The consumer brand relationship map

"A measurement technique that captures consumer-brand relationships in a consumer/user-friendly way"

Radboud Universiteit

Student:	Cecile Buunk
Student number:	S1030898
Supervisor:	dr. C. Horváth
Second examiner:	dr. M. Hermans
Date:	June 15th, 2020

Preface

Dear reader,

The thesis that you are about to read is the final work of my Master in Marketing at the Radboud University Nijmegen, and is the result of months of dedicated work. However, I would not have been able to do so without special support of many others.

First of all, I would like to thank my supervisor dr. Horváth for sharing her experiences in the field of research. Without her advice, present study definitely would not have been the same.

Secondly, I would like to thank all the participants that contributed to present study. Without their participation, the data obtained from the interviews and the questionnaires would have remain behind.

Enjoy reading!

Kind regards,

Cecile Buunk

Halle, June 15, 2020

Table of contents

Radboud Universiteit

Radboud Universiteit

1. Introduction

Academic research has shown that people can form relationships to a variety of objects, including brands (Schouten and McAlexander, 1995). In recent decades, academics in marketing have shown significant interest in studying consumers' attachment to brands (Chaplin and John, 2005; Fedorikhin, Park and Thomson, 2008; Park, MacInnis, and Priester, 2006) as it is shown that building and maintaining long-term consumer-brand relationships provides a host of possible benefits to an organization in order to gain sustainable competitive advantage in today's increasingly competitive business world (Keller, 2001; Park et al., 2006).

Today's increasingly competitive business world ensures that consumers and organizations are faced with more options to choose from (Keller, 2001) and at the same time, limited capacity to process this amount of data (Simon, 1982). To overcome this problem, consumers often use certain strategies to simplify the decision-making process. The bounded rationality theory of Herbert Simon (1982) suggests that when consumers are facing these complex decisions within a limited time frame and/or with limited capacity available to process all information, they recall and eventually use only a certain subset of attributes during the decision-making process (Simon, 1982). Brands help consumers to simplify the decision-making process by not considering all possible attributes and characteristics, but only using a certain subset of attributes during their evaluation (Ahuvia, 2005; Wallendorf and Arnould, 1988). In line with these findings, it has been shown that preferences are sensitive to task and context during the evaluation process (Bettman, Luce, and Payne, 1998), indicating that consumers may use different subsets of attributes in different situations. Moreover, behavioral scientists have shown that preferences are often constructed at the time of choice (Bettman et al., 1998; Dhar and Novemsky, 2008; Van Boven, McGraw, and Warren, 2011), and in this way might not be stable over time.

In order for a brand to become the preferred option, building consumer-brand relationships is important. Extended research on consumer-brand relationships reveals that the norms used in consumer-brand relationships are proven to be similar to those used in interpersonal relationships (Blackston, 1992; Blackston, 1993; Fournier, 1998; Sung and Campbell, 2009). It is similar in a way that, although consumers interact with thousands of products and brands in their lives, they develop an intense relationship to only a small subset of these objects

(Schouten and McAlexander, 1995). Besides this, Fournier (1998) emphasizes in her research that the relationships consumers have with their brands, just as interpersonal relationships, are multifaceted constructs which makes measuring this phenomenon complex.

Due to the fact that consumer-brand relationships, just as interpersonal relationships, are latent in nature, successful management of these relationships requires a set of measures to capture all different aspects. In recent decades, academic researchers and practitioners in marketing have paid a lot of attention to explore the different constructs of this complex phenomenon and how to best measure all different aspects (Aggarwal, 2014; Albert, Merunka, and Valette-Florence, 2009; Albert, Merunka, and Valette-Florence, 2013; Batra, Ahuvia, and Bagozzi, 2012; Delgado-Ballester, Munuera-Aleman, and Yague-Guillen, 2003; Fournier, 1996; Hatfield and Sprecher, 1986; Thomson, MacInnis, and Park, 2005; Rusbult, 1980; Sternberg, 1986; Rubin, 1970). Sternberg's Triangular Theory of Love Scale (Sternberg, 1986) already included *intimacy*, *commitment* and *passion* as constructs to measure interpersonal relationships. In research of Thomson et al. (2005), Ahuvia (2005), Garbarino and Johnson (1999) and Fournier (1998) regarding consumer-brand relationship measurement, *commitment, passion, attachment*, *satisfaction*, *involvement*, *attitude* and *love* are used to measure consumer-brand relationships. Based on this and the similarity between consumer-brand relationships and interpersonal relationships, in present study the constructs *commitment, passion, attachment* and *love* were used. These constructs were used in present study as they all cover a different aspect of consumer-brand relationships.

1.1 Problem statement

It has been difficult for both marketing practitioners and researchers to come up with an empirically tested measure that gives an overview of the relationships between consumers and multiple brands within a specific category (Hess and Story, 2005). Although researchers have studied consumer-brand relationships and the related constructs for decades, a reliable, valid and generalizable measurement technique which captures all different aspects of consumer-brand relationships, from the consumer perspective, in a consumer/user-friendly way, has remained behind. According to Hess and Story (2005), "The notion that relationships are more profitable than individual transactions is well founded, but the search for a framework to quantify, diagnose, and describe the nature of such relationships has proven elusive" (p. 313). The previous developed techniques measure consumer-brand relationships as if the brand exists in a vacuum (Albert and Merunka, 2013; Batra et al., 2012), which is not realistic as

Radboud Universiteit

Fournier and Yao (1997) already proved that consumers may form attachments with more than one brand in the same category, as long as they are familiar with them.

To this day, measuring consumer-brand relationships with the use of Likert scales, such as Albert and Merunka (2013) and Batra et al. (2012 did in their research, is founded to be the most effective and efficient way. They already proved that their measurement scales work in the case of measuring consumer-brand relationships between a specific consumer and one or two object(s) or brand(s). Unfortunately, Likert scales that typically ask respondents to rate something about one brand, might give different results than when people evoke different brands. In reality usually, one thinks about several alternatives in a shopping situation, as consumers often first form a consideration set and then choose from among considered products, which makes these previous studied methods not realistic (Hauser, 2014). Moreover, different Likert scales have to be completed in order to compare different brands with each other, which causes lengthy questionnaires.

In attempt to address the limitations of existing scales, which are discussed above, during present study a new technique was developed in order to measure consumer-brand relationships in a consumer/user-friendly way. The novelty of this research is that it provides a measurement technique which is called the Consumer Brand Relationship Map, or in short CBRM. The new technique makes it possible to show the unique relationship between the consumer and a specific brand and all of the consumer's brand relationships with recalled brands from the consumer's consideration set within a specific category. Proximity or distance, can thus be ascertained, visualized and quantified, which gives insight in the level of attachment one has towards different brands as well as the relationships between brands. This visual representation of the placement of different brands are of relevance, as the analyses of Carpenter and Nakamoto (1989) show that a brand's price and profit increase the closer the brand is to the consumer and at the same time, the further it is from a competitor.

Besides that the distances scores adds more depth, present research comes up with a new approach that is easy to administer, and therefore takes the remain barriers away for marketing practitioners in the meaning of labor intensity and specialized expertise. This in a way that, compared with the existing technique, the new method offers a standardized approach for aggregating individual visual representation of a consumer's brands in the consideration set, using a relatively straightforward set of rules that do not require knowledge of specialized statistical techniques.

Radboud Universiteit

Also, different from previous studies, where consumers most of the time have to rate given brand(s), the CBRM method let the participants of the study recall different brands in a specific category to uncover their awareness set and let them rate those recalled brands. "As its name implies, the awareness or knowledge set consists of the subset of items in the universal set of which, for whatever reason, a given consumer is aware" (Shoker, Ben-Akiva, Boccara, and Nedungadi, 1991, p 182). This is done in order to evolve to the consideration set, which are the brands closest to the consumer. According to Shoker et al. (1991) "A consideration set is purposefully constructed and can be viewed as consisting of those goal-satisfying alternatives salient or accessible on a particular occasion. While an individual may have knowledge of a large number of alternatives, it is likely that only a few of these will "come to mind" for a relevant use or purpose" (p. 183). Moreover, the CBRM is unique for every individual as the model is made based on the participants' own recalled brands, and is applicable in different product categories in order to uncover the position of different brands within a specific category.

The new model has the shape of a circle, with the participant at the center, and is a visual representation of the consumers mind. Research of Walker-Hirsch and Champagne (1991) already enjoyed great success using the simple design of a circle by letting kids in special education categorize their real-life relationships. By using a circle, the maximum distance for each brand placed is standardized. The idea of concept maps was developed by Novak in 1972 as a means of representing the knowledge of students (Novak & Cañas, 2008) and is based on David Ausubel's learning psychology (Ausubel, 1963). Concept mapping has subsequently been used for over 30 years, in classroom practice as a tool to increase meaningful learning and to reveal and assess the structure and complexity of knowledge held by students (Novak & Gowin, 1984). Concept mapping ensures people to critically think about how to organize certain knowledge into a visual representation, how to organize the assimilation of new knowledge into their existing cognitive structure and gives insight into the relationships between concepts (Jacobs-Lawson & Hershey, 2002).

1.2 Theoretical relevance

When diving into the literature, a number of researchers call for further research in the area of consumer-brand relationship measurement (Blackston, 1992; Blackston, 1993; Blackston, 2000; Dall'Olmo Riley and de Chernatony, 2000; Fournier, 1998; Kates, 2000), as mentioned by Hess and Story (2005) "It is still hard work to get it right" (p. 322). Recent publications on

consumer-brand relationships measurement, such as the study by Papista and Dimitriadis (2012), are mainly conceptual and do not present empirical findings. The limited number of studies that focus on empirical results are focused on brands in the service industry (Blackston, 1992; Blackston, 1993; Dall'Olmo Riley and de Chernatony, 2000; O'Laughlin, Szmigin, and Turnbull, 2004; Sweeney and Chew, 2002) rather than on branded products. Besides, studies that focuses on relationships with product brands are mainly focused on the relationship viewed from the company's point of view, rather than the consumer's point of view (Martin, 1998) and in this way focuses on only one or two brands.

1.3 Practical relevance

Besides contributing to the literature, present study has practical implications for marketing practitioners. In general, it provides marketing practitioners the opportunity to reach their ultimate goal; namely, to better understand the multi-faceted interactions that consumers have with brands in the same category. Insights into consumer-brand relationships helps marketing practitioners to understand and manage the positioning of a particular brand, and in this way create a sustainable competitive advantage (Hooley, Broderick, and Möller, 1998). This consumer/user-friendly measurement technique will show this valuable information in terms of position scores, which allows marketing practitioners to see new opportunities that will better their position in the market.

Organizations can use CBRM to assess the level of attachment that their customer base is forming with different brands in a specific category via distance scores. Due to these distance scores, this model goes more in-depth and is more precise than previous used measurement methods in this field, and gives at the same time a visual representation of the brands in mind. Based on these distance scores, the level of attachment that consumers form with these brands becomes visible and could be used as an indicator of the strength of consumer-brand relationships. It is of relevance to map these relationships in a competitive space, as "customer relationships take many forms and the relative mapping of these relationships can indicate brand strengths or weaknesses, as well as differences in strategic options" (Hess and Story, 2005, p. 318). The approach to assess the relationships between consumers and brands provide the basis for designing and delivering effective relationship marketing strategies (Hess and Story, 2005).

Radboud Universiteit

To the researchers' knowledge, such a technique, based on distance scores, with multiple branded products recalled by consumer's, has not been field tested through research studies before. Present study therefore attempts to fill this gap in the research literature.

The purpose of present study is to develop a new measurement method that captures consumer-brand relationships within a specific category in a consumer/user-friendly way.

1.4 Outline

The remainder of this thesis proceeds as follows: First of all, more background on consumer-brand relationship mapping and the related key-variables are provided. Next, both the CBRM method as well as the other research methods used in present study are presented. The results of the empirical part of present study are included in section four, followed by the interpretations of the results, a conclusion, the contribution to the knowledge, its managerial implications, a critical reflection on the limitations and directions for further research in section five.

Radboud Universiteit

2. Theoretical background

Previous studies have shown that people can form emotional *attachments to a* variety of objects, including brands (Schouten and McAlexander, 1995). According to the American Marketing Association (AMA), "a brand is a name, term, sign, symbol, or design, or combination of them, which identifies the goods or services of one seller or group of sellers and distinguishes them from those of competitors" (Alexander, R.S., 1948, p. 204).

Besides the emotional *attachments* towards brands, more recent studies also demonstrate that consumers can experience a feeling of *love* towards brands (Albert, Merunka, and Valette-Florence, 2008; Batra et al., 2012). Academic research on consumer-brand relationships is drawn largely from the field of social psychology; personal relationships were introduced in the marketing literature as a metaphor for the associations between consumers and brands. Aggarwal (2014) already stated that, instead of recasting brands as passive objects, brands are evaluated as "equal and valuable partners" (p. 27), norms used in these consumer-brand relationships are similar to those used in interpersonal relationships (Schouten and McAlexander, 1995). In line with this, Gadeib (2011) states that brands and their users act as a family, where relationships and emotions play the most important role. The idea that consumers form relationships with brands, using norms similar to those used in interpersonal relationships, is not novel (Albert et al., 2008; Batra et al., 2012; Blackston, 1992; Blackston, 1993; Carroll and Ahuvia, 2006; Chaudhuri and Holbrook, 2001; Fournier, 1998; Fournier and Yao, 1997; Schouten and McAlexander, 1995; Sung and Campbell, 2009). To illustrate, Fournier (1998) emphasizes the importance of understanding the consumer's perspective. Measuring the relationship consumers have with their brands is complex, as this are multifaceted constructs, just as interpersonal relationships (Fournier, 1998). The concept of consumer-brand relationships is as a "two-way street, much like any interpersonal relationship" (Aggarwal, 2014, p. 27).

Understanding the consumer is a top priority for many organizations, as it has been shown to provide a host of possible benefits to an organization (Keller, 2001). Previous studies have shown that good consumer-brand relationships will evoke beneficial effects such as positive word-of-mouth, involvement in brand communities, forgiveness of mishaps, more favorable consumer responses to price increases and decreases, acceptance of brand extensions, brand loyalty, shielding the committed brand form negative information, an increased effect of

marketing communication activities and resistance to competing alternatives (Keller, 2001; Park et al., 2006). Moreover, various academics proved that consumer-brand relationship management can evoke brand evaluation bias (Desai and Raju, 2007; Park and Lessig, 1981). For example, Desai and Raju (2007) found that *committed* consumers had a smaller consideration set and when they had to rate a benefit that was more closely associated with the competitor brand than with the committed brand, *committed* consumers continued to rate the committed brand as appropriate for such situations (Desai and Raju, 2007).

2.1 Related constructs

During the past decades, academics were busy finding out what consumer-brand relationships are about, and what the related constructs are. The constructs used in present study all capture a different aspect of consumer-brand relationship and are described below. A relationship may be only truly effective when most or all of its constructs are strong (Palmatier, Dant, Grewal, and Evans, 2006).

2.1.1 Brand love

Brand love can be defined as the degree of *passionate* emotional *attachment* a satisfied consumer has for a particular trade name (Carroll and Ahuvia, 2006), and had been an explicitly studied construct in consumer-brand relationships (Albert et al., 2008; Batra et al., 2012; Carroll and Ahuvia, 2006). Besides, Fournier (1998) included *brand love* as one of the core elements of consumers' relationships with brands in her research.

2.1.2 Brand attachment

According to Park et al. (2006) *brand attachment* is "the strength of the cognitive and emotional bond connecting the brand with the self" (p. 2). The stronger one's *attachment* to an object, the more likely one is to maintain proximity to the object. Moreover, strong *attachments* can cause separation distress (Thomson et al., 2005). It has been shown that *brand attachment* is related to various aspects, such as *satisfaction*, *commitment*, *trust*, consumer *forgiveness*, *disposal choice* and *brand loyalty* (Ahluwalia, Unnava, and Burnkrant, 2001; Rempel, Ross, and Holmes, 2001; Thomson et al., 2005). *Brand attachment* received a lot of attention in both interpersonal relationships (Bowlby, 1969) and the relationships between people and products (Ball and Tasaki, 1992). A body of research has found that *brand attachment* predicts successful and unsuccessful relationships. According to Thomson et al. (2005) brand *attachment* is critical because it should affect behaviors that foster brand

profitability and customer lifetime value. Moreover, consumers' *attachment* to a brand predicts their *commitment* to the relationships with this brand (Drigotas and Rusbult, 1992; Rusbult, 1983).

2.1.3 Brand commitment

Brand commitment can be defined as the connection a consumer has with a brand (Lastovicka and Gardner, 1979). It shows the degree to which a consumer views the relationship from a long-term perspective and has a willingness to stay with the relationship even when things are getting difficult. In this way, *commitment* goes deeper than for example *brand attitude*, as it would be unusual for a consumer to stay *committed* to a brand when one only has a favorable *attitude* towards it (van Lange, Rusbult, Drigotas, and Arriaga, 1997). A number of researchers view *commitment* as a measure of marketing effectiveness (Dwyer, Schurr, and Oh, 1987; Moorman, Deshpande, and Zaltman, 1993; Morgan and Hunt, 1994). Barnes (2003) and Thomson et al. (2005) refer to the economic, emotional and psychological *attachments* that the consumer may have towards the brand, or the willingness to make efforts to continue the relationship. Sternberg (1997) points out that in comparison to passion, *commitment* is a relatively stable component.

