overlapping confidence intervals was calculated (.1675) and added to the lower bound estimate of the effect of ideal self-congruence on emotional brand attachment for branded products in hedonic categories (.171), which is .3385. Since the upper bound of the effect of ideal self-congruence on emotional brand attachment for branded products in utilitarian categories is .434, which exceeds the value of .3385, the difference between the two product categories and the effect of ideal self-congruence on emotional brand attachment is considered to be statistically different.
categories and the effect of ideal self-congruence on emotional brand attachment is not considered to be statistically different.

4.7 Differences due to gender
Overall, women tend to have higher brand attachment with branded products within hedonic product categories. (male: \( M = 3,0550 \); female: \( M = 3,2063 \)). However, this difference is not statistically significant, which is the result of an independent T-test (\( p = .164 \)). The largest differences between men and women were found within two brands: Adidas and Hugo Boss (Adidas male: \( M = 3,0788 \); female: \( M = 3,4575 \); Hugo Boss male: \( M = 3,2372 \); female: \( M = 3,4364 \)). For the other brands, emotional brand attachment was almost equal for both men and women as can be seen in the table in Appendix H. To test whether the differences for each brand are statistically significant, all means are compared in an independent T-test.

The result of the Levene statistic for Adidas is not significant (\( p = .652 \)), which means variances between the groups are roughly equal. The T-test has a \( p < .05 \), which shows there is a statistical difference between the mean scores for men and women.

The same procedure is done for the three other brands. The Levene statistic for Hugo Boss shows the variances between the two groups are roughly equal (\( p = .213 \)). However, the T-test itself is not significant (\( p = .263 \)), which means there is no significant difference in means between the two groups. The results for Apple and Samsung are similar to the results from Hugo Boss, where the Levene statistic shows variances between the two groups are roughly equal (Apple: \( p = .655 \); Samsung: \( p = .832 \)). However, the T-test itself is again not significant for both brands (Apple: \( p = .959 \); Samsung: \( p = .564 \)).

4.8 Differences due to age categories
The age category 51-64 shows the highest emotional brand attachment (<20: \( M = 3,18 \); 21-25: \( M = 3,26 \); 26-30: \( M = 3,43 \); 31-40: \( M = 3,34 \); 41-50: \( M = 3,35 \); 51-64: \( M = 3,47 \); >65: \( M =3,22 \)). The lowest average can be found within the youngest age category <20 years old (Appendix H). However, no large differences can be found. To test the differences statistically, an ANOVA has been conducted. The Hochberg post-hoc shows there are no significant differences between the age categories (\( p \) ranges from \( p = .833 \) till \( p = 1 \)).

4.9 Differences due to income
Differences in income do not show large differences on emotional brand attachment (Appendix H). It ranges between \( M = 3,15 \) and \( M = 3,38 \). The Hochberg post-hoc analysis shows there are no significant differences (\( p \) ranges from \( p = .154 \) till \( p = 1 \)).
5. Discussion

5.1 Conclusion
The aim of this research was to develop a better understanding of the influence of self-congruence on emotional brand attachment by testing the effects in both utilitarian and hedonic product categories. The findings support the view that both actual self-congruence and ideal-self congruence play a role in creating emotional brand attachment. In general, for both the tested hedonic brands and the utilitarian brands, actual self-congruence had a significant larger effect on emotional brand attachment than ideal self-congruence. Consumers tend to search for experiences and products that verify and validate their self-concept, also called the self-verification theory (Swann, 1983). Therefore, it can be said that the self-verification theory (Swann, 1983) plays a larger role in creating emotional brand attachment than the self-enhancement theory (Ditto and Lopez, 1992), where consumers tend to find experiences that enhance their self-esteem and therefore increase their perceived personal worth.

Two brands however, showed a stronger effect of ideal self-congruence on emotional brand attachment than actual self-congruence. The brands, Colgate and Hugo Boss, came from different product categories (hedonic and utilitarian) and therefore, the difference in product category (hedonic or utilitarian) cannot explain the found effect. A possible explanation may be their advertising strategy. Both brands focus on the emotional benefits when using the product rather than the functional benefits or technical specifications of the products that Apple and Samsung like to use. Especially Hugo Boss focuses on a certain lifestyle that comes along with using the products in their commercials. The Colgate commercial also focuses on emotional benefits rather than the functional benefits of using the products, because using the product (and getting whiter teeth) will lead to more confidence. These two brands are an example that aspirational branding still works in certain situations, because the results show their branding strategy led to emotional brand attachment. Further research should therefore focus on more brands like Hugo Boss and Colgate that use the aspirational branding strategy, which can mainly be found in the fashion- and beauty industry.

