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# Brand line positioning in the Norwegian mass-produced beer market

A comparative brand association study

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Master's thesis, Marketing and Brand Management

# NORWEGIAN SCHOOL OF ECONOMICS

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# Abstract

The purpose of this thesis is to compare the image positioning of two Norwegian beer brand lines in terms of consumer perceptions. Despite recent popularity of microbrewery research, it argues that industrial breweries are more profitable, and should not be neglected. An introduction to the realm of brand equity is provided. It poses three research questions about two brands: 1) which associations are most frequently reported; 2) which associations differentiate the brands, and; 3) do they drive brand attitudes? Thereafter, information about the product category, the Ringnes and Hansa brand lines and owners, distribution chain and recent developments is disclosed. Consumer-Based Brand Equity and other theory relevant to consumer behavior and brand management is presented. Following the theoretical framework, two hypotheses are developed, deducted from publicly available brand information.

A combined-methods approach was applied to collect primary data in two processes. To answer the first research question and develop additional hypotheses, a pilot study (n = 21) was conducted using semi-structured interviews on a convenience sample consisting mostly of students. It was finalized by developing a new set of three hypotheses. The main study (n =342) utilized a survey strategy to collect quantitative data to be used in the analysis. Selfselected questionnaire respondents were automatically assigned a brand condition for comparison purposes. The process of each study was presented separately, including discussions of validity, reliability and statistical assumptions.

Indications of perceived brand differences were found and summarized comparatively. All five null hypotheses that the brands were perceived to be equal, were rejected in favor of Hansa. Significant relationships between test variables and brand attitude were found by correlation, and potential drivers of brand attitude were explored using multiple regressions. Findings indicate that Hansa is positively differentiated from Ringnes by unique heritage and sports associations, however, generalizations cannot be made. Implications of findings are discussed along with limitations and recommendations.

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# **Chapter 1: Introduction**

In recent history, research in the field of marketing has grown both broader and deeper. As marketing theory develops, so are niche product and service markets born and saturated. Yet, the offerings themselves often seem to satisfy the same overall needs, and it may be difficult to determine whether they are in fact different. Following the introduction of the term *brand equity* in the 1980s (Cobb-Walgren, Ruble and Donthu, 1995; Fayrene & Lee, 2011), it has become a central issue within marketing research, and seems to increasingly overlap with other research domains, such as psychology, and therein, memory research. A myriad of definitions has been proposed for the term, and a simple way to initially describe brand equity is that it is the value increase derived from a brand name (Cobb-Walgren et al., 1995).

By understanding more clearly what drives the perception of value and how it is derived from a brand name, marketing practitioners can communicate how and why their brand of a given offering is different from others. This is termed *differentiation*, and the goal is to gain competitive advantage in the marketplace. In marketing theory, the main process for creating such differentiation is termed *advertising* (Cobb-Walgren et al., 1995). But how can marketing practitioners differentiate their brand when advertising is not an option?

This is one of the questions which make this research interesting. In the current product market<sup>1</sup>, advertising is prohibited, and is thus assumed to not have an influence on consumers' minds. Accordingly, it would be interesting to investigate whether two seemingly homogeneous brand lines are perceived to be different, purely based on brand. Further, strategic decisions made by a key distributor has recently been covered by the media, implicating the future success of the brands and increasing the relevance of this research.

Interest in the beer industry seems to have risen in the recent past, but the author's impression is that most brand equity-related research in the beer industry focuses on the emerging microbrewery industry. Although interesting, the most profitable share of the beer industry is still by far the mass-produced beer market. Thus, it should not be neglected, and to understand consumer behavior and influence it going forward, marketing practitioners need to not only understand what drives choice for consumers, but also stay up to date by regularly researching the ever-changing perceptions that make up the mind of the consumer.

<sup>&</sup>lt;sup>1</sup> A more thorough disclosure of relevant information about the market and more follows in Chapter 2.

The current research seeks to describe the relative market positioning, in terms of relevant theory, of two competing brand lines operated by the dominating market players. The research is practically oriented, and could yield useful insights about a real market and brands. For example, understanding consumer perceptions about a brand line is critical to making decisions about future brand extensions, and its marketing in general (Völckner & Sattler, 2006). Applying theory to a practical research question about a specific product market, could also provide new information about the degree to which the studied product market meets theoretical expectations. Findings could thus support or argue against the notion that the theoretical framework is applicable in the current context.

Before disclosing the outline of the individual chapters, it is appropriate to formally present the research questions which will lead the way throughout the journey that is this thesis.

### 1.1 Research question

The overall research question of this thesis is as follows:

# Which brand associations characterize the brand positions of the dominating players in the Norwegian mass-produced beer market, respectively?

An answer to the research question will be sought by breaking it down and answering a set of sub-questions by means of qualitative and quantitative analysis:

- 1. Which brand associations are most frequently reported when brand que is given?
- 2. Which of those brand associations most clearly differentiate the respective brands?
- 3. Is there indication that the studied brand associations are in fact drivers of brand attitude?

## 1.2 Thesis outline and content

Now that research questions have been presented and the course for the thesis has been set, **Chapter 2** will present background information relevant to the studied market, facilitating an understanding of what makes it interesting, who the top players are, important distribution channels and related delimitation. Finally, recent developments and motivation for conducting the thesis will be further detailed. Then follows the theoretical framework, which lays the foundation of the perspective taken throughout the research. In **Chapter 3**, definitions of important theoretical terms will be explained. Further, a basic understanding of marketing research will be provided to the reader in three main steps. First, the concept of brand equity will be more thoroughly explained, specifically using Keller's (1993) proposed framework among other important contributions, and the significance of brand equity and its relation to the human mind and behavior will be illuminated. Second, supplemental theory regarding brand identity and personality will be provided. The final section of the theoretical chapter will summarize how the different dimensions of brand equity come together in a marketing perspective, and demonstrate with some relevant examples how it can be utilized to gain advantage in real-life situations. To conclude the theory chapter, two hypotheses will be developed and stated.

**Chapter 4** will fully disclose the methodology behind the research. Initially, an overview of the research and how it combines two approaches to extract the information necessary to answer the research questions is given. The studies will be detailed in respective subchapters, including e.g. samples and execution. The pilot study will lead into another process of hypothesis development based on its findings, before delving into the main study. The methodology chapter will also include discussions of validity and reliability, and will introduce operationalized variables used in the analysis.

**Chapter 5** will present the results of all tests and analyses conducted in the research, including disclosure of some demographic sample information. Moreover, it will include formal tables of t-tests, principal components analysis, reliability analyses, correlation matrices and multiple regressions. Results will yield conclusions to hypotheses and provide necessary information for the following discussion chapter.

**Chapter 6** provides discussion of the research in four main subchapters. First, the results will be summarized to provide clarity. Then, theoretical and managerial implications of the findings will be discussed separately. Finally, some important limitations of the study are illuminated along with recommendations for future research. Based on the findings and discussion, **Chapter 7** formally concludes on each research question in order, closing the thesis.

Appendices A-H are formally numbered and included at the end of the paper.

# **Chapter 2: Background Information**

# 2.1 Norwegian Alcohol Legislation

The marketing of alcoholic beverages in Norway is relatively strictly regulated. In Norwegian legislation, alcoholic beverages are defined as beverages that contain more than 2.5% alcohol, although those containing down to 0.7% alcohol are still considered light alcoholic beverages, and only those that hold less than 0.7% alcohol are considered alcohol free (Helse- og omsorgsdepartementet, 2016). Furthermore, alcoholic beverages are categorized into three groups: group one includes beverages with more than 2.5% and up to 4.7% alcohol; beverages in group two have more than 4.7% and up to 22% alcohol; beverages in group three have over 22% and up to 60% alcohol, and are referred to as hard liquor (Helse- og omsorgsdepartementet, 2016). To be precise moving forward, *selling* refers to the sale of unopened products, whereas *serving* refers to selling pre-opened beverages which are consumed on the premises on which they were served. Selling or serving beverages containing more than 60% alcohol is prohibited (Helse- og omsorgsdepartementet, 2016).

There are age restrictions that vary with alcohol groups. It is generally illegal to provide anyone under the age of 18 with class one or class two beverages, and similarly, illegal to provide anyone under the age of 20 with hard liquor (Helse- og omsorgsdepartementet, 2016). To serve or sell alcoholic beverages, it is mandatory to have received a license to serve or sell alcohol from the local municipality (with exceptions), and Police and other authorities must be notified of said license, which can also be revoked for a number of reasons (Helse- og omsorgsdepartementet, 2016).

Norway has the highest duty fees for alcohol in the entire world (Nome, 2015a). Alcoholic beverages in group two and three can only be sold by Vinmonopolet AS, apart from exclusive duty-free sales in airports for travelers entering or exiting state borders, as permitted by Norwegian Customs (Helse- og omsorgsdepartementet, 2016). Vinmonopolet AS is the Norwegian state monopoly for sales of alcoholic beverages in category two and three. License to serve alcohol in public or private transport vehicles and military venues also exists, but will not be discussed further in the current text. It should also be mentioned that it is illegal to consume alcoholic beverages in public in the state of Norway (Helse- og omsorgsdepartementet, 2016).

There are several time restrictions for the sale of alcoholic beverages. In general, it is prohibited to sell alcoholic beverages (excluding light alcoholic beverages) on holidays and Sundays, and before 08:00 and after 20:00 (Helse- og omsorgsdepartementet, 2016). Moreover, alcoholic beverages cannot be sold and served in the same venue, although venues that serve alcohol receive some slack when it comes to permitted time for serving, as compared to sales venues (Helse- og omsorgsdepartementet, 2016).

# 2.2 Advertising

It is prohibited to hand out alcoholic beverages to consumers with the intention of advertising (Helse- og omsorgsdepartementet, 2016). This includes examples such as taste tests or other promotional campaigns. In general, advertisement of equipment for the manufacture of alcoholic beverages is prohibited, and all advertisement for alcoholic beverages is prohibited (Helse- og omsorgsdepartementet, 2016). Norway is thus the sole European country which prohibits alcohol advertisement (Nome, 2015b). Furthermore, this prohibition includes non-alcoholic products of the same brand as an alcoholic beverage, or which carry the same brand elements (Helse- og omsorgsdepartementet, 2016), such as the same brand logo.

There are arguments that the advertisement prohibition also has unintended effects, such as working in favor for foreign manufacturers that market their products in Norway (Nome, 2015b). One mechanism in focus here is the effect of international advertisements which are aired on Norwegian television on the Norwegian consumers (Nome, 2015b). The prohibition against alcohol advertising has been in effect and updated several times since 1975, and was recently changed to allow a conservative quantity of information and images on certain communication platforms, such as brands' own websites (Nome, 2015c) (Hansa Borg Bryggerier AS, 2009d).

Bryggeri- og drikkevareforeningen (BROD; Norwegian Beer and Soft Drink Producers) state that this recent change is a modernization of the advertisement prohibition, and that it will provide consumers with better access to product information (Nome, 2016). BROD is the association for the beer and soft drink industry in Norway, is organizationally tied to FoodDrinkNorway and The Confederation of Norwegian Enterprise (NHO), and is nationally responsible for the reporting of official numbers related to the manufacture and trade of beer, soft drinks and water (NHO Mat og Drikke, 2016; NHO Mat og Drikke, u.d.; NHO Mat og Drikke, 2017; Nome, 2016).

#### 2.3 Distribution Channels and beverage categories

As stated, only Vinmonopolet AS can sell beverages in group two and three. However, there are a few alternative distribution channels in the Norwegian marketplace. Though not the focus of this thesis, alternative distribution channels are mentioned to give a broad perspective of the market for alcohol. These include illegal smuggling, which has seen an increase in the past years, presumably due to the extreme duty fee for alcohol (Nome, 2015a). Such means of import can have negative implications for Norwegian society, such as income loss to the state. There are also more serious cases recorded, such as injury or death from methanol poisoning, as an indirect result of smuggling (Svartstad, 2012).

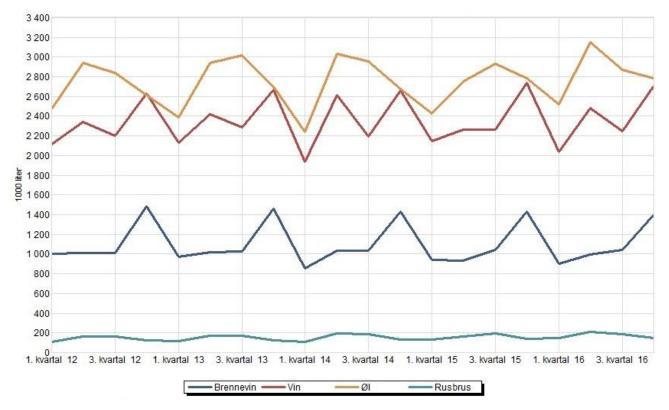
Serving beverages was mentioned as a means of sale of alcohol. To elaborate on this, alcoholic beverages can typically be served in hotels, restaurants, in bars and nightclubs, by catering companies etc. As is evident, much of beverages are served in relation to the food service industry, and the abbreviation *HoReCa* is sometimes used to describe said industry (*Hotel, Restaurant, Catering*), although definitions differ (Mattilsynet, 2012; The Free Dictionary, u.d.).

On their official website, BROD present sales numbers based on distribution channels, however, the contents of the categories are not defined in more detail than what their titles disclose. The three categories of distribution channels described translate to *Nightlife/Vinmonopolet, grocery/own outlet* and *kioks/gas stations*. The categories wine and hard liquor are not to be found (Bryggeri- og Drikkevareforeningen a, u.d.). Yet, these categorizations and the available information is deemed useful for the purposes of this text, and it is henceforth assumed that the *nightlife* category also includes *HoReCa*.

According to BROD, the total national sale of beer in the past twelve months was 263 million liters, up from 258,1 million liters in the twelve preceding months, and of this, 34,6 million liters were imported (Bryggeri- og Drikkevareforeningen a, u.d.). Furthermore, they report liter sales of imported beer to have had a 25,82% increase from the previous twelve months, indicating that a significant share of the annual consumption growth stems from imports (Bryggeri- og Drikkevareforeningen a, u.d.). Looking at the numbers for the reported distribution channels, it becomes obvious that despite the state monopoly, the largest quantity of beer is sold in the *grocery/own outlet* category, making up over 199 million of the 251 million sum liters over the past twelve months (including approximately 40% of imported beer). Beer is also the product group with the highest reported growth in the grocery

distribution channel, reaching almost 7% growth in 2016 (The Nielsen Company (US), LLC, 2017a). Thus, the in the beer category, nightlife and Vinmonopolet is outcompeted when it comes to liter sales.

It might be surprising that even when alcoholic beverage sale comparisons take into account the differences in percentage of alcohol, beer is the relatively most popular. According to Statistisk Sentralbyrå (SSB – Statistics Norway), beer sales measured in pure alcohol made out 11 336 000 liters in 2016, outcompeting all alternative alcoholic beverage categories (Statistisk Sentralbyrå, 2017a). For comparison, the numbers for wine, hard liquor and alcopops were 9 469, 4 336 and 698 thousand liters, respectively (Statistisk Sentralbyrå, 2017a). Based on sales numbers for 2016, it can thus be stated that beer is the most popular alternative of alcoholic beverages in Norway, even in consideration of alcohol content (see Figure 1).



*Figure 1:* Sales statistics by alcoholic beverage category, quarterly, measured in 1000 liters of alcohol. Color chart translation from the left: Hard liquor, wine, beer, alcopops. Reproduced with permission from Statistisk sentralbyrå - www.ssb.no (*Statistisk Sentralbyrå*, 2017b).

### 2.4 Product category - Beer

Beer is the beverage category in focus in this thesis, and because the large majority of beer is sold in the distribution channel category labeled *grocery/own outlet*, it will be assumed going

forward, where necessary, that the discussion is oriented to address this category. Such a simplification is assumed helpful for more than one reason. For example, because of the restrictions on allowed alcohol content of beverages sold in stores, products will be more similar on this attribute, making them more easily comparable. Furthermore, because of the restricted access for Norwegian consumers to information or marketing communication related to beer brands, it is expected that the average consumer will be more familiar with brands offered in stores. This is simply because it is assumed that consumers on average enter grocery stores more often than the alternative distribution channels discussed previously, and thus will have observed brands offered in grocery stores more often than the anternative distribution channels discussed previously.

Moreover, within the beer category, there are several subcategories or types of beers, including, but not limited to lagers, porters, stouts, and bitters (CAMRA, u.d.). There is no single official classification of beer types (Norske Ølvenners Landsforbund, u.d.), although the various styles can vary on several attributes, such as color, taste and basic ingredients used in manufacturing (The Brewers of Europe, u.d.). *Lagers* cover the most popularly consumed types of beers globally, and according to BROD, this is the most widespread beer type in Norway as well (Bryggeri- og Drikkevareforeningen b, u.d.; The Brewers of Europe, u.d.).

#### 2.4.1 Norwegian beer history and recent trends

Although it is not exactly certain when beer was first consumed in Norway, it has long had a pivotal role in Norwegian culture, and is even mentioned in Norse mythology (Trollsås, 2010). Beer can be said to have been institutionalized from an early age. An example of this is that brewing beer in relation to celebration of the solstice was compulsory for farmers in certain jurisdictions, specifically on the west coast of Norway, and possibly as early as before year 930 (Trollsås, 2010; Øystå, 2009; Norseng, 2017).

Furthermore, beer has had its place in social life in general, and was for example used symbolically in association with family events (Øystå, 2009). Prohibition of liquor and beer was introduced at the break of the first World War, and was not abolished until 1927, which, much like present-day restrictions, led to consequences such as increased smuggling (Tvedt, 2017). With the industrial revolution, and technological developments specific to the brewing industry, the industry has been allowed to grow larger, and over time large-scale production has emerged (Trollsås, 2010).

#### 2.4.2 Types of breweries

In addition to the different subcategorizations of beer, breweries too are labeled with different types of categorizations, depending for example on production quantity. One of the most used present-day labels for breweries is *micro*brewery, and although the term is not uniformly defined, it has traditionally described small-scale breweries with a low production scale (Thurnell-Read, 2014). Similar terms include *craft* brewery, and according to Brewers Association, "an American craft brewer is small, independent and traditional" (Brewers Associations, u.d.). Although the relevant market is not American - and definitions of what a *small* brewer is, differs from market to market - this definition illuminates the idea of craft brewery further. The Brewers of Europe mention that microbreweries produce "solely for the local community", in contrast to large breweries (The Brewers of Europe, u.d.). The latter, then, describes mass-production for national consumption or export (The Brewers of Europe, u.d.).

There does not seem to be a national definition of brewery categories in Norway, however BROD use the general term *small scale* breweries, and state that the production interval for this group of breweries ranges from "a few thousand up to half a million liters annually" (Ramseng, 2016). Of their 102 members, 94 are described as small-scale breweries, and small-scale breweries on average are said to enjoy significant growth presently (Ramseng, 2016; The Nielsen Company (US), LLC, 2017a). Reported sales volumes show that in the past year, small scale production made up 10 394 347 liters, and although this is more than an 18% increase from the previous year, the volume is still less than a third of import volume, and less than 4% of the total sales volume of beer in Norway (Bryggeri- og Drikkevareforeningen a, u.d.). Thus, the part of the brewing industry that is not considered small-scale is still considerably more profitable, and should arguably not be neglected. This thesis will stick with the contrasted term *large scale* brewery to describe those breweries<sup>2</sup> that are not considered small scale by BROD definition.

<sup>&</sup>lt;sup>2</sup> It should be noted here that although the word *brewery* singularly describes a production facility (Merriam-Webster, Incorporated, u.d.), companies can own several breweries, and the same brewery can produce several different brands.

#### 2.4.3 Competitive situation

Although small scale breweries still do not measure up to the production levels of large scale breweries, the high number of market entrants of this type in recent years (Euromonitor International, 2016) could pose a threat to established, large-scale producers. Measures have already been taken by market leaders to counter the proposed threat of entrants, which will be elaborated in the brand-specific portion of this chapter. The market for beer has been on the rise since the alleviation of restrictions on alcoholic product information, however, some predict that lagers in the mid- and low-end of the price tier will experience decline in sales volumes going forward (Euromonitor International, 2016). This can be seen in association with changing consumer trends, such as increased curiosity regarding product variety (The Nielsen Company (US), LLC, 2017a).

In grocery, the market is dominated by a small group of players. That is, despite all the individual grocery chains, more than 95% of the market share was divided among three corporations in 2016; NorgesGruppen (42.3%), COOP (29.4%) and Reitangruppen<sup>3</sup> (24.4%) (The Nielsen Company (US), LLC., 2017b). Bunnpris accounted for 3.4% of the market share in 2016, and 0.1% by others (The Nielsen Company (US), LLC., 2017b). NorgesGruppen owns the grocery chains KIWI, MENY, SPAR and Joker (NorgesGruppen ASA, u.d.); COOP owns Obs, Extra, Coop Prix, Coop Marked, Coop Mega and Matkroken (Coop Norge Handel AS, u.d.); and Rema 1000 is the sole grocery chain owned by Reitangruppen (Reitangruppen, u.d.).

#### 2.5 Beer market leaders

Though there are no official lists disclosing the most sold individual beer brands in the grocery market, BROD states that Ringnes is the largest brewery, followed by Hansa Borg Bryggerier – the largest Norwegian-owned<sup>4</sup> brewery group operating in the market (henceforth referred to as Hansa Borg) (Nome, 2010; Nome, 2015d). In contrast, Ringnes has been wholly owned by Danish Carlsberg Group since 2004 (Ringnes a, u.d.; Ringnes b, u.d.). Total beer market shares by sales volume was 50% for Ringnes, and 25% for Hansa Borg in

<sup>&</sup>lt;sup>3</sup> Several articles seemingly refer to REMA 1000 as the corporate owner, although REMA 1000 states they are owned 100% by Reitangruppen (Rema 1000, 2013) (The Nielsen Company (US), LLC., 2017b) (Brakstad, Nederlag for Rema-Reitan, 2017a).

<sup>&</sup>lt;sup>4</sup> 25% of Hansa Borg is owned by Danish Royal Unibrew (Dalen & Lorch-Falch, Frykter bestevenn-avtalen svekker ølkonkurransen, 2017).

2015 (Euromonitor International, 2016), implicating that most of the market power lies with the top two players. The market leaders are each briefly introduced in the following.

#### 2.5.1 Hansa Borg Bryggerier

AS Hansa Bryggeri was established in Bergen on October 26<sup>th</sup>, 1891, and within the next year, the first product of the Hansa-brand was launched on the marketplace, namely Hansa Bayer (Hansa Borg Bryggerier AS, 2009a). With infrastructural national developments, Hansa Bryggeri grew by increasing its market reach prior to World War One, and increased expansion shortly thereafter (Hansa Borg Bryggerier AS, 2009a). Likewise, expansion continued in the years following World War Two, specifically thanks to technological developments in production, and in the years leading up to the millennial change, Hansa expanded production into new facilities (Hansa Borg Bryggerier AS, 2009a). Hansa Borg additionally restarted production in their original facilities in 2006 (Hansa Borg Bryggerier AS, 2010).

Over the years, Hansa Borg has expanded by means of mergers and acquisitions too (Hansa Borg Bryggerier AS, 2009c). The current name, Hansa Borg Bryggerier, comes from Hansa Bryggeri's merger with Borg in 1997, and 75% of Hansa Borg Bryggerier is currently owned by Borg Holding AS (Hansa Borg Bryggerier AS, 2009b). Christianssands Bryggeri (CB) has been part of Hansa Borg Bryggerier AS since 1999, and in 2013 Hansa Borg acquired the majority share of Nøgne Ø (Hansa Borg Holding AS, 2009c).

Hansa Borg's mission statement is to be Norway's most famous distributor of joy, enjoyment and taste (Hansa Borg Bryggerier AS, 2009f). Their three core values are *humans*, *brands* and *fun* (translated from Norwegian), which guide Hansa to focus on community, quality craftsmanship and job satisfaction (Hansa Borg Bryggerier AS, 2009f).

Hansa Borg list their product offerings by brand on their website, providing brief descriptions of each product, including percentage of alcohol, ingredients and recommendations for fitting food categories (Hansa Borg Bryggerier AS, 2009d). There are also product images for each offering. In addition to offering the corresponding brands of each brewery owned by Hansa Borg (Hansa, Borg, CB and Fredrikstad), they also have distribution rights for other beer, soda and energy drink brands, such as Heineken (Hansa Borg Bryggerier AS, 2009d).

#### 2.5.2 Ringnes

Ringnes Bryggeri A/S was established in 1899, and in 1978 it merged with Frydenlund Schous Bryggerier and Nora Fabrikker (Store Norske Leksikon, 2014; Ringnes a, u.d.). The parent company was titled Nora Industrier A/S, and made several acquisitions in the 1980s, specifically breweries, such as E.C. Dahls Bryggeri (Ringnes a, u.d.). In 1988, Ringnes AS was established, and all breweries operated by the parent company were organized under the Ringnes brand (Ringnes a, u.d.; Ringnes c, u.d.). The parent company became Orkla AS after a merger with Orkla Borregaard in 1991, and in 1995, Ringnes merged with Pripps, this time named Pripps Ringnes AS (Ringnes a, u.d.; Store Norske Leksikon, 2014). In 2000, Pripps Ringnes merged with Carlsberg, and in 2004, Carlsberg AS became the sole owner of Ringnes (Store Norske Leksikon, 2014; Ringnes a, u.d.). In present time, Ringnes employs approximately 1100 people, and has production facilities in four locations in Norway, their own distribution network and distribution channels with national coverage (Ringnes d, u.d.). Ringnes' headquarters are located in the capital city, Oslo (Ringnes e, u.d.).

Carlsberg Group's mission statement is "probably the best beer company in the world", and Ringnes' own values are said to overlap with those of Carlsberg Group (Ringnes b, u.d.). Ringnes state that their motto is "Semper Ardens" – *always burning* – which coincidentally is also a beer brand operated by the Carlsberg Group (Carlsberg Breweries A/S, u.d.; Ringnes f, u.d.). The motto is elaborated to stand for passion and willingness to take risk, and Ringnes state that this is how they "keep raising the bar" (quote translated from Norwegian) (Ringnes f, u.d.).

In addition to beer brands carrying the Ringnes name, Ringnes also distributes several other brands of beer, including Frydenlund, Carlsberg, Dahls, Brooklyn, Corona, Budweiser, Guinness and Stella Artois (Ringnes g, u.d.). In contrast to the beer product list provided on Hansa Borg's website, Ringnes provides a text-only list with titles of the respective brands they distribute (Ringnes g, u.d.).

#### 2.5.3 Recent developments and motivation

As can be gathered from the above, the Norwegian beer market is in the process of changing, in part due to changes in consumer trends and demand. The increase in curiosity, engagement and demand for product variance in beer observed in the market along the blossoming of small scale breweries has led to several product launches and acquisitions (Espeland &

Øvretveit, 2014). Examples include the launching of Hansa Borg's *Spesial* series, examples of which include types of IPA (Espeland & Øvretveit, 2014).

Although this thesis will be oriented towards brand image, it is important to mention some recent media topics which can have huge implications for the brand strategies of the top two players in the Norwegian beer market. The tremendous market power in the hands of the top grocery chains has recently delivered a destructive blow to Hansa Borg (among others), which stands to lose significant market share in its main distribution channel.

Rema 1000, experiencing tougher competition in the low-price segment of the grocery market, has initiated its so-called "best friend" strategy, which includes reducing offered brands and signing long-term contracts with suppliers (Andersen, Misje and Solberg, 2017). For the beer market, this means that brands previously offered nationally, including Hansa, Borg, CB, Mack and Aass, will only be offered locally where they were produced (Andersen et al., 2017). Many consumers have criticized the recent strategic changes, and despite launching several campaigns to compensate recently, Rema 1000 has taken some losses as a consequence (Dalen, 2017; Valvik, 2017; Brakstad, 2017b). Hansa Borg, which has warned employees of future downsizing, is losing market share to the advantage of the market leader, Ringnes, which reportedly has gained an even higher market share (Dalen & Lorch-Falch, 2017).