2.1.4 Brand passion

Brand passion is identified as a strong, positive feeling towards a brand and may influence both the willingness to pay a higher price for the brand as well as the positive word of mouth. A consumer with a degree of *passion*, might be likely to impulsively purchase a product and exceed the budget allocated for the purchase (Albert et al., 2013). *Brand passion* involves physical attraction, romance, arousal, and needs such as self-actualization, nurturance, or self-esteem (Albert et al., 2008). In comparison to *commitment*, *passion* may play a larger role in short term relationships (Sternberg, 1986).

Table 1 provides an overview of the antecedents, constructs and outcomes of consumer-brand relationships used in present study.

Table 1: Consumer brand relationship antecedents, constructs and outcomes

Antecedents	Constructs	Outcomes
Satisfaction	*Attachment*	Positive word of Mouth
Trust	*Commitment*	Brand loyalty
Purchase intention	*Love*	Buying frequency
Engagement	*Passion*	Willingness to pay a price premium
		Involvement in brand communities
		Forgiveness of mishaps
		Acceptance of brand extensions
		Increased effect of marketing communication activities
		Resistance to competing alternatives

2.2 Measurement of consumer-brand relation concepts

Based on previous literature regarding measuring consumer-brand relationships, three different methods used can be distinguished, namely; focus groups, interviews and questionnaires. In the sections below, the measurement methods used in previous studies on consumer-brand relationships are described and their advantages and disadvantages are mentioned.

2.2.1 Focus groups

A focus group is an informal discussion among a group of people, which is focused on a topic selected by a researcher whose aim is to analyze the topic at hand in detail (Acocella, 2012). In order to gain information about consumers' *attachment* towards brands, researchers such as Papista and Dimitriadis (2012) and Veloutsou (2007) used focus groups in their explorative studies in the direction of consumer-brand relationships measurement. Over the past decades, focus groups and group interviews have reemerged as a popular qualitative data gathering technique as it facilitates interaction among participants and collects high quality information in a short amount of time (Morgan, 1996). Focus groups are less useful in the development of a CBRM, as a disadvantage of focus groups is the so-called predicted polarization effect, which means that attitudes become more extreme in group discussion in comparison to individual interviews (Sussman, Burton, Dent, Stacy, and Flay, 1991). Social distortions always occur in consumer research, and focus groups tend to stimulate self-presentational issues that motivate respondents to consciously modified responses in order to intimidate, impress or please others (Rook, 2006).

2.2.2 In-depth interviews

Next to focus groups, in-depth interviews can be used to obtain qualitative data. Among qualitative research methods, in-depth interviewing is the most commonly known and widely spread (Patton, 2002). To illustrate, "In-depth interviewing, which is also known as unstructured interviewing, is a type of interview which is used to elicit information in order to achieve a holistic understanding of the interviewee's point of view or situation" (Berry, 1999, p. 2). In order to get this information, informants are asked open-ended questions. As all kinds of emotional, rational, cultural and social needs are interrelated when dealing with brands (Cooper 1999), a lot of studies on consumer-brand relationships were conducted in a qualitative manner. Researchers such as Ahuvia and Adelman (1993), Ahuvia (2005) and Fournier (1998) used this method in order to gain insights in consumer object and consumer brand relations in an explorative way. The advantage of in-depth interviews is that it allows new research directions to emerge through, and it includes clever ways of assessing consumer perceptions that may otherwise be difficult to uncover (Berry, 1999; Danes, Hess, Story, and York, 2010). Besides, individual interviews provide the interviewer more control and closer communication with the interviewee, than for example in focus groups is the case (Morgan, 1997). Moreover, an advantage of using in-depth interviews is that is allows the informants to express their selves much more freely than in quantitative research techniques (Boeije, 2005). Disadvantages of in-depth interviews is that it is a time-consuming measuring method and researchers who would like to use this method first have to get familiar with the technique (Patton, 1980).

2.2.3 Questionnaires

Rens Likert first reported highly satisfactory and reliable data from summated rating scales in 1932. He developed his Likert scale, as it is known now, to measure *attitude*. At this moment, the Likert scale has grown in popularity and used extensively to measure various interpersonal phenomena (Davies, 2008). The most commonly used method to measure consumer-brand relationships in a quantitative way is using Likert scales. Previous studies concerning consumer-brand relationships often conducted data via questionnaires, using a 7-point Likert scale (Batra et al., 2012; Albert et al., 2013; Veloutsou, 2007). Besides, a 5-point Likert scale is used in the study of Kimpakorn and Tocquer (2010). An advantage of the Likert scale is that it makes its responses to the difficulty of measuring latent variables in an easy way (Likert, 1932). Besides, Likert scales have proven its strength in past decades which makes it possible to add validity to the research. A weakness of the Likert Scale in the case of

Radboud Universiteit

measuring consumer brand relationships is that the consumer is forced to choose a grade between 1 and 7, which is not precise (Bertram, 2012). No indifferent option, such as a 4.3 is possible. Overall, it is difficult to measure the whole picture of a consumer in relation to various brands with the use of Likert scales, as the Likert Scale focuses on one specific brand at a time, or compares two brands to each other. To capture the whole picture, the participant has to fill in multiple Likert scales for every single brand in order to compare the Likert scale scores between two brands, which is time consuming.

3. Empirical investigation

The previous section has laid a theoretical foundation of the consumer brand relationship concept and will help to reach the purpose of this thesis: *The purpose of present study is to develop a new measurement method that captures consumer-brand relationships within a specific category in a consumer/user-friendly way.*

In order to come up with a new measurement method and compare this with the well-known Likert method, primary data had been collected in both a quantitative as well as a qualitative way, which is called the mixed method approach. It is called "mixed" as an essential step in this approach is to link and compare data (Shorten and Smith, 2017). In present study, qualitative and quantitative data were collected and analyzed concurrently e.g. parallel. In total, two research methods were used in order to come up with a new measurement method; in-depth interviews and two different questionnaires, completed by two different samples, which will be explained in more detail below.

First of all, in order to create the CBRM, a qualitative research method was needed to get better insights in the placement of different brands and to gain a better understanding of connections between consumers and brands and between different brands. In present research, conducting individual in-depth interviews was the most appropriate way in order to avoid polarization effects. Data triangulation had been used in order to increase the quality of the content analysis. Therefore, participants with difference in ages, educational level, gender, category involvement and different levels of average beer consumption were included in the samples. In order to validate the results, a questionnaire was filled in by the CBRM participants (N = 51) right after the interviews. The questionnaire of the CBRM can be found in appendix A: Survey design CBRM method. Moreover, a different questionnaire was filled in by a control group (N = 143) to test the well-known Likert scale method, and make it possible to compare these results with the CBRM method in order to draw valid conclusions. The questionnaire of the Likert scale method can be found in appendix B: Survey design Likert scale method.

Both questionnaires were proceeded via Qualtrics. All interviews and both questionnaires were conducted in Dutch, as this was the native language of all informants. To ensure data equivalence, the questionnaires were translated from English to Dutch, which is the target

Radboud Universiteit

language, and then backward-translated into English, which is the source language. The two versions of the original language were identical, which suggests that the target version is equivalent to the source language forms (Brislin, 1970).

3.1 CBRM method

The new measurement method included four steps. A brief overview of the method can be found in table 2, and will get explained in more detail below.

Table 2: Overview CBRM method

Phase	Necessities	Key
1. Preparation	Introduction to the CBRM method	Clearness of the method
2. Mapping	The CBRM model	Placement of different brands by the consumer and getting insight in the reasoning behind the placement.
3. Creation	CBRM questionnaire	Getting insights in how the participants perceived the method. Demographic variables. Category involvement.
4. Analyses	Measurement of the distance scores	Calculate attachment scores

3.1.1 Preparation

During this first phase, the participants were introduced to the study. A good introduction of the interview is an important condition for the smooth running of the interview process as it has to remove all questions about the context of the conversation (Bleijenbergh, 2013). Besides, the introduction addresses who the researcher is, why she wants to hold this conversation, why she has selected this respondent, how the conversation will be recorded and what will happen to the information that has been obtained (Bleijenbergh, 2013). As the interviews were recorded, it was important to explicit request permission for this during the introduction. Besides, the participants were informed that they could stop the conversation at any moment if they would like to, and that they were not going to be quoted by name in the thesis. Moreover, the participants were introduced to the product category in present study, which is beer. After this, the new model was explained using brands from another product category as an example. At the end of the introduction, the participant was asked if he or she is able to conduct a CBRM their selves in the category beer. The introduction to the new method can be found in appendix C: Introduction CBRM method. Once the participant agreed that the method was clear, there could be proceeded to the next phase.

Radboud Universiteit

3.1.2 Mapping

After the preparation phase, the participant was asked to elicit a brand in the category beer and map this elicited brand in the circle around them, according to how *attached* this particular brand is to them. The document used for this can be found in appendix D: CBRM model. Closeness of the brand means a strong attachment. The elicitation of brands (e.g. brand recall) is derived from human relationships, as no bond can be created and further developed if the brand is unknown (Simon 1982). Instead of giving a list with brands and let participants pick several brands from this or just rank them all, participants had to recall their own brands as these brands are particularly in the consumers' awareness set. During this phase, the participants were asked to think out loud, which created insights in what the different positions of the brands mean. Thereafter, the participant was asked to go on with this by elicit another brand in the category beer and arrange this brand in the circle around them as well, according to how attached this particular brand is to them and to one another. This step was repeated until the participant was not able to mention other brands, or when the maximum of twelve brands had been achieved. The participant was not informed about the maximum number of brands used in present study beforehand, only if he or she reached the number of twelve brands, the participant was told that the maximum number of brands was reached. This maximum number of brands was used in order to compare different maps even better and to avoid a lengthy study. At the end of the mapping phase, the participants were asked to overview their model and asked if they were satisfied with their placement. If not, changes could be made. An example of a completed CBRM model by one of the participants of the research can be found in appendix E: Completed CBRM model.

3.1.3 Creation

Right after the mapping phase, participants of the CBRM method were asked to fill in a questionnaire about the method used. In total, an amount of 15 questions were asked about the method, the items used all consisted of statements validated in previous literature of Lund (2001). The set-up of the questionnaire can be found in appendix A: Survey design CBRM method.

3.1.4 Analysis

In the final stage, the results were analyzed. Distance scores from the consumer to the different brands were measured based on the CBRM's the participants made, in order to

compare these with the outcomes of the control group. The distances scores are the distances in centimeter between the participant and the different placed brands and between the different brands and were measured by hand as a concept version of the model was used. The final version of the CBRM will be an online application, in which distance scores are automatically calculated.

As mentioned above, all fifty-one interviews for this thesis were recorded. To find the appropriate data in the interviews for the analyses, there have been made non-verbatim transcript of all records, which gave insight in the order of elicitation of the different elected brands and the reasons behind the placements of the brands. A non-verbatim transcript is made by typing out the answers of the informant, without including filler words, stammers, and anything that takes away from the core message of what is being said (Bleijenbergh, 2013). This type of transcript is used most common and should only be lightly edited by the transcriptionist for readability. After the transcription, the data has been encoded to analyze the information and draw conclusions based upon this. Coding a text is the actual application of concepts to the margins of the transcripts as an aid in unraveling, combining and interpreting this material. Basically, there are two forms of coding, namely manual coding and computer-assisted coding. The non-verbatim transcripts in present study are coded manually. An advantage of manual coding is that one can start with it relatively quickly. A disadvantage is that comparing different text fragments from the different transcripts is labor intensive. In order to compare fragments with the same codes, one has to go through all the transcripts multiple times. On the other hand, repeatedly going through the texts gives you as a researcher a good overview of your material. In present study, inductive qualitative content analyses had been used. The starting point for this form of coding is that you start coding close to the empirical material. In this, three steps can be distinguished, which are also described as open coding, axial coding and selective coding. The first stage is that of open coding, in which potential parts of the transcripts were highlighted and labeled with a term that occurs in the text itself and which is most characteristic of the content of the fragment. Secondly, axial coding had taken place. Connections between the open codes are made and themes get distinguished. Axial coding makes it possible to significantly reduce the number of codes and material. The third phase consisted of selective coding, in which the concepts were worked out to a theory by comparing fragments with the same themes with each other and in this way, patterns were recognized (Bleijenbergh, 2013). In present study, 12 codes were used, which can be found in appendix F: Transcript codes.

Radboud Universiteit

3.2 Assessing the method used

In both questionnaires, participants had to rate the measurement method used based on 15 items. Due to this, both the Likert scale method and the CBRM method were rated in the same way by different participants, the participants of the Likert scale method were included as a control group. By doing so, it was possible to compare the methods and make validated conclusions based upon this. The items used, all consisted of statements validated in previous literature of Lund (2001) and have been translated into Dutch. These items the result of a large pool of items which they tested and came from the literature, previous internal studies, and from brainstorming. Participants answered the questions using a seven-point Likert scale, ranging from (1) strongly disagree to (7) strongly agree, which was also the case in the study of Lund (2001). The questions used can be found in table 3: Items Likert scale questionnaire and CBRM questionnaire.

Table 3: Items Likert scale questionnaire and CBRM questionnaire

Item number	Question
1	This method increased my motivation to display my relationships with brands in the given category
2	The method used is an active way to display my relationships with brands in the beer category
3	This method challenged my thinking
4	This method is user-friendly
5	This method requires the fewest steps possible to create an overview of the relationship I have with different brands in the given category
6	CBRM is flexible; it gives the possibility to recover from mistakes quickly and easily
7	I could use this method successfully the next time
8	It is difficult to learn how to use this method
9	This method gives me insight in the relationships I have with different brands in a specific category
10	These relationships could have been measured in a faster way
11	I perceive this method to be long-winded
12	This method really displays the way I feel about the different brands
13	This method is fun to use
14	This method enables me to uncover my relationships towards brands in a playful way
15	I felt bored performing this method

3.3 Likert scale method

The scales used in the Likert scale method were based on the most popular and extensively used measurement scales of *brand attachment* of Park, MacInnis, Priester, Eisingerich, and Iacobucci (2010) and included five items, which can be found in table 4: Likert scale questions Likert scale method and CBRM method. Instead of interviews, the participants (N =

Radboud Universiteit

143) of the Likert scale method only filled in a questionnaire. Within this questionnaire, the participants could write down a beer brand and indicate their level of attachment based upon the five items. The participants of the Likert scale method had to write down a brand and indicate their level of brand attachment on five items including a 10-point Likert scale ranging from (1) not at all to (10) completely, for all different brands, right after writing down the brand. In order to avoid response bias, the option "I do not know" was included as well. This step was repeated until the informant was not able to mention more brands or when the maximum of twelve brands was achieved. The participants were not informed about the maximum number of brands beforehand, just as was the case in the CBRM method. A 10-point Likert scale was used for the five items, as in this way it was possible to compare the outcomes with the diameter of the CBRM, which is 20 centimeter; 10 centimeters on both sides.

In order to compare results, the participants of the CBRM method (N = 51) had to indicate their level of brand attachment on a 10-point Likert scale for the brand they are most attached to (as was shown by their personal CBRM) and a random chosen brand based as well, via the same five questions conducted from the research of Park et al. (2010). These questions can be found in table 4: Likert scale questions Likert scale method and CBRM method.

Table 4: Likert scale questions Likert scale method and CBRM method

Item number	Question
1	To what extent is [brand name] part of who you are?
2	To what extent do you feel personally connected to [brand name]?
3	To what extent do you feel emotionally bonded to [brand name]?
4	To what extent is [brand name] part of you?
5	To what extent does [brand name] say something to other people about who you are?

3.4 Category involvement

Besides, ten questions on a 7-point semantic differential scale were asked to measure the level of category involvement of each participant in both the Likert scale questionnaire (N = 143) as well as the CBRM questionnaire (N = 51). Based on this, it is possible to find out whether the degree of category involvement influences the involvement, ease of use and satisfaction of the method used, the number of brands mentioned and the height of the attachment levels.

Radboud Universiteit

The items are conducted from the research of Zaichkowsky (1994) and can be found in table 5: Items category involvement.

Table 5: Items category involvement

Important	O	O	O	O	O	O	O	Unimportant
Boring	O	O	O	O	O	O	O	Interesting
Relevant	O	O	O	O	O	O	O	Irrelevant
exciting	O	O	O	O	O	O	O	Unexciting
Means nothing	O	O	O	O	O	O	O	Means a lot to me
Appealing	O	O	O	O	O	O	O	Unappealing
Fascinating	O	O	O	O	O	O	O	Mundane
Worthless	O	O	O	O	O	O	O	Valuable
Involving	O	O	O	O	O	O	O	Uninvolving
Not needed	O	O	O	O	O	O	O	Needed

3.5 Control variables

Moreover, both questionnaires included one question about the "average beer consumption" of the participant, divided in eight categories (Never, Less than once a month, Once a month, Almost every week, Once a week, Two times a week, Almost every day, Every day). Lastly, four demographic questions were asked in the questionnaire: Gender: Male, Female, Others (specify). As there were no participants who specified "others" there were two groups left: Male and Female. Besides, the age was asked with an open entry box. Based upon these, there were 6 categories made which were used in the analyses: 18-24, 25-34, 35-44, 45-54, 55-64, 65+. Moreover, the current highest level of education was asked: Less than high school degree, High school degree or equivalent, Some college but not degree, Associate degree, Bachelor's degree, Master's degree, Professional degree, Doctorate degree. Based on the answers, these categories are during the analyses divided in 4 groups: High school or equivalent, IVE, Bachelor's degree and Master's degree. Lastly, the province of birth was asked: Gelderland, Noord-Holland, Zuid-Holland, Noord-Brabant, Utrecht, Flevoland, Friesland, Groningen, Drenthe, Overijssel, Zeeland, Limburg. Due to this, it was possible to control for demographic influences on the investigated relationships. Within the CBRM questionnaire (N = 51), the informants name was asked to link their answers of the questionnaire with the CBRM model the participants made earlier.