The tested moderator self-esteem showed a significant effect for one of the brands (Hugo Boss). Low self-esteem moderated the effect of actual self-congruence on emotional brand attachment negatively because emotional brand attachment decreased. These results can be explained the self-verification theory where consumers with high self-esteem want to verify
their self. Congruence between their actual self and the brand’s personality makes the consumer feel good about themselves, which leads to more willingness to create a stronger relationship with the brand. Furthermore it was hypothesized that consumers with low self-esteem were more likely to use the self-enhancement theory and try to ‘lift’ their self-esteem by focusing on the ideal self and in that way feel better about themselves. Therefore the moderator self-esteem was expected to have a positive effect on the relationship between ideal self-congruence and emotional brand attachment when the consumer’s self-esteem was low (Malär et al. 2011), however the results could not confirm this (no significant effects were found). The lack of significant effects may be due to the small amount of consumers with low self-esteem again and that it might be difficult for respondents to admit they have a low self-esteem.

The second moderator that was tested, product involvement, only plays a role in hedonic product categories. Both for actual self-congruence and ideal self-congruence, a significant effect was found for the brand Adidas. In both situations, high product involvement led to a stronger relationship between self-congruence and emotional brand attachment. High product involvement means the product is personally relevant for the consumer. When the brand’s personality and the actual self of the consumer are congruent and the product is relevant for the consumer, the consumer can verify their actual self again, which leads to a stronger connection with the brand and therefore also to stronger emotional brand attachment. When the consumer does not believe the product is personally relevant (low product involvement), ideal self-congruence has a stronger effect on emotional brand attachment than actual self-congruence. The consumers use the self-enhancing theory to connect with the brand rather than the self-verification theory (Swann, 1983). Since the product is not important enough for them, there is no reason to verify their actual self with the brand’s personality and create a connection with the brand.

The moderator product involvement does not seem to have an effect in utilitarian product categories, since no significant effects were found in this research. Previous research by Malär et al. (2011) did show similar effects to the effects found in hedonic product categories. It can therefore be assumed, even though the data of this research does not show significant results, product involvement plays a similar role in both product categories. The lack of finding significant effects may be due to the chosen utilitarian brands and the average score on product involvement for both brands.
After analyzing the data from both hedonic and utilitarian brands the research question can be answered and it can be concluded that the effects of actual and ideal self-congruence on emotional brand attachment do not statistically differ for the two product categories. The hedonic brands were pooled together as ‘hedonic’ and the utilitarian brands as ‘utilitarian’. The comparison does show some exceptions might occur, especially when the moderators are involved. Therefore it is important to keep in mind that some brands benefit more from an aspiration branding strategy that focuses on the ideal self rather than the actual self. Self-congruence, both actual and ideal, in general does play a large role in creating emotional brand attachment.

5.2. Theoretical implications
As stated previously, building a sustainable relationship with the customer is getting more important for companies nowadays. Especially with many competitors in the field, creating a bond leads to higher sales and more spending of the customers since they are more willing to pay a premium price (Thomson et al., 2005). One way to create a sustainable relationship is by creating emotional brand attachment to the brand. Emotional brand attachment exists of affection, connection and passion and can be effected by certain factors (Malär et al., 2011). Previous research on emotional brand attachment showed the importance of self-congruency between the brand’s personality and the customers’ personality. However, previous research did not include different product categories and was mainly focused on utilitarian goods. Therefore, the theoretical contribution of this thesis is the further investigation of the effect of self-congruence on emotional brand attachment, by including hedonic product categories. This way results from utilitarian product categories could be compared to the results from hedonic product categories. The result of research in utilitarian product categories showed actual self-congruence has a stronger effect on emotional brand attachment than the ideal self. This research confirms this effect also takes place in hedonic product categories, even though there were some exceptions. Including the hedonic product categories extended the general theory of the relative importance of self-congruity on emotional brand attachment. Therefore, the theory now has a stronger support for the larger importance of actual self-congruity than ideal self-congruity. Since there is no statistical difference found between the categories and actual self-congruence leads to stronger emotional brand attachment in both cases, other factors might play a role when ideal self-congruence leads to stronger brand attachment.

By including the two moderators ‘self-esteem’ and ‘product involvement’ effects that were found before changed. The moderator self-esteem led to weaker emotional brand attachment
when there was congruence between the actual self of the brand and the consumers’ actual self. The theory of the relative impact of self-congruence was already extended with this moderator previously, but this research indeed confirms the negative effect the moderator has. The second moderator, product involvement, also confirms the previous found effect. Low product involvement leads to weaker emotional brand attachment, whereas high product involvement positively effects emotional brand attachment for branded products in hedonic product categories. In this research, the effect was not found significant for utilitarian product categories. However, previous research did find significant effects for the moderator and therefore, this existing theory can be extended for hedonic product categories as well.