A deep analysis of the strategic situation of the grocery market is outside the task frame for this thesis, however, these recent changes should be kept in mind, and arguably increase the importance of questions surrounding the current brand equity of the brands in focus.

# **Chapter 3: Theoretical Framework**

# 3.1 Brand Knowledge

In his writings on the topic, Keller (1993, p.1) defines customer-based brand equity as "the differential effect of brand knowledge on consumer response to the marketing of the brand". This definition argues that the equity of a brand is mediated by the knowledge of the consumer. This is because it is expected that the reaction to a given marketing mix element might differ when the consumer has knowledge about the brand, compared to when the brand is unknown or fictitious (Keller, 1993). Thus, in order to understand the differential effect that might be produced from marketing activities - that is, what actually happens when consumers think about a certain brand - it is essential to understand brand knowledge and its components.

In Keller's (1993) conceptualization of customer-based brand equity, brand knowledge is made up by two main components; *brand image* and *brand awareness*, which in turn are influenced by several respective factors. It is advantageous to explain these main components and the factors that influence them before moving on.

#### 3.1.1 Brand awareness

Brand awareness relates, as the name suggests, to the degree to which a brand (e.g. in the form of a name) is likely to enter a consumer's mind (Keller, 1993), and may influence consumers' attitudes, choice and loyalty (Aaker, 1996). Brand awareness, in turn, depends on two factors; *brand recognition* and *brand recall* (Keller, 1993). Brand recognition describes the situation in which a consumer is capable to determine, based on a brand-related que, if he or she has been exposed to the brand previously (Keller, 1993). In simpler words; does the consumer recognize the brand?

On the other hand, brand recall describes a situation in which the consumer is able to summon a brand name when only inquired about e.g. product category, i.e., despite the lack of a brandspecific que (Keller, 1993). The latter thus concerns whether a consumer is able to retrieve a brand from memory, based solely on a specific context. Aaker (1996) adds four other aspects of awareness; top-of-mind; brand dominance, brand knowledge (not to be confused with Keller's concept of brand knowledge) and brand opinion. This thesis will stick with Keller's framework, but it is important to mention that top-of-mind means a brand is the first one recalled by consumers, and is an especially important goal for distinguished brands (Aaker, 1996).

#### 3.1.2 Brand image

Keller (1993, p. 3) describes the term *brand image* as "perceptions about a brand as reflected by the brand associations held in consumer memory", and continues to say that *brand associations* are "the other informational nodes linked to the brand node in memory and contain the meaning of the brand for consumers". Informational nodes are explained in subchapter 3.1.2.1.

Despite brand image being such an integral part of the brand equity concept in this framework, Teichert & Schöntag (2010) point out that it must be seen and treated as one entity, making tasks of analysis challenging. Keller (2003b) too underlines that a consumer's brand knowledge consists of a copious number of dimensions which develop over time, highlighting the necessity of a wide perspective.

The higher the number of brand associations in an associative network, the more easily the brand image is retrieved from the consumer's memory (Teichert & Schöntag, 2010). Before further elaboration, the division of primary and secondary associations should be pointed out: while the former is synonym with the above given definition, *secondary* associations are those that are linked to a primary association, but not the central (brand) node itself (Keller, 1993). Brand associations can be of different types, and each of them are evaluated on three dimensions: *favorability, strength* and *uniqueness* (Keller, 1993). Before delving into association types in the consumer-based brand equity framework, a brief introduction to the concept of associative networks can be helpful in providing deeper insight.

#### 3.1.2.1 Associative Networks

As is argued, brand knowledge is of utmost importance in the field of marketing, and because knowledge is stored in memory, theory regarding memory can be useful to illustrate phenomena of interest. Brand associations were defined initially as informational nodes linked to the brand node. A node in this context is a basic unit of information, and can be of different types, depending on the type of stimuli input it stems from (Teichert & Schöntag, 2010).

The different types of stimuli, which are often nonverbal, are processed in different areas of the brain, and thus nodes must be linked together with the same node to form a basis for awareness via a network (Teichert & Schöntag, 2010). When outside information is being processed, or stored information is recalled, a node can potentially activate other linked nodes, which is termed *spreading activation* (Anderson, 1983; Keller, 1993).

This activation is contingent upon the *strength* of the link between the nodes, and when a node's association to another is sufficiently strong, the information from the other node is recalled (Keller, 1993). The strength of a node link is determined by the activity of a node, i.e. how often it is thought about, and the fashion in which the information is thought about (Teichert & Schöntag, 2010; Keller, 1993).

Another dimension on which associations are evaluated, is their *favorability*. Associations a consumer has toward a brand, can vary in terms of being positively or negatively perceived, and to which degree (Keller, 1993). Related to this, Keller (1993) underlines that attributes are only probable for evaluation if they are deemed important in the relevant *context*, because positive brand associations are created upon a perception that a brand *does* possess those that fill the consumer's (relevant) needs. Thus, the value *and* importance to the consumer determine an association's favorability (Keller, 2003b).

In the CBBE framework, *uniqueness* is the third dimension for evaluation of brand associations. This evaluation is perhaps self-explanatory, and closely linked to the term *unique selling proposition*, as explained by Reeves (1961). He argues that a brand must be unique in either its offering or its communication thereof, and thus that the proposition must be made by none other (Reeves, 1961). He proposes other criteria, which are covered in the current framework, however, it becomes clear that *uniqueness* is a quality that is imperative for a brand to be selected over a competitor. Keller (1993) confirms that unique associations can stem from all types of attributes and benefits (explained in the next subsection).

To summarize in the context of the memory network described above, Keller (1993) proposes the idea that brand knowledge is made up of a node with association (connections) to other nodes, where the central node is simplified to be thought of as the brand name. The brand name, or other nodes in the network can thus be activated by external stimuli (Anderson, 1983), such as visual cues observed in an advertisement. Keller (2003b) specifically points out that the three criteria for evaluating associations are relevant in the specific order in which they were presented in the current text, and that they influence greatly the potential consumer response mentioned in the definition of brand equity (Keller, 1993).

#### 3.1.2.2 Association types

Keller (1993) categorizes brand associations into three groups: *attributes*, *benefits* and *attitudes*. Attributes are the characteristics that portray a product or service, but as perceived from the perspective of the individual consumer (Keller, 1993).

#### 3.1.2.2a Attributes

Attributes can be further divided into groups, such as *product-related attributes* and *non-product-related attributes* (Keller, 1993). The former represents the set of attributes that consumers view as minimum requirements for a certain product or service to belong in a specific category, that is, the functionality and/or design must satisfy some key criteria to be accepted in consumer minds (Keller, 1993). The latter group of attributes have later been referred to as *extrinsic properties* (Keller, 2003b), and relate to all those features that are not product or service specific, but rather types of attributes that can be generalized to describe any product or service.

Keller (1993) states that there are four main types of these extrinsic attributes; *price information*, *product appearance information*, *user imagery* and *usage imagery*. Each of these types will be further explained in the following.

Price is an important area of research in many fields, and has several important implications in the field of marketing as well. For example, significant differences in prices have been observed between national brands and private labels, indicating a clear grouping of products depending on their price-levels (Blattberg & Wisniewski, 1989). This grouping of price-levels is labeled *price tiers*, and is of importance in the context of brand image because it can affect consumers' perceptions of quality (Blattberg & Wisniewski, 1989). Also, such tiers have strategic implications due to asymmetries regarding which tiers sales flow to and from (Blattberg & Wisniewski, 1989). In close relation to this, Aaker (1996) points out that price premium, i.e. the price a consumer is willing to pay for one brand's product as compared to a competing product alternative, may be the most valuable measure of brand equity.

The next category, product appearance information, is, as the name implies, associations that consumers derive from the way a product has been wrapped, i.e. the design of the package. As Keller (1993) points out, price and packaging information does not usually influence directly the utility of a product. Yet, product appearance may be integral to capturing consumers' attention (Underwood, Klein and Burke, 2001), and they are in many cases biased towards relying on extrinsic signals in determining an item's quality (Richardson, Dick and Jain, 1994; Creusen & Schoormans, 2005).

Moreover, an important practical trade-off to keep in mind is that product packaging not only has aesthetic implications, but also influences the logistics in the marketing of a product (Rundh, 2009). Furthermore, Rundh (2009) underlines the importance of product appearance

as a marketing tool, because it is oftentimes the final signal communicated to the consumer before a purchase decision is made. It is generally acknowledged that it can influence perceptions of a product's quality and even increase likeliness of purchase (Creusen & Schoormans, 2005). Thus, it is presumably even more important when traditional marketing communication is restricted.

User imagery and usage imagery are attribute types which are closely linked to the *brand personality* construct; the "set of human characteristics associated with a brand" (Aaker, 1997, p. 347). In fact, Aaker's (1997, p. 348) definition of user imagery is almost identical; "the set of human characteristics associated with the typical user of the brand". Such imagery may stem from elements such as a user's gender, ethnicity, salary, political attitudes etc., either through a consumer's own observation of a user of the brand, or through information collected externally, for example marketing communication (Keller, 1993). Inversely, the image consumers have of themselves, or desire for themselves, affects their behavior and decisions in relation to brands (Wang & Tang, 2011). Clearly then, user imagery is the *perception* of who typically uses the brand. Similarly, usage imagery is the associations linked to the *context* of use, e.g. *how, when, why* and *where* a brand is purchased or used, and these associations arise in much the same way as those of user imagery (Keller, 1993; Keller 2001).

#### 3.1.2.2b Benefits

The next category of brand associations are *benefits*, which is the valuable outcome that consumers connect to the use of a brand (Keller, 1993), that is, what the consumers believe customers get out of a product or service offering. Such benefits are further divided into three types; functional, experiential and symbolic (Keller, 1993). There are many examples of brands which offer more than one single type of benefit, but the more complex the brand concept is, the more challenging it is to manage (Park, Jaworski and MacInnis, 1986). This is partly due to the obscurity that might arise among consumers in regard to the brand meaning.

The three benefit types each satisfy some corresponding types of needs, which initially motivate the search for products or services with the sought benefit (Park et al., 1986). It is useful to give an overview of the needs groups in the current framework that drive the search for corresponding benefits, before describing the latter in detail.

#### Functional, symbolic and experiential needs

Hoyer MacInnis and Pieters (2013, p. 49) describe a need as "an internal state of tension caused by disequilibrium from an ideal or desired state". As evident from this definition,

needs motivate a desire to ease such tensions. Hoyer et al. (2013) separate them into three types; *functional, symbolic* and *hedonic* needs, and they furthermore separate between them, depending on whether they are socially oriented or not.

All humans have some universal needs, including physical and psychological, that require satisfaction in the interest of personal health (Deci & Ryan, 2008). One well-known theory about such needs summarizes that occurring needs normally grow from satisfying more pressing needs, and that behavior is motivated by more than one single thing (Maslow, 1943). From this, one can infer that needs consist of a complex and dynamic system. However, because this thesis is written in a marketing-perspective, with the goal of illuminating some connections between theory and practice, the focus will remain limited to the types of needs that can be helpful to understanding the following, and in accordance with the customer-based brand equity framework.

Functional needs are those that drive the quest for obtaining products or services that are designed to resolve or prevent problems related to consumption (Hoyer et al., 2013; Park et al., 1986). To use a relevant example, a consumer may purchase a beer because he or she is thirsty, and has a need to quench said thirst with a liquid.

Symbolic needs are closely linked to perceptions in that they account for the way individuals desire others to perceive them, and how they perceive, or wish to perceive themselves (Hoyer et al., 2013). The individual's self-perception is very much in focus here, and these needs relate e.g. to defining one's identity and role (Hoyer et al., 2013). To illustrate, if a consumer's friends all consume the same brand in a given product category, a need to symbolize conformity might awake in the consumer, leading him or her to purchase the same brand as the friends. The act of consuming brands with the intention of acquiring social status or esteem is termed *conspicuous consumption* (synonym with *status* consumption) (O'Cass & Frost, 2002).

Hedonic needs relate to sensory stimulation, that is humans' desires for experiencing pleasure through for example sexual activity, intellectual stimulation or other sybaritic activities (Hoyer et al., 2013). The terms *experiential* and *hedonic* describe the same phenomenon in this context, and in the interest of presenting theory consistently, this thesis will utilize the former in accordance with the current consumer-based brand equity framework.

#### Functional, symbolic and experiential benefits.

Related to the product-related attributes described previously, functional benefit is the utility which a customer derives from the use of a given product, and is often rooted in the intrinsic attributes of the given product or service (Keller, 1993). To stick with the example used about functional needs, the beer that was drunk by the thirsty consumer could have more than one benefit. If the beer contains alcohol, for example, drinking it could also provide the consumer with the function of intoxication. Furthermore, if the beer is cold, it can even provide a (perceived) cooling benefit to the consumer.

Experiential benefits are those that satisfy the need for pleasure (Keller, 1993), which were described previously as hedonic needs. Although the current presentation divides benefits into three broad categories, it should be noted that benefits can sometimes be challenging to categorize, and may to an extent overlap. To illustrate, Schmitt (1999) argues that marketers should focus more of their communications on consumers' experience, and distinguishes five sub-categories of experience: *sensory, affective, creative cognitive, physical/behavioral* and *social-identity by affiliation*. The latter category is said to contain elements from all the above, and connects to consumers' need to be favorably recognized by others (Schmitt, 1999). Experiencing affiliation could also be interpreted as filling what was described above as a *symbolic* need, and therefore indicates the potential for benefits to overlap categories. With this point in mind, this thesis will stay true to Keller's categorization of benefits.

Symbolic benefits are the extrinsic gains a consumer (usually) receives through the exterior properties of a product or service (Keller, 1993), related to the previously mentioned extrinsic attributes. Specifically, user imagery is said to be an important driver of brand personality (explained in chapter 3.2), which in turn plays an important role in providing a symbolic benefit by allowing the consumer to communicate his/her own identity (Aaker, 1996). O'Cass & Frost (2002) find support for the notion that congruency between consumers' self-image and the perceived brand image influences the status they attribute to the brand. Moreover, they state that as the perception of a brand's degree of symbolism increases, the stronger are the favorable emotions linked to it (O'Cass & Frost, 2002).

#### 3.1.2.2c Attitudes

The final type of associations in the current framework, attitudes, are significant because these often influence the real-life choices consumers make (Keller, 1993). They also influence

consumers' thinking and feelings, and can be defined as "an overall evaluation that expresses how much we like or dislike an object, issue, person or action" (Hoyer et al., 2013, p. 128).

It is important to note that attitudes are not congenital, but rather acquired, either via external information sources (such as through marketing communication), or by means of personal experience (such as gaining brand experience by consuming a product) (Lutz, 1991). It is then apparent that attitudes toward a brand can also be influenced by sources external to both the brand and the self, such as competitors or peers. Depending on the effort required in thinking about an issue, consumers form attitudes either by central-route processing or peripheral-route processing (Hoyer et al., 2013). A brief elaboration on this is relevant.

The allotted amount of effort to making a purchase decision varies between consumers and products, and most often consumers have restricted motivation, ability or opportunity to adopt to market information, resulting in *low-effort* attitude (peripheral) formation, that is, based on easily perceived brand cues (Hoyer et al., 2013). In contrast, if consumers assert *high effort* in processing and evaluating market information, attitude is formed by central-route processing (Hoyer et al., 2013).

Furthermore, Lutz (1991) elaborates that because attitudes are unobservable, they cannot be proven to exist, though he argues that attitudes are useful as a theoretical concept for marketers to understand consumer behavior, because attitudes are forerunners to action. Attitudes are complex and dynamic, and they can vary in terms of certain characteristics. The main dimensions that can be used to characterize an attitude are its favorability, accessibility, confidence, persistence and resistance (Hoyer et al., 2013). Related to this, attitudes' influence on consumer action is more easily predicted e.g. when the attitudes are easy to remember, reinforced over time, confidently held, and the consumer feels an emotional connection to the brand (Hoyer et al., 2013).

### 3.2 Brand identity and personality:

Now that the concept of customer-based brand equity and its main components as proposed by Keller (1993) have been presented, there are a few more image-related concepts that are useful to explain, namely *brand identity* and *brand personality*. In the same way that brand image represents the *perceived* image in the consumers' perspective, brand identity represents the supplier side of image, and thus describes the *sought-after* image that marketers desire for their brand (Kapferer, 2008). That is, brand identity describes how the brand manager wishes for a brand to be perceived by consumers, and it intends to carry the meaning and goals of the brand (Kapferer, 2008).

Kapferer (2008) presents in his brand equity model the *six facets of identity*, and although it is considered superfluous to thoroughly present all of them here, it must be mentioned that one of these is *personality*, elaborated in the next paragraph. Keller (2001) describes the creation of brand identity as the first of four steps to building a strong and profitable brand. In this framework, brand identity is seen in conjunction with parts of brand awareness, and he argues that part of brand identity involves consumers' ability to connect a brand to different categories and contexts (Keller, 2001).

In describing user and usage imagery, the topic of *brand personality* was briefly touched upon because of its very similar definition; "the set of human characteristics associated with a brand" (Aaker, 1997, p. 347). Brand personality is said to most often stem from conclusions made about users or usage situation, but can also illuminate emotions aroused by a brand (Keller, 1993). Furthermore, brand personality involves more plentiful and contextual messages than user imagery does (Keller, 2001). Aaker (1997) argues that brand symbolism is possible because of the phenomena of attributing human traits to brands, and much like with humans, marketers can achieve long-lasting and recognizable personality traits for brands. To exemplify such traits; a consumer could hypothetically perceive a beer brand to be sophisticated.

Although Aaker (1997) claims that her proposed framework is applicable to brands of all product categories, it should be mentioned that it has been critiqued for not being globally pertinent (Teichert & Schöntag, 2010), though the conceptualization is useful for the purposes of understanding brand image. As Teichert & Schöntag (2010) point out, it is imperative to separate the concept of brand personality from the broader brand image, as the former links human personality traits and does not permit as nonconcrete descriptions as the latter.

## **3.3 Brand Strategy**

This chapter has reviewed some of the most central elements of brand equity, specifically by utilizing Keller's (1993) original conceptualization. The goal has been to provide a theoretical framework which can facilitate a deeper understanding of what brand image is, how it is created, and how it influences consumer thinking and behavior. In this final subchapter, the importance of brand equity for marketers will be touched upon, and some relevant examples of tactics which can be implemented in branding will be presented briefly.

In the initial definition of brand equity, it was described as a differential effect. This differential effect should be elaborated. Achieving high brand equity entails several positive outcomes for brand owners, including increased customer loyalty, consumer preference, purchase intentions, a more robust strategic position in the market, higher profit margins, lower price elasticity for price upturns and vice versa, and many more (Keller, 2003b; Cobb-Walgren et al., 1995).

Because brand image is made up of brand associations, a huge part of marketers' responsibility thus lies in creating and maintaining the associations that are deemed appropriate in relation to generating the desired brand image. Although Keller (2003b) maintains that this is auxiliary to traditional marketing communications, their priorities are understood to be opposite in this paper due to the marketing restrictions explained initially.

The associations which marketers select and maintain for a specific brand, dictate how it is presented to consumers, and they consequently perceive the brand to exist within a certain context (Keller, Sternthal and Tybout, 2002). This process is termed *brand positioning*, and can be seen in conjunction with the association evaluations described in chapter 3.1.2.1, as it is an evaluation of a brand's context relative to others in the same category (Keller et al., 2002). To explain, for a brand to be perceived by consumers to belong in a certain context, it must fulfill some basic criteria called *points of parity*, on which the brand must perform adequately relative to the competition (Keller et al., 2002).

However, if the brand does not also possess some *point of differentiation*, it will not be evaluated as unique, and thus not stand out against competing brands (Keller et al., 2002). Kapferer (2008, p. 178) describes the goal of positioning as "to identify, and take possession of, a strong purchasing rationale that gives us a real or perceived advantage". The process of positioning can be summarized as a four-point checklist, in which the answers to four questions dictate the basic elements of the selected positioning strategy: 1) how does the brand benefit consumers; 2) whom is the brand for; 3) how is the benefit guaranteed; 4) whom does the brand compete against (Kapferer, 2008)?

There are many alternative positioning strategies marketers can follow. For example, Teichert & Schöntag (2010) find in their study that a brand can successfully differentiate itself by changing category-specific associations into brand-specific associations. Presumably, accomplishing such a differentiation would bring the respective brand closer to being considered top-of-mind, and there are several practical examples of brand names used in place

of a product category (e.g. Thermos and Xerox are both brand names which are often used to describe a product category in everyday language) (American Heritage® Dictionary of the English Language, Fifth Edition, 2016a) (American Heritage® Dictionary of the English Language, Fifth Edition, 2016b). Park et al. (1986) emphasize the importance of managing a brand's image by making sure that it is congruent with long-term goals, and in line with the knowledge consumers already have about the brand.

One marketing tactic closely related to associations, is *leveraging secondary associations*. Leveraging secondary associations entails connecting the brand to other entities than its own associated brand elements, and by doing so, exploiting a beneficial consumer perception that could have alternatively been challenging to generate (Keller., 2003a). This is done by establishing a connection between the brand and for example a person, a specific geographic location, another brand and so forth (Keller, 2003a). According to Kapferer (2008), alcoholic brands often utilize strategies based on location.

To delve deeper, oftentimes brands refer to e.g. their country of origin to leverage whatever consumers associate with it, because the brand managers desire those associations for their own brand (Keller, 2005). One very simple measure that can be taken in this respect, is to incorporate the country name in the brand name. By doing this, brand managers seek to enhance their brand's image, however, because the externally leveraged associations are outside of their control, there is more risk involved in using such a tactic, and unwanted effects too may appear once a connection is established (Keller, 2005).

Relating to the subject of brand identity, Urde, Greyser and Balmer (2007) call attention to the importance of a brand's history in relation to its identity, and elaborate further how a brand can gain advantage in the marketplace by illuminating its own heritage as a point of differentiation. They describe brand heritage as an asset which can be gained and leveraged in several ways, for example by means of brand acquisition (Urde et al., 2007).

Kapferer (2008) also points out that brands can take advantage of their origins, and specifically points out that this is can be critical for alcoholic brands in establishing identity. Besides country of origin, marketers can emphasize the connection between the brand and its distribution channels or specific events, and for the product category currently in focus, events such as festivals seem to be particularly popular entities for marketers to utilize (Roskilde Festival, u.d.; Øyafestivalen 2017, n.d.; Heineken, © 2015; Bergenfest, n.d.).

An important reason for why leveraging secondary associations can be effective, relates to what was discussed in relation to attitude formation in chapter 3.1.2.2c. Brands can be heuristic cues used to make purchase decisions, especially in situations with low involvement (Keller, 2003a). That is, when the devoted effort to analyzing marketing information is low, consumers may make assumptions based on relatively scarce information and rules of thumb (Hoyer et al., 2013).

One such example includes the *truth effect*, whereby consumers infer a message to be true merely based on its repetition (Hoyer et al., 2013). Another similar example is the *mere exposure effect*, which is when the liking of for example a brand is higher solely because of previous exposure - that is - simply being familiar with a brand makes it more likable (Harrison, 1977). This effect is observed even when the consumer cannot remember the previous exposure (Janiszewski, 1993). This argues that even brands that are restricted from conducting traditional marketing activities, can reap benefits by means of strategic decisions, and thus must also pay attention to maintaining a desirable brand image.

## **3.4 Hypotheses**

To provide goal-oriented answers to the research questions, two initial hypotheses to be tested are developed in the following. At this early stage, little was known about exactly which types of associations were most important to the differentiation of the respective brands, however, based on the background information and theoretical framework, it was assumed that associations perceived as unique would be suitable to clearly differentiate a brand, and also that they would have the potential to be relatively salient in the memory of consumers. Due to the scarcity of information about consumer knowledge, the researcher instead addressed the brand owners' websites, and searched for mission statements and any other information about values and goals which could indicate the brand identities – i.e. the light in which the brands are sought seen. A minor contrast was discovered between the outward communications in this regard, which was followed up on in initial hypothesis development. Please note that in subchapter 4.2.8 the hypothesis set was extended, based on new information from the pilot study.

#### Hypothesis 1: Unique sports association

As mentioned in the theoretical framework, brands can develop their brand image by establishing connections to other entities. Specifically, associations selected by marketers in communication can form the perceived context within which the brand is perceived to exist,

making up an important part of its positioning. As presented in chapter 2, Hansa Borg's web page states that they sponsor Sportsklubben Brann and other sports teams and events. In comparison, no information about sponsorship of sports teams is found on Ringnes' web page. If such a connection is successfully established for one of the brands and not the other, positive associations linked to the external entity could also be beneficial to the brand to which it is associated, giving it an advantage over competitors. Research on event marketing has previously found that it contributes to brand equity and its subdimensions (Zarantonello & Schmitt, 2013). Based on this, the following hypothesis is proposed:

# *H*<sub>1</sub>: Consumers associate Hansa more highly than Ringnes with a specific sports team.

This hypothesis may seem almost too specific at this early stage. The focus of the search here is not necessarily *which* specific sports team consumers associate either brand with – what is important initially, is to determine whether consumers do in fact recall such operationally unrelated entities, based solely on the brand. If so, it could relate to a point of differentiation, and there is reason to assume secondary associations in the sports context do exist, and to investigate the context further in relation to e.g. usage imagery. Thus, if a statistically significant difference is found between the brand conditions, the association will be assumed to be a relevant driver of brand attitude for Hansa, a relationship which will be more closely analyzed following hypothesis testing.

#### Hypothesis 2: Unique heritage association

Some of the information available on the brands' web pages was presented in chapter 3. In addition to what was mentioned, Hansa also presents its sponsorships relating to culture. Some examples of well-known festivals and concerts are mentioned on the web page, and the congruence between the brand's products and the festive context of the respective events is subtly pointed out in this section. The aforementioned point may arguably influence consumers' perceptions toward a stronger belief that Hansa is congruent with festive contexts in general, and the sponsored events specifically. Such perceptions could not only give the brand an advantage of relevance in certain contexts, but also leverage some positive associations consumers might have to external entities such as festive and cultural events.

In addition to emphasizing its long-running traditions and support of local cultural activity on their web page, the Hansa brand is believed to emphasize its cultural heritage and history by leveraging secondary associations to its brand name. From this, the following is hypothesized:

# H<sub>2</sub>: Hansa is perceived to have a unique heritage to a higher degree than *Ringnes.*

The underlying assumption of the hypothesis is that, if a differential response on the basis of the brand name is observed, then it is connected to a deliberate marketing strategy, and has important implications for the marketing of those brands (Zarantonello & Schmitt, 2013). Thus, if a statistically significant difference is found between brand conditions, it will be assumed going forward that the association is a relevant driver of brand attitude, and the relationship will be more closely analyzed.

# Chapter 4: Methodology

# 4.1 Research overview

In this chapter, the choices made throughout the research process will be presented, along with explanations of the reasoning behind them. Once the overall logic of the research and the interconnection between its respective parts have been presented, each process will be elaborated separately, including discussions of validity and reliability, followed by the respective results of each study.

## 4.1.1 Research approach

Saunders, Lewis and Thornhill (2009) explain that an important research decision that must be made is the research approach, i.e. which direction the research path should take when it comes to the use of theory. There are two options: *deduction* and *induction*; the former means testing theory, and the latter means building theory (Saunders et al., 2009). This research seeks to ultimately test some hypotheses based on marketing theory, and thus utilizes the *deductive approach*, which is characterized by developing theory, deducting hypotheses from said theory about the relationship between some operationalized variables, and then analyzing and interpreting the results in light of the initial theoretical framework (Saunders et al., 2009).