3.6 Sample and data gathering

Due to the limited amount of time and resources, informants were recruited from the author's circle of acquaintances, hence, a snowball technique was used. The interviews were

Radboud Universiteit

conducted face-to-face as this was more precise in the meaning of measuring distance scores compared to the planned Skype interviews with the online CBRM model. In order to avoid bias, environmental effects such as interruptions and the display of certain beer brands were avoided. Questionnaires of the CBRM method were completed right after the in-depth interviews and the questionnaires about the Likert method were spread via Facebook, Instagram, Whatsapp and LinkedIn. The data collection took place between the 28th of April and 20th of my 2020.

3.7 Pre-test

Two different pre-tests were performed in order to examine the feasibility of the research design and to account for perceived difficulties with regard to the wording or meaning of the questions (Baarda, 2014). At the 28th of April, the pre-test of the CBRM method was performed with a fellow student of the Radboud University. Based on the following answers during the interview "So one circle further means a different level, or what exactly do these circles say? Or do you measure from the label with the brand name?" and "Can I place this right away or should I first write down another brand and then place everything?" slight differences in the introduction of the interview were made in terms of the explanation of the placement, different steps to be taken and measurement in order to increase the clarity. During the questionnaire, the same respondent mentioned "What exactly do you mean by involved? How often do I come into contact with beer or?" which caused a change in the semantic differential scale in both the Likert scale questionnaire and the CBRM questionnaire from involved – not involved to personally involved – not personally involved. At the 29th of April, the pre-test of the Likert scale method was performed with a student from Van Hall Larenstein. Based on "This method increased my involvement to map my relationships with brands in the given category. I do not understand this question, could you explain this?" this question had been changed to "The method used is an active way to display my relationships with brands in the beer category" in both the Likert scale questionnaire and the CBRM questionnaire.

3.8 Validity and reliability

Regarding the validity of present study, different steps were taken into account in order to ensure the quality of the research. First of all, the participants of the research varied in age, gender and educational level. Moreover, unstructured open interviews have enhanced validity, as in this way the interviewer was able to focus per conversation precisely on the aspects that

Radboud Universiteit

are of relevance for the research (Bleijenbergh, 2013). In addition to this, as mentioned in the interview guide, informants were made comfortable to talk freely, by mentioning explicitly that there were no "good" or "bad" answers, but that especially their opinion on this subject is valuable. Moreover, informants were informed that they remain anonymous within the study in order to reduce the probability of socially desirable answers.

In order to improve the reliability of this thesis, the study was introduced in exactly the same way to every participant. Besides, peer debriefing was used in order to further improve the reliability. By using this method, the quality of the content analysis was increased as it was submitted to a researcher outside our own research team (Boeije, 2005). The analysis of the results had been checked and provided with feedback by a fellow master student. Due to the fact that the new measurement method only gives one measure, which is distance, reliability of the measurement method is of limited amount. Moreover, two different samples had to conduct exactly the same 15 questions about the two different methods. In this way, it was possible to compare the questions about the different methods with each other. By using different samples response bias was avoided, as respondents had no prior knowledge of the topic being questioned. Besides, the sample of the CBRM questionnaire had to fill in two questions of the Likert scale method in order to compare results within the same sample. The participants were not informed about the different method they had to use. Lastly, the transcripts were coded by the same person in order to improve the reliability.

3.9 Research ethics

Participants were informed about the research topic, the goal of the research, the implications of how the findings may be applied and the freedom to withdrawn from the research at any time during the introduction of both the interview and the questionnaires. It was mentioned beforehand that the information gained during the research will be treated confidently and will be publicized anonymous in the final work. Besides, the participants are anonymized in the transcripts of the interview tapes, and the tapes will be deleted after successful completion of the thesis.

Radboud Universiteit

4. Results

The Statistical software Package for Social Sciences (SPSS) was used to analyze the data. In total, an amount of fifty-one respondents filled in the questionnaire about the CBRM method, which is the same amount as the CBRM interviews. This means that everyone who participated in the interview, had successfully filled in the questionnaire. The sample consisted of N=51 informants ranging from the age of 18 to 73; 20 of them were female (39.2%) and 31 of them were male (60.8%). The mean age of the participants was 33 and the standard deviation of age was 16.840.

Furthermore, the Likert method questionnaire was filled in by 143 informants. Of these N=143 participants, 75 participants were female (52.4%) and 68 participants were male (47.6%). Moreover, the youngest participant was 18 and the oldest was 72 years old. The mean age of the participants was 32 and the standard deviation of age was 15.297.

As shown by table 6 and 7, the respondents of both questionnaires included both males and females, differed in age, had different educational backgrounds (low to high), differed in the level of category involvement and differed in their average beer consumption. Due to the fact that the participants had to be conducted from the researcher's circle of acquaintances, not all provinces were represented in present study. Moreover, 56.9% of all the participants were born in Gelderland.

Table 6: Descriptive

Variables	Categories	Likert		CBRM	
		N	**Percent**	**N**	**Percent**
Gender	Female	75.0	52.4	20.0	39.2
	Male	68.0	47.6	31.0	60.8
Beer consumption	Never	2.0	1.4	2.0	3.9
	Less than once a month	9.0	6.3	6.0	11.8
	Once a month	12.0	8.4	6.0	11.8
	Almost every week	21.0	14.7	9.0	17.6
	Once a week	29.0	20.3	3.0	5.9
	Twice a week	16.0	11.2	13.0	25.5
	Almost every day	44.0	30.8	12.0	23.5
	Every day	10.0	7.0	0.0	0.0
Age	18-24	70.0	49.0	21.0	41.2
	25-34	32.0	22.4	14.0	27.5
	35-44	2.0	1.4	3.0	5.9
	45-54	15.0	10.5	1.0	2.0
	55-64	20.0	14.0	9.0	17.6
	65+	4.0	2.8	3.0	5.9
Education level	High school or equivalent	10.0	7.0	5.0	9.8
	IVE	28.0	19.6	17.0	33.3
	Bachelor's degree	50.0	35.0	7.0	13.7
	Master's degree	55.0	38.5	22.0	43.1
Province of birth	Gelderland	71.0	49.7	29.0	56.9
	Noord-Brabant	33.0	23.1	9.0	17.6
	Utrecht	12.0	8.4	3.0	5.9
	Noord-Holland	6.0	4.2	3.0	5.9
	Zuid-Holland	6.0	4.2	0.0	0.0
	Overijssel	4.0	2.8	3.0	5.9
	Limburg	4.0	2.8	3.0	5.9
	Zeeland	2.0	1.4	1.0	5.9
	Flevoland	2.0	1.4	0.0	0.0
	Friesland	2.0	1.4	0.0	0.0
	Groningen	1.0	0.7	0.0	0.0
	Drenthe	0.0	0.0	0.0	0.0
	Total	143.0	100.0	51.0	100.0

Table 7: Age and category involvement

	Likert					CBRM				
	N	**Min.**	**Max.**	**Mean**	**Standard deviation**	**N**	**Min.**	**Max.**	**Mean**	**Standard Deviation**
Age	143	18.0	72.0	32.91	15.30	51	18.0	73.0	33.76	16.84
Category involvement	143	1.0	7.0	4.27	1.06	51	2.9	6.2	4.31	0.63

Radboud Universiteit

First of all, the dataset was screened for missing data. Both questionnaires were constructed in such a way that participants were not able to continue to the next question if fields were unanswered; therefore, no missing data was found for participants that finished the questionnaire. One response of the Likert scale was deleted as the total duration of completing the survey was 34 seconds, which was too short in order to give valid results. Moreover, item 8, 10, 11 and 15 were reverse coded. Missing's were numerically coded as 12 and in case of the methods, the Likert method was coded as 0 and the CBRM method was coded as 1. With regard to the descriptive variables, gender was coded numerically as well, 0 = female and 1 = male.

4.1 The method used

Table 8 presents the results of the answers given on the 15 items used, for both the Likert scale questionnaire (N=142) and the CBRM questionnaire (N= 51). The questions per item can be found in table 3: Items Likert scale questionnaire and CBRM questionnaire. Participants answered the questions using a seven-point Likert scale, ranging from (1) strongly disagree to (7) strongly agree, which was also the case in the study of Lund (2001). In order to avoid response bias, the category "I do not know" was added to this. The survey designs of both questionnaires can be found in appendix A: Survey design CBRM method, and appendix B: Survey design Likert scale method. In table 8: Items Likert scale method and CBRM method, the descriptive of both the Likert scale method and the CBRM method are shown. As shown in table 8, every single item has a higher mean in the case of the CBRM method compared to the Likert scale method.

Table 8: Items Likert scale method and CBRM method

Item	Likert					CBRM				
	N	Min.	Max.	Mean	Standard Deviation	N	Min.	Max.	Mean	Standard Deviation
Item 1	142	1	7	3.46	1.74	51	1	7	5.41	1.25
Item 2	142	1	7	3.66	1.61	51	1	7	5.59	1.2
Item 3	142	1	7	3.74	1.91	51	3	7	5.76	1.18
Item 4	142	1	7	4.73	1.83	51	3	7	5.69	1.27
Item 5	142	1	7	4.25	1.68	51	2	7	5.2	1.31
Item 6	142	1	7	4.51	1.83	51	3	7	5.98	1.05
Item 7	142	1	7	4.47	1.85	51	2	7	5.96	1.06
Item 8	142	1	7	5.52	1.61	51	2	7	5.57	1.4
Item 9	142	1	7	3.56	1.77	51	2	7	5.49	1.17
Item 10	142	1	7	4.63	1.7	51	2	7	5.33	1.34
Item 11	142	1	7	4.23	1.86	51	3	7	6.08	1.11
Item 12	142	1	7	3.36	1.84	51	1	7	4.94	1.35
Item 13	142	1	7	3.69	1.83	51	2	7	5.9	1.27
Item 14	142	1	7	3.61	1.77	51	2	7	5.76	1.26
Item 15	142	1	7	4.19	1.81	51	1	7	6.22	1.17

4.2 Factor analysis 1

4.2.1 Validity

In order to investigate construct validity, factor analysis was conducted for the above mentioned 15 items about the method used in both questionnaires. The Kaiser-Meyer-Olkin measure of .920 indicated that the proportion of variance in the different items might be caused by underlying factors. Besides, Bartlett's Test of Sphericity was significant, and therefore a factor analysis was proven useful for the data. Communalities were all above .20 and there were three factors with an Eigenvalue above 1, and the total variance explained was 62.26%. The pattern matrix shows that the 15 items were divided between three constructs, all factor loadings were above .30. Besides, no cross-loaders were found. The third factor only had the question "it is difficult to learn how to use this method" loading on it. Due to this, question 8 was deleted. After deletion, 14 items were left for Factor Analysis. Again, the Kaiser-Meyer-Olkin measure was high enough (KMO = .926) and Bartlett's Test of Sphericity was still significant. The communalities were all above .20 and there were two factors left with an Eigenvalue above 1. The pattern matrix showed no factor loadings below .30 and there were no cross loaders. Factor 1 was named involvement (1) and consisted of 11

Radboud Universiteit

items and factor 2 was named satisfaction (1) and had 3 items loading on it. Results can be found in table 9: Factor analysis 1. The "(1)" behind involvement (1) and satisfaction (1) stands for factor analysis number one.

4.2.2 Reliability

In order to confirm that the 14 items about the method used in both questionnaires consistently reflect the construct that it should measure, a reliability check had been performed on the two constructs. Within present research, the Cronbach's Alpha was interpreted. As shown by table 9: Factor analysis 1, the Cronbach's alpha for involvement was .945, and could not be improved by deleting any item. The Cronbach's Alpha for satisfaction was .751. By deleting item 10, Cronbach's Alpha could be improved to .80. Although this was the case, there was decided to not delete item 10, as Cronbach's Alpha was already above .70. A Cronbach's Alpha above 0.7 is considered acceptable according to Field (2013). The Corrected Item-Total Correlation shows the correlation between each item and a scale score that excludes that item. For both factors, no negative loadings were founded here. The factor correlation matrix showed that the factors were highly correlated (.530), what indicated that an oblique rotation was preferred.

Table 9: Factor analysis 1

Factor	Cronbach's Alpha	Item	Factor loading
1. Involvement (1)	.945	1. This method increased my motivation to display my relationships with brands in the given category	.800
		2. The method used is an active way to display my relationships with brands in the beer category	.796
		3. This method challenged my thinking	.823
		4. This method is user-friendly	.656
		5. This method requires the fewest steps possible to create an overview of the relationship I have with different brands in the given category	.662
		6. CBRM is flexible; it gives the possibility to recover from mistakes quickly and easily	.704
		7. I could use this method successfully the next time	.804
		9. This method gives me insight in the relationships I have with different brands in a specific category	.834
		12. This method really displays the way I feel about the different brands	.726
		13. This method is fun to use	.861
		14. This method enables me to uncover my relationships towards brands in a playful way	.846
2. Satisfaction (1)	.751	10. These relationships could have been measured in a faster way	.383
		11. I perceive this method to be long-winded	.758
		15. I felt bored performing this method	.372

As shown in table 10: Involvement (1) and satisfaction (1), the factors had differences in means between the Likert scale method and the CBRM method. Regarding the Likert scale method, the participants (N = 142) rated the involvement (1) with the method on average with 3.91 and the participants of the CBRM method (N = 51) rated the involvement (1) with the method on average with 5.61. Moreover, the participants of the Likert scale method (N = 142) rated the satisfaction about the method on average with 4.35 and the participants of the CBRM method (N = 51) rated the satisfaction about the method on average with 5.88. A Hotelling's T^2 was conducted to show if the mean differences between the participants of the Likert scale method (N = 142) and the participants of the CBRM method (N = 51) are statistically significant in the meaning of the two dimensions involvement (1) and satisfaction (1).

It was possible to run a Hotelling's T^2 as there were two dependent variables that were measured at the continuous level and one independent variable that consists of two categorical, independent groups with independence of observations; The Likert scale method questionnaire (N = 142) and CBRM method questionnaire (N = 51) included different participants. The central limit theorem states that datasets containing of data from at least 30 participants, are considered as distributed normally (Field, 2013). Besides, the Q-Q plots confirmed normal distribution. Moreover, scatterplots showed a linear relationship and there was no evidence of multicollinearity, as assed by a Pearson correlation ($|r| < 0.9$). The correlation between involvement and satisfaction was .384 for Likert and .562 for CBRM, which indicates a moderate correlation between the two variables. In order to test for multivariate outliers, the Mahalanobis distance was checked. Unlike univariate outliers, multivariate outliers check for weird combinations of answers. As there are two dependent variables, the critical value was 13.82. In the case of the CBRM method, there was one respondent with a score of 19.28 who was deleted. This respondent had an unusual combination of values on the dependent variables, after deletion, 50 respondents were left. There were no multivariate outliers within the Likert scale method (N = 142). In order to run Hotelling's T^2, each group of the independent variable must have at least as many participants as there are dependent variables. In this way, both sample sizes were adequate for analyses. Levene's test for equality of variances was significant, which means that the assumption of homogeneity of variances was violated. Due to this, the significant level had to be found in the second row "Equal variances not assumed". This is the same as the Welch t-test and can

be used when the homogeneity assumption is not satisfied and when there are unequal sample sizes. It shows a significant result (p = .000), which means that the means between the two groups are unequal. Although the assumption of homogeneity of variance-covariance matrices was violated, as assessed by Box's M test (p < .001), the analyses was continued and Pillai's Trace (p = 0.000) was used instead of Wilk's Lambada due to this. The outcomes showed that the Hotelling's T^2 was significant, which means that there was a statistically significant difference between the means for both involvement (1) and satisfaction (1) between the participants of the Likert scale method and the CBRM method.

Hotelling's T^2 is an omnibus test, this means that it indicates whether the combined dependent variables are statistically significant different in terms of the two groups of the independent variable, but it does not explain how these groups are different. Therefore, a post hoc was performed in order to determine where such difference lied. An independent-samples t-test for each dependent variable was found in the Pairwise Comparisons table, as shown in table 11: Pairwise comparisons dimensions literature. Since a multiple comparison is done for this, it is recommended to apply some form of correction. A Bonferroni adjusted alpha level of 0.025 with a 95% confidence level was used, based on dividing the current level of statistical significance (p=0.05) by the number of dependent variables, which is 2, of the test. The descriptive table showed that the mean involvement (1) score for CBRM (5.61 ± 0.89) was higher than that for Likert (3.91 ± 1.37). Besides, the mean satisfaction (1) for CBRM (5.88 ± 0.87) was higher than that for Likert (4.35 ± 1.44), results can be found in table 10. The Mean Difference column in the Pairwise comparison table showed that the mean difference for involvement (1) was 1.70 and for satisfaction (1) 1.52. Because the differences between the methods on the combined dependent variables were statistically significant, there can be established that the mean involvement (1) scores for the CBRM method were 1.70 marks (95% CI, 1.23 to 2.16) higher than mean involvement (1) scores for the Likert scale method, whereas mean satisfaction (1) scores for the CBRM method were 1.52 marks (95% CI, 1.04 to 2.01) higher than mean satisfaction (1) scores for the Likert scale method. Results can be found in table 11.

Table 10: Descriptive dimensions literature

Method	Likert			CBRM		
Factor	N	Mean	Standard Deviation	N	Mean	Standard Deviation
1. Involvement (1)	142	3.91	1.37	51	5.61	.89
2. Satisfaction (1)	142	4.35	1.44	51	5.88	.87

Radboud Universiteit

Dependent variable	Likert scale method	CBRM method	Mean difference	Std. Error	Sig.	Lower bound	Upper bound
Involvement (1)	Likert scale method	CBRM method	-1.696	.206	.000	-2.161	-1.230
Satisfaction (1)	Likert scale method	CBRM method	-1.524	.215	.000	-2.009	-1.039

4.3 Factor analysis 2

Factor analysis 1 showed different dimensions than those founded in the study of Lund (2001). Due to this, a second factor analysis was done based on the dimensions found in the literature as well. Table 12 shows the Cronbach's Alpha levels for the five dimensions from the literature of Lund (2001).