5.3 Managerial implications
Previous research has shown the importance of self-congruence (Malär et al., 2011; Jamal and Goode, 2001; Achouri and Bouslama, 2010) and the importance of self-congruence is also confirmed in the results of this research. Kotler et al. (2012) state self-congruence can provide companies direction about their brand identity and positioning via relationship marketing. Self-congruence between the consumers’ personality and the brand’s personality leads to emotional brand attachment, which is a key aspect of customer-brand relationships (Park et al., 2010) and important because many brands try to build a sustainable relationship with their customers. Results of this research show both actual self-congruence and ideal self-congruence can play a role in different situations. In general actual self-congruence led to stronger emotional brand attachment, however some brands (Hugo Boss and Colgate) showed the ideal self plays a bigger role. Since these brands are from different product categories, the role of product categories (hedonic vs. utilitarian) seems limited. One of the similarities between those two brands however is that both of them focus on emotional benefits of using the product rather than the functional brands. Therefore, brands that use this strategy and the aspirational branding strategy can focus on self-congruence between the ideal self of a consumer and the brands personality. When looking at fashion- and beauty brands, the aspirational branding strategy seems to work, since many brands still use this strategy. However, using the aspiration branding strategy has some pitfalls as well and should only be used in certain situations (1) when there are clear similarities between the potential customer and the brand (2) the context is right (Dahl, 2016). According to Dahl (2016), self-esteem influences the effect of aspirational branding and therefore the timing (and context) should be carefully chosen. Brands that have successfully used this strategy can mainly be found in the fashion, beauty and personal care markets.
If a brand decides to focus on actual self-congruence, one of the most important aspects is to be real. Consumers do not accept a fake or exaggerated story, but want to see the real heritage of the brand. Malär et al. (2011) stated authentic branding is gaining importance, because the consumers like to be able to connect with real and authentic brands. One of the most important aspects of authentic branding is that the story must connect with your customers in order for them to relate to you. The story a brand tells should show genuine understanding of the lifestyle of a customer and the possible enrichment of their lives a brand could represent (Roberts, 2004). An authentic brand story can build a long-term relationship with customers; therefore it is important to be trustworthy (Patel, 2015).

The moderator product involvement has a significant effect on the relationship between self-congruence and emotional brand attachment. High product involvement leads to stronger emotional brand attachment, which means companies should try to show the customer the personal relevance of using the product and the enrichment of life. As a company, you should make sure you know the customer and their needs very well. Getting information about them via personal interviews is a good first step. This information can be tested on a larger scale later on, via for example a survey. By knowing the customer in detail, the company can come up with product that satisfies their needs, which eventually leads a connection with the brand and profit for the company.

Yet the question remains why so many brands still use aspirational branding. One of the reasons can be found in psychology, where previous research shows a physical attractive person shown in an advertisement can increase the advertisers believability (Brumbaugh, 1993). Furthermore it increases the willingness to purchase and creates a positive attitude towards the product (Brumbaugh, 1993). The aspirational branding technique mainly works for products that can be seen by others, for example designer clothes, because consumers could use these products as social proof in order to be socially accepted. These brands are so called symbol-intensive (Marazza, 2013). The brand does not just contain functional benefits, but also the emotional benefits (symbols), which is the main reason for the relationship with the consumers. Consumers believe the brand is irreplaceable and stand up as a brand ambassador. The ability to build a sustainable relationship is one of the main reasons many brands still use the aspirational branding strategy. However, as said before, the company should assess the products and market first in order to see whether the aspirational branding strategy might work.
5.4. Limitations
Even though this study could for a basis for further research, there were some limitations that are discussed in this section. The first limitation is that brands from different hedonic product categories were used (fashion, technology and beauty), which means there may be a difference in levels of involvement with the product category. Average low product involvement with a technology brand may be lower than low product involvement with a fashion brand, so the used scale is not completely equal for every brand. Even though all brands are considered to be hedonic, the product category may have influenced the results.

The second limitation was the sample, which was not only small (331), but also biased. The amount of female respondents was 65% of the total sample. Even though no large significant differences were found between men and women, the sample would have been more useful if men and women were equally distributed, especially to draw conclusions that are relevant for the entire population. The researchers network could be an explanation for the large amount of females and young adults that participated.