However, Saunders et al. (2009) argue that it is possible for the research to combine the approaches, and that doing so may be advantageous for example when the researcher has inadequate information to form hypotheses. This was the case in the current research, because there was a need to learn more about consumers' knowledge about the researched brands to generate more precise and brand-specific hypotheses. Related to this, there was also a need to gain a better understanding of how to operationalize variables and formulate questions for data collection. Thus, the research approach taken in the current research utilizes elements from both deduction and induction.

# 4.2 Pilot study

This chapter will provide an overview of the pilot study by explaining its purpose, the approach taken to conduct the research, and how the data was collected and systematized. The findings from this study were used for the main study, specifically to develop reasoned hypotheses, and were summarized in chapter 5.1.

### 4.2.1 Research purpose and approach

The purpose of conducting a pilot study, was to gain some important insights about the subject in focus. Thus, this phase of the study was *exploratory* in nature. Exploratory research can be an effective means to sharpen one's understanding of a problem (Saunders et al., 2009). To gain some insight, and thus successfully develop useful hypotheses about the respective brand images of the brands in question, it was necessary to conduct some exploratory research of limited scale.

A specific goal of conducting the pilot study was to elicit as many primary and secondary associations as possible from respondents. Such associations would be helpful to gain a better understanding of the current brand images of the respective brands, and perhaps other insights about the product category. Thus, the intention was not to outline a comprehensive associative network map for each brand.

Furthermore, the next planned step was to examine the associations to look for patterns of consistency (e.g. the frequency of any one reported association, large variations etc.). Additionally, any differences between the two brands in reported associations or other patterns would be of interest, as they could indicate specific points of differentiation between the brands. Thus, the goal of the pilot study was to explore consumers' knowledge about the brands, gain an understanding of how the two brand images might differ, and develop hypotheses about their relative positions in the marketplace.

## 4.2.2 Pilot study design

The term *qualitative* refers to non-numerical data, it's use, or the methods used to generate such data (Saunders et al., 2009). In this early stage of researching the respective brands' images, it was deemed necessary to gain a deeper understanding of consumers' thoughts about the brands. Such information could not easily be gained by means of quantitative methods, because the appropriate variables to be measured were unknown at this stage. Therefore, subjects' associations to the brands were an appropriate theme to investigate qualitatively to further develop an understanding of their overall impressions.

Because associations were the focus of the study, Supphellen's (2000) guidelines for in-depth elicitation were of utmost relevance in outlining the research design. He argues that associations can be challenging to draw out, and thus proposes techniques for overcoming specific difficulties that encompass this task (Supphellen, 2000). For example, he argues that associations stored in memory have elements of different types (e.g. visual and verbal), and

that the respective modes should not be neglected in their search, as it may lead to an incomplete understanding (Supphellen, 2000). This section will not discuss in detail the points made by Supphellen, but it should be clear that these principles and guidelines were thoroughly considered during planning of the research process.

Saunders et al. (2009) describe an interview as a determined conversation between at least two people, which can be useful to collect primary data, and furthermore specify that this may be particularly useful in the process of developing research questions. Moreover, interviews are often categorized in research to be either *structured*, *semi-structured* or *unstructured*, describing the degree to which the conversation is formalized (Saunders et al., 2009). In semi-structured interviews, a pre-determined list of questions or topics to be discussed guide the conversation, however, the conversation may deviate from the planned path, for example when the interviewer asks follow-up questions to a given statement (Saunders et al., 2009).

Saunders et al. (2009) point out that semi-structured interviews can be used to seek out the appropriate questions to ask in a questionnaire, and that they are especially relevant when the purpose of the research is exploratory. Due to the somewhat taboo character of the product category, and the expected personal nature of responses, a threat of self-censorship was assumed existent. Additionally, there was a desire on the researcher's part to receive detailed and reasoned answers to open-ended questions. For these reasons, it was decided to conduct the pilot study in the form of one-on-one, semi-structured interviews. This also allowed the interviewer to assure interviewees of their anonymity (Saunders et al., 2009). Furthermore, personal interviews allowed more flexibility in favor of respondents, for example in the way of letting them take their needed time to respond sufficiently.

It was decided that the *free association* technique (i.e., respondents list freely any associations that come to mind immediately following a brand cue), would be included as the first technique used in the interview. The reason for having this technique in the very beginning was to avoid influencing the respondents in such a way that responses could originate from other salient cues than those of the brand itself.

A verbal cue, i.e. stating the respective brand names, was deemed the most natural to use in a one-on-one, verbally conducted interview. Moreover, to maximize the effectiveness of the initial brand cue, and thus maximize the evoked associations, it was decided to combine the verbal cue with a visual cue. Supphellen (2000) argues that real stimuli (in the form of brand elements) are especially suitable to evoke sensory associations.

It was decided to present to the respondents three product examples of the relevant brand lines. Using a single product example for each brand line could have resulted in respondents focusing too much on the specific product, instead of the brand itself. This motivated the use of several examples, combined with a verbal statement of the brand in focus. Other visual techniques were predicted to either be too simplistic to provide sufficient response alternatives to respondents, or too complex to be an effective means to the goal of the pilot study.

The interviews were designed so that the free association task responses, once all were given, would receive follow-up questions aiming to elicit secondary associations to each of the given primary associations (since primary ones were expected to be more similar). This technique of asking follow-up questions is often referred to as *snowballing* (Supphellen, 2000), and was used to understand more broadly the brand associations and their contexts.

Because free association techniques potentially can yield very different and unstructured types of answers, there was also a need to ask questions of a more structured nature to ensure that several types of brand associations were discussed. Specifically, questions pertaining to perceived benefits, non-product-related attributes and favorability and uniqueness of associations were found to be of relevance, and included in the interview guide (see Appendix A).

Also, one question using object-projective technique was included as the final brand-related question of the interview, as an instrument to probe for any unreported or unconscious associations (Supphellen, 2000). Many questions utilized person-projective techniques in their formulation. That is, they were asked in third-person; urging responses on behalf of a peer group, as suggested by Supphellen (2000). The aim of this was to overcome issues of self-censorship stemming from social desirability bias (Fisher, 1993).

Because self-censorship was perceived to be a threat of considerate relevance to the responses gathered in the interview process, it was decided to give respondents several assurances of anonymity. This was done by e.g. verbal assurance and provision of a private area to conduct interviews without interruption.

## 4.2.3 Sample selection

Although the population sought studied in the main study was the Norwegian population in general (except those who are prohibited by law to drink alcohol), it was not necessarily imperative for the pilot study to use a sample perfectly representative of the population.

Rather, it sought respondents knowledgeable about the brands, the product category and usage context. In selecting participants for the pilot study sample, brand recognition was the number one criteria, because it was assumed that respondents could not possibly generate brand associations if they were not aware of the brand. Related to this, it was assumed that all Norwegian-speaking students could at minimum recognize the two brands in question.

To conduct the pilot study as efficiently and economically as possible, while keeping the above mentioned in mind, *non-probability sampling* was utilized. More specifically, *convenience sampling* most accurately describes the method of selection, meaning that ease of recruitment weighed heavily on the decision (Saunders et al., 2009). Consumption experience was not necessarily required, as the attitudes of respondents of varying brand experience levels were of interest. This point is also stressed by Supphellen (2000), who argues that sample should include brand users of different degrees, including non-users. Specifically, those respondents that have knowledge of the brand but have not yet consumed it, could help reveal sources of obstruction to gaining new customers, which should be a priority for brand managers (Supphellen, 2000).

Friends, fellow students and co-workers were invited personally by the author, either by electronic message or by other verbal communication, to participate in the pilot study as interviewees. Almost all invitees accepted and completed the interview. In total, 21 interviewees were included in the pilot study sample, where 19% were female. Most of the respondents were full-time students.

## 4.2.4 Execution

Before the interviews, the interviewer acquired three relevant<sup>5</sup> product examples from each brand at a local grocery store; *Hansa Pilsner*, *Hansa Fatøl* and *Hansa Premium* from Hansa, and *Ringnes Pilsner*, *Ringnes Lite* and *Ringnes Ufiltrert* from Ringnes. All the product examples acquired were in the form of 0.5-liter cans and in the relevant class of alcoholic beverage.

The interviewer arranged with the interviewees, respectively, and offered to meet potential requests of location or time of day when it came to rendezvous and conducting the interview. Some interviewees had specific requests for location, such as in their own home. Most did not

<sup>&</sup>lt;sup>5</sup> Information about individual products' market share was not publicly available. The product selection was chosen based on initial discussion with the thesis supervisor, previous knowledge and salience of placement.

have specific requests, and were interviewed in various locations at the premises of Norwegian School of Economics.

Although the goal was uninterrupted privacy during the interviews, finding such areas proved extremely challenging. This was particularly due to an ongoing conference at the time of the interviews, which, in lack of a better description, had taken hostage the group rooms which could usually be utilized for such projects (i.e. all rooms were booked all day, but none were in use).

Furthermore, because there were visible brand elements for several brands of alcoholic beverages on the premises of NHH, certain areas were avoided with the intention of protecting the interviewees from brand cues external to the interview. Several of the interviews were conducted in seating areas in hallways and in the school's basement. Although privacy was a concern, each location was approved by the interviewee prior to execution, and almost all interviews were successfully completed without interruption.

For the sake of transparency, one case of interruption must be mentioned. Toward the end of one interview, a (non-academic) staff member aggressively approached and interrupted the interview, which came as an uncomfortable shock to the interviewee as well as the interviewer. This case will be reported to the head of the relevant department, although it is not expected that the collected response was significantly biased consequently from this.

Interviewees were asked whether they were comfortable with being recorded on audio in addition to the notes taken by the interviewer, to ensure the original responses were not lost. All interviewees but one agreed to this. A laptop computer was used for notetaking and audio recording. An atmosphere of anonymity, patience and tolerance was set prior to the brand cues, and interviewees were assured that no answers would be wrong or irrelevant, to alleviate any perceived pressure that could potentially mitigate honesty. The interviewer stayed as silent as possible during responses. At completion, interviewees were thanked for participating, and given a short debriefing.

#### **4.2.5 Hypotheses (post pilot study)**

In the initial hypothesis development of this thesis, inferring which perceptions consumers might have about the brands in focus was a challenging task because of the lack of traditional communication of appropriate associations resulting from advertising restriction. Anterior to the pilot study, the research had to rely on readily available information about the brands, and

from information the brand owners communicated on their websites, two hypotheses were developed.

However, to develop hypotheses about consumers' perceptions, going straight to the source – the consumer, was deemed a natural and appropriate approach too. Therefore, consumers were interviewed about their current perceptions, and thus, a basic understanding of the most often evoked associations and the meanings attributed to them was gained through use of a pilot study. From this, and with the first two hypotheses in mind, three more hypotheses were developed:

## Hypothesis 3: Product appearance

It is argued that product appearance is of importance when it comes to consumers' inferences about a product, expectedly even more so in the studied product market. The latter statement is based on what was disclosed about restrictions on marketing activities on behalf of alcoholic beverage brands in chapter 2, and assumes that product appearance automatically becomes a relatively larger part of the communication between the brand and the consumer. That is, it is assumed that the products to a higher degree act as their own "billboards" when traditional advertising alternatives are fewer.

In the interviews, several interviewees made references to the product packaging and appearance (see chapter 5.1), indicating that product design has some degree of importance in consumers' conscious evaluation of a brand. References to product appearance was made for both brands, with differing connotations. Accordingly, and in line with the overall impression from interviews, it is hypothesized that one brand is positively differentiated on this attribute.

# H<sub>3</sub>: Consumers' evaluations of product appearance are significantly more favorable for Hansa than for Ringnes.

## Hypothesis 4: Sports spectating as consumption context

Hypothesis 1 sought to test whether one of the brands were more highly associated with a specific sports team than the other brand. If the results were to indicate that the null hypothesis should be rejected, it would be of interest to investigate the association further, especially whether it also translates to the perceived fit of consumption context. For example, it is conceivable that if Hansa has sponsored a sports team for a certain length of time,

spectators of said sports team might associate the brand with the specific context of spectating sports.

Furthermore, in the pilot study, several interviewees reported sports spectating to be a suitable context for consuming Hansa, whereas none of the Ringnes-interviewees mentioned sports spectating as a suitable consumption context (see chapter 5.1). From this, a question arises as to whether there is a difference between the two brands in perceived fit with the sports spectating context. Consequently, the following hypothesis is proposed:

H4: Consumers evaluate Hansa higher than Ringnes when it comes to perceived fit with the consumption context of sports spectating.

## Hypothesis 5: Fit with healthy lifestyle as user imagery

To delve deeper into what is investigated in hypotheses 1 and 4; it is conceivable that if one brand has successfully created association with a sports team, then associations to that sports team could be leveraged as secondary associations in relation to the brand. In other words, positively perceived characteristics attributed to the sports team could also be attributed to the brand due to previous, simultaneous exposure. For example, if sports are associated with a healthy lifestyle, then a perceived link between a brand and sports could potentially also create a perceived link between the brand and a healthy lifestyle. Alternatively, the brand most associated with sports could be perceived as *less* unhealthy.

In the pilot study, there were several responses indicative of perceptions that typical brand users lead an *unhealthy* lifestyle. This is true for both brands, however, there were more mentions that Ringnes-users drink more frequently, and moreover, not nearly as many mentioned links to the student lifestyle or union (of which sports-related activity is arguably a considerable part) as for Hansa. To test whether there is a difference between the two brands in the way they are perceived by consumers to be congruent with a healthy lifestyle, the following is hypothesized:

> H<sub>5</sub>: Consumers perceive Hansa-users to lead a healthier lifestyle than they do Ringnes-users.

## 4.3 Main study

## 4.3.1 Research Design

At this stage, the first research question had been covered by the pilot study, and the goal was to answer the remaining research questions, that is, to investigate whether some of the most prominent associations reported in the pilot study were evaluated differently for the two brands by a larger sample, and sequentially, determine whether there were indicators of correlation between the differently evaluated associations and the attitudes towards the brand.

The overall purpose of conducting this part of the research can be said to be *descriptive*, with elements of *explorative* research (Saunders et al., 2009). This is because finding the answer to whether there are different perceptions of the two brands which are widely shared by the population, is arguably to describe parts of the currently existing brand images (which is the main goal of the study). However, in accordance with the research questions, the study will also to a certain extent need to investigate the relationship between measurable variables studied, and explore what might drive consumers' brand attitude (Saunders et al., 2009). Thus, the study is mainly descriptive, but contains elements of explorative research.

#### 4.3.2 Research Strategy

The research question and the goals of the thesis are what steer the choice of strategy in research, and the researcher must consider how to answer the questions easily and accurately (Saunders et al., 2009). Other factors too, such as availability of data or other resources might be influential in the selection of strategy, and the choice of one strategy does not automatically exclude another (Saunders et al., 2009). It was decided that the research strategy used to conduct the main study should be a *survey* strategy. There are several reasons for why a survey strategy was deemed appropriate at this stage.

The survey strategy, often utilized by means of a questionnaire (such as in the current research), permits the researcher to ask a large group of respondents the same questions, formulated in the exact same way, which generates a *standardize*d set of data (Saunders et al., 2009). Furthermore, the data generated in a questionnaire can be both quantitative and qualitative, and thus allows quantitative techniques of data analysis such as statistical testing (Saunders et al., 2009). This attribute was deemed appropriate, because comparing the two brands in focus presumably required some type of quantitative measure which could be done in an objective and standardized manner. Following an experiment strategy was deemed inappropriate in the current research, not only due to the very limited research budget, but also

concerning recruitment of participants, which was expected to be challenging at the time and of the desired scale.

Moreover, although a questionnaire differs from an experiment in many ways, the former too allows for division and allocation of samples into differently conditioned groups (Saunders et al., 2009), although there is no control group in the current study. To be specific, since an important objective of the data collection was to compare the two brands on several attributes, using a questionnaire made it possible (and relatively easy) to generate the same set of questions for all respondents, but randomly assign respondents to different groups for analysis at a later stage.

Furthermore, the collection of data itself could be executed in a very prudent manner, which is especially true when the questionnaire can be distributed and collected electronically (Saunders et al., 2009). Following a survey strategy was also believed to make easier and more cost-efficient the process of collecting data representative of the population, as suggested by Saunders et al. (2009). As there were scarce resources to utilize in the current research, the survey strategy was an attractive alternative. The data collected from the questionnaire was planned to be used as input to conduct statistical tests and make inferences, which in turn could be used to support the discussion regarding the research questions.

## 4.3.3 Data collection and sample

#### 4.3.3.1 Data type

To answer the research questions of the thesis, there was a need for certain data to be studied and tested. Due to the specific nature of the research questions, and lack of research in the same market, the sought (secondary) data was assumed to not be readily available from other sources. This was confirmed by a lack of internet search results throughout the research. Thus, it was decided that new data would be collected for the purposes of answering the research questions. Such data is known as *primary data* (Saunders et al., 2009), and was expected to allow more control and freedom regarding the later analyses.

### 4.3.3.2 Time horizon

From the research questions, it should be clear that the thesis is investigating the *current* brand images at the time of data collection, respectively. Furthermore, data was collected only once per respondent, as opposed to several times over a period. Thus, the study is cross-sectional (Saunders et al., 2009). Because it was expected that a large proportion of the respondents would be students, and thus, that likelihood of response would decrease as they

increasingly allocated time to exam preparations, priority was put on preparing and launching the questionnaire in a timely manner. The first response was recorded on the 20<sup>th</sup> of April; the last response was recorded on the 25<sup>th</sup> of May.

#### 4.3.3.3 Data collection method

The method chosen for the collection of data for the main analysis in this thesis is *questionnaire*. Saunders et al. (2009) use the term to describe any method of data collection which requests all respondents to answer an identically structured, fixed set of questions, and argue that it is a suitable method of collecting data from many respondents for a quantitative research context. Because this part of the study sought to make statistical inferences and find out whether the reported associations from the pilot study were shared by a larger sample of consumers, collecting data by means of questionnaire was deemed appropriate.

The data which the questionnaire intended to collect were mostly pertaining to the respondents' individual attitudes and beliefs about an existing brand. Thus, it was expected that the questions and subject would be easily interpreted by the respondents, and that they would be able to understand and complete the questionnaire without assistance. Measures were also taken to ensure that respondents would not be asked questions they did not know the answer to.

Additionally, there was a desire to reach respondents and receive the finished responses as quickly as possible, so that the process of data analysis could take place. For these reasons, the type of questionnaire which was selected for data collection can be described as a self-administered, Internet mediated questionnaire (Saunders et al., 2009). In the following, details of how the questionnaire was designed, which tools were used to create and distribute it, recruitment of sample and pre-tests will be presented.

#### 4.3.3.4 Questionnaire

#### 4.3.3.4a Questionnaire design

A much-stressed point about questionnaires is the challenge of planning ahead exactly which questions are to be answered, and what data is needed to provide those answers, because there is only one opportunity to make these choices – once the questionnaire is distributed, it is too late to change anything (Saunders et al., 2009). This point was kept in mind throughout the questionnaire development process. Also, having conducted in-depth interviews beforehand provided some much-needed direction and focus to the question topics. Although the

interviews by no means provided an exhaustive description of the respective brand images, they certainly mitigated the formulation of relevant questions for the questionnaire.

Another point that was kept in mind throughout the formulation of questions was how easily the respondents would be able to interpret the questions precisely, and whether they would be inclined to answer truthfully and in an unbiased manner. Due to the nature of some questions, for example self-reported attitude questions, it was expected that a certain degree of control would be relinquished, because there is no way to tell if a given answer is completely truthful or biased in some way.

Although the research is not explanatory per se, the relationships that potentially exist between variables were carefully considered during the creation of the questionnaire. The questionnaire utilized questions of several types, including open- and closed-ended questions, but because most of the questions pertained to attitudes and evaluations of attributes, and it was desirable to compare individual responses quantitatively e.g. by means of statistical testing, closed-ended questions domineered the questionnaire. Closed-ended questions are those that require the answer to be selected from a given set of alternatives, and is useful to generate *opinion variables*, which is data describing respondents' own evaluations (Saunders et al., 2009).

In contrast, a few questions included in the questionnaire were aimed at collecting data input to potentially be used as *attribute* variables, which are based on the *respondents*' attributes, such as their age and gender (Saunders et al., 2009). By collecting data which could be used as attribute variables, it was possible to 1) compare the sample attributes to the population attributes to control for representativeness of the sample, and 2) to keep available the option of analysis across demographic segments (for example, to check for differences between males and females).

For the most part, the closed-ended questions required the respondents to rate something on a seven-point, Likert-type item which included a neutral option. For example, respondents were asked to evaluate to which degree they agreed with a given statement, and were given seven alternative responses to choose from: 1) *Completely disagree*; 2) *Highly disagree*; 3) *Somewhat disagree*; 4) *Neither agree nor disagree*; 5) *Somewhat agree*; 6) *Highly agree*; and 7) *Completely agree*. Note that the neutral option is feasible both in cases where the respondent is unsure about which alternative to select, and cases where they did not fully

understand the question. The above alternatives are translated from Norwegian, which was the language utilized to develop the questionnaire. This point is elaborated in 4.3.3.6.

Each alternative had a specific meaning, explained by text, which was aimed at making clear the available alternatives, and avoiding confusion stemming from ambiguous alternatives. By offering several alternatives to communicate degree of concurrence, it was expected that the data would yield a clearer picture of the distributions of each sample, allowing easier comparison on measures in the data analysis. However, because most of the questions discussed were aimed at collecting ordinal data, it was assumed that having more than seven alternatives would make interpretation complicated for the respondents.

Because the questionnaire was self-administered, having a logical flow and making instructions easy to interpret was critical. One important part of this task was consciously wording each question and instruction text in a way that minimized the risk of misinterpretation or failure to answer. Generally, questions were aimed to be specific, and where possible, they were posed as statements, making clear exactly what the respondents were answering. In those cases, questions followed initial instruction to select the degree to which they agreed with the following statement. Care was also taken not to pose the questions in a biased manner, and to stick to respectful and simple language, as advised by Saunders et al. (2009). In addition to careful and deliberate formulation and review thereof, a pre-test was conducted on a small sample to control for mistakes and improvement potential (see 4.3.3.5).

The tool selected to program and distribute the questionnaire is an online software called Qualtrics. This choice was made due to the possibility to simplify the process of creating, distributing and recollecting the questionnaire (See 4.3.3.4b and 4.3.3.6). Also, using an electronic tool like Qualtrics proved to be useful for easily exporting the generated data set into suitable file types for later analyses. Finally, Qualtrics was an easy choice, because NHH promoted the software on their official webpage, offering free accounts to students of NHH (NHH, u.d.). A big advantage of utilizing an instrument such as Qualtrics, was the flexibility it allowed, for example by allowing respondents to respond at their own discretion, that is, whenever they felt it was appropriate. Furthermore, it did not require the presence of the researcher, as it did not need to be physically handed out and collected. This type of questionnaire is referred to as *self-administered* (Saunders et al., 2009).

#### 4.3.3.4b Questionnaire order and flow

In this section, the practical steps taken in outlining the questionnaire, and the reasons behind them are presented. To give the questionnaire an orderly impression, questions were sought grouped by their respective contexts and themes throughout. This decision sought to combat any perception of clutter which might have been an obstacle to complete the questionnaire. For example, one intended goal of the questionnaire was to not make it seem too long or tedious to complete. Thus, it was decided to limit the number of questions per page, and for the questions to be of relevance in the context of each other. This was thought to make the questions even easier to understand.

When a participant entered the questionnaire, the first page shown was an introductory text which explained the purpose of the study, its institutional origin, and the relevance of the questions. It also made clear that the survey was completely voluntary, anonymous and did not require anterior knowledge of a specific subject. To assure respondents, it was made clear that no information could be used to trace the respondent. From this page, respondents were required to press a button to continue.

The next page explained more closely how the questionnaire would proceed, preparing the respondents for the upcoming questions, and explaining that their choices could affect which questions they would receive going forward. Furthermore, the briefing explained that it was not possible to go back to previous questions once answered, and that respondents' accuracy and honesty was very important for the subsequent research. This appealed to respondents' sense of responsibility, and intended to counter carelessness and dishonest responses. To maximize the completion rate, it was stated that responses had to be completed to count.

The first set of questions were brand-neutral, exploring consumer experience and habits relating to the product category studied, and also the dynamic between it and substitute product categories. One reason for this was to avoid conditioning respondents with a brand name when answering about habits unrelated to brand. Next, questions pertaining to respondents' demand in relation to legal restrictions were posed. The final set of questions before brands were presented, investigated some basic needs related to functionality and uniqueness. The questions throughout the questionnaire were grouped into *sets*, which intended to group questions by relevance to each other so that it would be logical and easy to follow for respondents (Saunders et al., 2009). Also, some sets sought to develop *scales* for increased reliability in statistical testing (see chapter 4.6).

Before respondents were presented a brand, a new information page explaining that the rest of the questionnaire would pertain to a real-life brand (the product category of which was specified in detail), and all brands within that category which carry the same brand name. At this stage, a *randomizer* tool was utilized within Qualtrics, which was set to randomly assign each respondent to a brand and then branch the sample into one of two blocks of questions, depending on their assigned brand (either Hansa or Ringnes). To avoid forcing the respondents to answer irrelevant questions, the first set of questions after presenting the brand aimed to determine whether the brand was 1) recognizable, and 2) whether the respondent consciously had user experience with the brand.

This set of questions was critical to the rest for two reasons. If the respondent was unable to recognize the brand name, that would mean that the respondent had no (conscious) awareness of the brand, and thus, no basis for form attitudes on. Next, if the respondent had heard of the brand, but had no previous experience with it, there had to be a basis for existence of brand associations. However, with no brand experience, asking respondents consumption-related questions specific to the brand would not make sense, and open for uninformed response in the data (Saunders et al., 2009).

Based on this, logical restrictions were made so that those respondents that did not recognize the brand, would automatically skip all questions relating to the brand. Similarly, those that did not report to having consumed products of the given brand, did not receive any questions that would logically require previous consumption experience. The reasoning behind including respondents with no experience of consumption was that, given their brand awareness, they were assumed to have perceptions about the brand which could be advantageous or disadvantageous to its brand equity. This point is further elaborated in subchapter 4.3.3.6.

The next set of questions explored the overall evaluations of the given brand, including brand attitude, trust and purchase intentions, and was posed first with avoidance of conditioning in mind; it was desired that the respondents evaluate the brand before they were potentially reminded of the impetus for their attitudes. That is, based only on its brand name. This set of questions also sought some other quantitative evaluations, such as attitude strength, and the questions were intended to generate input for dependent variables, in combination or singularly. Because of its relative importance, this particular set of questions was developed in close collaboration with the thesis supervisor.

Once data for key variables were collected, questions pertaining to various brand imagerelated evaluations were posed, grouped by type and relevance. The topics for the sets of questions that followed included price evaluations, product appearance evaluations, questions about user and usage imagery, evaluations of product related attributes, evaluations of functional, experiential and symbolic benefits, and evaluation of some relevant, unique associations. Some sets included more questions than others, based on relevance and availability of specific information from interviews. For example, because experiential benefits were mentioned much more frequently than symbolic benefits, there were eight questions about the former, whereas there were only two about the latter. The focus of the questions was thus influenced by the responses from the pilot study.

Throughout the questionnaire, respondents were asked questions explicitly about the brand they had been delegated in case they had forgotten, and to make sure that the brand was constantly salient in the respondents' mind. As with some other questions, care was taken to not unnecessarily remind respondents of their individual attributes, and condition them to respond differently, based e.g. on perceived social norm (Hogg & Terry, 2000). Thus, after the final set of questions about specific, unique brand associations, the respondents were taken to a page of questions concerning the respondent, relating to for example gender, and briefed that answering the final questions would complete the questionnaire. The reasoning behind these questions related to the opportunity to compare the sample to the population, as well as the opportunity to check for differences between samples that may stem from other sources than the brand.