Table 12: Cronbach's Alpha Factor Analysis 2

Factor	Cronbach's Alpha
1. Involvement	.889
2. Ease of use	.788
3. Understandability	.573
4. Practicality	.592
5. Satisfaction	.842

As shown in table 12, factor 3 and factor 4 had a Cronbach's Alpha below .70. Therefore, there was decided divide items of these factors into the other factors, in order to heighten the Cronbach's Alpha of these factors. Item 8, who was loading on factor 2, was deleted and therefore the Cronbach's Alpha was improved to .854. After deletion of item 8 and item 10, there were 13 items left, divided under three dimensions: involvement (2), ease of Use (2) and satisfaction (2). Results can be found in table 13. The (2) behind involvement, ease of use and satisfaction stands for factor analysis number two.

Radboud Universiteit

Factor	Cronbach's Alpha	Items
1. Involvement (2)	.889	1. This method increased my motivation to display my relationships with brands in the given category
		2. The method used is an active way to display my relationships with brands in the beer category
		3. This method challenged my thinking
2. Ease of use (2)	.854	4. This method is user-friendly
		5. This method requires the fewest steps possible to create an overview of the relationship I have with different brands in the given category
		6. CBRM is flexible; it gives the possibility to recover from mistakes quickly and easily
		7. I could use this method successfully the next time
3. Satisfaction (2)	.886	9. This method gives me insight in the relationships I have with different brands in a specific category
		11. I perceive this method to be long-winded
		12. This method really displays the way I feel about the different brands
		13. This method is fun to use
		14. This method enables me to uncover my relationships towards brands in a playful way
		15. I felt bored performing this method

4.4. Method used

As shown in table 14, the outcomes of the three factors differ in means when comparing the two methods. The method used was a 7-point Likert scale ranging from (1) Strongly disagree to (7) Strongly agree. Regarding the Likert scale method, the participants (N = 142) gave the involvement (2) with the method on average a score of 3.62 and the participants of the CBRM method (N = 51) gave the involvement (2) with the method on average a score of 5.59. Moreover, the participants of the Likert scale method (N = 142) gave the ease of use (2) of the method on average a score of 4.49 and the participants of the CBRM method (N = 51) gave the ease of use (2) of the method on average a score of 5.71. Moreover, participants of the Likert scale method (N =142) gave the satisfaction (2) about the method on average a score of 3.77 and the participants of the CBRM method (N = 51) gave the satisfaction (2) about the method on average a score of 5.73. A Hotelling's T^2 was conducted to show if the differences between the means of the participants of the Likert scale method (N = 142) and the participants of the CBRM method (N = 51) are statistically significant in the meaning of the three dimensions involvement (2), ease of use (2) and satisfaction (2).

In contrast to the Hotelling's T^2 for the factor's involvement (1) and satisfaction (1), during running the Hotelling's T^2 for the factor's involvement (2), ease of use (2) and satisfaction (2), the first nine assumptions were met and no participants had to be deleted. Assumption 10

Radboud Universiteit

'homogeneity of variances' was violated, as Levene's test of equality of variances was significant (p = 0.000), and therefore the second row "Equal variances not assumed" had to be checked. Pillai's Trace was significant (p = .000), which means the differences between the means of the groups are statistically significant.

Table 14 shows that the mean involvement (2) score for the CBRM method (5.59 ± 1.03) is higher than that for the Likert scale method (3.62 ± 1.55). Besides, the mean ease of use (2) for the CBRM method (5.71 ± 0.91) was higher than that for the Likert scale method (4.49 ± 1.48). Moreover, the mean for satisfaction (2) for the CBRM method (5.73 ± .87) was higher than that for Likert (3.77 ± 1.34) as well. The Mean Difference column in the Pairwise comparison, which can be found in table 15, shows that the mean difference for involvement (2) is 1.97, 1.22 for ease of use (2) and 1.96 for satisfaction (2). Based on this, there can be established that the mean CBRM method scores for all three dimensions marks higher than the mean Likert scale method scores. The differences between the methods on the combined dependent variables were statistically significant. Mean involvement (2) scores for the CBRM method were 1.97 marks (95% CI, 1.51 to 2.43) higher than mean involvement (2) scores for the Likert scale method, the mean ease of use (2) scores for the CBRM method were 1.22 marks (95% CI, .78 to 1.65) higher than the mean ease of use (2) scores for the Likert scale method, and mean satisfaction (2) scores for the CBRM method were 1,96 marks (95% CI, 1.56 to 2.36) higher than mean satisfaction (2) scores for the Likert scales method.

Table 14: Descriptive involvement, ease of use and satisfaction

	Likert			CBRM		
	N	Mean	Standard Deviation	N	Mean	Standard Deviation
Involvement	142	3.62	1.55	51	5.59	1.03
Ease of use	142	4.49	1.48	51	5.71	.91
Satisfaction	142	3.77	1.34	51	5.73	.87

Table 15: Pairwise comparisons dimensions literature

Dependent variable	Likert scale method	CBRM method	Mean difference	Std. Error	Sig.	Lower bound	Upper bound
Involvement (2)	Likert scale method	CBRM method	-1.969	.234	.000	-2.429	-1.508
Ease of use (2)	Likert scale method	CBRM method	-1.215	.221	.000	-1.651	-.778
Satisfaction (2)	Likert scale method	CBRM method	-1.960	.202	.000	-2.357	-1.562

Moreover, multiple regression analysis was used to predict the continuous variables involvement (1), satisfaction (1), involvement (2), ease of use (2) and satisfaction (2) based

Radboud Universiteit

on the method used (the Likert scale method or the CBRM method), gender, age, the level of category involvement, the level of education and the average amount of beer one drinks. In the case of the method, the Likert scale method was included as the reference category and the CBRM method was included as the dummy variable. In the case of gender, "female" was included as the reference category and "male" was included as a dummy variable. Within the level of education (High school or equivalent, IVE, Bachelor's degree, Master's degree) "High school or equivalent" was included as the reference category and IVE, Bachelor's degree and Master's degree were included as dummy variables. Within the amount of beer consumption (Never, Less than once a month, Once a month, Almost every week, Once a week, Two times a week, Almost every day, Every day), "Never" was included as the reference category and Less than once a month, Once a month, Almost every week, Once a week, Two times a week, Almost every day, Every day were included as dummy variables.

Multiple regression analysis was applicable within present study, as all dependent variables were measured at the continuous level and the independent variables where measured at the continuous or nominal level. Besides, six more assumptions needed to be met for every case in order to assure a multiple regression analysis. All assumptions were met for all cases. First of all, the scatterplots showed that there was a linear relationship between the variables. Secondly, the histograms and the P-P Plots showed that the residuals were normally distributed. Thirdly, VIF values were lower than 10 in all cases, which indicated that there was no multicollinearity. Besides, the Simple Scatter of Studentized by Unstandardized Predicted Value was checked for homoscedasticity. As there was no clear pattern in the distribution, the data was not heteroscedastic. Moreover, there were no significant outliers (no cases above 3), no high leverage points (no leverage values above the "dangerous" value of 0.5) or highly influential points (no Cook's distance values above 1.00) (Cook and Weisberg, 1982) founded in the data. Based on this, no cases had to be deleted. Lastly, there was independence of residuals, as assessed by the Durbin-Watson statistics close to 2. The ANOVA was significant (p = .000) in all cases, which shows statistically significance of the overall model.

First of all, the slope coefficient was statistically significant for the method used in all cases, the CBRM method had higher scores on involvement (1), satisfaction (1), involvement (2), ease of use (2) and satisfaction (1). Most importantly, the method used had the highest statistically significant effect in all cases and the effect remained, even when controlled for all

other control variables. Therefore, there can be concluded that the CBRM method is perceived as a better method than the Likert scale method in the case of involvement, ease of use and satisfaction. Secondly, statistically significant results were found for age on involvement (1) (p = .000, t = 7.239, B = 1,472), and category involvement on involvement (1) (p = .004, t = 2.923, B = .325). Although this was the case, the effect of the method used had the strongest significant effect (p = .000, t = 7.239, B = 1.472). Thirdly, a statistically significant result was found in the direction of educational level for Master's degree on satisfaction (1) (p = .047, t = -2.001, B = -.755), compared to the reference category "High school or equivalent". Still, the method used had the strongest significant effect (p = .000, t = 5.732, B = 1.323). Besides, statistically significant results were found for age (p = .006, t = -2.773, B = -.018) on involvement (2), and for category involvement (p = .000, t = 3.615, B = .449) on involvement (2). Although this was the case, the effect of the method had the strongest significant effect (p = .004, t = 2.887, B = .449). Moreover, there was a statistically significant effect of age on ease of use (2) (p = .000, t = -3.629, B = -.023). Although this was the case, the statistically significant effect of the method (p = .000, t = 4.527, B = 1.014) had the strongest effect on ease of use (2). Lastly, there was a statistically significant effect of category involvement on satisfaction (2) (p = .004, t = 2.880, B = .321). The effect of the method was still there (p = .000, t = 8.441, B = 1.722), even when controlled for the control variables age, gender, educational level, level of category involvement, province of birth and average beer consumption.

4.5 Attachment scores

Paired sample t-tests were possible for the outcomes that included one dependent variable that was measured at the continuous level and one independent variable that consisted of two categorical, related groups, which were the same participants in each group within the CBRM questionnaire. Besides that the participants of the CBRM method have shown their levels of attachment regarding their own recalled brands in the CBRM model, the same participants rated two brands via the Likert scale method as well. Participants were asked to rate their most favorite brand (according to their personal CBRM) and one random brand (from their personal CBRM, their favorite brand excluded) via the Likert scale method with the five scale items of Park et al. (2010). The five questions were asked on a 10-point Likert scale ranging from (1) not at all to (10) completely.

Radboud Universiteit

The attachment levels of the CBRM method were measured in centimeters. Hence, 0 means a distance of 0 centimeter, which located at the middle point of the CBRM model, the place where the participant was located. The lowest score of 0 means in this way the highest level of attachment possible within the CBRM model. An attachment level of 10, means a distance of 10 centimeters. As the CBRM model has a diameter of 10 centimeters, this is the highest score and thus at the same time the lowest level of attachment possible within the CBRM model.

The attachment levels of the Likert scales were calculated differently. Based on each participants' answers on the five items, there was calculated a mean attachment score for the attachment levels of both the most favorite brand and the random chosen brand. This was done by adding up the five answers given (1 = not at all and 10 = completely) and dividing this by the number of items, which was five. Due to the fact that within the CBRM method a low score means a high level of attachment (for example: a score of 2 means a high level of attachment because it is only 2 centimeters from the middle point and therefore from the participant) and in Likert a high score means a high attachment (for example: a participant answers a 7 to the first item, 8 to the second item, 7 to the third item, 9 to the fourth item and 8 to the fifth item, is a total score of 39, divided by 5 = 7.8) the final score was calculated as follows: 10 – mean attachment score. As in this way, a low score then means a high attachment level in the case of the Likert method as well. In this way, it was possible to conduct a paired sample t-test for the participants most favorite brand and one random brand in order to find out if there are significant differences in means of attachment levels between the Likert scale method and the CBRM method.

First of all, the analysis showed some outliers. Although the boxplots detect some outliers in the data, these were not removed. This is, because an outlier should only be removed if there is evidence that it was an entry error. Since Likert scales are pre-designed to a specific number of scale points, there was no justification for removing values within the scale just because they occurred rarely. Moreover, the distribution of the differences in the dependent variable between the two related groups were approximately normally distributed according to the histograms and normal Q-Q Plots. Q-Q Plots were checked instead of Shapiro-Wilk, al the sample sizes are greater than 50. Multiple paired sample t-tests were assessed to determine whether the mean difference between paired observations of the attachment scores of both methods were statistically significant. In this way, Likert attachment scores and the CBRM

attachment scores within the CBRM questionnaire (N = 51) for the consumers most favorable brand and one random mentioned brand were compared in order to find out if the attachment level differs between the two methods.

Table 16 shows that there is a difference in means between the attachment scores for both the favorite brand and the random brand rated by the Likert scale method and the CBRM method, within the same sample (N = 51). The Paired Samples Test showed that this result was statistically significant for both the favorite brand (p = .000, t = -13.600) and the random brand (p = .000, t = -8.394). Therefore, there can be concluded that there is statistically significant difference between the mean attachment levels between the two methods, filled in by the same participant, based on the participant's favorite brand and one random brand. The CBRM method has statistically significant higher attachment levels in both cases in comparison with the Likert scale method. Participants of the CBRM method have statistically significant lower scores, which means higher levels of attachment, when rating their favorite brand with the CBRM method (1.757 ± 1.135) than the same participants rating their favorite brand with the use of the Likert method (6.251 ± 2.286). Moreover, participants of the CBRM method had statistically significant lower scores, which means higher levels of attachment, when rating one random chosen brand with the use of the CBRM method (4.708 ± 2.702) than the same participant rating that same random brand with the use of the Likert scale method (7.784 ± 2.076). The Paired Samples Test in table 17 shows that the attachment scores of the favorite brand between the two methods differ, whereas CBRM has statistically significant higher levels of attachment for the most favorite brand t(50) = -13.600, p < .005. The mean difference between the CBRM method and the Likert scale method for the favorite brand is -4.494 (95% CI, -5.158 to -3.830). Moreover, table 17 shows that the attachment scores on the random chosen brand between the two methods differed, whereas CBRM has statistically significant higher levels of attachment for the random chosen brand t(50) =-8.394, p < .005. The mean difference between the CBRM method and the Likert scale method for the random brand is -3.076 (95% CI, -3.813 to -2.340).

Table 16: Attachment levels towards favorite brand and one random brand, Likert scale method and CBRM method

	Likert					CBRM				
	N	Minimum	Maximum	Mean	Standard Deviation	N	Minimum	Maximum	Mean	Standard Deviation
Favorite brand	51	2.0	10.0	6.251	2.286	51	0.0	5.1	1.757	1.135
Random brand	51	2.6	10.0	7.784	2.076	51	0.5	10.0	4.708	2.702

Table 17: Paired Samples Test favorite brand and random brand Likert scale method and CBRM method

Variables	Mean	Std. Deviation	Std. Error Mean	95% Confidence interval of the difference		t	df	Sig (2-tailed)
				Lower	Upper			
Favorite brand CBRM - favorite brand Likert	-4.494	2.360	.330	-5.158	-3.830	-13.600	50	.000
Random brand CBRM - random brand Likert	-3.076	2.617	.366	-3.813	-2.340	-8.394	50	.000

Moreover, attachment levels between the two methods were compared for the five most mentioned beer brands in present study, which were Heineken, Bavaria, Hertog Jan, Grolsch and Amstel. First of all, attachment levels were calculated for both methods. As shown in table 18, the mean scores for all the five brands were higher in the Likert scale method than in the CBRM method. A higher score means a lower level of attachment, which means that the participants of the Likert scale method have lower levels of attachment towards all five brands. Five independent sample t-tests were conducted in order to determine if these differences were statistically significant. Independent sample t-tests were possible, as attachment, which was the independent variable, was measured on a continuous level. Moreover, the independent variable, which was the method, consisted of two categorical, independent groups: The participants of the Likert scale method (N = 142) and the participants of the CBRM method (N = 51). Because of this, the assumption of independence of observations was met. As shown in table 19, the assumption of homogeneity of variances was met in all cases, as assessed by Levene's test for equality of variances. Therefore, significance had to be checked in the first row 'equal variances assumed' in de Independent Samples Test table. As shown in table 19, the Independent Sample Tests showed that the means of the attachment levels of all the five brands were statistically significant (i.e., $p < .05$) between the Likert scale method and the CBRM method. Based on this, there can be concluded that the participants of the CBRM method had statistically significant higher attachment levels for the five most mentioned beer brands (Heineken, Bavaria, Hertog Jan, Grolsch, Amstel) in present study than the participants of the Likert scale method. Based on this, there can be concluded that the participants of the Likert scale method had lower attachment levels for Heineken (8.16 ± 2.22) than the participants of the CBRM method (6.43 ± 2.34), this was also the case for Bavaria (7.92 ± 2.42) (6.82 ± 2.7), Hertog Jan (7.54 ± 2.52)

Radboud Universiteit

(4.04 ± 2.33), Grolsch (7.44 ± 2.39) (4.22 ± 2.58) and Amstel (8.9 ± 1.7) (7.43 ± 2.08). There was a statistically significant difference of 1.731 (95% CI, .940 to 2.522), $t(150) = 4.324$, $p = .000$ for Heineken, a statistically significant difference of 1.099 (95% CI, .037 to 2.161), $t(93) = 2.054$, $p = .043$ for Bavaria, a statistically significant difference of 3.497 (95% CI, 2.472 to 4.523), $t(104) = 6.761$, $p = .000$ for Hertog Jan, a statistically significant difference of 3.220 (95% CI, 2.324 to 4.117), $t(140) = 7.102$, $p = .000$ for Grolsch and a statistically significant difference of 1.468 (95% CI, .564 to 2.373), $t(68) = 3.239$, $p = .002$ for Amstel.