Another limitation of the research was that there was more data collected about hedonic brands than utilitarian brands. Even though hedonic brands were the main subject of this research, it would have been good to have some more data about utilitarian brands as well in order to make better comparisons. It was also difficult to select brands that were just hedonic or just utilitarian. Most brands can be seen as both, which depends for example on the income of the respondents or the branding strategy of the company. Adidas sportswear might be utilitarian (needed) for someone who works out a lot and who therefore wants good quality sportswear, but can be hedonic for someone who wears it without working out, just to show off the brand. Furthermore, a good measurement method needs to be used to test whether a product is hedonic or utilitarian, rather than testing it as ‘luxurious or necessary’.

Lastly, the perceived actual self and perceived ideal self of the respondents were asked. Because it is perceived, it is subjective and therefore more difficult to use. Further research should therefore focus on a better way to test self-congruity, which leads to more objective measurement methods.

5.5 Further research
The contribution of this research and its limitations offer some suggestions for further research. Further research should distinguish the products based on the branding strategy rather than the degree of hedonism. By comparing aspirational brands versus non-aspirational
brands (authentic brands), interesting finding may occur. The research should also test more brands, rather than just the six that were tested in this research. It is important to randomize the brands and get a fairly equal amount of data off all brands in order to compare them well.

Moreover, further research should again include the moderators that were used in this research as well. Since previous research by Malär et al. (2011) showed a significant effect for both product involvement and self-esteem and this research did not, the effect of the moderators should be further investigated with a larger sample.

Lastly it would be good to investigate more moderators that come from the psychology field. An example could be to investigate the influence on emotional brand attachment by using ‘attractive people’ in adverts vs. ‘non-attractive people’. Since self-congruity is a subject that the psychology field has researched before, a lot of information can be taken from there. By including more moderators, the phenomenon of emotional brand attachment can be further investigated and explained.
Reference list


Appendix A: Survey English
Dear respondent,

Thank you for participating in this research. This survey contains of a number of questions regarding your feelings towards five different brands. Please take your time to read the questions carefully and to indicate your opinion. Answers will only be used for research purposes and participation is anonymous. If you want the chance to win a Bol.com gift card you can leave your e-mail address at the end of this survey. Your e-mail address will only be used for competition purposes and your answers will not be linked to it. If you have any questions or concerns please contact: m.e.tomassen@student.ru.nl

1. I consider the products from brand X as:
   Always a necessity
   Always a luxury
   ○ ○ ○ ○ ○ ○

2. I am familiar with brand X
   Strongly disagree
   Disagree
   Neutral
   Agree
   Strongly agree
   ○ ○ ○ ○ ○ ○

3. My feelings toward brand X can be characterized by:
   Strongly disagree
   Disagree
   Neutral
   Agree
   Strongly agree
   I am unfamiliar with the brand
   Affection ○ ○ ○ ○ ○ ○ ○
   Love ○ ○ ○ ○ ○ ○ ○
   Connection ○ ○ ○ ○ ○ ○ ○
   Passion ○ ○ ○ ○ ○ ○ ○
   Delight ○ ○ ○ ○ ○ ○ ○
   Captivation ○ ○ ○ ○ ○ ○ ○

Please take a moment to think about brand X. Describe this brand using personality characteristics such as reliable, smooth, etc. Now think about how you see yourself (your actual self). What kind of person are you? How would you describe your personality? Once you’ve done this, indicate your agreement or disagreement to the following statements:
4. The personality of brand x is consistent with how I see myself

Strongly disagree  Disagree  Neutral  Agree  Strongly agree

5. The personality of brand x is a mirror image of me

Strongly disagree  Disagree  Neutral  Agree  Strongly agree

6. The personality of brand X is consistent with how I would like to be:

Strongly disagree  Disagree  Neutral  Agree  Strongly agree

7. The personality of brand X is a mirror image of the person I would like to be:

Strongly disagree  Disagree  Neutral  Agree  Strongly agree

The following statements are about product X. Please indicate whether you agree or disagree with the statements.

8. Because of my personal attitudes, I feel that this is a product that ought to be important to me.

Strongly disagree  Disagree  Neutral  Agree  Strongly agree

9. Because of my personal values, I feel that this is a product that ought to be important to me.

Strongly disagree  Disagree  Neutral  Agree  Strongly agree

10. This product is very important to me personally

Strongly disagree  Disagree  Neutral  Agree  Strongly agree

11. Compared with other products, this product is important to me.
12. I’m interested in this product.
Strongly disagree Disagree Neutral Agree Strongly agree

13. On the whole, I am satisfied with myself.
Strongly disagree Disagree Neutral Agree Strongly agree

14. I feel that I am a person of worth.
Strongly disagree Disagree Neutral Agree Strongly agree

15. All in all, I am inclined to think that I am a failure.
Strongly disagree Disagree Neutral Agree Strongly agree

16. I take a positive attitude toward myself.
Strongly disagree Disagree Neutral Agree Strongly agree

17. What is your gender?

Male Female

18. What is your age?
0 – 20 years old 21 – 25 years old 26 – 30 years old 31 – 40 years old 41 – 50 years old 51 – 64 years old > 65 years old

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
19. What is your income?