Care was taken to not extend the questionnaire more than necessary, and a target interval of 70-80 questions was set together with the thesis supervisor. Though the exact number was unimportant, the aim was to not make it longer than required (Saunders et al., 2009), yet gather the necessary data to answer the research questions.

#### 4.3.3.5 Pre-test and pre-test sample

The purpose of pre-testing is to improve upon the questionnaire in advance of encountering potential problems, and to better evaluate validity and reliability (Saunders et al., 2009). This section will briefly present the steps taken with quality assurance in mind, especially regarding the technical aspects of the questionnaire. This is not to be confused with the pilot study executed prior to the current study. At the time of pre-test, there was pressure to complete and distribute the questionnaire as soon as possible. It was decided to include 6 individuals in the pre-test, covering both genders, several occupations and education levels,

and a wide range of age (Saunders et al., 2009). The sample consisted of colleagues, fellow students and family members.

An important goal of the pre-test was to assure that the instructions, questions, alternatives and flow of the questionnaire were easily interpreted and easy to follow. One example of discovered flaws was the unintended duplication of a response alternative, which could have resulted in response confusion and affect the data. Furthermore, the duration of time required to complete the questionnaire was of specific interest, as this was expected to influence the strain on respondents (Saunders et al., 2009). For the most part, the pre-test sample could thoroughly read and respond to the questionnaire in under 12 minutes, which was deemed sufficient.

Another important goal of the pre-test was to try the functionality of Qualtrics' own distribution options. Specifically, this included testing an anonymous (Internet) link to the questionnaire, checking that it worked from several locations independently, and that the link did not expire once it had been opened by one respondent. Furthermore, it was made sure that once the questionnaire was completed, the response data was in fact automatically sent to the researcher and recorded, and that the questionnaire was visibly complete. Making sure that the skip logic was working was also necessary, so that respondents would automatically skip the correct sets of questions, but also be granted access to the rest of the relevant questions. A progress bar was initially included for the sake of transparency about level of completion, however, as pre-tests revealed the progress bar to be misleading in combination with skip logic, it was removed to avoid confusion.

Moreover, it was very important to test that the branching of the sample worked correctly, depending on the brand assigned to each respondent. Relatedly, the randomization function was also given attention during the tests. These two functions dictated the way the questionnaire flowed, and were deemed extremely important regarding validity. The researcher shared the anonymous link with the pre-test sample, and subsequently received feedback about the above-mentioned issues, any other issues, language and the total impression of the questionnaire. None reported to feel uncomfortable with the themes of the questions. Once all raised issues were addressed and the questionnaire reworked, a final review was done by the thesis supervisor. Once final approval was received, the pre-test was considered complete.

#### 4.3.3.6 Sample and distribution

Because it would be very impractical (probably impossible) to have the entire studied population complete the questionnaire, sampling was considered feasible to collect data in a cost- and time-saving manner (Saunders et al., 2009). The previous point weighed heavily on the decision, as there were no available funds and time was of the essence (as described in 4.3.3.2). Because of this and the lack of a sampling frame, *probability sampling*, where probability of selection for each case is known (Saunders et al., 2009), was not a viable option at the time of data collection. Thus, the remaining option was *non-probability sampling*, in which case this probability is not known (Saunders et al., 2009).

The relevant population to study in this research was adult Norwegian consumers (that is, over the legal drinking age), and thus, it was desired that the sample be as representative of Norwegian consumers as possible with the means available. In other words, subgroups that were homogeneous relative to the population were not attractive targets. The method used to recruit the sample for this study combined *self-selection* sampling and *convenience* sampling. Self-selection sampling is when potential participants themselves signal eagerness to join, whereas convenience sampling involves arbitrarily selecting participants based on ease of recruitment (Saunders et al., 2009). That is, the method of invitation to participate was selected mainly based on convenience, whereas individual cases anonymously decided whether to accept, ergo, self-selected response.

A practical explanation of sample selection follows. Although homogeneous groups were not attractive in and of themselves, a practically feasible population to recruit from in this case was the student population at NHH. There are several reasons for this, such as the relative ease with which invitation to participate could be distributed via email. Moreover, although the enrolled students at NHH could be rightfully considered homogeneous in several respects, they are presumably adult Norwegian consumers. They will also, at some point, no longer be students, yet, their memory and knowledge at present will expectedly influence their perceptions in the future. Thus, even if NHH students are not perfectly representative of the adult Norwegian population of consumers, their current perceptions of brand images are certainly considered relevant for the future, and may have implications for how the perception of a brand might change. Also, it was expected that some findings, especially when it comes to points of differentiation, would not differ extremely from the average of the studied population.

The questionnaire was decided to be written in the Norwegian language only. This was so that there would be no potential for the same question (or response alternative) to be interpreted differently in two languages. Furthermore, because the studied population was adult *Norwegian* consumers, not limited to any level of education, there had to be a guarantee that all respondents would be able to fully understand the questions without having learned a second language. Also, because the brands are marketed in Norway, it was expected that Norwegian-speaking consumers would have the higher average brand knowledge.

Based on the above, it was decided to invite only Norwegian-speaking students across all tenures on both master's and bachelor's degree level. Following recommendations of the thesis supervisor, the head of section for quality assurance at NHH was contacted via email to request access to email addresses of enrolled students. Subsequently, a mailing list of 1009 email addresses was received from head of section for quality assurance.

In addition to the choice to include NHH-students for self-selected sampling, it was decided to pursue other distribution channels to reach and recruit from a broader group of individuals, and to maximize the total number of responses. The social media website *Facebook* was utilized to post a public invitation to participate in the questionnaire, which was later *shared* (that is, reposted elsewhere) by a few other users. The original post, like the email, included a covering letter, which intended to disclose the background, content and purpose of the questionnaire, as well as important information, such as free choice and anonymity of response. Saunders et al. (2009) recommend attaching such letters to self-administered questionnaires as a source of information and persuasion to participate.

No incentives were offered to any respondents for two reasons. First, due to scarcity of available funds, incentivizing the questionnaire would have been challenging. Second, although *increased* incentivization leads to increased performance, the actual *introduction* of incentives can have an effect opposite to what was intended, removing the motivation to respond (Gneezy & Rustichini, 2000). These two reasons in combination lead to the decision to not incentivize responses.

It was stated that the questionnaire would take approximately ten minutes to complete. This was done to increase transparency, and to make easier the planning and decision to participate. The post appealed to readers' sense of contribution (to research), included an anonymous link to the questionnaire, and thanked participants ahead of time for their contributions (use of anonymous response did not permit follow-up email).

Due to technical difficulties, the email (distributed via Qualtrics) was delayed until April 25<sup>th</sup>, four days after invitation was posted on Facebook. On May 25<sup>th</sup>, Qualtrics had registered a total of 342 responses to the Questionnaire. The target sample size of 100 per brand which was set together with the thesis supervisor, in accordance with what is discussed in chapters 4.5 and 4.6, was thus reached<sup>6</sup>. Because the potential reach of the Facebook-post is unknown, total response rate cannot be calculated, however, of the 1009 email invitations, 138 were accepted, and 91 were fully completed. Thus, the response rate to the emails was 9.02%, and the completion rate 65.94%. 208 individual responses were recorded via anonymous link. See chapter 5.2 for more about the sample characteristics.

## 4.4 Operationalization

As a final section before the main data analysis of this thesis, variables used for the purposes of data analysis will be operationally defined. By the end of this chapter, it should be clear exactly how each measure was taken, and what kind of real-life phenomena each measure describes. For full disclosure of descriptive statistics on operationalized variables, see Appendix C.

Most of the variables defined in this chapter stem from questions in the questionnaire which required respondents to make evaluations, mostly about the randomly assigned brand. This type of evaluation (selecting the degree to which one agrees) collects ordinal data, but it is possible to analyze them as if they were interval data (see chapter 4.5). That is, although one cannot determine *how much more* a respondent agrees by selecting "Completely agree" instead of "Strongly agree", it is possible to analyze the data statistically to determine differences in evaluation distribution for the two brands. As was explained in subchapter 4.3.3, all evaluations were made on the same seven-point scale, and almost exclusively, the opinion variables were operationalized using a single-item scale. There are empirical findings that provide evidence to support this choice. For example, Bergkvist & Rossiter (2007, p. 175) find that "there is no difference in the predictive validity of the multiple-item and single-item measures".

Keeping the goals of the thesis in mind, sticking with single-item measures was thought to ultimately allow a more simple and precise understanding of sources of influence. Also, there was an opportunity for further testing to seek items suited to operationalize variables from

<sup>&</sup>lt;sup>6</sup> According to Lumley et al. (2002), sample sizes under 100 are often sufficient, and Saunders et al. (2009) state that a sample size of at least 30 is required for statistical analysis.

multiple items. Furthermore, because of the relatively numerous and wide set of questions included, and the pre-set target range, it was thought best to not extend the questionnaire further.

## 4.4.1 Recoding and computing variables in SPSS

When it comes to the variables stemming from evaluations, operationalization was somewhat tedious due to the structure of the data set. Because the approach was identical for most of these variables, it will be explained here, and not repeated for each variable. IBM SPSS Statistics Version 22.0 was utilized for handling and analyzing the data in this thesis, but is deemed adequately known to not be formally referenced (IBM Support, 2016).

Because of the algorithm of the survey tool, when respondents were assigned a brand at random, they were also assigned to answer two separately coded sets of identical questions. Thus, each question for each brand received a unique code. Because the statistical tests would require these to be in the form of a unified variable, the separated data had to be recoded so that data would be 1) in the same column of the data set, and 2) cleaned of error values. This process is briefly elaborated here.

	Q139	Q140	Q141	Q142	Brand	ProdDesign_Eval_H	ProdDesign_Eval_R	ProdDesign_Eval_Comb
1	6	1	4	1	2	.00	4.00	4.00
2					1	5.00	.00	5.00
3					1	5.00	.00	5.00
4	5	3	3	1	2	.00	2.00	2.00
5		-			1	3.00	.00	3.00
6	7	4	5	1	2	.00	4.00	4.00
7	1	2	2	4	2	.00	4.00	4.00
8	4	4	4	1	2	.00	4.00	4.00
9		-			1	3.00	.00	3.00
10					1	4.00	.00	4.00
11	1	1	1	1	2	.00	1.00	1.00
12		-			1		.00	
13	4	4	4	4	2	.00	4.00	4.00
14		-			1	5.00	.00	5.00
15		-			1		.00	-

Figure 2: The process of combining variables in SPSS.

#### When both conditions are empty, a missing value is entered into the combined variable. Printed from SPSS.

Initially, the column which contained evaluation data for one of the brands, had missing values in all the rows which belonged to a respondent assigned the other brand. To combine the two into a single column, the variables were recoded into different variables in SPSS, by replacing all missing data with the number 0, and keeping the original (ordinal) data. Then, a new (combined) variable was calculated by adding the two values for each row – that is, the cell with the given evaluation, and the corresponding empty cell from the column of the other brand. Critically, a criterion was added so that the value would be counted only if the sum of

the two would be larger than zero. If not, it would be registered as missing. This was done to exclude all the respondents which were not given an opportunity to answer the specific question.

## 4.4.2 Descriptive variables

When data cannot be ranked or numerically defined, it is known as nominal (Saunders et al., 2009). Such data can be utilized to measure frequency of occurrence. The questionnaire asked some questions aiming to describe the sample in terms of simple demographic descriptions, such as sex. These variables were used to provide a transparent overview of the sample, increasing opportunity for readers to reproduce the study. Here, and in 4.4.3, variable names and the original variable names (question number) are disclosed.

## Age, AgeGroup, sex

Q82 was a single-item control variable where respondents were required to fill in their current numeric age. This variable was used to create the new categorical variable *AgeGroup* for purposes of presentation of descriptive statistics (see chapter 5.2). Q78 was a dummy variable (1, 2), where 1 = Male and 2 = Female. This variable was created from a single item in the questionnaire where respondents were required to select one of the alternatives.

#### countyresid, occupation

These demographic variables yielded nominal data used to determine representativeness of the sample. *Countyresid* stemmed from Q79 and disclosed which of the 19 counties (or other) respondents resided. *Occupation* stemmed from Q84, and was used to superficially determine the main occupation of respondents (see chapter 5.2).

## Brand

As explained in chapter 4.3.3, respondents were randomly assigned a brand condition in the questionnaire. This was logged as a separate data column in the data set, and operationalized as a dummy variable (1, 2), where 1 = Hansa and 2 = Ringnes.

## recog\_h, recog\_r

In line with the theoretical framework, brand awareness in the form of *brand recognition* was measured by simply asking respondents whether they recognized a given brand name (based on which of the two they had been assigned). The dummy variables  $recog_h$  and  $recog_r$  (1, 2), where 1 = Yes, 2 = No were used to exclude certain respondents from answering irrelevant questions about each brand condition, respectively.

#### brandexp\_h, brandexp\_r

Like for brand recognition, dummy variables were created for each brand to determine whether they had experience with the brand, so that they would not have to answer questions which required brand experience. The variables originated from Q19 and Q86, respectively.

## 4.4.3 Opinion Variables

This section lists the opinion variables which were recorded into new variables and used as input for analysis. As can be seen from the variable names, they are categorized by type of measure in relation to what was presented in the theoretical framework. A summary of how to interpret the variable names follows. For a detailed description of the individual variables, please see the list below.

Some of the variable names start with *UserImFit*, indicating that the variable stems from a question regarding perceived user image fit. Similarly, *UsgImFit* indicates that the variable concerns perceived fit of consumption context. *ExpBen* refers to evaluations of experiential benefits of consumption. *Unq* refers to unique associations, that is, whether respondents agree that an item is a unique point of differentiation for the brand. The questions behind these variables were largely based on results from the pilot study and previous research.

## ProdDesign, prod\_des\_h and prod\_des\_r

This variable is a measure of the extent to which the respondent agrees that the brand offers esthetically pleasing product design. It comprises Q30 and Q96, which were recoded into *prod\_des\_h* and *prod\_des\_r*, respectively.

## UserImFit\_Students, userim\_students\_h and userim\_students\_r

This variable is a measure of the extent to which the respondent agrees that the brand is usually consumed by students. It comprises Q34 and Q100, which were recoded into *userim\_students\_h* and *userim\_students\_r*, respectively.

## UserImFit\_AllJobs, userim\_alljobs\_h and userim\_alljobs\_r

This variable is a measure of the extent to which the respondent agrees that the brand is usually consumed by people in all career categories. It comprises Q37 and Q103, which were recoded into *userim\_alljobs\_h* and *userim\_alljobs\_r*, respectively.

## UserImFit\_AllAges, userim\_allages\_h and userim\_allages\_r

This variable is a measure of the extent to which the respondent agrees that the brand is usually consumed by consumers of all ages. It comprises Q39 and Q105, which were recoded into *userim\_allages\_h* and *userim\_allages\_r*, respectively.

## UserImFit\_Health, userim\_health\_h and userim\_health\_r

This variable is a measure of the extent to which the respondent agrees that the brand is usually consumed by consumers leading a healthy lifestyle. It comprises Q40 and Q106, which were record into *userim\_health\_h* and *userim\_health\_r*, respectively.

## UsgImFit\_Party, usgim\_party\_h and usgim\_party\_r

This variable is a measure of the extent to which the respondent agrees that the brand is suitable for consumption in the context of parties. It comprises Q45 and Q112, which were recoded into *usgim\_party\_h* and *usgim\_party\_r*, respectively.

## UsgImFit\_AllSocial, usgim\_allsocial\_h and usgim\_allsocial\_r

This variable is a measure of the extent to which the respondent agrees that the brand is suitable for consumption in the context of any social occasion for adults. It comprises Q47 and Q113, which were recoded into *usgim\_allsocial\_h* and *usgim\_allsocial\_r*, respectively.

## UsgImFit\_Food, usgim\_food\_h and usgim\_food\_r

This variable is a measure of the extent to which the respondent agrees that the brand is suitable for consumption with food. It comprises Q48 and Q114, which were recoded into *usgim\_food\_h* and *usgim\_food\_r*, respectively.

## UsgImFit\_Sport, usgim\_sport\_h and usgim\_sport\_r

This variable is a measure of the extent to which the respondent agrees that the brand is suitable for consumption in the context of spectating sports. It comprises Q51 and Q117, which were recoded into *usgim\_sport\_h* and *usgim\_sport\_r*, respectively.

## ExpBen\_Belong, expben\_belong\_h and expben\_belong\_r

This variable is a measure of the extent to which the respondent agrees that consuming products of the assigned brand makes him/her feel a sense of social belonging. It comprises Q65 and Q131, which were recoded into *expben\_belong\_h* and *expben\_belong\_r*, respectively.

## UnqSalience, unq\_salience\_h and unq\_salience\_r

This variable is a measure of the extent to which the respondent agrees that he/she observes elements of the assigned brand often relative to those of similar brands. It comprises Q71 and Q137, which were recoded into *unq\_salience\_h* and *unq\_salience\_r*, respectively.

## UnqHeritage, unq\_heritage\_h and unq\_heritage\_r

This variable is a measure of the extent to which the respondent agrees that the assigned brand has a unique history and heritage. It comprises Q72 and Q138, which were recoded into *unq\_heritage\_h* and *unq\_heritage\_r*, respectively.

## UnqSports, unq\_sports\_h and unq\_sports\_r

To test hypothesis 1, there was a demand for measuring whether consumers associate a given brand with a specific sports team. By recalculating the original variables Q76 and Q142, respectively, *unq\_sports\_h* and *unq\_sports\_r* were created. By combining them into one variable, *UnqSports* was created.

## IndepVarLiking

This variable is a measure of the extent to which the respondent agrees with an explicit statement about liking the brand very much. This variable intends to measure a positive outcome in line with theory, and is an adaptation of operationalization used in previous papers (Jung & Seock, 2016). It comprises Q88 and Q21.

## IndepVarFeeling

This variable is a measure of the extent to which the respondent agrees with an explicit statement about experiencing positively perceived emotions in relation to the brand. This variable intends to measure a positive outcome in line with theory, and is an adaptation of operationalization used in previous papers (Jung & Seock, 2016). It comprises Q89 and Q23.

## IndepVarPI

This variable is a measure of the degree to which the respondent agrees that he/she intends to select the brand in question next time he/she purchases a product in the relevant category. The questionnaire did not record behavior, but *intention* to behave, and thus, this variable describes the respondents' self-reported purchase intention. The measurement was inspired from previous research (Jung & Seock, 2016), and comprises Q90 and Q24.

## IndepVarStrength

This variable is a measure of the degree to which the respondent feels certain about the attitudinal evaluations made about the brand. It comprises Q25 and Q91.

## IndepVarTrust

This variable intended to measure the degree to which the respondent reportedly knows what to expect when purchasing a product of the brand. It comprises Q26 and Q92.

## BrandAtt\_Index, BrandAtt\_IndexH, BrandAtt\_IndexR

This variable was created from two different, equally weighted variables (*IndepVarLiking*, *IndepVarFeeling*). They intend to measure attitude and feeling towards the brand. The two variables were operationalized and summed similarly to the other variables, and defined to be used as an index variable in several tests. Like for previous variables, separate index variables were also created per brand (from the same questions as the combined variables), coded

*BrandAtt\_IndexH* and *BrandAtt\_IndexR*, respectively. For more detail on internal reliability and how the variable was created, refer to section 5.2.3.

## 4.5 Statistical assumptions, delimitations and simplifications

Statistical tests in research are implemented on the basis of certain assumptions, which vary between types of tests. The quantitative analysis of this thesis includes some types of statistical tests, and will therefore briefly present the appropriate assumptions, and discuss if these assumptions are realistic in the current context. Furthermore, because of limited time and resources, and a very basic expertise in the field of statistics, the researcher had to make specific assumptions and simplifications to realize the analysis within a certain timeframe. Relaxed assumptions and simplifications with reference to previous research will be presented in this final section before the analysis.

A simplification made in the analysis is the assumption that any relationship that exists between constructs is a *linear* one. This assumption is not necessarily realistic, as other types of relationships might exist, however, it is deemed an appropriate delimitation, especially in combination with the analyses conducted in the upcoming chapter. It may seem peculiar to analyze the linear relationship of categorical variables, but there is theoretical support for doing so. For starters, as pointed out by Lovelace & Brickman (2013); the most commonly used response format for attitudinal scales are Likert items.

It is recommended to use measures that have been validated by previous research, or to consult with specialists when developing such measures (Lovelace & Brickman, 2013). Upon consultation, the thesis supervisor confirmed that, given the sufficiently large sample, the questionnaire data can be treated as interval (continuous, unbounded) in the analysis without major damage to robustness, and that it is common practice in the current field to do so, instead of adhering to the strictest of statistical assumptions. Other researchers support this (Sullivan & Artino Jr, 2013; Rhemtulla, Brosseau-Liard and Savalei, 2012), some adding that if the strictest assumptions must be proven prior to every parametric analysis, most research in several human services fields can be ignored (Norman, 2010).

Bollen & Barb (1981) find that categorical data can be treated as if continuous, and recommend a minimum of five options for the variables to behave closer to continuous ones. Lovelace & Brickman (2013) also point out that response options allowing degrees of (dis)agreement to statements may increase precision of measures, and furthermore, that allowing more than four response alternatives raises internal reliability and sample variance to

a satisfactory level (Lovelace & Brickman, 2013). There are several studies confirming that the Pearson coefficient of determination is not sensitive to even severe violations of assumptions about normality and measurement scale, and will yield accurate results in almost all situations where the relationship between two variables is studied (Havlicek & Peterson, 1977; Norman, 2010).

The analysis includes *independent measures t-tests*, which are conducted when the difference between two differently conditioned groups is sought (Field, 2005). T-tests are parametric tests often used in the experimental settings, and according to Field (2005), they assume that data are interval, and collected from normally distributed populations. These two points will be elaborated. Furthermore, (for independent t-tests) each observation is assumed collected from entities *independent* of each other, and the population variances are approximately the same (Field, 2005).

The sample selection was previously described, and, although it is theoretically possible that some observations are dependent (for example if two respondents communicated during response), this is expected to be very unlikely in practice, due to the methodological approach described. All responses are believed to have come from individuals independent of each other, at their own discretion. When it comes to homogeneity of variance between the compared conditions of the sample, the assumption is expected to hold for the most part, and was tested automatically by SPSS when t-tests were conducted. In cases where heterogeneity of variance was observed, the *Welch t-test* was reported instead (automatically included in the SPSS test report).

The strictest assumptions of interval data and normally distributed populations, as suggested by Field (2005), are relaxed in this thesis. As described, the attitudinal measures taken by the questionnaire yielded ordinal data, which are bounded. What is more, although data is ranked, one cannot know for certain *how much more* a respondent agrees with a statement by selecting "strongly agree" instead of "somewhat agree", although measures were taken to improve confidence in equality of distances.

Although measures were taken to make sure that the variables included in the analysis were not too extremely non-normal, Lumley, Diehr, Emerson and Chen (2002) have shown that even for very non-normal samples, the t-test performs well for moderately large samples, which they say is often less than 100 (this is also true for linear regressions, discussed below). They further point out that heteroscedasticity must be at an extreme level for the t-test results

to be significantly biased (Lumley et al., 2002). Other studies have found the t-test to also be robust for very small samples (Edgell & Noon, 1984).

#### Assumptions for multiple linear regression

Like other parametric analyses, linear regression requires certain assumptions to hold to generalize (Field, 2005). When they are *multiple* regression models (several independent variables), there are additional assumptions that are relevant for review (Introduction to regression with SPSS LESSON 2: SPSS Regression Diagnostics, 2017). The perhaps most obvious assumption, namely *linearity* of the relationship between the dependent and independent variable(s), has already been mentioned, and is checked in chapter 5.6.

On the other hand, variables must not show *multicollinearity*, i.e. correlate too highly with each other (r > .8) (Field, 2005). There is no apparent threat of this, as can be seen from the correlation matrices in chapter 5.6. Secondly, no variance inflation factors (VIF) come close to 10, and thus do not indicate cause for concern (see chapter 5.7) (Field, 2005). Another assumption which does not pose a threat in this study is that independent variables must not have *zero variance* (Field, 2005).

Furthermore, *homogeneity of variance of residuals* should be observed. Although this assumption appears to hold for the most part, the nature of the data increases the challenge of interpreting scatterplots which could reveal heterogeneity, and thus, there is some uncertainty whether this assumption holds absolutely (see Appendix D). Although heteroscedasticity is a cause of concern, it has been shown that it must be extreme for it to create influential bias (Lumley et al., 2002), and is not deemed a threat for the following analyses.

*Independence of residuals* is an important assumption in regression, as observations influenced by others have the potential to yield misleading results. This can occur e.g. by autocorrelation, but because of the measures taken regarding the sample and data collection, as previously described, all observations are expected to be independent of each other. Furthermore, the Durbin-Watson statistic was checked and found satisfactory for each regression as further reassurance. Field (2005) suggests that it should be close to 2, and not deviate by more than 1 (see Appendix H).

Because regression seeks to model how the dependent variable is influenced and varies, an important assumption to mention is that *independent variables should be uncorrelated with variables external to the model* (Field, 2005). Although the research takes steps to ensure that

the most influential variables are studied, there is no way to know whether they have all been discovered and included. Furthermore, because the focus is on specific types of association, and the number of variables included in regression is limited by degrees of freedom (df), some influential variables are realisticly bound to be excluded. Also, some of the models deliberately exclude insignificant variables which are correlated with other variables. Thus, this assumption cannot be said to hold.

Finally, the residuals of the independent variables should be normally distributed (Field, 2005). No clear deviations from normality were observed for the respective regressions (see Appendix D), and it is expected that this assumption holds. There are no requirements about normally distributed samples in linear regression when the sample size is sufficient (Lumley et al., 2002). From the above, there are no clear violations of assumptions for performing linear regressions, although some are uncertain.

To conclude, it is assumed that parametric tests can be performed on the data used in the upcoming analysis without concern of producing false or invalid results (Norman, 2010). The author shares the view of Lumley et al. (2002) that t-tests and linear regressions are specifically practical and simple tools to utilize in relation to the goals of estimating differences in the mean of an outcome in numerous variants of data. Please see chapter 4.6 for elaboration on this subject.

## 4.6 Validity, reliability and ethical issues

## 4.6.1 Validity

#### 4.6.1.1 Pilot study

In the qualitative interview context, Saunders et al. (2009) describe validity as the degree of access to information from respondents, that is, how much of the projected meaning the researcher is able to absorb. Validity is assumed to not be an issue in the pilot study, because of the opportunity to make clear any ambiguous questions or responses. Saunders et al. (2009) argue that such flexibility in qualitative interviews allows satisfactory disclosure of the response meanings, and makes for a high level of validity. Furthermore, though some responses had clear connections to recent events, this is not considered a threat to validity, as disclosing those types of connections was one of the goals of the pilot study. The pilot study does not seek to generalize, rendering external validity irrelevant for discussion in this section.

#### 4.6.1.2 Main study

Validity addresses questions regarding systematic error in measurements in research, and can be divided into several types (Breivik, 2015). Which types are relevant to discuss, depends on the details of the individual research, and there is some degree of overlap between the types of validity. Validity is an evaluation of the research process, and not the results themselves, and thus the relevant steps taken to ensure validity will be briefly presented in this section. The following will use the main separation, *internal* and *external* validity, and further elaborate where sensible. Internal validity in this case pertains to whether the questionnaire manages to make measures as the researcher intended, and external validity concerns whether the findings are generalizable to other situations (Saunders et al., 2009).

#### 4.6.1.2a Internal Validity

**Construct validity** takes a perspective which examines measurements in the context of known theory, that is, it evaluates their congruence with those that are already known (Kimberlin & Winterstein, 2008). For that reason, all types of validity judgements (as those below) also add further proof of construct validity. To exemplify; the correlation analyses in chapter 5.6 disclose correlation between variables which were expected to be associated with each other, thus adding confirmation about construct validity. It should still be added that the study sought to create as relevant and productively formulated questions as possible, and thus did not directly copy measurements from previous research, but rather took inspiration. For this reason, additional evidence of validity for some of the measurements would increase their trustworthiness (elaborated in *content validity*). On the other hand, recommendations from previous research were thoroughly considered, such as Keller's (1993) recommendations for indirect measure when the controlled experiment setting is infeasible.