Table 18: Attachment scores Likert scale method and CBRM method for Heineken, Bavaria, Hertog Jan, Grolsch, Amstel

			Likert					CBRM				
Brand	**Levene's test for equality of variances**	**Sig.**	**N**	**Minimum**	**Maximum**	**Mean**	**Standard Deviation**	**N**	**Minimum**	**Maximum**	**Mean**	**Standard Deviation**
Heineken	.931	.000	107	3	10	8.16	2.22	45	0.9	10	6.43	2.34
Bavaria	.603	.043	59	1.2	10	7.92	2.42	36	1	10	6.82	2.7
Hertog-Jan	.248	.000	73	2	10	7.54	2.52	33	0	8.9	4.04	2.33
Grolsch	.782	.000	101	1.8	10	7.44	2.39	41	0.5	10	4.22	2.58
Amstel	.307	.002	41	4	10	8.9	1.7	29	1.4	10	7.43	2.08

Table 19: Independent samples test Heineken, Bavaria, Hertog Jan, Grolsch and Amstel

						95% Confidence interval of the difference	
Variables	**Levene**	**t**	**df**	**Sig (2-tailed)**	**Mean difference**	**Lower**	**Upper**
Heineken	.931	4.324	150	.000	1.731	.940	2.522
Bavaria	.603	2.054	93	.043	1.099	.037	2.161
Hertog Jan	.248	6.761	104	.000	3.497	2.472	4.523
Grolsch	.782	7.102	140	.000	3.220	2.324	4.117
Amstel	.307	3.239	68	.002	1.468	.564	2.373

Table 20 shows the descriptive with regard to the order of elicitation per brand for participants of the CBRM method ($N = 51$). The table shows that there was a difference in means between the attachment scores for the order of the different elected brands. First of all, the first elected brand had a lower mean attachment score (2.984) than the mean attachment score for the second elected brand (4.129). Due to the fact that all assumptions were met, aPaired Samples Test was possible as all. The Paired Samples Test in table 21 shows that this difference was statistically significant ($p = .003$), $t = -3.182$. Therefore, there can be concluded that there was statistically significant difference between the attachment levels of

Radboud Universiteit

the first elected brand and the second elected brand within the CBRM method, filled in by the same participants, whereas the first elected brand has higher attachment levels than the second elected brand. Participants of the CBRM method have statistically significant lower scores, which means higher levels of attachment when rating their first elected brand with the CBRM method (2.984 ± 2.450) than the same participants rating their second elected brand with the use of the CBRM method (4.129 ± 2.185). Table 20 shows that the mean attachment levels for the second elected brand are higher (4.129) than for the third elected brand (5.010). The Paired Samples Test in table 21 shows that this difference is not statistically significant ($p = .104$), $t = -1.656$). Therefore, there can be concluded that there is no statistically significant difference between the attachment levels of the second elected brand and the third elected brand within the CBRM method, filled in by the same participants.

Table 20: Descriptive per elicited brand CBRM method

	N	Minimum	Maximum	Mean	Standard Deviation
Brand 1	51	0.0	10.0	2.984	2.450
Brand 2	51	0.5	9.9	4.129	2.185
Brand 3	51	0.8	10.0	5.010	2.793
Brand 4	49	1.6	10.0	6.002	2.600
Brand 5	42	0.0	9.9	5.486	2.806
Brand 6	40	1.8	9.9	5.924	2.400
Brand 7	35	0.8	10.0	5.917	2.908
Brand 8	28	0.0	10.0	6.720	2.730
Brand 9	23	1.0	9.5	5.225	2.205
Brand 10	20	1.2	10.0	5.987	2.32
Brand 11	18	2.5	10.0	5.970	2.24
Brand 12	18	1.8	9.4	5.978	1.88

Table 21: Paired Samples Test order of elected brands

Variables	Mean	Std. Deviation	Std. Error Mean	95% Confidence interval of the difference Lower	Upper	t	df	Sig (2-tailed)
Brand 1 - brand 2	-1.145	2.570	.360	-1.868	-.422	-3.182	50	.000
Brand 2 - brand 3	-.880	3.797	.532	-1.948	.187	-1.656	50	.104

Moreover, multiple regression analysis was used to predict the continuous variables (levels of attachment for the five most mentioned brands in present research: Heineken, Bavaria, Hertog Jan, Grolsch and Amstel) on the multiple independent variables method used (Likert scale or CBRM, gender, age, the level of category involvement, the level of education, the average amount of beer one drinks and the influence of province of birth: Brabant or Gelderland). In

Radboud Universiteit

the case of the method, the Likert scale method was included as the reference category and the CBRM method was included as the dummy variable. In the case of gender, "female" was included as the reference category and "male" was included as a dummy variable. Within the level of education (High school or equivalent, IVE, Bachelor's degree, Master's degree) "High school or equivalent" was included as the reference category and IVE, Bachelor's degree and Master's degree were included as dummy variables. Within the amount of beer consumption (Never, Less than once a month, Once a month, Almost every week, Once a week, Two times a week, Almost every day, Every day), "Never" was included as the reference category and Less than once a month, Once a month, Almost every week, Once a week, Two times a week, Almost every day, Every day were included as dummy variables. Moreover, in the case of province of birth, Gelderland and Noord-Brabant were included as dummy variables and the other 10 provinces were included as reference category. Only Gelderland and Noord-Brabant were included as dummy variables, and the other 10 provinces were included as reference category because the most of the participants were born in Gelderland (56.9%) and thereafter, most of the participants were born in Noord-Brabant (17.6%), these two provinces include together 74.5% of all the participants.

First of all, the slope coefficient was statistically significant for the method used for in the case of attachment levels towards the five most mentioned beer brands (Heineken, Bavaria, Hertog Jan, Grolsch, and Amstel) in present study. Most importantly, the CBRM method had statistically significant higher attachment levels in all cases, compared to the attachment scores of the Likert scale method towards the five most mentioned beer brands, and the statistically significant effect of the method remained, even when controlled for all other control variables. Secondly, a statistically significant result was found for age ($p = .001$, $t = 3.556$, $B = .045$) on the attachment levels of Heineken. The effect of the method used (Likert scale method or CBRM method) had the strongest significant effect ($p = .000$, $t = -3.975$, $B = -1.724$). Thirdly, a statistically significant result was found for age ($p = .021$, $t = 2.349$, $B = .041$) on the attachment levels of Bavaria. Still, the method used had the strongest significant effect ($p = .013$, $t = -2.555$, $B = -1.415$). Besides, statistically significant results were found for category involvement ($p = .008$, $t = -2.731$, $B = -.863$) on the attachment levels of Hertog Jan and IVE (educational level) on the attachment levels of Hertog Jan ($p = .031$, $t = -2.191$, $B = -2.286$). Although this was the case, the effect of the method had the strongest significant effect ($p = .000$, $t = -6.389$, $B = -3.453$). Moreover, only method used had a statistically

Radboud Universiteit

significant effect on the attachment levels of Grolsch (p = .000, t = -5.288, B = -2.746) and only the method used had a statistically significant effect on the attachment levels of Amstel (p = .020, t = -2.406, B = -4.351).

4.6 Number of brands mentioned

As shown in table 22 and 23, there were differences regarding the number of brands mentioned between the Likert scale method and the CBRM method. An independent sample t-test was conducted in order to determine if these differences were statistically significant. An independent sample t-test was possible, as number of brands mentioned, which was the independent variable, was measured on a continuous level. Moreover, the independent variable, which was the method, consisted of two categorical, independent groups: The participants of the Likert scale method (N = 142) and the participants of the CBRM method (N = 51). Because of this, the assumption of independence of observations was met. Moreover, the assumption of homogeneity of variances was met, as assessed by Levene's test of equality of variances (p = .641). Because of this, significance had to be checked in the first row "equal variances assumed" in de Independent Samples Test table. As show in table 24, the Independent Sample Tests showed that the means of the number of brands mentioned of were statistically significant between the Likert scale method and the CBRM method. (p = .000). Based on this, there can be concluded that the participants of the CBRM method mentioned statistically significant more brands than the Likert scale method. The participants of the Likert scale method mentioned fewer brands (5.42 ± 2.87) than the participants of the CBRM method (8.98 ± 2.8). A statistically significant difference of -3.558 (95% CI, -4.476 to -2.639), t(191) = -7.642, p = .000 was found.

Radboud Universiteit

Table 22: Number of brands mentioned

Number of brands mentioned	Likert scale method	%	Cumulative %	CBRM method	%	Cumulative %
1	4	2.8	2.8	0	0	0
2	15	10.6	13.4	0	0	0
3	24	16.9	30.3	1	2	2
4	18	12.7	43	1	2	3.9
5	23	16.2	59.2	7	13.7	17.6
6	14	9.9	69	2	3.9	21.6
7	17	12	81	5	9.8	31.4
8	8	5.6	86.6	7	13.7	45.1
9	3	2.1	88.7	5	9.8	54.9
10	3	2.1	90.8	3	5.9	60.8
11	3	2.1	93	2	3.9	64.7
12	10	7	100	18	35.3	100
Total	142	100		51	100	

Table 23: Group statistics number of brands mentioned

Variables	Likert						CBRM					
	N	Min.	Max.	Mean	Mode	Standard Deviation	N	Min.	Max.	Mean	Mode	Standard Deviation
Brands mentioned	142	1	12	5.42	3	2.87	51	3	12.0	8.98	12	2.8

Table 24: Independent Samples test brands mentioned

Variables	Levene	t	df	Sig (2-tailed)	Mean difference	95% Confidence interval of the difference	
						Lower	Upper
Brands mentioned	.641	-7.642	191	.000	-3.558	-4.476	-2.639

Moreover, multiple regression analysis was used to predict the continuous variable levels of the number of brands mentioned on the multiple independent variables' method used (Likert scale or CBRM), gender, age, the level of category involvement, the level of education and the average amount of beer one drinks. In the case of the method, the Likert scale method was included as the reference category and the CBRM method was included as the dummy variable. In the case of gender, "female" was included as the reference category and "male" was included as a dummy variable. Within the level of education (High school or equivalent, IVE, Bachelor's degree, Master's degree) "High school or equivalent" was included as the reference category and IVE, Bachelor's degree and Master's degree were included as dummy variables. Within the amount of beer consumption (Never, Less than once a month, Once a month, Almost every week, Once a week, Two times a week, Almost every day, Every day),

Radboud Universiteit

"Never" was included as the reference category and Less than once a month, Once a month, Almost every week, Once a week, Two times a week, Almost every day, Every day were included as dummy variables. As mentioned above, all assumptions for multiple regression analysis were met.

First of all, the method used had the strongest significant effect on the number of brands mentioned (p = .000, t = 7.120, B = 3.451) and remained when controlled for the all control variables. The participants of the CBRM method elected statistically significant more brands than the participants of the Likert scale method. Moreover, a statistically significant result was found for gender (p = .008, t = 2.686, B = 1.224) on the number of brands mentioned. Besides, a statistically significant result was found for master (educational level) (p = .001, t = 3.376, B = 2.676) on the number of brands mentioned.

4.7 Duration

As shown in table 25, there was a difference in means for the duration of completing the Likert scale method and the CBRM method. An independent sample t-test was conducted in order to determine if these differences were statistically significant. An independent sample t-test was possible, as duration, which was the independent variable, was measured on a continuous level. Moreover, the independent variable, which was the method, consisted of two categorical, independent groups: The participants of the Likert scale method (N = 142) and the participants of the CBRM method (N = 51). Because of this, the assumption of independence of observations was met. As shown by the boxplots, there were some outliers founded. After inspection, there was no reason for deletion any cases. The assumption of homogeneity of variances was violated for duration, as assessed by Levene's test for equality of variances (p = .000), therefore, significance had to be checked in the second row 'equal variances not assumed' in de Independent Samples Test table. As show in table 26, the Independent Sample Tests shows that the means of the duration of completing the method is statistically significant between the Likert scale method and the CBRM method. (p = .000). Based on this, there can be concluded that the duration of completing the CBRM method was statistically significant longer than that for the Likert scale method. The participants of the Likert scale method were faster (431.01 ± 217.42) than the participants of the CBRM method (1427.29 ± 445.14) in order to complete the Likert scale method or the CBRM map. A statistically significant difference of -996.280 (95% CI, -1126.248 to -866.312), t(58.782) = -15.340, p = .000 was found.

Radboud Universiteit

Table 25: Descriptive duration Likert scale method and CBRM method

	Likert					CBRM				
Variables	**N**	**Min.**	**Max.**	**Mean**	**Standard Deviation**	**N**	**Min.**	**Max.**	**Mean**	**Standard Deviation**
Duration	142	101	1319	431.01	217.42	51	771	2551	1427.29	445.14

Table 26: Independent samples test duration Likert scale method and CBRM method

						95% Confidence interval of the difference	
Variables	**Levene**	**t**	**df**	**Sig (2-tailed)**	**Mean difference**	**Lower**	**Upper**
Duration	.000	-15.340	58.782	.000	-996.280	-1.126.248	-866.312

4.8 Interviews

The interviews revealed several interesting things about the reason of their recalled brands and the placement of these in the CBRM. In total, these reasons were divided in 12 different codes. First of all, 48 of the 51 participants mentioned reasons that had to deal with "taste" at least once as reason of the placement. In total, it was mentioned 459 times. The code taste included words such as good taste, bad taste and the level of sweetness and bitterness. Secondly, the participants mentioned in total 273 times a reason that had to deal with an "association". The code "association" included memories (of the past), holiday (destinations) and links to a specific football club or season. Thirdly, the participants mentioned in total 214 times things such as "family/friends drink it", "I drink it often", "I drank it recently" which was coded as "consume". Fourthly, participants placed their recalled brands based on types of beers like fruit beers, dark beers and the fermentation. These were coded as "beers" and were mentioned 186 times. Moreover, during the interview's, participants mentioned beers that they drink or get in touch with dependent on the locations such as terrace, supermarket, the local café and occasions such as festivals. These were labeled as "occasions" and were mentioned 145 times in total. Besides, 135 times participants placed their beers according to "region". This included a certain region or country where the beer comes from. Moreover, people ranked their beers based on if it is local or international, which was also placed under the code "region". In total, 112 times participants ranked their beer based on the degree of how well the beer fits the person, which was coded as "personal connection". "Personal connection" also had to deal with the degree to which the beer makes someone feel special, or in contrast, someone has nothing to do with it at all. Reasons that had to deal with "image" of the beer, such as status and craftmanship, were mentioned 92 times in total. "Price" was

mentioned 64 times during the placement of the beer brands. The "appearance" of the beer was mentioned 63 times, such as the bottle, the name and the label. In total, 61 decisions were made based on things such as "everyone knows it", "I see it all around the world" and "I do not know it so well". These were coded as "awareness". Finally, decisions based on "marketing" were made 28 times.

5. Conclusion and discussion

Returning to the initial objective of the research, present study aimed to come up with a consumer/user-friendly method for consumer brand relationship measurement based on distance scores in order to measure the level of attachment towards multiple brands in a specific category from the consumer point of view. Hence, the research question addressed in the present study was defined as follows: *The purpose of present study is to develop a new measurement method that captures consumer-brand relationships within a specific category in a consumer/user-friendly way.*

During present study, both the well-known Likert method and the CBRM method have been tested in order to compare the results. The interviews and the questionnaires revealed some interesting things. Based on empirical findings within present study, there can be concluded that the CBRM method performs better in showing the relationship between a consumer and multiple brands in a specific category than the Likert scale method in three ways: The method used, the attachment levels and the number of brands mentioned. Moreover, by adding distance scores and a visual representation of the consumer's mind, the CBRM method is more precise and goes more in-depth than the existing Likert scale method.

5.1 Method used

First of all, there was a statistically significant difference found of how the method used was perceived between the participants of the Likert scale method (N = 142) and the CBRM method (N = 51). The participants of the CBRM method rated the CBRM method more positively than the participants of the Likert scale method in the meaning of involvement (1), satisfaction (1), involvement (2), ease of use (2) and satisfaction (2). Results can be found in table 10, 11, 14 and 15 of present study, the results were statistically significant in all cases. Based on the multiple regression analyses there can be concluded that the CBRM creates higher involvement, is easier to use and people are more satisfied about the CBRM method than the Likert scale method. The effect of the method was still there, even when controlled for age, gender, educational level, category involvement, and average beer consumption.

An interesting thing to see was that age had a statistically significant influence on involvement (1), involvement (2) and ease of use (2). The multiple regression equation predicted that an increase in age of one year is associated with a decrease in involvement (1), involvement (2) and ease of use (2) when all other variables were kept constant. In the case of

Radboud Universiteit

ease of use, these results are in line with prior research expectations about that older people do not learn as well nor do they retain what they have learned as well as younger people (Hoffman, 1978).

Most importantly, there was no statistically significant difference found between the means of involvement (1), involvement (2), ease of use (2), satisfaction (2), and satisfaction (1) between the different levels of education. This means, that regardless the level of education, consumers are involved and satisfied with the CBRM method and the method is perceived as easy to use.

5.2 Attachment levels

Secondly, there were statistically significant differences found between the attachment levels of the Likert scale method and the CBRM method within the same sample. Analyses showed that within the same sample, which were the participants of the CBRM questionnaire (N = 51), the level of attachment towards the participants' favorite brand and one random chosen brand was higher when rated by the CBRM method than when they rated the same two brands with the Likert scale method. Results can be found in table 16. As shown by table 17, the results were statistically significant.

Besides, there were statistically significant differences found between the attachment levels of the Likert scale method and the CBRM method when the outcomes of the Likert scale questionnaires (N = 142) were compared with the outcomes of the CBRM method questionnaire (N = 51). Analyses showed that, when the two independent samples were compared, the level of attachment towards the five most mentioned beer brands in current study, which were Heineken, Bavaria, Hertog Jan, Grolsch and Amstel, was higher for every single brand when rated by the CBRM method than when they rated the same brands with the Likert scale method. Results can be found in table 18. Table 19 shows that the differences are statistically significant. Based on the multiple regression analyses, there can be concluded that the CBRM method showed statistically significant higher attachment levels than the Likert scale method towards the five most mentioned beer brands in present research, measured within the same sample. The effect of the method was still there, even when controlled for age, gender, educational level, category involvement and average beer consumption and province of birth.