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<th>Less than €20.000</th>
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<th>€35.000 – €49.999</th>
<th>€50.000 – €74.999</th>
<th>€75.000 – €99.999</th>
<th>€100.000 – €149.000</th>
<th>€150.000 or more</th>
<th>I’d rather not share this information</th>
</tr>
</thead>
</table>

20. Thank you for your participation! If you would like the opportunity to win a Bol.com gift card you can fill in your e-mail address below:
Appendix B: Survey Dutch

Beste respondent,


Heb je vragen of opmerkingen, neem dan contact op met juliette.aben@student.ru.nl of m.e.tomassen@student.ru.nl

In dit onderdeel vragen we je mening over Adidas. Neem de tijd om je mening te vormen.

1. Ik zie producten van merk X als
   Een noodzakelijk product
   Een luxe product

2. Ik ben bekend met het merk X
   Volledig mee oneens
   Mee oneens
   Niet eens, maar ook niet mee oneens
   Mee eens

3. Mijn gevoelens ten opzichte van merk X worden gekenmerkt door
   Affectie
   Liefde
   Connectie
   Passie
   Genot

42
Neem even de tijd om na te denken over merk X alsof het een persoon zou zijn. Beschrijf deze persoon met behulp van persoonlijkheidskenmerken, zoals betrouwbaar, aardig, eerlijk, charmant, enzovoort. Denk vervolgens na over jezelf (Wat voor persoon ben je en hoe zou je je persoonlijkheid omschrijven). Zodra je dit hebt gedaan, geef dan aan in hoeverre je het eens of oneens bent met de volgende uitspraken.

4. De persoonlijkheid van merk X komt overeen met hoe ik *mezelf zie*
   - Volledig mee oneens
   - Mee oneens
   - Niet mee eens, maar ook niet mee oneens
   - Mee eens
   - Volledig mee eens

5. De persoonlijkheid van merk X is een spiegelbeeld van mij
   - Volledig mee oneens
   - Mee oneens
   - Niet mee eens, maar ook niet mee oneens
   - Mee eens
   - Volledig mee eens

6. De persoonlijkheid van merk X komt overeen met hoe ik *zou willen zijn*
   - Volledig mee oneens
   - Mee oneens
   - Niet mee eens, maar ook niet mee oneens
   - Mee eens
   - Volledig mee eens

7. De persoonlijkheid van merk X is een spiegelbeeld van de persoon die ik *zou willen zijn*
   - Volledig mee oneens
   - Mee oneens
   - Niet mee eens, maar ook niet mee oneens
   - Mee eens
   - Volledig mee eens
De volgende stellingen gaan over merk X product X. Geef aan in hoeverre je het eens of oneens bent met de stellingen.

8. Door mijn persoonlijke houding, heb ik het gevoel dat product X belangrijk voor me zou moeten zijn

Volledig mee oneens  Mee oneens  Niet mee eens, maar ook niet mee  Mee eens  Volledig mee eens

9. Door mijn persoonlijke waarden heb ik het gevoel dat product X belangrijk voor me zou moeten zijn

Volledig mee oneens  Mee oneens  Niet mee eens, maar ook niet mee  Mee eens  Volledig mee eens

10. Product X is persoonlijk erg belangrijk voor me

Volledig mee oneens  Mee oneens  Niet mee eens, maar ook niet mee  Mee eens  Volledig mee eens

11. Vergeleken met andere producten, is product X belangrijk voor me

Volledig mee oneens  Mee oneens  Niet mee eens, maar ook niet mee  Mee eens  Volledig mee eens

12. Ik ben geïnteresseerd in product X

Volledig mee oneens  Mee oneens  Niet mee eens, maar ook niet mee  Mee eens  Volledig mee eens
13. Over het algemeen ben ik tevreden met mezelf
Volledig mee oneens  Mee oneens  Niet mee eens, maar ook niet mee oneens  Mee eens  Volledig mee eens

14. Ik heb het gevoel dat ik een waardevol persoon ben
Volledig mee oneens  Mee oneens  Niet mee eens, maar ook niet mee oneens  Mee eens  Volledig mee eens

15. Al met al ben ik geneigd te denken dat ik een mislukking ben
Volledig mee oneens  Mee oneens  Niet mee eens, maar ook niet mee oneens  Mee eens  Volledig mee eens

16. Ik neem een positieve houding aan ten opzichte van mezelf
Volledig mee oneens  Mee oneens  Niet mee eens, maar ook niet mee oneens  Mee eens  Volledig mee eens

Tot slot willen we graag wat persoonlijke gegevens van je.