The dependent variable's intrinsic items were inspired from previous research (Jung & Seock, 2016; Faircloth, Capella and Alford, 2001). One can thus be highly certain that the variable to a high degree discloses what has been previously defined as attitude. However, Saunders et al. (2009) warn that it is hard to tell how well questions compare to those of previous research. Some steps taken to ensure quality of measures are described in the following.

**Content validity** has to do with the notional understanding of the measurements, that is; do they fully encapsulate the concept as intended, and nothing else (Breivik, 2015)? Thus, it encompasses the question of whether the measurements are precisely defined, and must therefore be taken into consideration *before* data is collected. The researcher's intuition and

access to knowledgeable consultants can be especially influential on this subject, as one cannot judge statistically the degree to which research instruments fully encapsulate the intended content (Kimberlin & Winterstein, 2008).

This point was highly relevant for the main study, as much of the data used in operationalization were attitudinal evaluations about specific aspects of real-life brands. Thorough review of previous studies relating to marketing and brand management as well as research methods was conducted prior to formulating question items. Moreover, the pilot study granted additional clues about which questions to include and how to formulate them. This increased confidence that questions were formulated in a way which facilitated correct understanding and response on behalf of respondents.

One point to mention is that the question sets were identical for both conditions of the sample, based on findings from the pilot study. However, because the meaning behind an association could theoretically vary between the two brands, it is not certain that the respondent for one brand infers the exact same meaning from an association as they would if conditioned with the other brand. However, this is not expected to be a threat, especially since such a difference in meaning could be observed in the analysis and indicate different brand images.

The simplicity of the response options, along with the symmetry, odd number of response options, total number of options, equal options on all questions and wording is believed to have contributed to precise interpretation and response on the part of respondents (Lovelace & Brickman, 2013). For more on this, see chapter 4.4. Also, most of the sample is estimated to have had much experience with responding to questionnaires of varying types, which further adds confidence to the process. Finally, the questions to be operationalized were reviewed in concert with the thesis supervisor before finalization, yet again increasing confidence in the validity of operationalized variables.

**Convergent validity** relates to whether the operationalization resembles others which are theoretically expected to be similar (Breivik, 2015). Principal components analysis is one statistical tool which can be used in the assessment of convergent validity, and was used to determine which items should be included in the creation of dependent variables in the analysis (see subchapter 5.4). Doing so, added to (content *and* convergent) validity by indicating specific variables which should be excluded from instruments<sup>7</sup>. Furthermore,

<sup>&</sup>lt;sup>7</sup> However, removing variables which may be supported in theory, arguably takes away some support of construct validity.

correlation matrices for relevant measurements were analyzed to look for indication of overlap between a selection of variables which were intended to measure separate concepts, as well as those variables which were theoretically expected to overlap, but to an unknown degree (as mentioned under *construct validity*).

#### Statistical conclusion validity

A very important component of internal validity is statistical conclusion validity, which logically refers to the validity of the specific tests conducted with the collected data. In this regard, it is of relevance to present the two types of error which may arise, namely *type I* and *type II* errors: The former involves rejecting a true null hypothesis, the latter signifies *not* rejecting a null hypothesis which is in fact false (Field, 2005). This means that a decision must be made about the balance of probability of making one of the two errors. The probability of making a type I error is titled  $\alpha$ , and as a standard for this study, was set to .05<sup>8</sup>. Thus, it was expected that a type I error would occur naturally in one out of 20 occasions.

An important step towards ensuring statistical conclusion validity, is making sure the specific assumptions for the different test types are in order. It should be pointed out that not all of the most conservative statistical assumptions were upheld, most importantly; bounded variables were included in some parametric tests. This was a deliberate choice based on advice, other research and practicality, but does pose a potential threat to validity. The sample size was considered large enough to counter much of the potential danger of breaching assumptions, and the data was thoroughly controlled for large deviations from normality. For example, it was made sure that included variables' skewness and kurtosis values were within an absolute value of 2; a rule of thumb which suggests data does not deviate dangerously from normality (Leech & Onwuegbuzie, 2002). See appendix C for full disclosure of descriptive statistics.

Robustness of statistical tests (their error resistance) was given attention, e.g. by keeping tabs on the F statistic in relation to degrees of freedom in multiple regressions. Care was also taken to ensure the number of included independent variables in each model was within the ratio of one per 15 observations, based on Field's (2005) discussion of sample size. He points out that 100 observations generally suffice when using 6 predictors (Field, 2005). In accordance with the Central Limit Theorem, it was expected that even variables that were not normally distributed would, in sum, resemble normally distributed variables, given sufficient

<sup>&</sup>lt;sup>8</sup> Exceptions include results from the correlation analysis, in which a more conservative  $\alpha$  of .01 was used (see chapter 5.6).

observations (Keller, 2009; Ghasemi & Zahediasl, 2012; Lumley et al., 2002). For a more detailed explanation of statistical assumptions pertaining to validity, please refer to chapter 4.5.

#### Other validity issues

Saunders et al. (2009) suggest some threats to the validity of research, including *history*, *testing*, *instrumentation*, *mortality*, *maturation* and *unclear causal direction*, and although some pertain to longitudinal/repeated studies, others should be briefly mentioned. Firstly, *history* relates to influence of events which may have occurred previously to data collection, and is not considered at all a threat, as the research wholly focuses on the respective brand images at the time of data collection. The researcher was not aware of any events or mass communication which could have influenced perceptions meaningfully in the short term during the time of data collection, other than that which has been mentioned.

*Testing* involves bias on the part of respondents resulting from an expectation that the research results will influence the respondent (Saunders et al., 2009), and is deemed a very unlikely threat to the validity of the current research due to the transparency of intentions behind the questionnaire and the anonymity of responses. Also, it should be mentioned that *unclear causal direction* is a more realistic threat to this study, because data was not collected in a highly controlled setting (such as an experiment). Because the study seeks to describe the differences between the respective brand images, this is not a direct threat, however, when exploring drivers behind certain brand associations, there is potential for misinterpretation of causal direction. Thus, no conclusions about causal effects on brand attitude were drawn.

*Mortality* describes the percentage of dropouts, i.e. respondents that do not finish their response (Saunders et al., 2009). Even though not all respondents finished their responses, this is assumed to not seriously threaten the validity, especially since the questionnaire was not a repeated measure. Although steps were taken to keep the questionnaire brief, some might have considered it long, and it is assumed that dropouts occurred for time-saving purposes.

#### 4.6.1.2b External Validity

External validity is synonym with *generalizability*, i.e. whether the findings of research can be said to be true in other contexts (Saunders et al., 2009). In order to generalize the findings in this thesis to a population, the sample would have had to be representative of that population, meaning the distribution of responses pertaining to sample characteristics should match that of the population. That was not the case for the current sample, for example because of the

positive skew of the age distribution (see chapter 5.2), and thus, conclusions cannot be generalized to the population. This is also true for the pilot study, as interviewees were almost exclusively recruited from NHH. The tradeoff of lower external validity included the advantage of being able to recruit a larger sample, which in return supported a greater statistical conclusion validity.

#### 4.6.2 Reliability

The term reliability is simply an evaluation of the methodology and whether it would likely reproduce the same results if repeated at other times or by other researchers (Saunders et al., 2009). Reliability of the pilot and main studies are discussed separately.

#### 4.6.2.1 Pilot study

The reliability question pertains to whether the same information would be extracted, should others reiterate the research process, and is especially relevant in the qualitative interview context due to the unstandardized nature of its execution (Saunders et al., 2009). It is argued that making sure the interviews can be reiterated with similar results would be infeasible and irrelevant in this context, because an initial assumption of this type of research is that the phenomenon to be explored is complicated and of a *dynamic* character, rendering reproduction impractical (Saunders et al., 2009). The depth and individuality of each interview makes for different responses, based on attitudes and thoughts that might change over time. However, the questions, their formulations and their order were carefully considered and noted in an interview guide, allowing the interview process to be replicated in the future, which is believed to give the study some degree of reliability.

Relevant examples of bias which could influence the reliability of interviews follow. Logically, bias in interviews has two potential sources – the interviewer and the interviewee, and such bias is referred to *interviewer bias* and *interviewee bias*, respectively (Saunders et al., 2009). Examples of the former include the interviewer's personal beliefs influencing how the question is formulated (including non-verbal influence), or misinterpretation of a given answer, whereas the latter describes the situation where the interviewee delivers an answer that is not completely (or at all) true (Saunders et al., 2009). Although there is no guarantee that the data gathered in the pilot study are reliable, precautions were taken to minimize the risks of bias, such as constant awareness of verbal and body language. Supphellen (2000) specifically suggest techniques for combating interviewee bias such as censorship, and respondents were accordingly guaranteed anonymity before the interviews. The interviewees

all seemed relaxed and comfortable during the interviews, maintaining a friendly and open tone and body language. Some even disclosed personal experiences beyond what was asked, indicating that they felt safe (anonymous) during the interview.

As suggested by Saunders et al. (2009), the interviewer took care to show interest in responses by keeping an open physical posture, slightly leaning towards the respondent and signaling eagerness to hear their responses. Furthermore, notes were taken continuously, and the interviewer nodded understandingly without interrupting, to confirm that he was paying attention during the responses. The latter point was important to keep in mind so respondents would not feel neglected or forget important parts of their responses, and they were thus also given as much time as required to formulate answers, as suggested by Supphellen (2000). Related to this, any unclear points were revisited once the respondents had finished answering.

To conclude, it is believed that the information acquired in the pilot study is reliable, and similarity of responses between subjects indicate consistency. The pilot study sample was not representative of the population, and to be clear, there was no intention to generalize findings from the pilot study to the population.

#### 4.6.2.2 Main study

The most commonly used method to determine the reliability for quantitative measures, is to measure the *internal consistency* of items, of which Cronbach's Alpha is the most commonly used assessment (Breivik, 2015). Without going into too much detail, it should be said that for any quantitative variables consisting of several items in the analysis, internal consistency was measured and found to be more than satisfactory (see Appendix E).

The transparency of the research process is meant to further increase reliability in the sense of giving opportunity to reproduce the study. However, it should be repeated that if the study was to be replicated, expecting identical results would be unrealistic, as perceptions and attitudes can change. Furthermore, because of mixed recruitment, the sample can be difficult to replicate.

Saunders et al. (2009) mention four types of threats to reliability; *participant bias* and *error*, and *observer bias* and *error*. Participant bias, i.e. respondents' answering in a certain way because they think it is favorable, was not expectedly a threat due to the ensured anonymity of responses. Participant error, such as error stemming from collecting responses at a certain time of day (Saunders et al., 2009), is also deemed unlikely to influence the data. However, it

should be said that due to the characteristics of the sample, there is potential of such error, e.g. presence of certain attitudinal influences among NHH students. Such influence is arguably part of phenomena sought studied, but could make for different results if the research is repeated.

It is believed that creating a standardized questionnaire and the procedures for data collection have contributed to removing the threat of observer error, thus recording responses in a consistent manner, as advised by Saunders et al. (2009). Moreover, observer bias was not expectedly a realistic threat in the main study, because there was little room for misinterpretation of the highly standardized responses.

## 4.6.3 Ethical considerations

Saunders et al. (2009) suggests making ethical considerations throughout the research process, as such evaluations may have implications for the validity of the research. The central concern they warn against is humiliating, damaging or otherwise disadvantaging the sample or population, and they also advise consideration of some other points (Saunders et al., 2009). This section briefly presents some issues which were considered in the research process.

Firstly, one must consider whether sponsorship of this type of research is ethical. This is especially true because of what was disclosed about regulation of alcohol marketing, and brands could arguably take advantage of connections to student communities by sponsoring research in their domain. This is not an issue, as the researcher was not sponsored. Furthermore, the research did not include any contact with the respective organizations of the brands, which could have potentially biased the researcher or the focus of the research.

Second, there is a question of whether the findings of the research could imply future disadvantage to the population. There is an assumed danger of taking advantage of cognitive biases and possessing superior knowledge about the memory networks of the population. Also, it was considered whether the research can damage the brands or their owners, for example by revealing organizational secrets. However, only public information about the brands was accessed. Furthermore, because the research is independent and conducted for educational reasons, and because the findings cannot be generalized, the aforementioned is not considered a realistic danger in the current research.

Qualitative research is likely to raise more ethical issues than quantitative research (Saunders et al., 2009), and thus the ethics of the pilot study too were thoroughly considered in the early stages. The most relevant points follow. Firstly, it was recognized that the topic could relate to

taboo or personal issues for many, and caution was taken in general when approaching the subject. Moreover, the interviewer was open about the focus of the research and its purpose, making for informed consent, free of deception. It was deemed important to ensure interviewees of their anonymity. The interviewees were asked about the brand, and not personal information, and furthermore, the interviewer did not talk with interviewees about other interviewees or their responses. All interviews were conducted separately, ensuring comfort by asking if privacy was found sufficient. To increase anonymity, it was even decided that no quotes from the interviews would be included in the research.

When it comes to the quantitative part of research, anonymity of respondents was ensured in several steps. Firstly, Saunders et al. (2009) recommend collecting personal data only when necessary, which it was not. Thus, none of the questions asked personal questions, and moreover, the rigid structure of the questionnaire almost exclusively allowed multiple choice-type answers, related to the product category and did not allow personalized answers. Secondly, as an option of Qualtrics, *anonymous link* was selected, meaning that no information about the respondent or their location was recorded. Thus, not even the researcher could trace any response to a respondent.

Throughout the research it was made clear that participation was voluntary, and that any participant could abort both the interview and questionnaire at their convenience. Finally, the researcher was aware of the importance of objectivity throughout the research process, which included not subjectively selecting which findings to present or exaggerating the findings or their importance (Saunders et al., 2009). The statistical analysis and research overall was conducted and presented as responsibly and accurately as possible, without fabrication.

# **Chapter 5: Analysis**

# 5.1 Analysis, findings and impressions (Pilot study)

Because responses given by interviewees tended to differ considerably in terms of depth and detail of the answers, as well as length in terms of number of words used, there was a need to systematize responses so that they could be compared and analyzed. Although there are no standardized procedures to analyze qualitative data, Saunders et al. (2009) suggests *summarizing* data as a process to comprehend and integrate data stemming from different sources, as well as pinpoint important themes or patterns for additional exploration or testing, which are goals congruent with those of the current pilot study.

Accordingly, each interview transcript was initially reviewed, and each answer given by interviewees was summarized (where feasible) so that they would be less sizeable, yet maintain the meaning of the original answer. By using this technique to shorten the responses to each question, it was easier to identify the core meaning of each answer, and to identify similarities and differences between interviewees. In turn, this was also helpful in the process of pursuing links between themes.

The practical approach taken in the process of summarizing the responses, was to first summarize each individual response to the free association task, collected as keywords under the categories "primary" and "secondary", respectively. The secondary associations were used as support to gain a contextual understanding, and aid in extracting meaning from responses, to then determine which ones were similar enough to be said to carry the same meaning. When this was done for all associations given for each brand, the most salient associations for each were labeled in terms that would most suitably encompass the individual responses.

For example, one of the most salient associations for both brands in the pilot study was labeled "party", although the individual responses may have consisted of synonyms or similar words, such as "pre-party" or "afterparty". Because the reported associations were understood to be in the same context (based on the original statements), they were summarized into one broad term, for reasons of simplification.

When all the relevant associations had been labeled accordingly, their frequencies were counted and noted. This way, associations could be ranged from most to least often reported. Although there were several questions pertaining to guaranteeing elicitation of specific

association types, potential differences between the two brands were discovered already in the responses to free association.

A summary and brief discussion of responses and impressions made follows. This is advantageous to understand the data collected, especially because some responses, although synonym, were obvious opposites in terms of valence (i.e., two different interviewees may have used the same word to describe a positive and a negative attitude, respectively). Although all question topics are discussed, relatively more space is dedicated to describing primary associations, because these were generated solely from brand ques, and are thus directly associated with the brands.

#### **Primary associations**

Many of the mentioned primary associations were similar for both brands. This makes sense in respect to what was discussed in chapter 3 about points of parity. However, some differences were also apparent. For example, whereas the two most frequently reported associations to Ringnes were "cheap" and "beer", these associations were not nearly as salient in the primary associations to Hansa.

The word "cheap" (Norwegian: "billig") in this context was used to describe low price in some cases, and to describe low quality in other cases. Specifically, some interviewees gave the impression of negativity in this regard, while others seemed to use the term to describe a positive quality. Although this was observed for both brands, the overall impression received about Ringnes, was that price is more important than preference in the purchase decision for this brand. This was pointed out specifically by several interviewees. Moreover, other associations such as "inferior" and "non-exclusive" were mentioned for Ringnes (though the latter may also be interpreted positively).

Furthermore, the associations to Hansa seemed to be more focused, whereas those to Ringnes were more dispersed and numerous. A good example is the most prominently reported association to Hansa, "Bergen/Vestlandet", mentioned in eight out of eleven responses as a primary association. This association is related to geography ("Vestlandet" translates roughly to the West coast of Norway). In contrast, only three out of ten responses mentioned "Oslo/Østlandet" in association to Ringnes ("Østlandet" translates to Eastern Norway). It should be added that many of those who reported "Bergen/Vestlandet", also reported specific secondary associations to iconic places in Bergen when the interviewer followed up.

The Ringnes-respondents mentioned an association category that was not talked about much by Hansa-respondents at this stage, namely "coloring". Four out of ten respondents made some reference to coloring, although this category too seemed to vary in valence. The most frequently mentioned color was gold, and an impression was made that there is a strong link between the color gold and the brand. For example, whereas some described the gold coloring as "classic", and further linked it to the color of the beer itself, others said they did not like what was described as a "sad and metallic" look.

The final set of primary associations to be discussed in this section cannot be categorized identically for the brands. For Hansa, this category was labeled "NHH(S)/student life" and was mentioned five times. The individual answers referenced NHH and its student union as a platform for events and parties, as well as fellow students, their collective lifestyle and the excitement linked to becoming a student for the first time. Responses about Ringnes also mentioned NHH in two instances, but the student union or lifestyle were not mentioned. Instead, the association mentioned was "launch party". Respondents elaborated that this referenced the illegal marketing activities conducted by Ringnes in connection to signing a distribution-contract with NHH (Langedal, Øverland and Asche, 2017).

### **Benefits**

Benefits was the first topic of questions after the initial free association. For responses about Hansa, the most weight was put on the benefit of experiencing a "good/social atmosphere", mentioned by seven respondents. Moreover, several mentions of "good taste" were made (five), also in combination with food. Furthermore, "intoxication" was mentioned to be a central benefit by four respondents. "Relaxation" was mentioned by some, but can perhaps be understood as an indirect benefit resulting from intoxication in this context. Two responses also included signaling or feeling a sense of belonging, indicating the existence of symbolic benefits for the brand.

For Ringnes, a much larger weight was put on "intoxication" as a benefit, mentioned by eight out of ten respondents. Like for Hansa, "good/social atmosphere" was mentioned, but only four times. If the top two mentioned benefits are compared, there could be indications of differences in perceived benefits between the brands (their placements are opposite to each other). Furthermore, "good taste" was only mentioned as a benefit three times, and although Ringnes too was said to complement food, some specifically stated that it does not go well with food, and others said the taste is bad. Like Hansa, there were mentions of symbolic

benefits, however, the responses were in general not positive, and not as specific as those for Hansa.

#### User imagery

Perceptions of typical brand users seemed to vary a lot for both brands, and there were several similarities between the brands. For example, when interviewees were asked about the age of a typical brand consumer, answers ranged widely. For both brands, typical answers included "student age" and "middle age", but many also answered that there are no specific ages that are more suitable than others. The male gender was mentioned specifically as a typical consumer four times for each brand. Descriptions such as "beer gut" were combined and labeled "Unsexy/Unhealthy". Three interviewees used such descriptions for typical Hansa users, whereas only one such description was given for Ringnes users. However, six interviewees described Ringnes users as more frequent drinkers and loyal to the brand.

For Hansa, four interviewees described a typical brand user as having an "average" income and job, and four said the typical user is a student. For Ringnes, four responses included "student" as the typical occupation as well. However, although the responses were similar for Ringnes, more emphasis was generally put on what was labeled "average to low willingness to pay". Finally, similarly to the primary associations, "Oslo/Østlandet" was mentioned three times as typical place of origin for Ringnes consumers, whereas three interviewees stated that typical Hansa consumers come from Bergen (although, Hansa-responses also included one mention of "Oslo/Østlandet").

#### **Taste expectations**

The first question asked with respect to taste for each brand was "What do [peer group] think that [brand] beer tastes like?". Some interviewees responded that they were unsure, or did not remember the taste. The question was then reformulated to ask about their *expectations* of taste, based on the brand cue. To summarize responses about Hansa, the brand is described as an "average store-bought beer" (seven responses), which is "easily drunk" (three responses) (The word used in Norwegian translates to "light", but does not indicate lower alcohol percentage). Some descriptions included "bitter" and "weak taste", and Hansa was said to be both better and worse than its competitors. Some interviewees also said that taste is not as important as other aspects, and the general impression made is that Hansa's taste is at a competitive point of parity.

Responses about Ringnes were very similar to those regarding Hansa. Although descriptions were not as detailed, several comparisons emphasizing similarities to Hansa and other competitors were made. Ringnes was also described as "average" (six), "easily drunk" (three) and "watered out" (two). Overall, Ringnes too was interpreted to be at a point of parity with competitors with respect to taste. It should be added that several interviewees (from both samples) pointed out during the interview that they were aware that they probably would not be able to differentiate the taste of the brand in question in a blind-test.

## **Sensory experience**

The question "what do [your peer group] usually feel when they drink [brand] beer?" was used to open the topic of sensory experience, and overall, there was an even distribution in the frequency of specific answers. For example, in the Hansa sample, interviewees reported feeling "social belonging" (three), "relaxed/free" (three), "complementarity" (three) and "satisfaction" (two). "Complementarity" is used in this context to describe the increased utility of other activities by means of consuming alcohol. Three interviewees had nothing specific to report about the brand in question, some arguing that the brand does not stand out in this respect.

Similarly, Ringnes was said to bring a feeling of "social belonging" (three), "relaxation/freedom" (two) and satisfaction (three). However, there were no blank answers for Ringnes, and interviewees further pointed out the feeling of "intoxication" (four), "party mood" (three) and "joy" (three).

#### Usage imagery

This topic of questions pertains to the context in which interviewees find the given brand suitable for consumption. For Hansa, answers included "party" (ten), "general social occasions" (seven), "with sports" (six), "with food" (three) and "everyday relaxation" (three). For Ringnes, "party" (eight) is highly reported, however, only three interviewees mentioned "general social occasions". Furthermore, there was a larger focus on consuming "when seeking intoxication" (three).

"Everyday relaxation" (three) and "with food" (two) was mentioned for Ringnes too, but some specifically pointed out that Ringnes does not fit with relatively fancy events (such as dinner parties) or in the sports context. Related to this, not a single interviewee reported "sports" as a suitable context. The answers to this question, in isolation, give the impression that Ringnes' image is more limited when it comes to perceptions of congruent consumption contexts.

#### Uniqueness associations

Interviewees were asked if there is anything about the given brand that stands out. For Hansa, the most prominent associations reported were "Bergen/Vestlandet" (four) and "traditional" (three). Also, some respondents mentioned "football/Brann" (two), and two respondents described the brand (elements) as more salient, elaborating that they observe Hansa elements significantly more frequently than those of competitors.

Although Ringnes had been described in previous responses as local to the Oslo-area, the most prominent uniqueness-association reported was "National/Norwegian" (four). Secondly, "product design/gold color" (three) was pointed out as unique to the Ringnes brand. It should be noted that several interviewees replied that the respective brands were *not* unique or different from similar brands.

## 5.2 Descriptive statistics

Anterior to the quantitative analysis, this chapter will present some descriptive statistics to summarize some information about the sample. It is useful to point out some potentially distracting numbers at this point. As has been pointed out previously, respondents that did not have brand experience were still given the opportunity to answer other questions. For this and other reasons, items differ in the count of valid and missing responses. Most of the data pertaining to the sample statistics were collected relatively late in the questionnaire, as their importance was deemed secondary to that of brand-specific answers. For the sake of transparency, frequency of missing response is included in the tables presented here.

#### Table 1:

Finished responses overview

Finished											
	Frequency	Percent	Valid Percent	Cumulative Percent							
FALSE	107	31.3	31.3	31.3							
TRUE	235	68.7	68.7	100.0							
Total	342	100.0	100.0								

As can be seen from table 1, 235 respondents were registered to have finished their response, that is, 100% completion. However, there are several variables with more data (see Appendix

C). For example, if a respondent answered every question, but did not press the final button to submit the questionnaire, that response would not be counted as completed, even though the data would have been collected. Thus, many of responses reported to be missing, are not truly so.

## Brand recognition and brand experience

As can be seen from crosstabulations in table 2 and 3, the questionnaire algorithm assigned respondents to one of the two brands equally, as intended (142 respondents per brand).

#### Table 2:

Crosstabulation - Hansa brand recognition and experience

Hansa	Brand Experience	•	Total
	Yes	No	
Brand Recognition Yes	135	7	142
Total	135	7	142

#### Table 3:

Crosstabulation - Ringnes brand recognition and experience

Ringnes		Brand Experience	9	Total
		Yes	No	
Brand Recognition	Yes	121	18	139
	No	0	3	3
Total		121	21	142

These crosstabulations give a simple overview of two critical elements: *brand recognition* and *brand experience*. Knowledge of the brands was important relating to avoidance of irrelevant responses. The first table shows that Hansa scored 100% on brand recognition, and of those, 95.1% had consumption experience with the brand. The second table shows that although Ringnes too enjoys high brand recognition, it reached a relatively lower share of 97.9%. Consumption experience was somewhat lower, too, reaching 85.2%.

The age of respondents ranged from 19 through 66, the average respondent age being 28.6. For a simple overview of the age distribution, a histogram of the variable *AgeGroup* was included. As can be seen from Figure 3, the age distribution is positively skewed (note that the ranges of the first and last categories are larger). This outcome was expected in relation to the invitation of currently enrolled students.

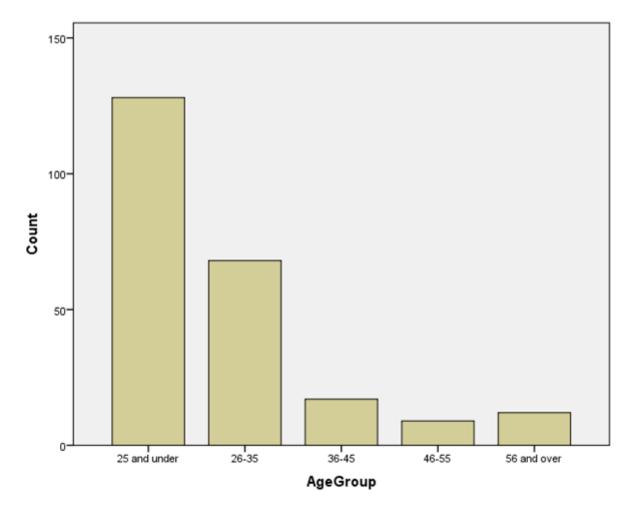


Figure 3: Overview of sample age groups. Figure produced in SPSS.

## Main occupation

Related to what was said about expectancy of positively skewed age, main occupation is presented in a pie chart. As can be seen from figure 4, most respondents selected "student" as their main occupation, with full- or part-time work coming in second.