Radboud Universiteit

Based on the interviews and the statistics there can be concluded that, in most cases, the participants start mentioning their most favorable brand and rate this with low distance scores, which means higher level of attachment. This makes sense, as research of Buil, de Chernatony and Martinez (2008) already proved that "strong recall reflects the strength of a brand's presence in consumer's minds and is related to brand loyalty".

An interesting thing to see was that age had a statistically significant influence on the attachment scores of both Heineken and Bavaria. The multiple regression equation predicted that the older one gets, the level of attachments for both Heineken and Bavaria will decrease, when all other variables were kept constant. Based on the outcomes of both the questionnaires as well as the interviews, we can conclude that younger people are more attached to both Heineken and Bavaria. For Heineken is this probably due to all the festivals younger people associate Heineken with, and for Bavaria because of their marketing, as mentioned by younger people during the interviews.

Besides, the multiple regression equation predicted that the level of category involvement had statistically significant influence on the level of attachment for Hertog Jan, when all other variables were kept constant. An increase in the level of category involvement is associated with a decrease in distance scores, which means a higher level of attachment from the consumer towards Hertog Jan when one has a higher level of category involvement. This is interesting for companies such as Hertog Jan and their competitors, as it shows that for people who are highly involved in the beer category, experience Hertog Jan as a brand close to their selves. Based on this, organizations may change their strategy approach.

5.3 Number of brands mentioned

Thirdly, there was a statistically significant difference found between the Likert scale method and the CBRM method regarding the number of elected brands. As shown in table 23, the participants of the CBRM method (N =51) elected more brands than the participants of the Likert scale method (N = 142). Table 24 shows that, on average, participants of the CBRM method elected 3,6 more brands than the participant of the Likert scale method and that the difference is statistically significant. Based on the multiple regression analyses, there can be concluded that the participants of the CBRM method mention statistically significant more brands than the Likert scale method. The effect of the method was still there, even when

controlled for age, gender, educational level, category involvement and average beer consumption.

Moreover, multiple regression equation showed that participants whose current highest level of education is a Master's degree, elected statistically significant more brands than participants with an educational level of "High school or equivalent". For participants whose current highest level of education is a Master's degree, the average amount of elected brands is 2.7 times higher than participants whose current highest level of education is "High school or equivalent". This is probably due to the degree of socially prescribed perfectionism which increases the motivation to do well in different tasks (e.g. mentioning as much brands as you can, school performance) based on a desire for recognition from others (Mills and Blankstein, 2000).

5.4 Duration

Fourthly, there was a statistically significant difference found between the Likert scale method and the CBRM method in the duration of completing the method. Table 25 shows that participants of the CBRM method on average took longer to place their elected brands in the CBRM than the participants who had to rank their brands via Likert scales in the Likert scale method. Table 26 shows that this result was statistically significant. Although this is the case, duration gives a wrong impression in present study as the Likert scale method only included a questionnaire and the CBRM method included an explanation of the method, an interview about the reasons of the placement and finally, a questionnaire. Besides, the questionnaire of the CBRM method included two questions regarding the Likert scale method. Moreover, the difference in duration is probably due to the statistically significant difference in the number of brands mentioned. As mentioned above, the participants of the CBRM method mentioned statistically significant more brands than the participants of the Likert scale method. As more brands were mentioned, more brands had to be placed, which took longer. Another reason the CBRM method took longer to complete could be the higher levels of involvement with the method used. As mentioned above, there was found a statistically significant difference found regarding the level of involvement (1) and involvement (2) with the method used between the participants of the Likert scale method and the CBRM method. Higher levels of involvement with the method can be a reason of thinking more critically about the placement which results in longer time to complete.

Radboud Universiteit

Although the participants of the CBRM method took longer to complete, the method was not perceived as taking too long. Participants of the CBRM method answered question 10 "These relationships could have been measured in a faster way" (Likert 4.63 and CBRM 5.33), question 11 "I perceive this method to be long-winded" (Likert 4.23 and CBRM 6.08) and question 15 "I felt bored performing this method" (Likert 4.19 and CBRM 6.22) more positive than the participants of the Likert scale method. As these questions were reversed, a score of 1 means "completely" and a score of 10 means "not at all". As shown by table 9, these three items covered the dimension satisfaction (1). As shown by table 11, the results were statistically significant. Based on this there can be concluded that, although the CBRM method took longer to complete, participants of the CBRM method did not have the feeling that their relationships towards the different brands could have been measured in a faster way, that the method was long-winded, nor felt bored during the process.

5.5 Reasons behind the placement

Based on the interviews there can be concluded that the most important reason of the placement of the different beers is "taste". The second most important reason of the placement of the difference beer is "association". Thirdly, participants placed the different beer brands based on "consuming". Moreover, reasons of the placement where (types of) "beers", "occasions", "region", "personal connection", "image", "price", "appearance", "awareness" and "marketing", in this order (most mentioned – least mentioned).

5.6 Theoretical implication

Present study contributes to the literature by responding to the call for further research in the area of consumer-brand relationship measurement. Present study offers an empirical tested technique that gives a visual representation of the placement of multiple branded products in a specific category from a consumer's point of view. Besides that the CBRM method views consumer-brand relationships more in-depth by delivering a visual representation of the placement of multiple brands in the consumer's consideration set and adding distance scores to this, consumers are more involved and satisfied with the CBRM method than the well-known Likert method, as proven by present study. Moreover, although the new measurement technique goes more in-depth than the well-known Likert scale method, the CBRM method is perceived as an easy to use measurement technique.

5.7 Managerial implications

In addition to the theoretical contributions, current study provides several managerial implications as well. The outcome of present study is the Consumer-Brand Relationship Map (CBRM). The CBRM provides marketers the opportunity to reach their ultimate goal; namely, to better understand the multi-faceted interactions that consumers have with brands in the same category or a range of products from a particular company. These results are valuable for marketing practitioners in order to better their position in the market and gain a sustainable competitive advantage.

The CBRM method provides marketing practitioners more in-depth information than the well-known Likert method as it makes it possible to deliver a visual representation of the placement of multiple brands in the consumer's consideration set as a final product, by providing distance scores between the consumer and a specific brand and between different brands. These distance scores are of relevance as the research of Carpenter and Nakamoto (1989) shows that a brand's price and profit increase the closer the brand is to the consumer and the further it is from a competitor.

Although that the CBRM method goes more in-depth than the existing Likert scale method, present study proved that the CBRM method is easy to administer and therefore takes the remain barriers away for marketing practitioners in the meaning of labor intensity and specialized expertise. The new method offers a standardized approach for aggregating individual CBRM using a relatively straightforward set of rules that do not require knowledge of specialized statistical techniques. Distance scores are calculated automatically and the method gives with the fewest steps possible an overview of the positions of all the recalled brands of a consumer.

Moreover, the CBRM method scores higher on involvement and satisfaction than the well-known Likert method which causes more valid results than the Likert scale method as participants do not get bored. In line with this, the high involvement and satisfaction scores also make it probably easier to get higher response rates from consumers.

Lastly, participants recall more brands and show higher attachment levels within the CBRM method in comparison to the Likert scale method. Due to this, a broader, and more realistic view is provided.

Radboud Universiteit

5.8 Research limitations and future research directions

As with any investigation, present study has some limitations that merit future research. First of all, this research methodology is constrained by monetary resources and a limited time frame, which limited the research in developing a digital version of the CBRM method. Due to this, the concept version, which only worked face-to-face because of the exact measurement of the distance scores, had been tested instead of the final digital version of the method. This in combination with COVID-19, which made it impossible to acquire participants for the interviews and questionnaires in public places, resulted in the fact that participants had to be conducted from the researcher's circle of acquaintances. This has possibly led to limitations with regard to the sample distribution; the sample was mostly characterized by participants who were born in Gelderland. Future research should aim for a better representation of the population, in order to provide meaningful insights and ensure reliability and generalizability. The method has to be tested under an international sample in order to generalize results internationally. Secondly, other categories than beer will be interesting to explore for future studies in order to see if different categories bring different results in the meaning of attachment levels, (reasons behind) placement, duration and number of brands elected. Thirdly, in the present study, factor analysis has proven different results with regard to factor loadings than was founded in the study of Lund (2001). Future research must elaborate on this in order to improve validity. Fourthly, due to the limited time frame, the planned weighted sample comparison between the two methods used, was not conducted. Future research has to find out if results gained in present study counts for exactly the same sample for both the Likert scale method and the CBRM method. Fifthly, due to the limited time, an ANCOVA test was not conducted. Future research must elaborate on this. Besides, due to the limited time frame, the results of the distance scores between the different brands elected by the consumer were not included in present study. Future research has to examine what the different meanings are of the distances scores between the different brands and to test what kind of effects these distances bring along. Lastly, the CBRM has to be developed online. When the CBRM is online, a final study can take place about the use of the model and the technique can be compared to the Likert method based on duration. Nonetheless the limitations of present research, the study did deliver interesting insights into consumer-brand relationship measurement via the well-known Likert method and the developed CBRM method. However, answers always give us new questions and therefore, future research should take these limitations into account and extend the present study by incorporating other

Radboud Universiteit

possible factors and examining the effects within different product categories under an international sample.

References

Acocella, I. (2012). The focus groups in social research: advantages and disadvantages. *Quality and Quantity,* 46(4), 1125-1136.

Aggarwal, P. (2014). Humanising Brands: impact of communal and exchange relationship types on brand evaluation by consumers. *International Journal of Business and Management Invention,* 3(30), 27-33.

Ahluwalia, R., Unnava, H. R., and Burnkrant, R. E. (2001). The moderating role of commitment on the spillover effect of marketing communications. *Journal of Marketing Research*, 38(4), 458-470.

Ahuvia, A. C., and Adelman, M. B. (1993). Market metaphors for meeting mates. *Research in Consumer Behavior*, 6, 55-83.

Ahuvia, A. C. (2005). Beyond the extended self: Loved objects and consumers' identity narratives. *Journal of consumer research,* 32(1), 171-184.

Albert, N., Merunka, D., and Valette-Florence, P. (2008). When consumers love their brands: Exploring the concept and its dimensions. *Journal of Business research*, 61(10), 1062-1075.

Albert, N., and Merunka, D. (2013). The role of brand love in consumer-brand relationships. *Journal of Consumer Marketing.*

Albert, N., Merunka, D., and Valette-Florence, P. (2009). The feeling of love toward a brand: Concept and measurement. *ACR North American Advances.*

Albert, N., Merunka, D., and Valette-Florence, P. (2013). Brand passion: Antecedents and consequences. *Journal of Business Research,* 66(7), 904-909.

Alexander, R. S. (1948). Report of the definitions committee. *Journal of Marketing (pre-1986),* 13(000002), 202.

Ausubel, D. P. (1963). The psychology of meaningful verbal learning: An introduction to school learning. *New York: Grune & Stratton.*

Baarda, D. B. (2014). Dit is onderzoek! Handleiding voor het kwantitatief en kwalitatief onderzoek.

Ball, A.D. and Tasaki, L.H. (1992), "The role and measurement of attachment In consumer behavior", *Journal of Consumer Psychology,* Vol. 1 No. 2, pp. 155-72.

Radboud Universiteit

Barnes, J.G. (2003), "Establishing meaningful customer relationships: why some companies and brands mean more to their customers", *Managing Service Quality,* Vol. 13 No. 3, pp. 178-86.

Batra, R., Ahuvia, A., and Bagozzi, R. P. (2012). Brand love. *Journal of marketing*, 76(2), 1-16.

Berry, R.S.Y. 1999. Collecting date by in-depth interviewing. *British Educational Research Association Annual Conference*. (Brighton, University of Sussex).

Bertram D. 2012. Likert Scale. CPSC 681 – Topic Report. *Retrieved from http://poincare.matf.bg.ac.rs/kristina//topic-dane-likert.pdf*.

Bettman, J. R., Luce, M. F., and Payne, J. W. (1998). Constructive consumer choice processes. *Journal of consumer research,* 25(3), 187-217.

Blackston, M. (1992). Observations: Building brand equity by managing the brand's relationships. *Journal of advertising research,* 32(3), 79-83.

Blackston, M. (1993). Beyond brand personality: building brand relationships. Brand equity and advertising: *Advertising's role in building strong brands,* 113-124.

Blackston, M. (2000). Observations: Building brand equity by managing the brand's relationships. *Journal of Advertising Research*, 40(6), 101-105.

Bleijenbergh, I. L. (2013). *Kwalitatief onderzoek in organisaties*. Den Haag: Boom Lemma.

Boeije, H. R. (2005)**.** *Analyseren in kwalitatief onderzoek: denken en doen* (pp. 152-153). Amsterdam: Boom Koninklijke Uitgevers.

Bowlby, J. (1969), Attachment and Loss, Vol. 1, Basic Books, New York, NY.

Brislin, R.W. (1970). Back-translation for cross-cultural research. *Journal of cross-cultural psychology,* 1(3), 185-216.

Buil, I., de Chernatony, L. and Martinez, E. (2008), "A cross-national validation of the consumer-based brand equity scale", *Journal of Product & Brand Management*, Vol. 17 No. 6, pp. 384-92.

Carey, M. A., and Smith, M. W. (1994). Capturing the group effect in focus groups: A special concern in analysis. *Qualitative health research*, 4(1), 123-127.

Carpenter, G. S., and Nakamoto, K. (1989). Consumer preference formation and pioneering advantage. *Journal of Marketing research*, 26(3), 285-298.

Carroll, B. A., and Ahuvia, A. C. (2006). Some antecedents and outcomes of brand love. *Marketing letters,* 17(2), 79-89.

Chaudhuri, A., and Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: the role of brand loyalty. *Journal of marketing,* 65(2), 81-93.

Chaplin, L. N., and Roedder John, D. (2005). The development of self-brand connections in children and adolescents. *Journal of consumer research*, 32(1), 119-129.

Cooper, P. (1999), "Consumer understanding, change and qualitative research", *Market Research Society*, Vol. 41 No. 1, pp. 1-9.

Dall'Olmo Roley, F. and de Chernatony, L. (2000). "The Service Brand as Relationship Builder", *British Journal of Management,* 11, pp. 137-150.

Danes, J.E., Hess, J.S., Story, J.W. and York, J.L. (2010), 'Brand image associations for large virtual groups", Qualitative Market Research: *An International Journal, Vol. 13 No. 3, pp. 309-23.*

Delgado-Ballester, E., Munuera-Aleman, J. L., and Yague-Guillen, M. J. (2003).

Development and validation of a brand trust scale. *International journal of market research,* 45(1), 35-54.

Desai, K. K., and Raju, S. (2007). Adverse influence of brand commitment on consideration of   and preference for competing brands. *Psychology and Marketing, 24(7), 595-614*.

Dhar, R., and Novemsky, N. (2008). Beyond rationality: The content of preferences. *Journal of   Consumer Psychology, 18(3), 175-178.*

Drigotas, S. M., and Rusbult, C. E. (1992). Should I stay or should I go? A dependence model of breakups. *Journal of Personality and Social Psychology*, 62(1), 62.

Davies, R. S. (2008) Designing a Response Scale to Improve Average Group Response Reliability, *Evaluation and Research in Education,* 21(2), 134-146,

Dwyer, F. R., Schurr, P. H., and Oh, S. (1987). Developing buyer-seller relationships. *Journal of marketing*, 51(2), 11-27.

Fedorikhin, A., Park, C. W., and Thomson, M. (2008). Beyond fit and attitude: The effect of emotional attachment on consumer responses to brand extensions. *Journal of Consumer Psychology*, 18(4), 281-291.

Field, A. (2013). *Discovering Statistics Using IBM SPSS Statistics*. SAGE.

Fournier, S. (1998). Consumers and their brands: Developing relationship theory in consumer research. *Journal of consumer research,* 24(4), 343-373.

Fournier, S. M. (1996). A consumer-brand relationship framework for strategic brand management.

Radboud Universiteit

Fournier, S., and Yao, J. L. (1997). Reviving brand loyalty: A reconceptualization within the framework of consumer-brand relationships. *International Journal of research in Marketing,* 14(5), 451-472.

Gadeib, A. (2011). Dialego BrandSculpture 2011.

https://www.slideshare.net/peterdiem/dialego-brand-sculpture-2011

Garbarino E., and Johnson, M. S. (1999). The different roles of satisfaction, trust and commitment in customer relationships. *Journal of marketing,* 63(2), 70-87.

Gowin, D. B., & Novak, J. D. (1984). Learning how to learn. *USA: Cambridge University*.

Hair, J. F., Back, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (1998). *Multivariate data analysis* (Vol. 5, No. 3, pp. 207-219). Upper Saddle River, NJ: Prentice hall.

Hatfield, E., and Sprecher, S. (1986). Measuring passionate love in intimate relationships. *Journal of adolescence,* 9(4), 383-410.

Hauser, J. R. (2014). Consideration-set heuristics. *Journal of Business Research, 67*(8), 1688-1699.

Hess, J., and Story, J. (2005). Trust-based commitment: multidimensional consumer-brand relationships. *Journal of Consumer Marketing*, 22(6), 313-322.

Hoffman, A. M. (1978). Experimental Studies in Adult Learning and Memory. *West Virginia Institute of Technology.* Washington, D.C.: Hemisphere Publishing Corp., 208 pp.