17. Wat is je geslacht?
Man  Vrouw
18. Wat is je leeftijd?

0 – 20 jaar oud
21 – 25 jaar oud
26 – 30 jaar oud
31 – 40 jaar oud
41 – 50 jaar oud
51 – 64 jaar oud
> 65 jaar oud

19. Wat is je inkomen?

Minder dan €20.000
€20.000 – €34.999
€35.000 – €49.999
€50.000 – €74.999
€75.000 – €99.999
€100.000 – €149.999
€150.000 of meer
Ik deel deze informatie liever niet

Bedankt voor je deelname! Wil je kans maken op een bol.com cadeaukaart t.w.v 20 euro, laat dan je e-mailadres achter:
## Appendix C: Cronbach’s alpha results

<table>
<thead>
<tr>
<th></th>
<th>Actual self</th>
<th>Ideal self</th>
<th>Emotional brand attachment</th>
<th>Product involvement</th>
<th>Self-esteem</th>
</tr>
</thead>
<tbody>
<tr>
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<td>6</td>
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<tr>
<td>Adidas</td>
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<td>.892</td>
<td>.785</td>
</tr>
<tr>
<td>Hugo Boss</td>
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<td>.860</td>
<td>.882</td>
<td>.905</td>
<td>.785</td>
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<tr>
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<td>.874</td>
<td>.859</td>
<td>.887</td>
<td>.911</td>
<td>.785</td>
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<td>Apple</td>
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<td>.939</td>
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<td>.909</td>
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<td>.885</td>
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<td>Pooled together</td>
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<td>.919</td>
<td>.916</td>
<td>.785</td>
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### Appendix D: Results validity tests

<table>
<thead>
<tr>
<th>Emotional brand attachment</th>
<th>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</th>
<th>Bartlett's Test of Sphericity</th>
<th>Percentage explained variance</th>
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<tr>
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<td>Hugo Boss</td>
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<td>Apple</td>
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<td>69,76%</td>
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<td>Persil</td>
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<td>Samsung</td>
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<table>
<thead>
<tr>
<th>Actual self-congruence</th>
<th>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</th>
<th>Bartlett's Test of Sphericity</th>
<th>Percentage explained variance</th>
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<table>
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<tr>
<th>Ideal self-congruence</th>
<th>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</th>
<th>Bartlett's Test of Sphericity</th>
<th>Percentage explained variance</th>
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</thead>
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<td>Brand</td>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</td>
<td>Bartlett's Test of Sphericity</td>
<td>Percentage explained variance</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------------------------------------</td>
<td>-------------------------------</td>
<td>-------------------------------</td>
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<tr>
<td>Adidas</td>
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**Self-esteem**

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<th>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</th>
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<tbody>
<tr>
<td>.785</td>
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**Product involvement**

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Factor analysis, Oblimin rotation

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<tr>
<td>SE 3</td>
<td></td>
<td></td>
<td>0.814</td>
<td></td>
</tr>
<tr>
<td>SE 4</td>
<td></td>
<td></td>
<td>0.704</td>
<td></td>
</tr>
</tbody>
</table>
### Appendix E: Assumptions regression analysis

According to Hair et al. (2014), there are six assumptions the dataset has to meet in order to conduct a regression analysis.

1. **The data should be distributed normally (this assumption is not strict but the linearity and homoscedasticity could be impacted by it).**

   The table above shows not all variables are normally distributed (EBA and SE). This was expected because consumers tend to have a positive relationship with hedonic brands due to the emotional benefits they provide.

<table>
<thead>
<tr>
<th></th>
<th>EBA</th>
<th>AS</th>
<th>IS</th>
<th>PI</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skewness</td>
<td>.370</td>
<td>-.005</td>
<td>-.148</td>
<td>-.206</td>
<td>.993</td>
</tr>
<tr>
<td>Std. error</td>
<td>.134</td>
<td>.134</td>
<td>.134</td>
<td>.134</td>
<td>.134</td>
</tr>
</tbody>
</table>

   or kurtosis

<table>
<thead>
<tr>
<th></th>
<th>(-.156)</th>
<th>(-.278)</th>
<th>(-.253)</th>
<th>(-.397)</th>
<th>3,210</th>
</tr>
</thead>
<tbody>
<tr>
<td>Std. error</td>
<td>.267</td>
<td>.267</td>
<td>.267</td>
<td>.267</td>
<td>.267</td>
</tr>
</tbody>
</table>

   The second assumption is tested with a scatterplot. The plot should not show any non-linear shapes. As the scatterplot above shows, there is no clear non-linear shape, because no linear line can be discovered. Therefore, the assumption is met.