## Age

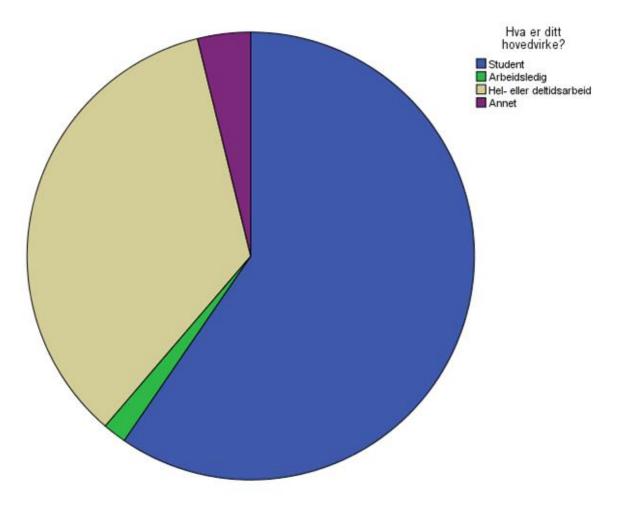


Figure 4: Sample main occupation.

Sample sex - ratio and frequencies

Green: Unemployed, Beige: Full or part time work, Purple: Other. Pie chart produced in SPSS.

## Sex

When it comes to the ratio of male to female respondents, the distribution seems relatively even, although sex was disclosed late in the questionnaire, and the table thus only describes the 235 respondents who were registered to have fully completed it.

Table 4:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	140	40.9	59.6	59.6
	Female	95	27.8	40.4	100.0
	Total	235	68.7	100.0	
Missing	System	107	31.3		
Total		342	100.0		

# 5.3 Results

## 5.3.1 Hypothesis 1 Results

To test the hypothesis that consumers associate Hansa more strongly with a specific sports team than they do Ringnes, an independent samples t-test (a = .05) was performed on the variable *UnqSports*, using *Brand* as the grouping variable. As can be seen from table 6, results of Levene's test for equality of variances revealed that the Hansa-responses and Ringnes-responses cannot be assumed equal regarding variance (p < .05).

Because the assumption of equal variances was violated, results were extracted from the row labeled *equal variances not assumed*, which shows results of the Welch t-test (also known as Unequal Variances t-test) (Libraries, 2017).

#### Table 5:

Sample size, mean, SD and SE mean of test conditions

	Brand	n	Mean	Std. Deviation	Std. Error Mean
UnqSports	Hansa	118	3.3559	2.02769	.18666
	Ringnes	114	2.3596	1.49410	.13994

Table 6:

Independent samples and Levene's Test of mean evaluation difference between sample conditions

		Levene's Test			t-test for Equality of Means			
		F	Sig.	t	df	MD	SE Difference	
UnqSports	Equal variances assumed	16.998	.000	4.25***	230	.99628	.23449	
	Equal variances not assumed			4.27***	215.114	.99628	.23329	

Note: \*\*\* *p* < 0.01 (2-tailed), *df* = degrees of freedom, *MD* = mean difference, *SE* = standard error

Results show Hansa-respondents reported to associate the brand with a sports team to a statistically significantly higher degree (mean = 3.36, SD = 2.03) than did Ringnes-respondents (mean = 2.36, SD = 1.49). Thus, the null hypothesis that the two brands are *equally* associated with any specific sports team is rejected ( $t_{215.114} = 4.27$ , p < .01). Note that the significance of Levene's test was automatically rounded down by SPSS, and does not equal zero exactly.

### 5.3.2 Hypothesis 2 Results

To test the hypothesis that Hansa is perceived to be more unique regarding its heritage, an independent samples t-test (a = .05) was performed on the variable *UnqHeritage*, using *Brand* as the grouping variable. As can be seen in table 8, results of Levene's test for equality of variances reveals that the null hypothesis about equal variance for Hansa-responses and Ringnes-responses must be rejected (p < .05). Because the assumption about equal variances was violated, results were extracted from the Welch t-test instead.

Table 7:

Sample size, mean, SD and SE mean of test conditions

	Brand	n	Mean	Std. Deviation	Std. Error Mean
UnqHeritage	Hansa	118	4.8136	1.46730	.13508
	Ringnes	114	3.8772	1.30445	.12217

Table 8:

Independent samples and Levene's Test of mean evaluation difference between sample conditions

		Levene	e's Test	t-test for Equality of Means			
		F	Sig.	t	df	MD	SE Difference
UnqHeritage	Equal variances assumed	5.138	.024	5.13***	230	.93637	.18250
	Equal variances not assumed			5.14***	228.438	.93637	.18213

Note: \*\*\* p < 0.01 (2-tailed), df = degrees of freedom, MD = mean difference, SE = standard error

Results show that Hansa (mean = 4.81, SD = 1.47) was perceived to have a unique heritage to a statistically significantly higher degree than did Ringnes (mean = 3.88, SD = 1.30). From this, the null hypothesis that the two brands are equally perceived to have a unique heritage is rejected ( $t_{228,438} = 5.14$ , p < .01).

### 5.3.3 Hypothesis 3 Results

To test the hypothesis that Hansa products are perceived by consumers to be more aesthetically pleasing than those of Ringnes, an independent samples t-test (a = .05) was performed on the variable *ProdDesign* using *Brand* (1, 2) as the grouping variable. As can be seen from Levene's test for Equality of Variances, the null hypothesis assuming equal

variances cannot be rejected (p > .05). Thus, results can be extracted from the Student's t-test results (see table 10).

Table 9:

Sample size, mean, SD and SE mean of test conditions

	Brand	n	Mean	Std. Deviation	Std. Error Mean
ProdDesign	Hansa	138	4.6884	1.17019	.09961
	Ringnes	130	3.5385	1.29491	.11357

Table 10:

Independent samples and Levene's Test of evaluation difference between sample conditions

		Levene	e's Test	t-test for Equality of Means			
		F	Sig.	t	df	MD	SE Difference
ProdDesign	Equal variances assumed	1.007	.317	7.64***	266	1.14994	.15061
	Equal variances not assumed			7.61***	259.317	1.14994	.15107

Note: \*\*\* *p* < 0.01 (2-tailed), *df* = degrees of freedom, *MD* = mean difference, *SE* = standard error

Results show that Hansa (mean = 4.69, SD = 1.17) was perceived to have an aesthetically pleasing product appearance to a statistically significantly higher degree than was Ringnes (mean = 3.54, SD = 1.29). From this, the null hypothesis that the two brands are perceived to have equally aesthetically pleasing product designs is rejected ( $t_{266} = 7.64$ , p < .01).

## 5.3.4 Hypothesis 4 Results

To test the hypothesis that Hansa is perceived more fitting in the sports spectating context than Ringnes, an independent samples t-test (a = .05) was performed on the variable *UsgImFit\_Sport*, using *Brand* as the grouping variable. As can be seen from table 12, results of Levene's test for equality of variances revealed that the Hansa-responses and Ringnes-responses can be assumed equal regarding variance (p > .05).

Table 11:

Sample size, mean, SD and SE mean of test conditions

	Brand	n	Mean	Std. Deviation	Std. Error Mean
UsgImFit_Sport	Hansa	129	5.1938	1.37544	.12110
	Ringnes	123	4.3902	1.61770	.14586

#### Table 12:

	Le	evene's	Test	t-	-test for Eo	quality of	Means
		F	Sig.	t	df	MD	SE Difference
	Equal variances						
UsgImFit_Sport	assumed	2.000	.159	4.26***	250	.80355	.18885
	Equal variances not assumed	ł		4.24***	239.634	.80355	.18958

Independent samples and Levene's Test of mean evaluation difference between sample conditions

Note: \*\*\* *p* < 0.01 (2-tailed), *df* = degrees of freedom, *MD* = mean difference, *SE* = standard error

Results show Hansa-respondents reported sports spectating as a fitting usage context to a statistically significantly higher degree (mean = 5.19, SD = 1.38) than did Ringnes-respondents (mean = 4.39, SD = 1.62). Thus, the null hypothesis that the two brands are perceived to be *equally* fitting with sports spectating, is rejected ( $t_{250} = 4.26$ , p < .01).

#### 5.3.5 Hypothesis 5 Results

To test the hypothesis that consumers associate Hansa more strongly with a specific sports team than they do Ringnes, an independent samples t-test (a = .05) was performed on the variable *UsrImFit\_Health*, using *Brand* as the grouping variable. As can be seen from table 14, results of Levene's test for equality of variances revealed that the Hansa-responses and Ringnes-responses can be assumed equal regarding variance (p > .05).

Table 13:

Sample size, mean, SD and SE mean of test conditions

	Brand	n	Mean	Std. Deviation	Std. Error Mean
UsrImFit_Health	Hansa	134	3.4925	1.19991	.10366
	Ringnes	125	3.1280	1.09968	.09836

Table 14:

Independent samples and Levene's Test of mean evaluation difference between sample conditions

		Levene	e's Test	t	-test for E	Means	
		F	Sig.	t	df	MD	SE Difference
UsrImFit_Health	Equal variances assumed	.054	.817	2.54***	257	.36454	.14333
	Equal variances not assumed			2.55***	256.922	.36454	.14290

Note: \*\*\* p < 0.01 (2-tailed), df = degrees of freedom, MD = mean difference, SE = standard error

Results show Hansa-respondents reported healthy lifestyle as fitting user imagery to a statistically significantly higher degree (mean = 3.49, SD = 1.20) than did Ringnes-respondents (mean = 3.13, SD = 1.10). Thus, the null hypothesis that the two brands are perceived to be *equally* fitting with a healthy lifestyle, is rejected ( $t_{257} = 2.54$ , p < .01).

#### 5.3.6 Additional testing

Because the initial hypotheses were very specific, and the current study seeks a broad view of brand image, additional evaluations were collected and tested similarly to the hypotheses presented previously. Most of these pertained to user and usage imagery. The most relevant findings are presented in table 15. Like all tests in 5.3, null hypothesis for all tests was that there was no difference in evaluations between the brands, and alternative hypothesis was that Hansa was more favorably evaluated. To see the formal tables and results of individual t-tests, see Appendix F.

Table 15:

Test variable	Equal variances	H₀ Rejected	Mean difference
BrandAtt_Index	Yes	Yes ***	1.52
UsgImFit_Food	Yes	Yes **	0.55
UsgImFit_Party	Yes	Yes ***	0.92
UsgImFit_AllSocial	Yes	Yes ***	0.77
UsgImFit_Students	No	Yes ***	0.75
UserImFit_AllJobs	Yes	Yes ***	0.72
UserImFit_AllAges	Yes	Yes ***	0.72
UnqSalience	Yes	Yes ***	1.37
ExpBen_Belong	Yes	Yes ***	0.67

Summary of results of additional testing

*Note:* \*\*\* p < 0.01 (2-tailed), \*\* p < 0.05 (2-tailed)

# 5.4 Principal Components Analysis

High correlation between variables could indicate that they to some degree measure the same fundamental factor, and factor analysis can be a useful tool to curtail included variables to explain the maximum amount of variance with a minimal number of variables (Field, 2005). Thus, to exploratively identify variables that load together, principal components analysis (PCA) was conducted (which is similar, but not identical, to factor analysis) on the five potential independent variables described in chapter 4.4, which yielded a highly internally reliable factor. It should be noted that any conclusions arising from PCA are limited to the

sample (Field, 2005). The most relevant pieces of output and decisions made in this analysis are presented below and in Appendix G.

The specific goal of this analysis was to identify variables that would be suitable for use in a reliable, weighted, dependent variable for future testing. The assumption about linear relationships between variables was not followed strictly, because the data handled are in fact ordinal in their original form. Because the variables were expected to be related to each other, oblique rotation was selected when conducting the analysis in SPSS (Field, 2005), specifically the method *Direct Quartimin*<sup>9</sup>. Under *missing values*, the option *exclude cases listwise* was selected, along with *exclude small coefficients* (< 0.1). *Maximum iterations for convergence* was left at default (= 25).

Table 16:

KMO and Bartlett's test

KMO Measure of sampling adequacy		.735
Bartlett's Sphericity Test	Approx. Chi-Square	753.320
	df	10
	Sig.	.000

Note: *df* = degrees of freedom

To make sure assumptions about sampling adequacy were satisfied, Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy was taken (see table 16). KMO Measure of Sampling Adequacy, of which values over .5 are considered acceptable, was observed to be .735 in this case, which is evaluated as *good* (Field, 2005).

Table 17:

Correlation matrix of PCA variables<sup>a</sup>

Variable	1	2	3	4	5
1 IndepVarLiking	1				
2 IndepVarFeeling	.865**	1			
3 IndepVarPI	.760**	.756**	1		
4 IndepVarStrength	.177**	.178**	.165**	1	
5 IndepVarTrust	.297**	.315**	.264**	.523**	1
a. Determinant = .063					

\*\* = *p* < 0.01

<sup>&</sup>lt;sup>9</sup> Direct Quartimin is utilized by selecting *Direct Oblimin* as rotation method, and let Delta = 0 (default) (Field, 2005).

To determine if there were any problems with singularity or extreme multicollinearity, a correlation matrix was included in the PCA. From the correlation matrix, it is apparent that there are no variables that do not correlate at all, and no correlations that exceed .9. To control for multicollinearity, the determinant of the correlation matrix (see table 17) was inspected and confirmed to be greater than .00001, leading to the conclusion that there was no problem with multicollinearity, as advised by Field (2005). Bartlett's Test of Sphericity was confirmed to be highly statistically significant (<.001), indicating that the data are suitable for reduction (see table 16).

Table 18:

#### Communalities

	Initial	Extraction
IndepVarLiking	1.000	.889
IndepVarFeeling	1.000	.887
IndepVarPI	1.000	.809
IndepVarStrength	1.000	.788
IndepVarTrust	1.000	.750

Extraction Method: Principal Component Analysis.

Because there were less than 30 variables included in the analysis, and communalities after extraction were all over .7, Kaiser's criterion, that is, retaining those variables with eigenvalues > 1, was acceptable to follow (Field, 2005). Also, because the sample size was greater than 200, a Scree plot was utilized to increase confidence in the decision of which factors to extract (see Appendix G) (Field, 2005). The point of inflexion could indicate that three variables might have been suitable for extraction, however, due to the relatively low eigenvalue of the third variable, this solution was discarded. Factor extraction thus included variables satisfying Kaiser's criterion, specifically variables 1 and 2, explaining approximately 82.47% of variance (see table 19). Their rotated factor loadings were 2.72 and 1.72, respectively.

Table 19:

#### Total variance explained

	Initial Eigenvalues	Extraction Sum	ns of Squared Lo	adings	Rotation Sums of	of Squared Loadii	ngs <sup>a</sup>
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	2.843	56.869	56.869	2.843	56.869	56.869	2.723
2	1.280	25.605	82.474	1.280	25.605	82.474	1.723
3	.466	9.326	91.801				
4	.275	5.500	97.301				
5	.135	2.699	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Table 20:

Pattern Matrix<sup>a</sup>

	Comp	onent
Variable	1	2
IndepVarLiking	.942	.004
IndepVarFeeling	.937	.017
IndepVarPI	.904	015
IndepVarStrength	081	.907
IndepVarTrust	.100	.833

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 3 iterations.

# 5.5 Reliability analysis

A reliability analysis was conducted to determine the internal reliability of the items extracted from PCA, that is, to determine whether they consistently measured the same construct (Field, 2005). The most common reliability measure, Cronbach's  $\alpha$ , was taken using SPSS, and although opinions of criteria differ among researchers, >.7 is often considered *acceptable* (Field, 2005). The extracted variables were found to have excellent internal reliability (2 items;  $\alpha = .927$ ).

To make sure that the variable extracted from the PCA would not be dramatically less reliable when created and measured for each brand separately, two additional reliability analyses were conducted; one for the index variable of each brand, respectively. Reliability statistics are presented for items included in *BrandAtt\_IndexH* and *BrandAtt\_IndexR*, respectively. Please

refer to Appendix E for item statistics and item-total statistics. The latter analyses confirm that internal consistency of the respective items remains excellent when the variable is calculated for Hansa respondents (2 items;  $\alpha = .915$ ) and Ringnes respondents (2 items;  $\alpha = .902$ ) separately.

# 5.6 Correlation matrices

A type of measurement which is commonplace in statistics for analyzing how different variables vary relatively to each other, is termed *correlation* (Field, 2005). Correlation can be measured e.g. by the Pearson correlation coefficient, denoted *r*, which can vary from -1 to 1 (Field, 2005). An absolute value of 1 would indicate a perfect linear relationship between two variables, where a negative value means a negative relationship, and 0 means no linear relationship. According to Field (2005), absolute values of .1, .3 and .5 indicate *small, medium* and *large* effects, respectively.

In this context, it is of particular interest to investigate whether there is indication of relationships between the index variable and the respective variables which previous tests have indicated to be differently evaluated for the two brands. Thus, the purpose is to reveal indicators that there exists a correlation relationship between *brand attitude* and a relevant set of variables pertaining to associations. Furthermore, a correlation matrix can help reveal multicollinearity which may threaten the precision of regression. A correlation matrix for each brand (two-tailed) is presented. For information about variable names, see subchapter 4.4.

Table 21:

Correlation matrix - Hansa variables<sup>a</sup>

Measure <sup>b</sup>	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. BrandAtt_IndexH	1													
2. userim_allages_h	.198*	1												
3. userim_alljobs_h	.272**	.492**	1											
4. userim_students_h	.061	.273**	.048	1										
5. userim_health_h	.225*	.269**	.187*	.049	1									
6. usgim_allsocial_h	.474**	.292**	.215*	.065	.117	1								
7. usgim_sport_h	.395**	.216*	.078	.085	.227*	.401**	1							
8. usgim_party_h	.547**	.335**	.307**	.189*	.198*	.643**	.534**	1						
9. usgim_food_h	.401**	.334**	.243**	.083	.377**	.420**	.426**	.427**	1					
10. unq_salience_h	.330**	.286**	.138	.242*	.126	.133	.344**	.419**	.129	1				
11. unq_heritage_h	.294**	.127	.243**	054	.228*	.258**	.291**	.376**	.215*	.380**	1			
12. unq_sports_h	.029	116	006	097	001	226*	015	080	.013	.023	.316**	1		
13. expben_belong_h	.368**	.230*	.098	.134	.323**	.211*	.312**	.348**	.257**	.250**	.382**	.125	1	
14. prod_des_h	.252**	.375**	.237*	.212*	.428**	.163	.364**	.273**	.446**	.193*	.191*	046	.389**	1

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).

a. Listwise N=112

b. Variables operationalized in subchapter 4.4

For responses regarding Hansa, all included variables except  $unq\_sports\_h$  and  $userim\_students\_h$  were found to have a statistically significant relationship with  $BrandAtt\_IndexH$  (p < .05). Furthermore, all of those variables, except  $userim\_health\_h$  and  $userim\_allages\_h$ , were statistically significant on a .01 level (2-tailed). Only  $usgim\_party\_h$  (r = .55) was found to have a large effect, whereas  $usgim\_allsocial\_h$  (r = .47),  $usgim\_food\_h$  (r = .40),  $usgim\_sport\_h$  (r = .40),  $expben\_belong\_h$  (r = .37) and  $unq\_salience\_h$  (r = .33) were found to have medium effect (all ps < .01). The correlation coefficient of  $unq\_heritage\_h$  (r = .29) barely did not exceed the threshold for medium effect, but like the other statistically significant effect sizes on a .01 level (2-tailed) in this matrix, it far exceeded the threshold for small effect.

There were several instances of relatively high correlations between variables other than the index, and one thing to notice straight away is that there were no extreme values of r (all r < .8). As expected,  $usgim\_allsocial\_h$  was significantly correlated with the rest of the  $usgim\_variables$  (all ps < .01). There also seems to be medium to high correlation between the latter.  $Expben\_belong\_h$ , the only included variable pertaining to experiential benefit, was most strongly correlated with  $unq\_heritage\_h$  (r = .38, p < .01).  $Prod\_des\_h$  was most highly

correlated with  $usgim_food_h$  (r = .45, p < .01) and  $usgim_health_h$  (r = .43, p < .01), and did also show a significant relationship with  $BrandAtt_IndexH$  (r = .25, p < .01).

Table 22:

Correlation matrix - Ringnes variables<sup>a</sup>

Measure <sup>b</sup>	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. BrandAtt_IndexR	1													
2. userim_allages_r	.176	1												
3. userim_alljobs_r	.098	.595**	1											
4. userim_students_r	.204*	.170	.173	1										
5. userim_health_r	.209*	.269**	.147	.130	1									
6. usgim_allsocial_r	.575**	.288**	.376**	.076	.248*	1								
7. usgim_sport_r	.452**	.178	.359**	.144	.246*	.747**	1							
8. usgim_party_r	.541**	.259**	.321**	.194	.097	.611**	.644**	1						
9. usgim_food_r	.502**	.322**	.250*	.029	.365**	.627**	.524**	.407**	1					
10. unq_salience_r	.216*	.178	.116	.232*	.195	.182	.100	.045	.258**	1				
11. unq_heritage_r	.149	.148	.289**	.017	.078	.208*	.217*	.109	.096	.301**	1			
12. unq_sports_r	.159	.117	.068	.019	.057	.056	.083	103	.057	.318**	.163	1		
13. expben_belong_r	.479**	.190	.244*	.200*	.014	.285**	.200*	.440**	.237*	.245*	.132	.138	1	
14. prod_des_r	.307**	.169	.147	006	.295**	.208*	.224*	.140	.453**	.134	.178	.082	.218 <sup>*</sup>	1

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).

a. Listwise N=101

b. Variables operationalized in subchapter 4.4

For responses regarding Ringnes,  $BrandAtt_IndexR$  showed a statistically significant relationship with all variables except  $usgim_allages_r$ ,  $usgim_alljobs_r$ ,  $unq_heritage_r$  and  $unq_sports_r$ . Of those significant relationships,  $usgim_allsocial_r$  (r = .58),  $usgim_party_r$  (r = .54),  $usgim_food_r$  (r = .50),  $expben_belong_r$  (r = .48),  $usgim_sport_r$  (r = .45) and  $prod_des_r$  (r = .31) were all statistically significant on a .01 level (2-tailed). Moreover, the correlation coefficient was *large* for the former three variables and *medium* for the latter three.

Like for the Hansa-matrix, no extreme correlation coefficients were observed, and similarly, the *usgim*-variables showed significant interrelationships on a .01 level. Furthermore, *userim\_alljobs\_r* showed significant relationships to a medium degree with *usgim\_allsocial\_r* (r = .38), *usgim\_sport\_r* (r = .36) and *usgim\_party\_r* (r = .32), all *ps* (2-tailed) < .01. Second to *BrandAtt\_IndexR*, *expben\_belong\_r* showed a significant relationship to *usgim\_party\_r* (r = .44, *p* (2-tailed) < .01). The largest effect observed in relation to *prod\_des\_r* was with *usgim\_food\_r* (r = .45, *p* (2-tailed) < .01), and the only other medium effect relationship was

with *BrandAtt\_IndexR* (r = .31, *p* (2-tailed) < .01). A significant (medium) relationship was observed between *usgim\_food\_r* and *userim\_health\_r* (r = .37, *p* (2-tailed) < .01).

## 5.7 Regression

The final research question seeks to know how certain brand associations relate to brand attitude, but the correlation matrices only took into account one association at a time. Thus, to explore how specific brand associations, in context of one another, relate to brand attitude, multiple linear regression was conducted. To further investigate the relationships between brand attitude and the brand associations which showed at least medium effect size on a .001 significance level in the correlation matrices<sup>10</sup>, nine multiple models were regressed using SPSS, each with the respective brand's index variable as the dependent variable. The results of each regression are summarized below, including F-statistics, standardized betas and significance values. Relevant tables of each regression output are included in Appendix H. For a review of statistical assumptions, see subchapter 4.5.

**Model A** included three independent variables. The variables *expben\_belong\_h* ( $\beta = .179$ , p < .05), *usgim\_party\_h* ( $\beta = .40$ , p < .01) and *usgim\_food\_h* ( $\beta = .176$ , p < .05) were shown to have a statistically significant relationship with the dependent variable *BrandAtt\_IndexH* (F(3,112) = 20.07, p < .01), with an adjusted r<sup>2</sup> of .332.

**Model B** included three independent variables. The variables *expben\_belong\_h* ( $\beta = .185$ , p < .05), *usgim\_party\_h* ( $\beta = .307$ , p < .01), and *usgim\_food\_h* ( $\beta = .147$ , p < .10) were shown to have a statistically significant relationship with the dependent variable *BrandAtt\_IndexH* (F(4,111) = 15.88, p < .01), with an adjusted r<sup>2</sup> of .341. Note that in this model, *usgim\_food\_h* was only significant on a 90% confidence level.

**Model C** included two independent variables. The variables *expben\_belong\_h* ( $\beta$  = .202, p < .05), and *usgim\_party\_h* ( $\beta$  = .468, p < .01) were shown to have a statistically significant relationship with the dependent variable *BrandAtt\_IndexH* (F(2,113) = 27.16, p < .01), with an adjusted r<sup>2</sup> of .313.

**Model D** included two independent variables. The variables  $usgim\_sport\_h$  ( $\beta = .277$ , p < .01) and  $usgim\_food\_h$  ( $\beta = .321$ , p < .01) were shown to have a statistically significant

<sup>&</sup>lt;sup>10</sup> That is, the most clearly indicated linear relationships were chosen for analysis.

relationship with the dependent variable *BrandAtt\_IndexH* (F(2,126) = 22.78, p < .01), with an adjusted  $r^2$  of .251.

**Model E** included three independent variables. The variables  $usgim\_sport\_h$  ( $\beta = .237$ , p < .05),  $usgim\_food\_h$  ( $\beta = .283$ , p < .01) and  $unq\_heritage\_h$  ( $\beta = .195$ , p < .05) were shown to have a statistically significant relationship with the dependent variable  $BrandAtt\_IndexH$  (F(3,114) = 15.89, p < .01), with an adjusted r<sup>2</sup> of .276.

**Model F** included two independent variables. The variables *usgim\_allsocial\_r* ( $\beta$  = .489, p < .01) and *expben\_belong\_r* ( $\beta$  = .322, p < .01) were shown to have a statistically significant relationship with the dependent variable *BrandAtt\_IndexR* (F(2,102) = 38.38, p < .01), with an adjusted r<sup>2</sup> of .418.

**Model G** included three independent variables. The variables *expben\_belong\_r* ( $\beta$  = .355, p < .01), *usgim\_allsocial\_r* ( $\beta$  = .550, p < .01) and *userim\_alljobs\_r* ( $\beta$  = -.196, p < .05) were shown to have a statistically significant relationship with the dependent variable *BrandAtt\_IndexR* (F(3,101) = 28.87, p < .01), with an adjusted r<sup>2</sup> of .446.

**Model H** included four independent variables. The variables *expben\_belong\_r* ( $\beta$  = .300, p < .01), *usgim\_allsocial\_r* ( $\beta$  = .436, p < .01), *userim\_alljobs\_r* ( $\beta$  = -.208, p < .01) and *usgim\_party\_r* ( $\beta$  = .214, p < .05) were shown to have a statistically significant relationship with the dependent variable *BrandAtt\_IndexR* (F(4,100) = 23.67, p < .01), with an adjusted r<sup>2</sup> of .466.

**Model I** included five independent variables. The variables *expben\_belong\_r* ( $\beta$  = .290, p < .01), *usgim\_allsocial\_r* ( $\beta$  = .321, p < .01) and *userim\_alljobs\_r* ( $\beta$  = -.208, p < .01), *usgim\_party\_r* ( $\beta$  = .209, p < .05) and *usgim\_food\_r* ( $\beta$  = .188, p < .05) were shown to have a statistically significant relationship with the dependent variable *BrandAtt\_IndexR* (F(5,99) = 20.36, p < .01), with an adjusted r<sup>2</sup> of .482.