Hooley, G., Broderick, A., & Möller, K. (1998). Competitive positioning and the resource-based view of the firm. *Journal of strategic marketing*, 6(2), 97-116.

Jacobs-Lawson, J. M., & Hershey, D. A. (2002). Concept maps as an assessment tool in psychology courses. *Teaching of Psychology, 29(1), 25-29*.

Kates, R. W. (2000). Population and consumption: what we know, what we need to know. Environment: *Science and Policy for Sustainable Development*, 42(3), 10-19.

Keller, K. L. (2001). *Building customer-based brand equity: A blueprint for creating strong brands* (pp. 3-27). Cambridge, MA: Marketing Science Institute.

Kimpakorn, N., and Tocquer, G. (2010). Service brand equity and employee brand commitment. *Journal of Services Marketing.*

Lastovicka, John L and David M. Gardner (1979), "Components of Involvement, " in J.C. Maloney and B. Silverman (Eds.), *Attitude Research Plays for High Stakes*, Chicago, IL: American Marketing Association, 53-73.

Liker, R. (1932). A technique for the measurement of attitudes. *Archives of Psychology.*

Lund, A. M. (2001). Measuring usability with the use questionnaire12. *Usability interface*, 8(2), 3-6.

Radboud Universiteit

Martin, C. (1998), "Relationship Marketing: a high-involvement product attribute approach", *Journal of Product and Brand Management*, 7(1), pp. 6-26.

Mills, J. S., and Blankstein, K. R. (2000). Perfectionism, intrinsic vs extrinsic motivation, and motivated strategies for learning: A multidimensional analysis of university students. *Personality and individual differences, 29*(6), 1191-1204.

Moorman, C., Deshpande, R., and Zaltman, G. (1993). Factors affecting trust in market research relationships. *Journal of marketing*, 57(1), 81-101.

Morgan, D. L., and Krueger, R. A. (1993). When to use focus groups and why. Successful focus groups: *Advancing the state of the art*, 1, 3-19.

Morgan, D. L. (1996). Focus groups. Annual review of sociology, 22(1), 129-152.

Morgan, D. L. (1997), Focus Groups as Qualitative Research, 2nd ed., Sage, *Thousand Oaks, CA.*

Morgan, R. M., and Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of marketing*, 58(3), 20-38.

Novak, J. D., & Cañas, A. J. (2008). The theory underlying concept maps and how to construct and use them. Florida Institute for Human and Machine Cognition.

O'Loughlin, D., Szmigin, I., and Turnbull, P. (2004). Branding and relationships: Customer and supplier perspectives. *Journal of Financial Services Marketing*, 8(3), 218-230.

Palmatier, R.W., Dant, R.P., Grewal, D. and Evans, K.R. (2006), "Factors influencing the effectiveness of relationship marketing: a meta-analysis", *Journal of Marketing,* Vol. 70, pp. 136-53.

Papista, E., and Dimitriadis, S. (2012). Exploring consumer-brand relationship quality and identification. Qualitative Market Research: *An International Journal.*

Park, C. W., and Lessig, V. P. (1981). Familiarity and its impact on consumer decision biases and heuristics. *Journal of consumer research*, 8(2), 223-230.

Park, C. W., MacInnis, D. J., and Priester, J. R. (2006). Beyond attitudes: Attachment and consumer behavior. *Seoul National Journal,* 12(2), 3-36.

Park, C. W., MacInnis, D. J., Priester, J., Eisingerich, A. B., & Iacobucci, D. (2010). Brand attachment and brand attitude strength: Conceptual and empirical differentiation of two critical brand equity drivers. *Journal of marketing*, 74(6), 1-17.

Patton, M. Q. (1980). Qualitative evaluation methods.

Patton, M. Q. (2002). Two decades of developments in qualitative inquiry: A personal, experiential perspective. *Qualitative social work*, 1(3), 261-283.

Radboud Universiteit

Rempel, J. K., Ross, M., and Holmes, J. G. (2001). Trust and communicated attributions in close relationships. *Journal of personality and social psychology*, 81(1), 57.

Rook, D.W. (2006). Let's pretend: Projective methods reconsidered. In R.W. Belk (Ed.), *Handbook of qualitative research methods in marketing* (pp. 143-155). Cheltenham: Edward Elgar.

Rubin, Z. (1970). Measurement of romantic love. *Journal of personality and social psychology,* 16(2), 265.

Rusbult, C. E. (1980). Commitment and satisfaction in romantic associations: A test of the investment model. *Journal of experimental social psychology, 16(2), 172-186.*

Rusbult, C. E. (1983). A longitudinal test of the investment model: The development (and deterioration) of satisfaction and commitment in heterosexual involvements. *Journal of personality and social psychology*, 45(1), 101.

Schouten, J.W., and McAlexander, J.H. (1995). Subcultures of consumption: An ethnography of the new bikers. *Journal of Consumer Research,* 22, 43-61.

Shocker, A. D., Ben-Akiva, M., Boccara, B., and Nedungadi, P. (1991). Consideration set influences on consumer decision0making and choice: Issues, models, and suggestions. *Marketing letters*, 2(3), 181-197.

Shorten, A., & Smith, J. (2017). Mixed methods research: expanding the evidence base. *Evidence-Based Nursing; 20:74-75.*

Simon, H., 1982. Models of Bounded Rationality, vol 2. MIT Press, Cambridge, MA.

Sternberg, R. J. (1986). A triangular theory of love. *Psychological review,* 93(2), 119.

Sternberg, R. J. (1997). Construct validation of a triangular love scale. *European Journal of Social Psychology,* 27(3), 313-335.

Sussman, S., Burton, D., Dent, C. W., Stacy, A. W., and Flay, B. R. (1991). Use of Focus Groups In Developing an Adolescent Tobacco Use Cessation Program: Collective Norm Effects 1. *Journal of Applied Social Psychology*, 21(21), 1772-1782.

Sung, Y., and Campbell, W. K. (2009). Brand commitment in consumer–brand relationships: An investment model approach. *Journal of Brand Management,* 17(2), 97-113.

Sweeney, J. and Chew, M. (2002), "Understanding Consumer-Service Brand Relationship: A Casse Study Approach", *Australasian Marketing Journal,* 10(2), pp. 26-43.

Thomson, M., MacInnis, D. J., and Whan Park, C. (2005). The ties that bind: Measuring the strength of consumers' emotional attachments to brands. *Journal of consumer psychology,* 15(1), 77-91.

Van Boven, L., McGraw, A.P., and Warren, C. (2011). Values and Preferences: Defining

Radboud Universiteit

Van Lange, P. A., Rusbult, C. E., Drigotas, S. M., Arriaga, X. B., Witcher, B. S., and Cox, C. L. (1997). Willingness to sacrifice in close relationships. *Journal of personality and social psychology*, 72(6), 1373.

Preference Construction. *Interdisciplinary Reviews: Cognitive Science*, 2, 193-205.

Veloutsou, C. (2007). Identifying the dimensions of the product-brand and consumer relationship. *Journal of Marketing Management,* 23(1-2), 7-26.

Walker-Hirsch, L., & Champagne, M. P. (1991). The Circles Concept: Social Competence in Special Education. *Educational Leadership, 49(1), 65-67.*

Wallendorf, M., and Arnould, E. J. (1988). "My favorite things": A cross-cultural inquiry into object attachment, possessiveness, and social linkage. *Journal of Consumer Research*, 14(4), 531-547.

Zaichkowsky, J. L. (1994). The personal involvement inventory: Reduction, revision, and application to advertising. *Journal of advertising, 23*(4), 59-70.

Appendices

Appendix A: Survey design CBRM method

Dear respondent,

Welcome to the second part of our survey. The following questions will be about the method we have just used to investigate your relationships with beer brands. So think of the Consumer Brand-Relation Map you just created.

The results will only be analyzed by the research team of the relevant master's thesis, and will therefore not be shared with third parties.

The following statements are about the method we have used to measure the relationship between you (the consumer) and the different beer brands. So think back about the measure we have used to answering the questions about the different beer brands you mentioned.

Please indicate to what extent you agree with each statement.

	Strongly disagree						Strongly agree
	1	**2**	**3**	**4**	**5**	**6**	**7**
This method increased my motivation to display my relationships with brands in the given category	O	O	O	O	O	O	O
The method used is an active way to display my relationships with brands in the beer category	O	O	O	O	O	O	O
This method challenged my thinking	O	O	O	O	O	O	O
This method is user-friendly	O	O	O	O	O	O	O
This method requires the fewest steps possible to create an overview of the	O	O	O	O	O	O	O

Radboud Universiteit

relationships I have with different brands in the given category							
CBRM is flexible; it gives the possibility to recover from mistakes quickly and easily	O	O	O	O	O	O	O
I could use this method successfully the next time	O	O	O	O	O	O	O
It is difficult to learn how to use this method	O	O	O	O	O	O	O
This method gives me insight in the relationships I have with different brands in a specific category	O	O	O	O	O	O	O
These relationships could have been measured in a faster way	O	O	O	O	O	O	O
I perceive this method to be long-winded	O	O	O	O	O	O	O
This method really displays the way I feel about the different brands	O	O	O	O	O	O	O
This method is fun to use	O	O	O	O	O	O	O
This method enables me to uncover my relationships towards brands in a playful way	O	O	O	O	O	O	O
I felt bored performing this method	O	O	O	O	O	O	O

Please complete the following questions for the beer brand you are most attached to (as

shown by the method used previously).

I am most attached to the beer brand:……

	Not at all										Completely	
	0	1	2	3	4	5	6	7	8	9	10	Don't know
To what extent is [brand name] part of who you are?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel personally connected to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O

Radboud Universiteit

	Not at all										Completely	
	0	1	2	3	4	5	6	7	8	9	10	Don't know
To what extent do you feel emotionally bonded to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent is [brand name] part of you?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent does [brand name] say something to other people about who you are?	O	O	O	O	O	O	O	O	O	O	O	O

Complete the following questions for a beer brand of your choice, which you mentioned in

the previously used method.

The beer brand of my choice is:…..

	Not at all										Completely	
	0	1	2	3	4	5	6	7	8	9	10	Don't know
To what extent is [brand name] part of who you are?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel personally connected to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel emotionally bonded to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent is [brand name] part of you?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent does [brand name] say something to other people about who you are?	O	O	O	O	O	O	O	O	O	O	O	O

To me beer products are:

	1	2	3	4	5	6	7	
Important	O	O	O	O	O	O	O	Unimportant
Boring	O	O	O	O	O	O	O	Interesting
Relevant	O	O	O	O	O	O	O	Irrelevant
exciting	O	O	O	O	O	O	O	Unexciting

Radboud Universiteit

66

Means nothing	O	O	O	O	O	O	O	Means a lot to me
Appealing	O	O	O	O	O	O	O	Unappealing
Fascinating	O	O	O	O	O	O	O	Mundane
Worthless	O	O	O	O	O	O	O	Valuable
Involving	O	O	O	O	O	O	O	Uninvolving
Not needed	O	O	O	O	O	O	O	Needed

How often do you drink beer?

never	Less than once a month	Once a month	Almost every week	Once a week	Two times a week	Almost every day	Every day
O	O	O	O	O	O	O	O

What is your gender?

O Male
O Female
O Other (specify) ……………..

What is your age?

………………

In which province were you born?

O Gelderland
O Noord-Holland
O Zuid-Holland
O Noord-Brabant
O Utrecht
O Flevoland
O Friesland
O Groningen
O Drenthe
O Overijssel
O Zeeland
O Limburg

Radboud Universiteit

My name is:
…………..

What is your current highest level of education?

- O   Less than high school degree
- O   High school degree or equivalent (e.g. GED)
- O   Some college, but not degree
- O   Associate degree (e.g. AA, AS)
- O   Bachelor's degree (e.g. BA, BS)
- O   Master's degree (e.g. MA, MS, MEd)
- O   Professional degree (e.g. MD, DDS, DVM)
- O   Doctorate degree (e.g. PhD, EdD)

That was it! Thank you for your participation. Your answers have been saved, you can close this screen now.

Appendix B: Survey design Likert scale method

Dear respondent,

First of all, thank you for your time and participation in this questionnaire. The purpose of this questionnaire is to investigate the relationships between the consumer (you in this case) and different brands in the category beer. The results will be used for writing a master's thesis by students at the Radboud University Nijmegen in the direction of marketing.

Completing this questionnaire will take about 5-10 minutes and participation is completely voluntary. Participation is completely anonymous and the data will be treated confidenetially. The results will only be analyzed by the research team of the relevant master's thesis, and will therefore not be shared with third parties.

For questions please contact:

Cecile Buunk (cecile.buunk@student.ru.nl)
Daan van der Ven (daan.vanderven@student.ru.nl)

In this part of the questionnaire we ask you to mention as many beer brands as possible. The beer brands can be entered one by one in the text box below. After you have entered a beer brand, five questions will be asked about the brand in question. When you have answered these questions, you can name another beer brand. Feel free to mention any beer brands you know, national or international, known or unknown, it doesn't matter. If you can no longer name a beer brand, you can leave the text box empty to continue to the second part of the questionnaire.

Enter the first beer brand here:

……………….

Radboud Universiteit

Think about (brand name) while answering the following questions.

	Not at all										Completely	
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	Don't know
To what extent is [brand name] part of who you are?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel personally connected to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel emotionally bonded to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent is [brand name] part of you?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent does [brand name] say something to other people about who you are?	O	O	O	O	O	O	O	O	O	O	O	O

Please list as many beer brands as possible, national or international, known or unknown, it

does not matter. If you no longer remember a beer brand, you can leave the text box open to

proceed to the second part of the questionnaire.

Enter the following beer brand here:

……………….

Think about (brand name) while answering the following questions.

	Not at all										Completely	
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	Don't know
To what extent is [brand name] part of who you are?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel personally connected to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel emotionally bonded to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O

Radboud Universiteit

	0	1	2	3	4	5	6	7	8	9	10	Don't know
To what extent is [brand name] part of you?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent does [brand name] say something to other people about who you are?	O	O	O	O	O	O	O	O	O	O	O	O

Please list as many beer brands as possible, national or international, known or unknown, it

does not matter. If you no longer remember a beer brand, you can leave the text box open to

proceed to the second part of the questionnaire.

Enter the following beer brand here:

……………….

Think about (brand name) while answering the following questions.

	Not at all										Completely	
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	Don't know
To what extent is [brand name] part of who you are?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel personally connected to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel emotionally bonded to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent is [brand name] part of you?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent does [brand name] say something to other people about who you are?	O	O	O	O	O	O	O	O	O	O	O	O

Please list as many beer brands as possible, national or international, known or unknown, it

does not matter. If you no longer remember a beer brand, you can leave the text box open to

proceed to the second part of the questionnaire.

Radboud Universiteit

Enter the following beer brand here:

……………….

Think about (brand name) while answering the following questions.

	Not at all										Completely	
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Don't know**
To what extent is [brand name] part of who you are?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel personally connected to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel emotionally bonded to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent is [brand name] part of you?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent does [brand name] say something to other people about who you are?	O	O	O	O	O	O	O	O	O	O	O	O

Please list as many beer brands as possible, national or international, known or unknown, it

does not matter. If you no longer remember a beer brand, you can leave the text box open to

proceed to the second part of the questionnaire.

Enter the following beer brand here:

……………….

Think about (brand name) while answering the following questions.

	Not at all										Completely	
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Don't know**

Radboud Universiteit

	Not at all										Completely	
	0	1	2	3	4	5	6	7	8	9	10	Don't know
To what extent is [brand name] part of who you are?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel personally connected to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel emotionally bonded to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent is [brand name] part of you?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent does [brand name] say something to other people about who you are?	O	O	O	O	O	O	O	O	O	O	O	O

Please list as many beer brands as possible, national or international, known or unknown, it

does not matter. If you no longer remember a beer brand, you can leave the text box open to

proceed to the second part of the questionnaire.

Enter the following beer brand here:

……………….

Think about (brand name) while answering the following questions.

	Not at all										Completely	
	0	1	2	3	4	5	6	7	8	9	10	Don't know
To what extent is [brand name] part of who you are?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel personally connected to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel emotionally bonded to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent is [brand name] part of you?	O	O	O	O	O	O	O	O	O	O	O	O

To what extent does [brand name] say something to other people about who you are?	O	O	O	O	O	O	O	O	O	O	O	O

Please list as many beer brands as possible, national or international, known or unknown, it

does not matter. If you no longer remember a beer brand, you can leave the text box open to

proceed to the second part of the questionnaire.

Enter the following beer brand here:

……………….

Think about (brand name) while answering the following questions.

	Not at all										Completely	
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	Don't know
To what extent is [brand name] part of who you are?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel personally connected to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel emotionally bonded to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent is [brand name] part of you?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent does [brand name] say something to other people about who you are?	O	O	O	O	O	O	O	O	O	O	O	O

Please list as many beer brands as possible, national or international, known or unknown, it

does not matter. If you no longer remember a beer brand, you can leave the text box open to

proceed to the second part of the questionnaire.

Enter the following beer brand here:

Radboud Universiteit

……………….

Think about (brand name) while answering the following questions.

	Not at all										Completely	
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	Don't know
To what extent is [brand name] part of who you are?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel personally connected to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel emotionally bonded to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent is [brand name] part of you?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent does [brand name] say something to other people about who you are?	O	O	O	O	O	O	O	O	O	O	O	O

Please list as many beer brands as possible, national or international, known or unknown, it

does not matter. If you no longer remember a beer brand, you can leave the text box open to

proceed to the second part of the questionnaire.

Enter the following beer brand here:

……………….

Think about (brand name) while answering the following questions.