2. **The relationships in the model between the independent variables and the dependent variable should be linear.**
3. **The data is homoscedastic, meaning that the variance between the estimated values of \( y \) is equal for (all combinations of) values for \( x(s) \).**

The third assumption can be tested with the same scatterplot. The scatterplot should not show any visible shapes, for example like a megaphone. As you can see in the scatterplot, this is not the case, which means this assumption is met as well.

4. **The error term should be independent. In other words, the predicted value should not be related to any other prediction.**

   In order to meet the fourth assumption, the data should have a standardized predicted value of 0 with a standard deviation of 1. This assumption is tested with the Durbin-Watson test in SPSS. This should be as close as possible to 2, which indicates there is no positive correlation, nor a negative correlation. The Durbin-Watson score is 2.159, which is close enough to 2 and therefore, the assumption is met.

<table>
<thead>
<tr>
<th>Model</th>
<th>( R )</th>
<th>( R ) square</th>
<th>Adjusted ( R ) square</th>
<th>St. Error of the estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.584</td>
<td>.342</td>
<td>.333</td>
<td>.63962</td>
<td>2.159</td>
</tr>
</tbody>
</table>

5. **The error term is normally distributed.**

   The fifth assumption can be checked with a normal probability plot. The observations should be close to the diagonal line in the plot. As you can see in the plot, the error term is indeed normally distributed.
6. There is little to no multicollinearity between the independent variables.

The last assumption considers the multicollinearity of the independent variables. If there is multicollinearity, it means there is a strong relationship between the independent variable, which can influence the quality of the model estimations. Collinearity statistics should have a tolerance of at least 0.25 and a VIF score that is lower than 10 (Hair et al., 2014). The table below shows the collinearity statistics for the independent variables in the model and as can be seen, the last assumption is also met.

<table>
<thead>
<tr>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual self</td>
<td>.334</td>
</tr>
<tr>
<td>Ideal self</td>
<td>.366</td>
</tr>
<tr>
<td>Product involvement</td>
<td>.614</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>.954</td>
</tr>
</tbody>
</table>

To conclude, all the assumptions for the regression analysis are met.
Appendix F: Support hypothesis H3a, regression analysis effect actual self * emotional brand attachment, moderated by product involvement (Adidas)
Outcome: Adid_BrA

Model Summary

<table>
<thead>
<tr>
<th>R</th>
<th>R-sq</th>
<th>MSE</th>
<th>F</th>
<th>df1</th>
<th>df2</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>.6359</td>
<td>.4044</td>
<td>.4306</td>
<td>32,6438</td>
<td>3,0000</td>
<td>120,0000</td>
<td>.0000</td>
</tr>
</tbody>
</table>

Model

<table>
<thead>
<tr>
<th>coeff</th>
<th>se</th>
<th>t</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>constant</td>
<td>3.2441</td>
<td>.0667</td>
<td>48.6164</td>
<td>.0000</td>
<td>3.1120</td>
</tr>
<tr>
<td>AD_PRIV</td>
<td>.4945</td>
<td>.0773</td>
<td>6.3959</td>
<td>.0000</td>
<td>.3415</td>
</tr>
<tr>
<td>AdISelf</td>
<td>.1186</td>
<td>.0778</td>
<td>1.5236</td>
<td>.1302</td>
<td>-.0355</td>
</tr>
<tr>
<td>int_1</td>
<td>.2001</td>
<td>.0560</td>
<td>3.5725</td>
<td>.0005</td>
<td>.0892</td>
</tr>
</tbody>
</table>

Data for visualizing conditional effect of X on Y
Paste text below into a SPSS syntax window and execute to produce plot.

DATA LIST FREE/AdISelf AD_PRIV Adid_BrAt.

BEGIN DATA.