# **Chapter 6: Discussion**

In this chapter, findings from the previous chapter will be discussed. The discussion is separated into four sections. Initially, findings will be put into words in a less rigidly structured summary, with the goal of highlighting similarities and contrasts between the two brands, and reporting findings which may be relevant in the same context. Then, implications of the research findings will be discussed; first in perspective of the theoretical framework the study has built on, and then practical implications for marketing managers.

Finally, some limitations of the research will be pointed out, together with recommendations for future research. The reader is kindly reminded of the validity issues reported in chapter 4 which prevent generalization of findings to the population, and notified that the discussion will regard findings as valid and reliable.

# 6.1 Summary of findings

Table 23:

Summary table of hypothesis test results

Hypothesis	Equal variances assumed	H₀ Rejected
1	No	Yes
2	No	Yes
3	Yes	Yes
4	Yes	Yes
5	Yes	Yes

H<sub>0</sub> = Null hypothesis

As revealed by testing hypothesis 3, *product appearance* was found to be one of the most obvious POD in terms of evaluation between the two brands. The variable did show low to moderate correlation with brand attitude for both conditions. However, this evaluation did not turn out to be a significant IV in context of other variables, and no further evidence was found that *evaluation of product appearance* was a significant driver of brand attitude for either brand condition. It did, however, seem to have a linear relationship with *perceived fit with food* and *healthy user image* for both conditions. Thus, it is possible that there was a non-linear relationship or an invisible effect at play.

From the correlation tables there was evidence of strong linear relationship between perceived *fit with the party context* and attitude towards the brand, and the relationship seemed to be almost identical for both brands. To determine whether this could be an equally important

driver of attitude for both brands, further analysis was conducted. From regression model C (see appendix H) there was indication that *perceived fit with the party context* was a very important driver for Hansa's brand attitude, predicting a relatively high share of variation when modeled with only one other IV.

This was also the case when a third IV was included (see Model A). When *perceived fit with food* was considered, *party fit* remained a highly significant, high-beta variable, whereas the former seemed to equate with the third; *sense of belonging*. Although Ringnes' brand attitude was highly correlated with *party fit* too, regression analysis revealed it to have relatively less weight (see Models I and H) than the case for Hansa. Additional testing showed that although both means were positive, Hansa was evaluated statistically significantly higher on this variable, which reveals this could be a POD for Hansa.

*Sense of belonging* seemed to be a relevant driver of brand attitude for both brands. Both correlation matrices showed medium correlation with brand attitude (highest for Ringnes), and the variable was a significant predictor in all regression models except D and E. The standardized beta values indicated that *sense of belonging* was relatively more important for Ringnes' brand attitude, but a likely driver of brand attitude for both. The impression from interviews does support this notion, as *experiencing social belonging* was specifically mentioned for both brands. Additional testing revealed that Hansa was at an advantage regarding association with this benefit.

There were not many obvious user imagery differences between the brands, but perceiving a brand as *fitting for consumers of all professions* did show significant correlation with brand attitude for Hansa, which was also evaluated more highly on this attribute. Despite showing no correlation with brand attitude towards Ringnes, it was a significant variable in model H and I, being the only IV which showed a negative relationship with brand attitude towards either brand.

The variable which correlated highest with brand attitude towards Ringnes, *fit with all social occasions*, also received the highest standardized beta in all Ringnes regression models (F-I). This suggests that the most important driver of Ringnes' brand attitude relates to evaluating the brand as congruent with all social occasions. There is no such evidence for Hansa (model B showed the variable was not statistically significant on a .10 level). However, additional testing showed Ringnes to be evaluated relatively lower than Hansa on this variable (see Appendix F). The implication that the variable might be a POD was further supported by

several interview responses for both brands, which pointed out certain types of occasions as (in)appropriate for the brand.

Judging from correlation matrices and regression models, *fit with food* did seem to relate to brand attitude for both brands. Additional testing showed that Hansa was evaluated to be significantly more congruent with food, however the mean difference was not as large as for some other evaluations. A larger perceived difference was expected based on interview responses.

Correlation matrix for Hansa variables (see table 21) indicated several other variables related to usage imagery, which correlated with brand attitude. Models D and E gave an alternative impression of drivers of brand attitude for Hansa. These two models produced a relatively lower adjusted r<sup>2</sup> than the others. However, they are relevant to discuss because they (especially model E) included specific variables which were hypothesized to be of importance. Model D included *fit with sports spectating* and *fit with food consumption* as usage imagery, the latter with a marginally higher standardized beta. Model E included the additional *unique heritage* evaluation, which appears influential, despite having the relatively lower standardized beta. All IVs in both models were statistically significant on a .05 level.

Firstly, both models implied that *perceived fit with the sports context* was an influential variable for brand attitude towards Hansa, supporting the claims of hypothesis 4. It also acknowledges the overall impression from the interviews about congruence of consumption contexts. Secondly, model E does support the claims of hypothesis 2, providing further indication that the perception that Hansa commands a unique heritage is positively related to its brand image.

Related to the above findings, testing of hypothesis 4 revealed that although both brands' mean evaluations were positive, Hansa was found to be significantly more congruent in the sports spectating context. Furthermore, test results of hypothesis 2 confirmed the expectation that Hansa was perceived to have a *unique heritage* to a higher degree than was Ringnes (and the mean response for Ringnes was in disagreement with the statement). This finding was also in line with interview impressions, as several references were made to Hansa's heritage and closely related associations, such as geographic locations. In addition, when asked about Ringnes, some explicitly pointed out that the brand was *not* unique.

Hypothesis 4 was an extension of hypothesis 1, which sought to disclose difference in association to any sports team as a secondary entity, and was also supported by test results.

However, as both condition means were on the disagreeing side of the scale, interpreting results proved challenging. Hansa was evaluated to be associated with a *unique sports team* to a significantly higher degree than Ringnes, but no significant relationship was found with brand attitude for either condition. The higher association was expected from interviews, as several interviewees mentioned *Sportsklubben Brann* by name in unique association with Hansa.

The final extension of the sports-related hypotheses, hypothesis 5, sought to detect positive usage imagery related to sports, namely *healthy lifestyle*. Results, although statistically significant, did not show as marked a difference as the others. This was somewhat expected, because even if secondary associations from the sports-context influence the brand images, one might expect it to be salient in relatively fewer consumers' minds, and especially less noticeable in a product category which involves low effort decision making.

A comparison of the *brand attitude*-variables for the brand conditions was also included in the additional testing, and revealed that, similarly to the other variables, Hansa was also evaluated statistically significantly higher than Ringnes. This variable seemed to provide the clearest point of differentiation, and is expectedly related to the totality of associations. It should be specified that the mean response for Hansa was positive, whereas the mean response for Ringnes was not (i.e. below 4 on response scale).

# 6.2 Theoretical Implications

First and foremost, the findings of this paper show that even in a highly regulated market where advertising is prohibited, differential response to competing brands' elements is possible. The implication of this is that consumer knowledge can be influenced, regardless of bounds set on traditional advertising, which stands in contrast with the traditional view that it is the primary source of differentiation in the struggle for brand equity (Cobb-Walgren et al., 1995). In turn, one might question whether restrictions on traditional marketing are sufficient when peripheral ques are likely to influence consumers.

A significant relationship was found between perception of unique heritage and perception of unique relation to a sports team for Hansa, but not Ringnes. This finding implies that although no direct relationship with brand attitude was observed, the unique team association could be a secondary association to the perception of unique heritage (it is unknown whether measured associations are on the primary or secondary level). It is also possible that there was some other indirect effect at play which has not been captured by the current measurements.

The finding that Hansa was perceived to fit more with sports spectating than Ringnes, was important, because attitude towards both brands showed relationship with fit with sports spectating. One implication of this is that this attribute was an important competitive point for the brands, and might indicate that sports are becoming a frame of reference for the category (Keller et al., 2002). The association falls under *usage imagery* in the CBBE framework, and consumers' evaluation of such attributes could implicate the brand personality (Aaker, 1996).

In fact, the finding implicates coherence between Hansa's brand identity (communication linked to sports) and perceived image, which, as elaborated in chapter 3, is a desired goal in brand positioning, especially for competing brands that appear similar (Kapferer, 2008; Aaker, 1996). The above does provide some support to the notion that establishing links by sponsorships can lead to indirect association with those of the sponsored party, as proposed by Keller (1993), and though confirmation requires further research.

Based on the most noticeable variables in this study, it seems that, besides unique associations, usage imagery attributes and experiential benefits were especially influential for brands in the product category. Experiential benefit relating to social belonging is also related to symbolic benefit, because although it is *experienced*, it is also contingent on a social context with which to belong. The theoretical implication of this variable's importance to both brands is that conspicuous consumption could be more prevalent in the product category than might usually be expected from non-luxury brands in the FMCG market. This finding is in line with Kapferer's (2008) statement that alcohol consumption is conspicuous, and similar conclusions have been made in other beer markets (Gómez-Corona, Escalona-Buendía, García, Chollet and Valentin, 2016).

It must be mentioned that on all comparisons of evaluations, Hansa was more highly evaluated. This was also consistently true when brand attitude was compared, which provides support to the commonly acknowledged idea that brand attitude is a function of the associations related to it (Hoyer et al., 2013). It also fits with Zarantonello & Schmitt's (2013) findings that event marketing affects brand attitude. Findings from previous research in other beer markets support this consistency between image associations and brand equity (Porral, Bourgault and Dopico, 2013). Moreover, because brand attitude is considered the most influential image-component regarding price elasticity (Keller, 1993), the implication is that Hansa should command a higher price premium than Ringnes (see chapter 6.3), given equal unit costs. It has previously been shown that consumers are unable to differentiate beer brands by taste, which was even pointed out by interviewees in the pilot study, but instead evaluate them based on labels and associations (Allison & Uhl, 1964). The findings about product design evaluation in the previous subchapter, implicate that product design could affect brand attitude, perhaps also indirectly, by signaling information related to other non-product related attributes or benefits. However, the relationship is somewhat unclear, which could be related to differences between individual consumers' consciousness of their own judgements and how they are influenced by product appearance (Creusen & Schoormans, 2005). It is likely also that judgements were influenced by mere exposure, which was not measured (Schnittka, Sattler and Zenker, 2012). The findings indicate that more research is necessary to fully understand the effect of product appearance on attitudes towards the studied brands.

The overall findings confirm that when it comes to brand attitude, non-product related attributes and experiential benefits are highly related, which supports the notion that differentiation indeed grows from the individual consumers' knowledge (Keller, 1993).

# 6.3 Managerial Implications

First and foremost, the relative brand attitude disadvantage found for Ringnes is contrary to what might be expected from its owners' relative market share. This has several implications. First, the market share took into consideration all brands operated by the organization, and therefore did not necessarily imply category-leadership for the Ringnes brand. Conceivably, the brand line could make up a relatively low share of total sales. Secondly, given that attitudes implicate behavior, the finding that Hansa's brand attitude was significantly more favorable than Ringnes', entails that Hansa should experience higher purchase intentions among consumers, and possibly enjoys a higher profit margin as well.

Third, although significant differences were found, the brands can also be said to be relatively homogeneous. When brands are perceived as homogeneous, attitudes toward brand extensions are more highly influenced by brand attitude, which has important implications for brand strategy. For example, it would presumably be easier for Hansa to execute a successful line extension than for Ringnes to do the same in the CBBE perspective (Keller, 1993). This suggests that Ringnes' brand attitude might require improvement in advance if line extensions are considered.

Hansa was found to be perceived as more unique when it comes to heritage, clearly differentiated from Ringnes. This was perhaps the most revealing finding of the main study,

and entails important practical implications. Seen in context of the CBBE framework, the association is likely assisted by Hansa's suggestive brand name and its slogan. The apparent coherence was specifically pointed out by interviewees as well. The finding that Hansa has successfully created heritage associations which lead to differential response from consumers, implicate that these associations should be carefully maintained in the future. While they should maintain ties to e.g. cultural events by sponsorship, they should also beware of disadvantageous or irrelevant secondary associations which may have a negative impact. A careful and constant management of secondary associations is advised in that regard.

Although Ringnes utilizes some of the same marketing elements as Hansa, for example event marketing, Ringnes' brand image seems more ambiguous. The association most closely linked to Ringnes' brand attitude was *fit with all social occasions*, which has several potential connotations. First, it is possible that the brand is simply perceived as acceptable in a broader range of usage contexts. However, this is contrary to the general interview response impression, which indicated Ringnes might be perceived as less fitting in formal contexts. Second, this could indicate a lack of strong usage imagery associations for Ringnes. In the latter case, it is recommended that the brand identity is reviewed, and that all future marketing activity is ensured to communicate a coherent image.

A suggestion in this regard is to consider the motto (as stated in chapter 2). Ringnes' webpage states that the motto is that of the owner, namely Carlsberg Group. Such a tactic can leverage secondary associations to Carlsberg Group (Keller, 2005), which could indicate an intention to position Ringnes' image closer to it. However, on the same page a different slogan (in Norwegian) is used as the headline, which can also be seen printed on distribution trucks<sup>11</sup>. Overall, the communication of slogan seems somewhat cluttered and not in unison. Prioritizing the slogan most representative of Ringnes' intended brand identity might prove more advantageous going forward.

Findings from chapter 5 indicate that Hansa has achieved some degree of association with sports, which can perhaps be attributed to the sponsorships and event marketing they communicate on their webpage. The sports association did not seem irrelevant for Ringnes' brand attitude, but it was evaluated significantly lower. This could indicate that the association was really a product category association. If Ringnes were to establish stronger

<sup>&</sup>lt;sup>11</sup> From the author's own observation.

association with the sports context and make it a point of parity, Hansa's advantage of positive differentiation could be diminished.

Although Hansa was relatively highly evaluated when it comes to *fit in the party context* and *sense of belonging*, both those associations seem relevant to Ringnes' brand attitude. It is conceivable that one or both of these associations indicate category membership, in which case Ringnes should make an effort to become more highly evaluated. Without delving too deeply into corporate strategy, it is recommended that Carlsberg decide to what degree Ringnes should share the corporate image, and whether the Ringnes brand should become more salient in event marketing and sponsorships relating to social gathering contexts (such as music festival sponsorships, as presented in chapter 2).

It is not unlikely that the respective brand images will be influenced by the change process regarding the brands' distribution chains (explained in chapter 2), and brand managers of both competitors would be well advised to keep in mind the dynamic character of brand associations in their decision making. For example, the highly publicized partnership with Rema could create new secondary associations for Ringnes, which brand managers are recommended to monitor closely.

## 6.4 Limitations and future research

In this section, some suggestions for future research are made based on experience from the current research process by highlighting some of the delimitations and natural restrictions encountered during the process. Validity and reliability discussions are circumscribed by the methodology chapter, and will not be repeated in this chapter.

Similarities between the brands were expected, especially on points of parity, but one implication of findings is that a more complex mapping of each brand's image would be advantageous to gain a more detailed understanding of what separates the meaning behind the associations. In future research with descriptive goals, it is recommended that several multiitem measures are used to produce abundant attribute and benefit variables, and furthermore, to use fitting graphical representations (e.g. in link with graphical elicitation techniques) to more easily interpret the broader brand image of respective brands.

Delimitations of this study excluded certain distribution channels from the category which are likely to heavily influence perceptions about, and not least, awareness of brands in the category. Therefore, the current thesis only shows one piece of the puzzle. Accordingly, future research about beer brands or other alcoholic beverage brands should, if possible, include *HoReCa*. For example, night clubs as distribution channels are probably highly relevant to create brand associations by influencing episodic memory (not unlike event marketing), and because such venues enjoy some slack on use of brand elements, also influential regarding brand awareness. A broader view on distribution channels might also reveal customer segment information and implications thereof.

On the subject of customer segments; this thesis has only taken the first steps into exploring which brand associations are salient in consumers' minds. A suggested area of focus for future research is to learn not only how competing brands are differentiated in the minds of consumers in general, but whether there are systematic differences in brand knowledge between segments. From this, detailed information about how to further adapt marketing elements to suit the target segment(s) can be gained.

A relevant limitation of the current thesis to mention in this regard is that there were indications in interviews that geographic location was relevant to study, but due to limitations on resources and time, this topic could not be satisfactorily explored. Hansa Borg themselves stated that gaining regional competitive advantage is a goal (Hansa Borg Bryggerier AS, 2009f), further strengthening the assumption that geographic segmentation is an important tactic. Therefore, future research should determine to what degree brand attitudes and other aspects of brand knowledge might differ for regional populations, including differences between indigenous and relocated citizens (for example consumers temporarily resided in a city for studying purposes). Such research could be coupled with research on influence of legal marketing communications, e.g. by means of experimentation.

A possible limitation of this thesis is that the focus has been on the image of brand *lines*. Because each of them have several line extensions which carry the parent-brand name, there might also be image differences between individual products which influence the overall brand attitude. It is also possible that the different products were targeted at different consumer segments, and might be inefficient to analyze in terms of the parent-brand. A possible solution is to compare individual products of differing brands which compete in the same subcategory.

The abundant data collected throughout the research is a strength of the thesis, and a naturally following limitation thereof is that due to limited time and resources, it could not all be studied. Although this was an intentional decision to guarantee sufficient data in advance of

analysis, recommendations for future researchers include considering if the focus is narrow enough, and to spend as much time as feasible on planning anterior to data collection. A related strength of the current research was studying well-known brands, yielding a sample with a high proportion of brand awareness, and in turn, usable data.

# Chapter 7: Conclusion

This thesis has studied brand associations of the dominating competitors in the Norwegian mass-produced beer market, and was motivated by a lack of publicly available market information, legislative restrictions on advertising, recent changes in the marketplace and a desire to apply marketing theory to real-life brands. More specifically, the perceived differences between two brand lines which share names with their respective parent brands were investigated by means of a pilot study and a main study.

The former sought to determine which associations were most salient in consumer minds by means of elicitation techniques in interviews, whereas the latter used quantitative data collection and analysis techniques with the goal to compare and contrast the brands in an objective manner, based on a larger sample. The methodology and concerning issues relating to validity and reliability was thoroughly presented in advance of results from both studies. Finally, implications and limitations of findings were discussed, and recommendations for future research were made.

To conclude the research, a brief conclusion is provided to each research question below.

- Usage imagery associations, specifically party contexts, were abundant for both brands. Many responses about both brands referenced geography, and experiential benefits, especially relating to social belonging, were also highly reported. Overall, more unique associations were reported about Hansa (please refer to chapter 5.1 for a full disclosure of frequencies).
- The index variables measuring brand attitudes showed the highest discrepancy of all. Differently evaluated associations worth mentioning include salience, product appearance, unique heritage, unique affiliation with a sports team and fit for consumption in the party context.
- 3. For Hansa, the associations indicated to be most closely related to brand attitude were fit with party, fit with food, fit with sports spectating and experiencing a sense of social belonging. For Ringnes, they were experiencing a sense of social belonging and perceived fit with all social occasions, with parties specifically, and with food.

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# Appendices

### Appendix A

Interview guide notes for pilot study

*Explanation*: Questions used as guide for interviewing. First question was coupled with brand cues, i.e. showing three example products from the relevant brand line.

Varemerket i fokus er [Hansa/Ringnes] øl (brand cue)

Hva er det første du tenker på når du ser dette varemerket?

Hva slags fordeler får man ved å kjøpe og konsumere denne merkevaren? (Hva symboliserer man ved å drikke Hansa/Ringnes øl? Hva slags opplevelse gir den? Hvilken funksjon har den?)

Hva forbinder du umiddelbart med en typisk konsument av merkevaren? (Hvem kjøper merkevaren? Hvordan ser personen ut?)

Hva tror du en typisk [din gruppe] tenker at dette varemerket smaker?

Hva tror du [din gruppe] vanligvis føler når de drikker [Hansa/Ringnes] øl?

Hvor kjøper vanligvis [din gruppe] denne merkevaren?

I hvilke anledninger er det passende å konsumere denne merkevaren? (Er det noe spesielt som gjør at denne merkevaren passer i denne sammenhengen?)

Hva er det som gjør at [din gruppe] bestemmer seg for å kjøpe denne merkevaren?

Hva koster vanligvis en (halvliter) Hansa/Ringnes øl? (Dyrt? Billig?)

Skiller Hansa/Ringnes seg ut fra andre, liknende merkevarer? Hvordan?

Hvis Hansa/Ringnes øl var en kjendis, hvem ville det vært? Hva er det første du tenker om vedkommende?

Kjønn, alder

**Debrief:** Vi har brukt teknikker for å undersøke assosiasjoner til en merkevare i kategorien «øl solgt i dagligvarehandel». Disse vil kategoriseres basert på mønster i de totale besvarelsene, og evt. viktige funn, og benyttes til å utarbeide en spørreundersøkelse, som vil utgjøre hovedinnsamlingen av data til oppgaven. Takk for at du tok deg tid til å bidra til forskningen. Spørsmål?

### Appendix B

Questionnaire flow and overview of questions

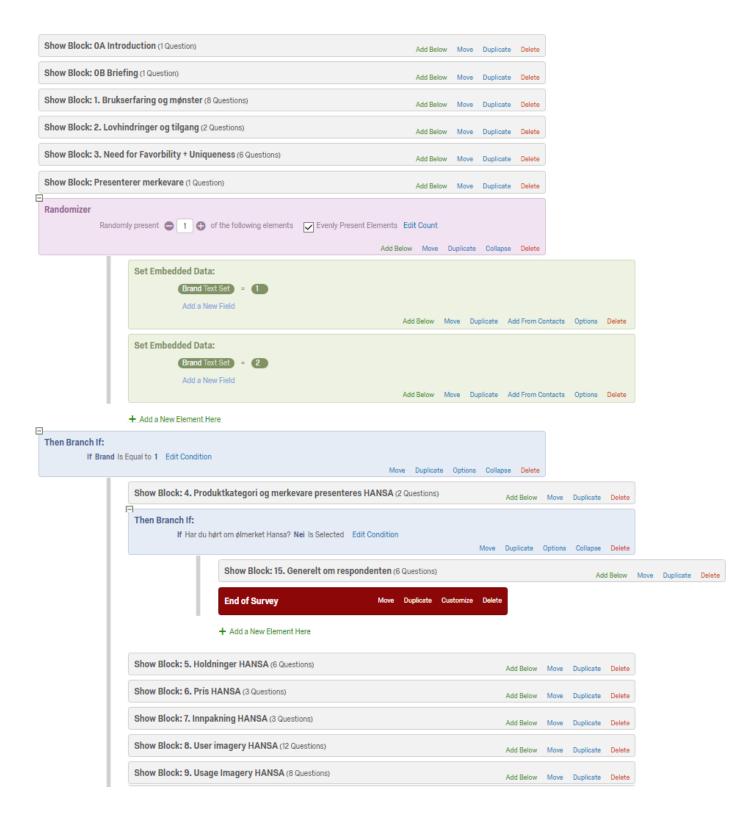
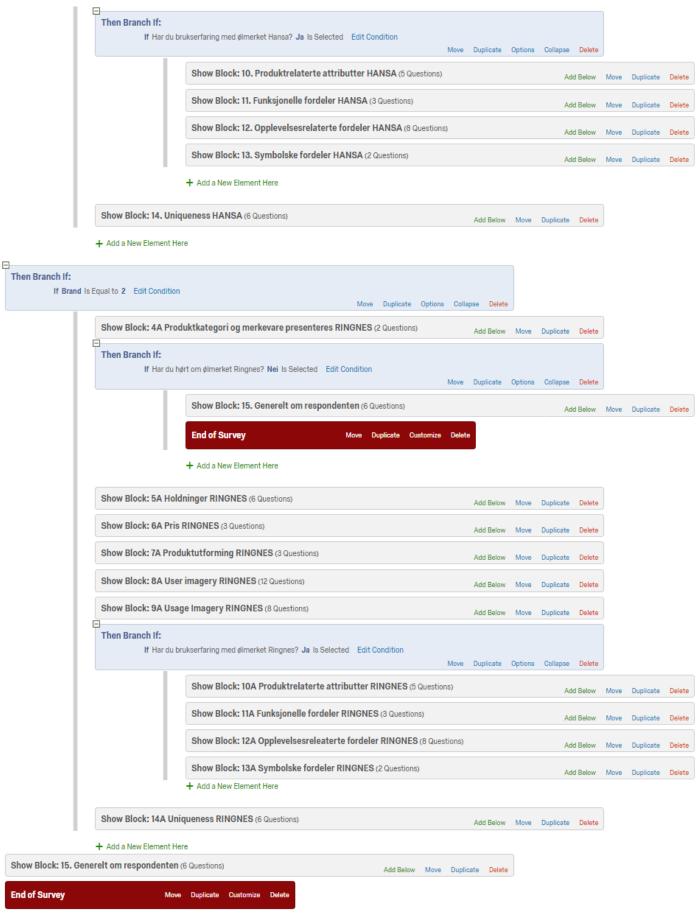


Figure B1: Questionnaire flow, part 1 of 2



+ Add a New Element Here

Figure B2: Questionnaire flow, part 2 of 2

**Explanation:** The following is an exhaustive disclosure of all questions from the questionnaire, including both conditions. The seven-point response options were the same for all evaluation questions (described in chapter 4 under *Questionnaire Design*), and were removed from the list for the reader's convenience.

i1 Velkommen!Denne spørreundersøkelsen gjennomføres i forbindelse med masterstudiet ved Norges Handelshøyskole, og resultatene vil benyttes i en masteroppgave for å svare på bl.a markedsrelevante spørsmål. Spørreundersøkelsen er frivillig, helt anonym, og krever ingen forkunnskaper. Ingen opplysninger vil kunne kobles til deg etter at besvarelsen er levert.Vennligst fortsett til neste side for å komme i gang.

i2 Spørsmålene i undersøkelsen er nesten utelukkende flervalgsoppgaver. Det er viktig for den videre forskningen at du er så ærlig og presis som mulig i din besvarelse. Dine svar kan påvirke hvilke spørsmål du får senere. Undersøkelsen må fullføres for at ditt bidrag skal telle. Det er ikke mulig å gå tilbake i besvarelsen.Du vil få instruks for besvarelse samt eksempel på svar der dette er nødvendig. Det settes stor pris på din deltakelse.

Q1 Liker du øl?

- **O** Ja (1)
- O Nei (2)

Q2 I løpet av en typisk måned drikker jeg

**O** Mindre enn én liter øl (1)

- Opptil 10 liter øl (2)
- Opptil 20 liter øl (3)
- Opptil 30 liter øl (4)
- Opptil 40 liter øl (5)
- Opptil 50 liter øl (6)
- Opptil/mer enn 60 liter øl (7)
- Q3 I løpet av en typisk måned drikker jeg øl
- **O** Skjeldnere enn én gang (1)
- Ved 1-5 anledninger (2)
- **O** Ved 6-10 anledninger (3)
- **O** Ved 11-15 anledninger (4)
- Ved 16-20 anledninger (5)
- **O** Ved 21-25 anledninger (6)
- Ved mer enn 25 anledninger (7)

Q5 Tenk på antall enheter alkoholholdig drikke du konsumerer i løpet av en vanlig måned.

Målt i prosent, hvor mange av enhetene er øl?Dersom du ikke drikker alkohol, velg 100%

øl.(Eksempel: Hvis du drikker ti enheter alkoholholdig drikke, og fire av disse er øl, er svaret "Øl 40% - Annet 60%")

\_\_\_\_\_ Øl (1) \_\_\_\_\_ Annet (2)

Q6 Når jeg skal kjøpe alkoholholdig drikke, er pris en avgjørende faktor.

Q7 Det er viktig for meg å velge lokalt produserte ølmerker når jeg handler.

Q8 Når jeg kjøper øl i butikken, kjøper jeg alltid det samme merket

Q9 Når jeg kjøper øl i butikken, er det alltid bestemt på forhånd

Q10 Jeg hadde foretrukket at det fantes alternativer av øl med høyere alkoholprosent i butikker.

Q11 Jeg hadde foretrukket at det fantes flere alternativer av typer alkoholholdig drikke i butikker.

i3 Ta stilling til følgende utsagn:Når jeg drikker øl, er det viktig for meg at

Q12 ...det smaker godt.