	Not at all										Completely	
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	Don't know
To what extent is [brand name] part of who you are?	O	O	O	O	O	O	O	O	O	O	O	O

Radboud Universiteit

	0	1	2	3	4	5	6	7	8	9	10	Don't know
To what extent do you feel personally connected to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel emotionally bonded to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent is [brand name] part of you?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent does [brand name] say something to other people about who you are?	O	O	O	O	O	O	O	O	O	O	O	O

Please list as many beer brands as possible, national or international, known or unknown, it does not matter. If you no longer remember a beer brand, you can leave the text box open to proceed to the second part of the questionnaire.

Enter the following beer brand here:

……………….

Think about (brand name) while answering the following questions.

	Not at all										Completely	
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	Don't know
To what extent is [brand name] part of who you are?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel personally connected to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel emotionally bonded to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent is [brand name] part of you?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent does [brand name] say something to other people about who you are?	O	O	O	O	O	O	O	O	O	O	O	O

Radboud Universiteit

Please list as many beer brands as possible, national or international, known or unknown, it does not matter. If you no longer remember a beer brand, you can leave the text box open to proceed to the second part of the questionnaire.

Enter the following beer brand here:

……………….

Think about (brand name) while answering the following questions.

	Not at all										Completely	
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	Don't know
To what extent is [brand name] part of who you are?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel personally connected to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel emotionally bonded to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent is [brand name] part of you?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent does [brand name] say something to other people about who you are?	O	O	O	O	O	O	O	O	O	O	O	O

Please list as many beer brands as possible, national or international, known or unknown, it does not matter. If you no longer remember a beer brand, you can leave the text box open to proceed to the second part of the questionnaire.

Enter the following beer brand here:

……………….

Radboud Universiteit

77

Think about (brand name) while answering the following questions.

	Not at all										Completely	
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	Don't know
To what extent is [brand name] part of who you are?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel personally connected to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent do you feel emotionally bonded to [brand name]?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent is [brand name] part of you?	O	O	O	O	O	O	O	O	O	O	O	O
To what extent does [brand name] say something to other people about who you are?	O	O	O	O	O	O	O	O	O	O	O	O

The following statements are about the method we have used to measure the relationship between you (the consumer) and the different beer brands. So think back about the measure we have used to answering the questions about the different beer brands you mentioned.

Please indicate to what extent you agree with each statement.

	Strongly disagree						Strongly agree
	1	**2**	**3**	**4**	**5**	**6**	**7**
This method increased my motivation to display my relationships with brands in the given category	O	O	O	O	O	O	O
The method used is an active way to display my relationships with brands in the beer category	O	O	O	O	O	O	O
Displaying my relationships with brands within a specific category through the use of CBRM challenged my thinking	O	O	O	O	O	O	O
This method is user friendly	O	O	O	O	O	O	O

Radboud Universiteit

	1	2	3	4	5	6	7
This method requires the fewest steps possible to create an overview of the relationships I have with different brands in the given category	O	O	O	O	O	O	O
CBRM is flexible; it gives the possibility to recover from mistakes quickly and easily	O	O	O	O	O	O	O
I could use this method successfully the next time	O	O	O	O	O	O	O
It is difficult to learn how to use this method	O	O	O	O	O	O	O
This method gives me insight in the relationships I have with different brands in a specific category	O	O	O	O	O	O	O
These relationships could have been measured in a faster way.	O	O	O	O	O	O	O
I perceive this method to be long-winded.	O	O	O	O	O	O	O
This method really displays the way I feel about the different brands	O	O	O	O	O	O	O
This method is fun to use	O	O	O	O	O	O	O
This method enables me to uncover my relationships towards brands in a playful way	O	O	O	O	O	O	O
I felt bored performing this method	O	O	O	O	O	O	O

To me beer products are:

	1	2	3	4	5	6	7	
Important	O	O	O	O	O	O	O	Unimportant
Boring	O	O	O	O	O	O	O	Interesting
Relevant	O	O	O	O	O	O	O	Irrelevant
exciting	O	O	O	O	O	O	O	Unexciting
Means nothing	O	O	O	O	O	O	O	Means a lot to me

Radboud Universiteit

Appealing	O	O	O	O	O	O	O	Unappealing
Fascinating	O	O	O	O	O	O	O	Mundane
Worthless	O	O	O	O	O	O	O	Valuable
Involving	O	O	O	O	O	O	O	Uninvolving
Not needed	O	O	O	O	O	O	O	Needed

How often do you drink beer?

never	Less than once a month	Once a month	Almost every week	Once a week	Two times a week	Almost every day	Every day
O	O	O	O	O	O	O	O

What is your gender?

O Male
O Female
O Other (specify) ……………..

What is your age?

………………

In which province were you born?

O Gelderland
O Noord-Holland
O Zuid-Holland
O Noord-Brabant
O Utrecht
O Flevoland
O Friesland
O Groningen
O Drenthe
O Overijssel
O Zeeland
O Limburg

Radboud Universiteit

What is your current highest level of education?

- O   Less than high school degree
- O   High school degree or equivalent (e.g. GED)
- O   Some college, but not degree
- O   Associate degree (e.g. AA, AS)
- O   Bachelor's degree (e.g. BA, BS)
- O   Master's degree (e.g. MA, MS, MEd)
- O   Professional degree (e.g. MD, DDS, DVM)
- O   Doctorate degree (e.g. PhD, EdD)

That was it! Thank you for your participation. Your answers have been saved, you can close this screen now.

Radboud Universiteit

Appendix C: Introduction CBRM method

Good morning/ good afternoon. Thank you for your participation! My name is Cecile Buunk/ Daan van der Ven, I am a fourth-year master student at the Radboud University and today we will have a conversation about the Consumer Brand Relationship Map, or in short CBRM. This is a technique that I designed to measure consumer brand attachment from a consumer point of view, in this case this is you. The results gained during this conversation are used to write my Master Thesis in the direction of Marketing.

Are you giving me permission to record the conversation?

The whole conversation will be recorded for later use as I can make a transcript of this, analyze your answers and compare the results with other conversations with participants of the research. The records will only be used for scientific purposes and are going to be deleted afterwards. Remember, there are no "good" or "bad" answers during this conversation, I am looking for especially your opinion on this subject. I chose you to be my participant as you fit perfectly in my target audience for the research. The conversation is on a voluntary basis and you can stop the conversation at any time if you want to. I think our conversation will take between half an hour and forty-five minutes. You remain anonymous as your name will not be mentioned in the thesis.

I will explain the model I designed now. This is how the model looks like, the point in the middle represents you. I will ask you during our conversation to mention a brand in the category beer. It does not matter which brands you mention; national or international, known or unknown brands. You have to write down the brand you mentioned and drag this into the model basis on your level of attachment. Think out loudly during this process. I would like to gain insights in why you place certain brands on a certain place around you. The closer you put the brand to you, the higher the level of *attachment* to the brand. The further you place the brand in the circle, the lower the level of *attachment* is. Also, the space between the different brands matter; the closer two brands are to each other, the more they are *attached* in your opinion. I am going to measure scores from the thumbtacks. This model will eventually be released digitally, now with paper is just for testing.

Radboud Universiteit

Now, I will give you an example with me in the middle in order to explain the model a little bit more. The category in this example is cars to show you exactly how the model works. When I hear the category cars, the first brand that comes to my mind is Mercedes. So, I write down Mercedes and drag this here, which is really close to me. I am really *attached* to the car brand Mercedes as I like the looks of the car and the high speed. If people say negative things about Mercedes I feel personally attacked and I always try to convince people that it is a good brand, I am more or less an ambassador of the brand you can say. The next car brand I mention is Volvo. I write down the name in the document and drag this here, which is quite close to me, but not as close as Mercedes is to me. Besides, in my mind I feel very differently towards Volvo and Mercedes, so I place them far from each other. When buying a car, I would not immediately think about Volvo. The third brand I mention in the category cars is Audi. I write down the name Audi and drag it here. Audi is more or less even close to me as Mercedes, which means I am really attached to it as well. Besides, Audi and Mercedes are close to each other, and Volvo is not closely linked to those two at all. This means that Mercedes and Audi are in my opinion quite linked to each other, and Volvo is not linked to Mercedes or Audi. Now I mention Skoda. I write down the name and drag it here. This is quite far from me as a person, which means that I am not attached to Skoda. Besides, Skoda is far from as well Mercedes, Audi and Volvo, which means that these car brands in my opinion have no *attachment* to each other. The reason why they are not linked in my opinion is that Skoda has a different image and is not as fast as the other cars. The only reason that I mentioned this brand is because my mom drives Skoda, personally I would never buy such a car. The circles in the model are only for indication purposes. Anywhere in the model a brand can be placed very precise, it is not that these boxes or circles represent a certain degree. After you mention a brand, you can place it in the circle based on how attached you are to this particular brand and explain the reasons of your placements. You can continue to list the next brand and place this one as well, and repeat this step until you do not know longer any brands.

I could go on with this, as I know even more car brands, and repeat what I just did.

Is this example clear for you and do you think you could do this within the category beers?

Ok, great! You can start now. Remember: think out loud.

You have mentioned twelve brands, that is enough for now.

Radboud Universiteit

I want you to take a look at your model now. Are you satisfied with the placement or do you still want to change something?
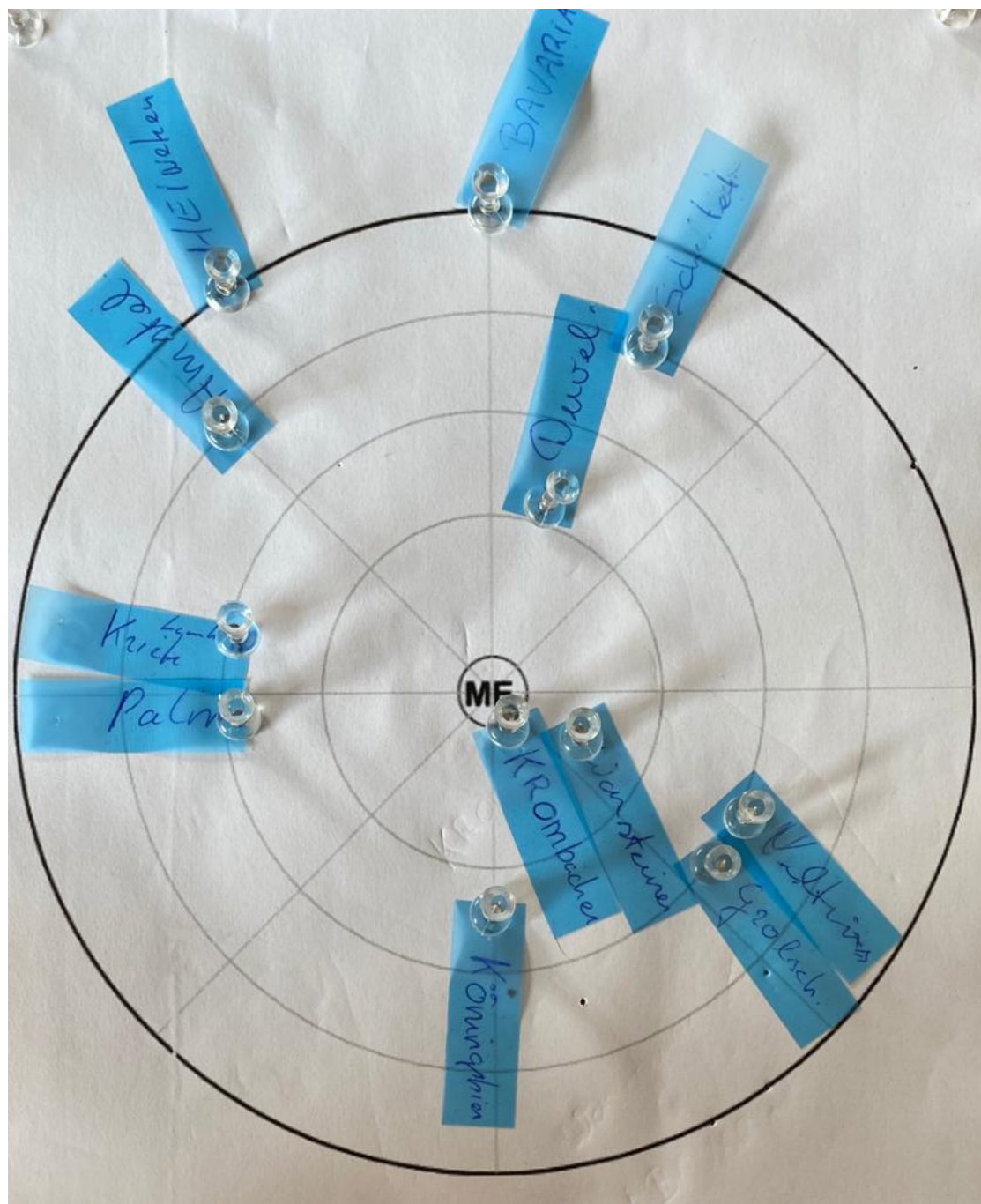
Now, I would like to ask you some more questions about the product category and the measurement model we have used. Please open the second document I have send and fill in the questions.

Thank you for your participation.

Radboud Universiteit

Appendix D: CBRM model

Radboud Universiteit
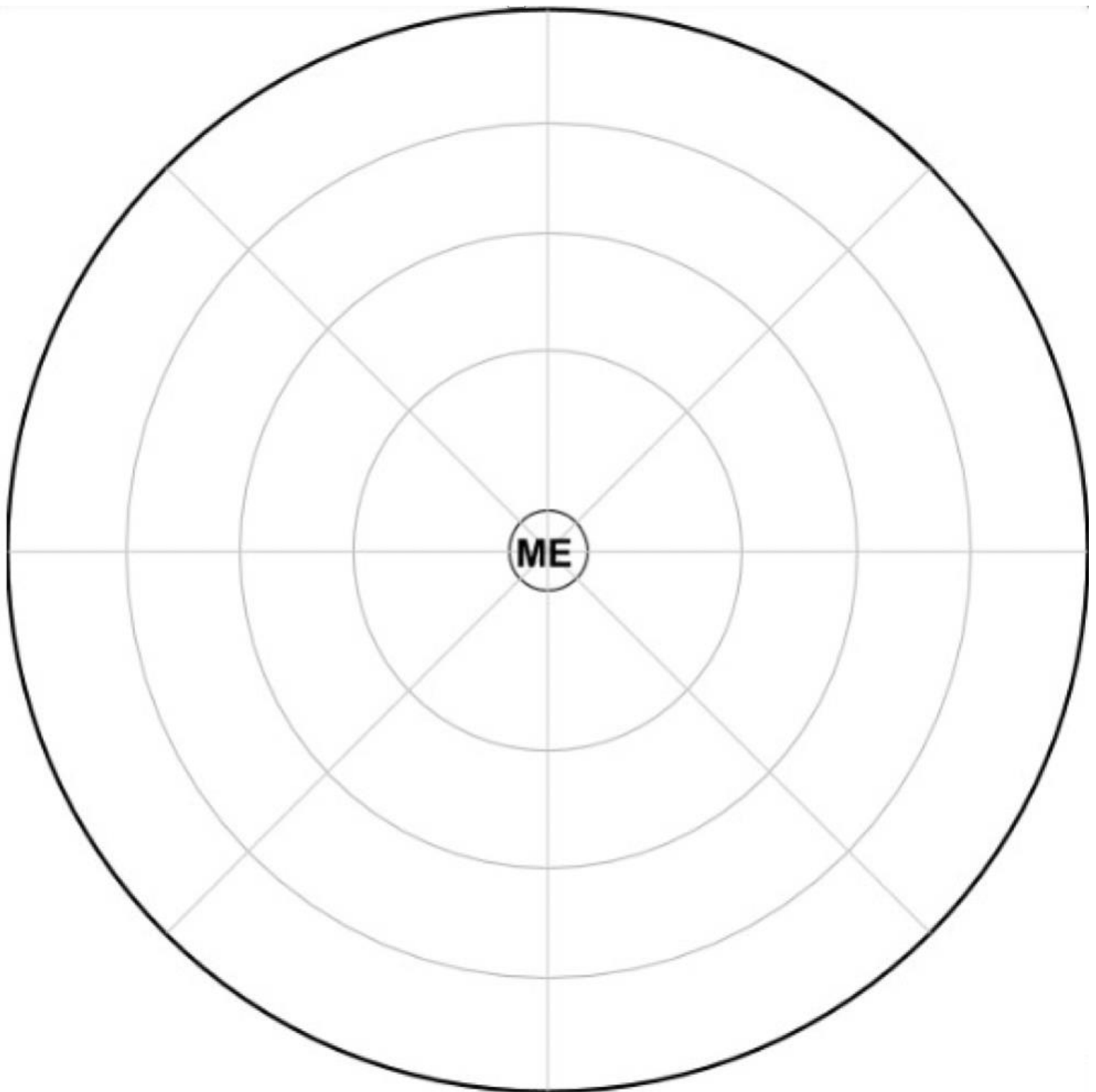
Appendix F: Transcript codes

Number of times mentioned	Codes	Examples given
459	Taste	Good taste, bad taste, level of sweetness and bitterness.
273	Association	Memories (of the past), holiday (destinations), footbal clubs, seasons.
214	Consume	Family/friends drink it, I drink it often, I drank it recently.
186	Beers	Types of beers, fermentation.
145	Occasions	Supermarket, terrace, local cafe, festivals.
135	Region	Region, country where the beer comes from or the participant comes from.
112	Personal connection	How well the beer fits the person.
92	Image	Image of the beer such as craftmanship, popular under a specific category.
64	Price	Cheap, expensive.
63	Appearance	Bottle, name, label.
61	Awareness	Everyone know it, I see it all around the world, I do not know much about it.

Radboud Universiteit