-9.332 -.9086 2.8537
.0000 -.9086 2.7947
.9332 -.9086 2.7357
-9.332 .0000 3.1334
.0000 .0000 3.2441
.9332 .0000 3.3547
-9.332 .9086 3.4131
.0000 .9086 3.6934
.9332 .9086 3.9737

END DATA.
Appendix G: Support hypothesis H3b, regression analysis effect ideal self * emotional brand attachment, moderated by product involvement (Adidas)
Outcome: Adid_BrA

Model Summary

<table>
<thead>
<tr>
<th>R</th>
<th>R-sq</th>
<th>MSE</th>
<th>F</th>
<th>df1</th>
<th>df2</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>.6359</td>
<td>.4044</td>
<td>.4306</td>
<td>32.6438</td>
<td>3.0000</td>
<td>120.0000</td>
<td>.0000</td>
</tr>
</tbody>
</table>

Model

<table>
<thead>
<tr>
<th>coeff</th>
<th>se</th>
<th>t</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>constant</td>
<td>3.2441</td>
<td>.0667</td>
<td>48.6164</td>
<td>.0000</td>
<td>3.1120</td>
</tr>
<tr>
<td>AD_PRIV</td>
<td>.4945</td>
<td>.0773</td>
<td>6.3959</td>
<td>.0000</td>
<td>.3415</td>
</tr>
<tr>
<td>AdISelf</td>
<td>.1186</td>
<td>.0778</td>
<td>1.5236</td>
<td>.1302</td>
<td>-.0355</td>
</tr>
<tr>
<td>int_1</td>
<td>.2001</td>
<td>.0560</td>
<td>3.5725</td>
<td>.0005</td>
<td>.0892</td>
</tr>
</tbody>
</table>

Data for visualizing conditional effect of X on Y
Paste text below into a SPSS syntax window and execute to produce plot.

DATA LIST FREE/AdISelf AD_PRIV Adid_BrA.

BEGIN DATA.

-.9332 -.9086 2.8537
.0000 -.9086 2.7947
.9332 -.9086 2.7357
-.9332 .0000 3.1334
.0000 .0000 3.2441
.9332 .0000 3.3547
-.9332 .9086 3.4131
.0000 .9086 3.6934
.9332 .9086 3.9737

END DATA.
### Appendix H: Overview differences gender, age and income

*Emotional brand attachment (M)*  | Male | Female |
---|---|---|
Adidas | 3,0788 | 3,4575 |
Hugo Boss | 3,2372 | 3,4364 |
Colgate | 3,5937 | 3,5781 |
Apple | 2,8158 | 2,8052 |
Persil | 3,8509 | 3,8213 |
Samsung | 3,0827 | 3,0863 |

**Age category**  | 0 – 20 | 21 – 25 | 26 - 30 | 31 – 40 | 41 – 50 | 51 – 64 | > 65 |
---|---|---|---|---|---|---|---|
Adidas | 3,5833 | 3,2573 | 3,6 | 3,2963 | 3,4048 | 3,295 | 3 |
Hugo Boss | 3,0159 | 3,32 | 3,4704 | 3,2778 | 3,1389 | 3,4815 | 3,8056 |
Colgate | 3,3194 | 3,5098 | 3,803 | 3,1806 | 3,7172 | 3,7427 | 2,5556 |
Apple | 2,0952 | 2,0952 | 2,9833 | 2,7947 | 2,8951 | 3,3545 | 3,1667 |
Persil | 3,5778 | 3,7723 | 3,8472 | 3,8 | 3,679 | 3,9936 | 3,9259 |
Samsung | 3,463 | 3,0957 | 2,8849 | 3,7093 | 3,2639 | 2,9333 | 2,8889 |
Average | 3,18 | 3,26 | 3,43 | 3,34 | 3,35 | 3,47 | 3,22 |

**Income**  | Less than 20.000 | 20.000 – 34.999 | 35.000 – 49.000 | 50.000 – 74.999 | 75.000 – 99.999 | 100.000 – 149.999 | No answer |
---|---|---|---|---|---|---|---|
Adidas | 3,4049 | 3,1784 | 3,5278 | 3,9333 | 2,5556 | - | 2,9894 |
Hugo Boss | 3,3704 | 3,402 | 3,3571 | 3,9074 | 2,8889 | 3,5278 | 3,25 |
Colgate | 3,5304 | 3,4216 | 3,7346 | 4,4762 | 3,8056 | - | 3,3504 |
<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple</td>
<td>2,7809</td>
<td>2,4181</td>
<td>2,9103</td>
<td>2</td>
<td>3,5</td>
<td>3,5556</td>
</tr>
<tr>
<td>Persil</td>
<td>3,8123</td>
<td>3,7259</td>
<td>3,9881</td>
<td>4,111</td>
<td>2,6667</td>
<td>3</td>
</tr>
<tr>
<td>Samsung</td>
<td>3,1585</td>
<td>2,8012</td>
<td>2,8125</td>
<td>3,8111</td>
<td>3,7963</td>
<td>-</td>
</tr>
<tr>
<td>Average</td>
<td>3,34</td>
<td>3,16</td>
<td>3,39</td>
<td>3,71</td>
<td>3,20</td>
<td>3,36</td>
</tr>
</tbody>
</table>