- Q13 ... det gir en rus.
- Q14 ...det symboliserer noe.
- Q15 ...det er samme merke som andre drikker.

Q16 ...ingen andre drikker det samme merket.

i4 Du vil nå få presentert et ølmerke solgt i norske dagligvarebutikker. Resten av spørreundersøkelsen vil dreie seg om dette ølmerket.Dersom det skulle bli nødvendig, kan du

anta at det er snakk om øl i alkoholgruppe 1 (over 2,5% og maksimalt 4,7% alkohol), og alle produkter som bærer det gitte merkenavnet.

Q18 Har du hørt om ølmerket Hansa?

Ja (1)
Nei (2)
Q19 Har du brukserfaring med ølmerket Hansa?

- **O** Ja (1)
- **O** Nei (2)

i14 For å fullføre spørreundersøkelsen, vennligst svar på noen generelle spørsmål om deg selv.

Q78 Kjønn

O Mann (1)
O Kvinne (2)
Q82 Alder(Skriv inn din alder i tallverdi. Eksempel: "24")

Q79 Bosted

Q83 Opphavssted

Q84 Hva er ditt hovedvirke?

i5 Med hensyn til ølmerket Hansa, ta stilling til hvorvidt du er enig i de følgende utsagnene:

Q21 Dette er et ølmerke jeg liker veldig godt.

Q23 Jeg har gode følelser forbundet til dette ølmerket.

Q24 Jeg kommer til å kjøpe dette ølmerket neste gang jeg kjøper øl.

Q25 Jeg er sikker på mine vurderinger av dette ølmerket.

Q26 Jeg vet hva jeg får når jeg kjøper dette ølmerket

Q27 Pris er den viktigste årsaken for å velge Hansa øl

Q28 Hansa øl er dyrt sammenlignet med andre merker i samme kategori.

Q29 Hvis Hansa øl var billigere, ville jeg valgt det oftere.

Q30 Hansa øl har en estetisk tilfredsstillende produktutforming.

Q31 Ølprodukter fra Hansa er lette å gjenkjenne.

Q32 Hansa øl har en rotete produktutforming.

i6 Vennligst ta stilling til følgende påstander: Hansa drikkes vanligvis av...

- Q34 ...studenter.
- Q35 ... arbeidsledige.
- Q36 ...folk med lav betalingsvilje.
- Q37 ...folk i alle yrkesgrupper.
- Q38 ... unge folk.
- Q39 ...folk i alle aldre.
- Q40 ...folk med sunn livsstil.
- Q41 ...rusmisbrukere.
- Q42 ... Vestlendinger.
- Q43 De som drikker Hansa, drikker øl oftere enn andre.

Q44 De som drikker Hansa, drikker utelukkende dette ølmerket.

- i7 Vennligst ta stilling til følgende påstander. Hansa øl passer...
- Q45 ...til fest.
- Q47 ...til alle sosiale anledninger for voksne.

Q48 ...til mat.

- Q49 ...når man skal slappe av i helgen.
- Q50 ... når man skal slappe av i hverdagen.
- Q51 ...når man ser på sport.
- Q52 ...når man ønsker å bli beruset.
- i8 Vennligst ta stilling til følgende produktrelaterte påstander:
- Q54 Hansa øl smaker for utvannet.
- Q55 Hansa øl smaker for bittert.

- Q56 Hansa øl smaker veldig godt.
- Q57 Hansa øl er lettdrikkelig.
- Q58 Hansa øl er en velsmakende øl.
- Q59 Hansa øl smaker bedre enn andre merker i samme kategori.
- Q60 Jeg drikker Hansa øl hovedsaklig på grunn av smaken.
- i9 Vennligst ta stilling til følgende påstander:Når jeg drikker Hansa øl...
- Q61 ...føler jeg meg avslappet.
- Q63 ...føler jeg meg fri.
- Q64 ... føler jeg glede.
- Q65 ...føler jeg sosial tilhørighet.
- Q66 ... i forbindelse med andre aktiviteter, får jeg mer ut av disse.
- Q67 ... i andres selskap, blir stemningen bedre.
- Q68 Jeg drikker Hansa øl hovedsaklig på grunn av opplevelsen.
- Q69 Når jeg drikker Hansa øl, signaliserer jeg tilhørighet.
- Q70 Jeg drikker Hansa øl hovedsaklig på grunn av signalet det sender.
- Q71 Jeg føler at jeg ser mer til Hansa øl enn andre tilsvarende merker.
- Q72 Hansa øl har en unik historie og tradisjon.
- Q73 Hansa øl er det lokale ølmerket i Hordaland.
- Q74 Hansa øl er det nasjonale ølmerket i Norge.
- Q75 Hansa øl har en helt spesiell produktutforming.
- Q76 Jeg forbinder Hansa øl med et spesifikt idrettslag.
- Q85 Har du hørt om ølmerket Ringnes?
- **O** Ja (1)
- **O** Nei (2)
- Q86 Har du brukserfaring med ølmerket Ringnes?

**O** Ja (1)

**O** Nei (2)

i10 Med hensyn til ølmerket Ringnes, ta stilling til hvorvidt du er enig i de følgende utsagnene:

Q88 Dette er et ølmerke jeg liker veldig godt.

Q89 Jeg har gode følelser forbundet til dette ølmerket.

Q90 Jeg kommer til å kjøpe dette ølmerket neste gang jeg kjøper øl.

Q91 Jeg er sikker på mine vurderinger av dette ølmerket.

Q92 Jeg vet hva jeg får når jeg kjøper dette ølmerket

Q93 Pris er den viktigste årsaken for å velge Ringnes øl.

Q94 Ringnes øl er dyrt sammenlignet med andre merker i samme kategori.

Q95 Hvis Ringnes øl var billigere, ville jeg valgt det oftere.

Q96 Ringnes øl har en estetisk tilfredsstillende produktutforming.

Q97 Ølprodukter fra Ringnes er lette å gjenkjenne.

Q98 Ringnes øl har en rotete produktutforming.

i11 Vennligst ta stilling til følgende påstander:Ringnes øl drikkes vanligvis av...

Q100 ... studenter.

Q101 ... arbeidsledige.

Q102 ...folk med lav betalingsvilje.

Q103 ...folk i alle yrkesgrupper.

Q104 ... unge folk.

Q105 ...folk i alle aldre.

Q106 ...folk med sunn livsstil.

Q107 ...rusmisbrukere.

Q108 ...Østlendinger.

Q109 De som drikker Ringnes, drikker øl oftere enn andre.

- Q110 De som drikker Ringnes, drikker utelukkende dette ølmerket.
- i12 Vennligst ta stilling til følgende påstander.Ringnes øl passer...

Q112 ...til fest.

Q113 ...til alle sosiale anledninger for voksne.

Q114 ...til mat.

- Q115 ...når man skal slappe av i helgen.
- Q116 ...når man skal slappe av i hverdagen.

Q117 ...når man ser på sport.

- Q118 ...når man ønsker å bli beruset.
- i13 Vennligst ta stilling til følgende produktrelaterte påstander:
- Q120 Ringnes øl smaker for utvannet.
- Q121 Ringnes øl smaker for bittert.
- Q122 Ringnes øl smaker veldig godt.
- Q123 Ringnes øl er lettdrikkelig.
- Q124 Ringes øl er en velsmakende øl.
- Q125 Ringnes øl smaker bedre enn andre merker i samme kategori.
- Q126 Jeg drikker Ringnes øl hovedsaklig på grunn av smaken.
- i14 Vennligst ta stilling til følgende påstander:Når jeg drikker Ringnes øl...
- Q128 ...føler jeg meg avslappet.
- Q129 ...føler jeg meg fri.
- Q130 ... føler jeg glede.
- Q131 ... føler jeg sosial tilhørighet.
- Q132 ... i forbindelse med andre aktiviteter, får jeg mer ut av disse.
- Q133 ...i andres selskap, blir stemningen bedre.

- Q134 Jeg drikker Ringnes øl hovedsaklig på grunn av opplevelsen.
- Q135 Når jeg drikker Ringnes øl, signaliserer jeg tilhørighet.
- Q136 Jeg drikker Ringnes øl hovedsaklig på grunn av signalet det sender.
- Q137 Jeg føler at jeg ser mer til Ringnes øl enn andre tilsvarende merker.
- Q138 Ringnes øl har en unik historie og tradisjon.
- Q139 Ringnes øl er det lokale ølmerket i Oslo.
- Q140 Ringnes øl er det nasjonale ølmerket i Norge.
- Q141 Ringnes øl har en helt spesiell produktutforming.
- Q142 Jeg forbinder Ringnes øl med et spesifikt idrettslag.

### Appendix C

### Descriptive statistics of operationalized variables

# Table C1Descriptive Statistics of operationalized variables

	Ν	Mean		SD	Skewness		Kurtosis	
Variable name	Statistic	Statistic	SE	Statistic	Statistic	SE	Statistic	SE
Age_H	118	27.4661	.74668	8.11107	2.336	.223	5.331	.442
Age_R	113	29.6195	1.01617	10.80205	1.866	.227	2.644	.451
AgeGroup	234	1.76	.071	1.087	1.651	.159	2.138	.317
Brand	284	1.50	.030	.501	.000	.145	-2.014	.288
BrandAtt_Index	276	4.1902	.10284	1.70855	141	.147	672	.292
BrandAtt_IndexH	139	4.94460	.12913	1.52241	465	.206	297	.408
BrandAtt_IndexR	137	3.4234	.13165	1.54097	.102	.207	416	.411
ExpBen_Belong	221	3.9412	.09602	1.42739	416	.164	.098	.326
expben_belong_h	116	4.2586	.12005	1.29293	373	.225	.424	.446
expben_belong_r	105	3.5905	.14557	1.49161	329	.236	227	.467
IndepVarFeeling	276	4.2790	.10442	1.73469	280	.147	597	.292
IndepVarLiking	276	4.1014	.10860	1.80420	108	.147	878	.292
IndepVarPI	276	3.1667	.11272	1.87261	.402	.147	906	.292
IndepVarStrength	276	5.1522	.09237	1.53458	720	.147	.031	.292
IndepVarTrust	276	5.4167	.08598	1.42839	-1.034	.147	1.055	.292
prod_des_h	138	4.6884	.09961	1.17019	256	.206	.436	.410
prod_des_r	130	3.5385	.11357	1.29491	412	.212	010	.422
ProdDesign	268	4.1306	.08296	1.35805	365	.149	.233	.297
beerliking	184	1.16	.027	.370	1.839	.179	1.398	.356
recog_h	142	1.00	.000	.000				
brandexp_h	142	1.05	.018	.217	4.208	.203	15.935	.404
sex	235	1.40	.032	.492	.393	.159	-1.862	.316
countyresid	235	7.40	.219	3.355	1.868	.159	3.639	.316
age	234	28.62	.643	9.832	2.122	.159	3.929	.317
occupation	235	1.83	.068	1.036	.556	.159	-1.442	.316
recog_r	142	1.02	.012	.144	6.731	.203	43.928	.404
brandexp_r	142	1.15	.030	.356	2.005	.203	2.049	.404
unq_heritage_h	118	4.8136	.13508	1.46730	645	.223	.401	.442
unq_heritage_r	114	3.8772	.12217	1.30445	572	.226	.630	.449
unq_salience_h	118	4.4915	.15165	1.64730	533	.223	442	.442
unq_salience_r	114	3.1228	.14485	1.54657	.229	.226	678	.449
unq_sports_h	118	3.3559	.18666	2.02769	.341	.223	-1.163	.442
unq_sports_r	114	2.3596	.13994	1.49410	.690	.226	539	.449
UnqHeritage	232	4.3534	.09611	1.46388	422	.160	.225	.318
UnqSalience	232	3.8190	.11399	1.73629	089	.160	923	.318
UnqSports	232	2.8664	.12148	1.85030	.624	.160	699	.318
userim_allages_h	134	5.2836	.10304	1.19278	540	.209	.537	.416
userim_allages_r	125	4.5680	.11823	1.32188	309	.217	.348	.430
userim_alljobs_h	134	5.2537	.10144	1.17420	310	.209	357	.416
userim_alljobs_r	125	4.5360	.11997	1.34130	180	.217	.100	.430

userim_health_h	134	3.4925	.10366	1.19991	367	.209	.729	.416
userim_health_r	125	3.1280	.09836	1.09968	665	.217	640	.430
userim_students_h	134	4.9627	.12097	1.40036	600	.209	.193	.416
userim_students_r	125	4.2160	.10871	1.21539	424	.217	1.029	.430
UserImFit_AllAges	259	4.9382	.08105	1.30445	444	.151	.313	.302
UserImFit_AllJobs	259	4.9073	.08113	1.30559	312	.151	062	.302
UserImFit_Health	259	3.3166	.07238	1.16479	432	.151	.224	.302
UserImFit_Students	259	4.6023	.08476	1.36404	369	.151	.239	.302
usgim_allsocial_h	129	5.1240	.14308	1.62504	725	.213	212	.423
usgim_allsocial_r	123	4.3577	.13860	1.53714	663	.218	.185	.433
usgim_food_h	129	4.5271	.14645	1.66338	364	.213	536	.423
usgim_food_r	123	3.9756	.13731	1.52285	496	.218	313	.433
usgim_party_h	129	5.6512	.10594	1.20319	991	.213	1.430	.423
usgim_party_r	123	4.7317	.14143	1.56851	879	.218	.569	.433
usgim_sport_h	129	5.1938	.12110	1.37544	832	.213	1.036	.423
usgim_sport_r	123	4.3902	.14586	1.61770	880	.218	.256	.433
UsgImFit_AllSocial	252	4.7500	.10240	1.62556	600	.153	131	.306
UsgImFit_Food	252	4.2579	.10186	1.61693	356	.153	411	.306
UsgImFit_Party	252	5.2024	.09228	1.46497	-1.022	.153	1.149	.306
UsgImFit_Sport	252	4.8016	.09756	1.54878	897	.153	.727	.306
		6F 61						

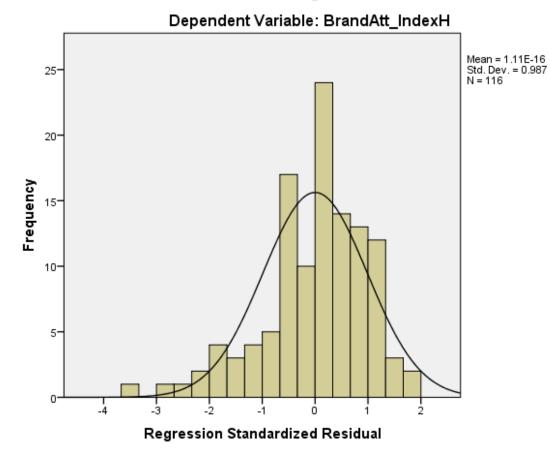
Note: SD = Standard deviation, SE = Standard error

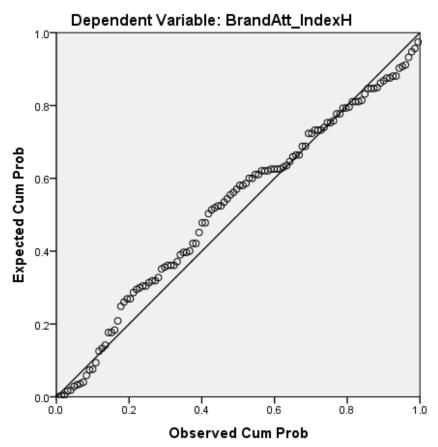
### Appendix D

Assumption checks for regression analyses: Histograms, P-P plots and scatterplots

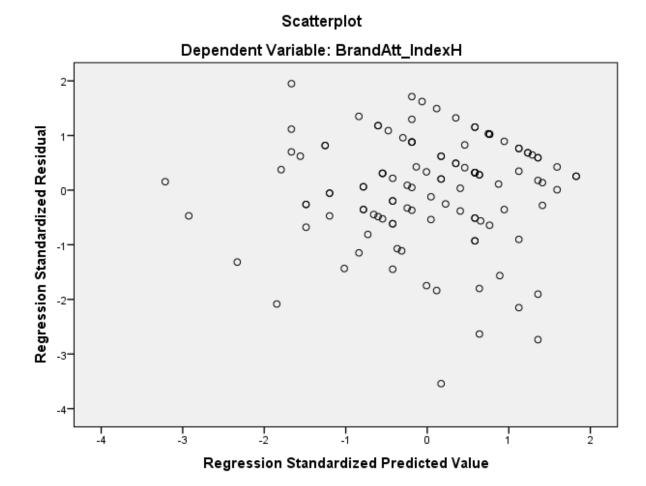


#### Histogram



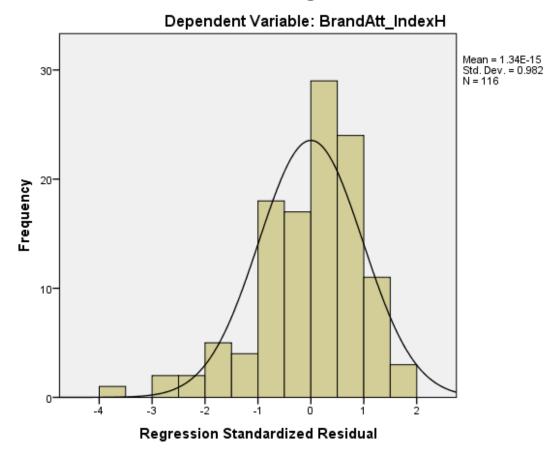


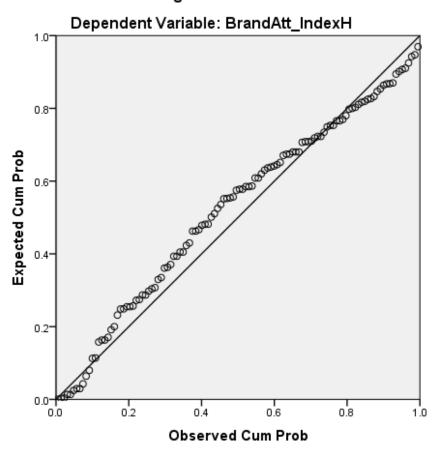
Normal P-P Plot of Regression Standardized Residual



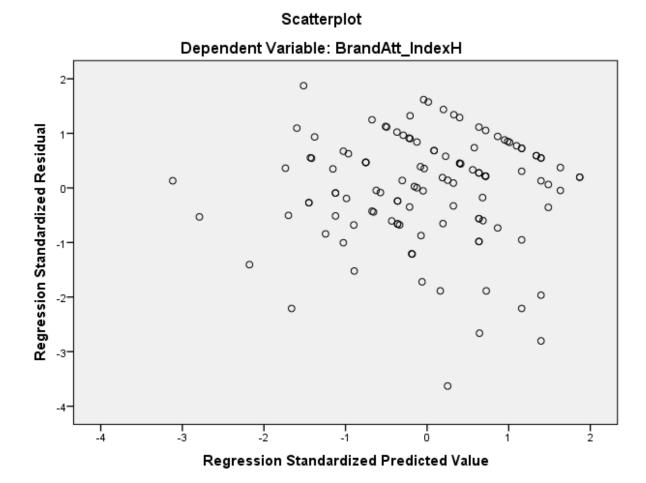
Model B:





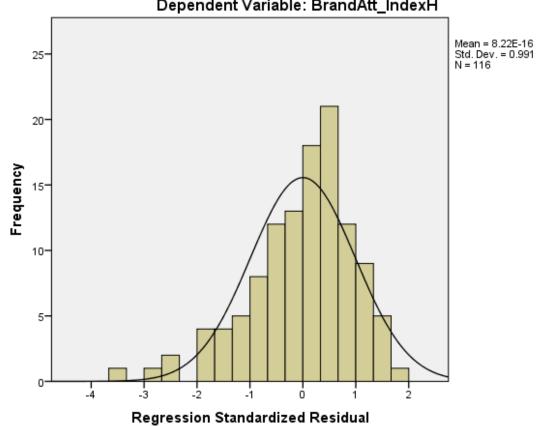


Normal P-P Plot of Regression Standardized Residual

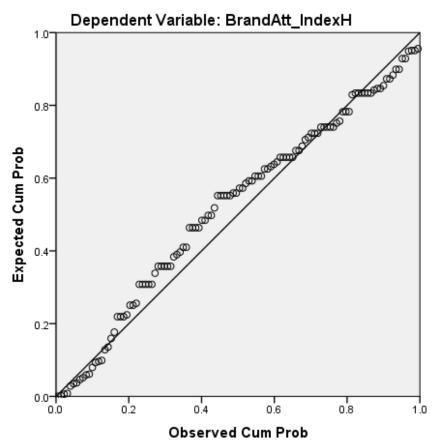


Model C:

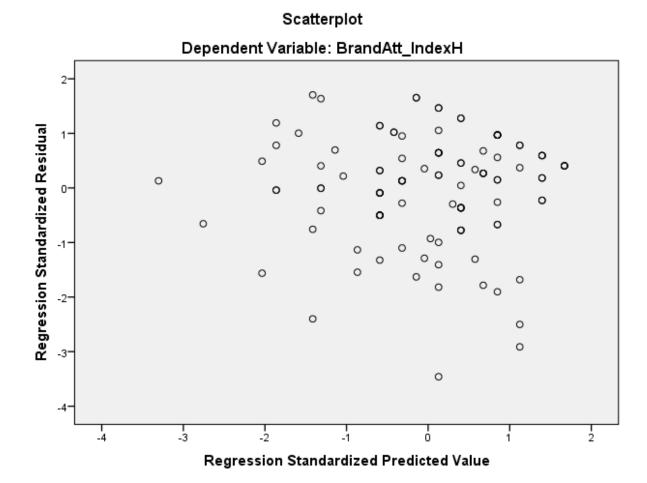
### Histogram



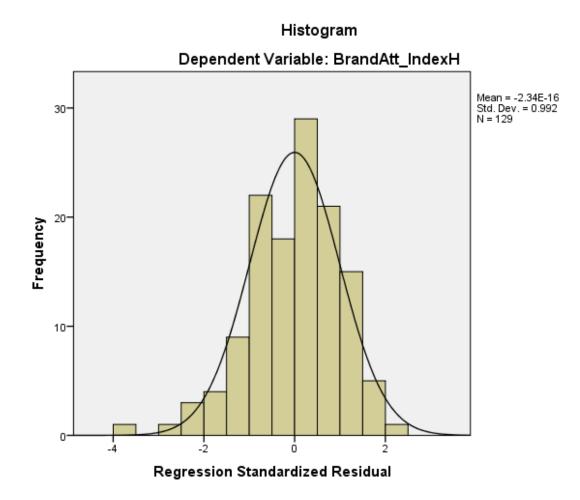
### Dependent Variable: BrandAtt\_IndexH

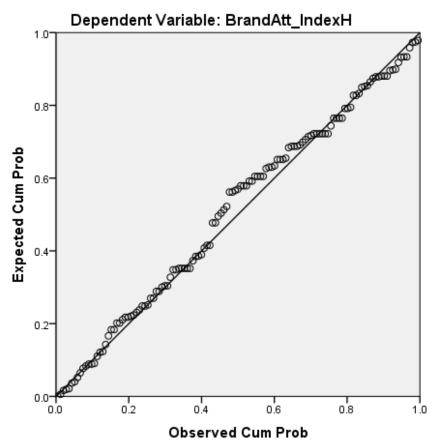


Normal P-P Plot of Regression Standardized Residual

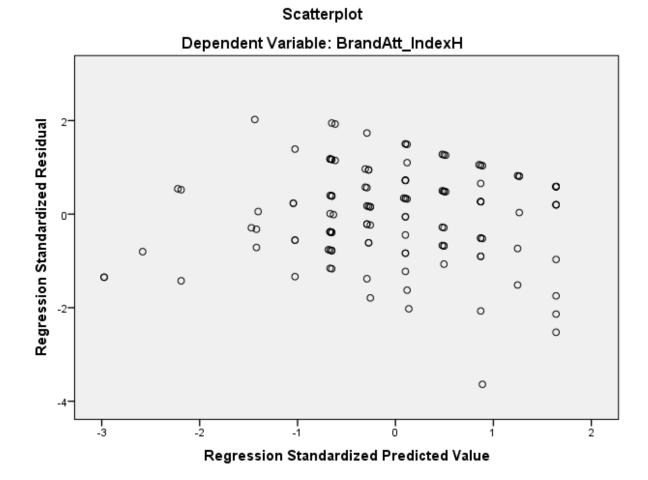


Model D:



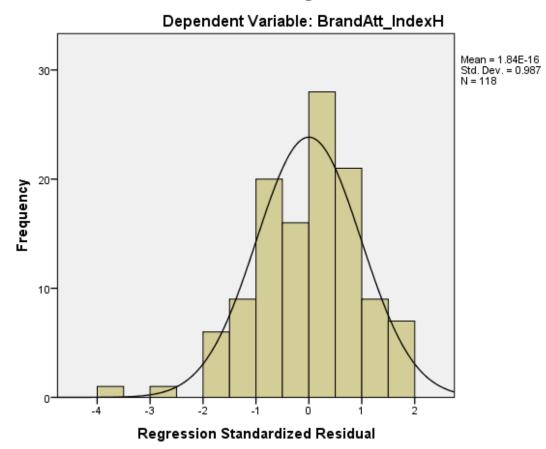


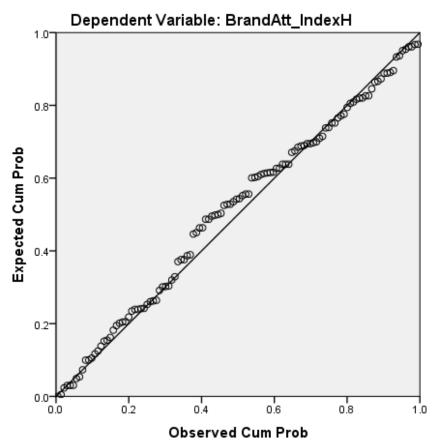
Normal P-P Plot of Regression Standardized Residual



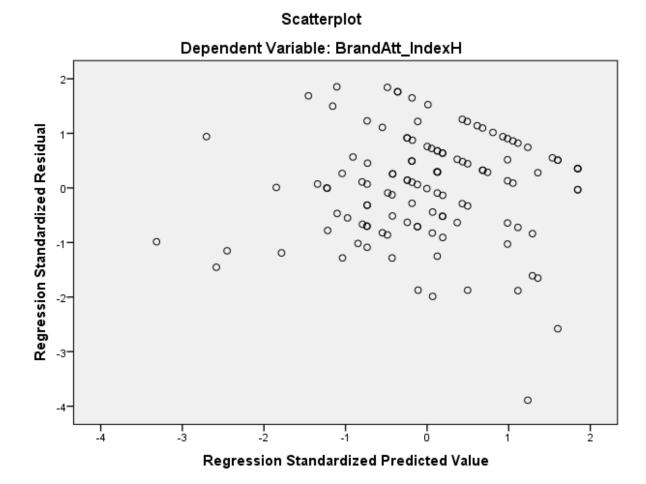
Model E:





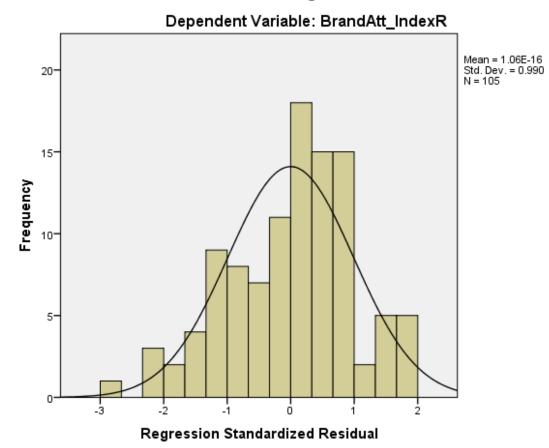


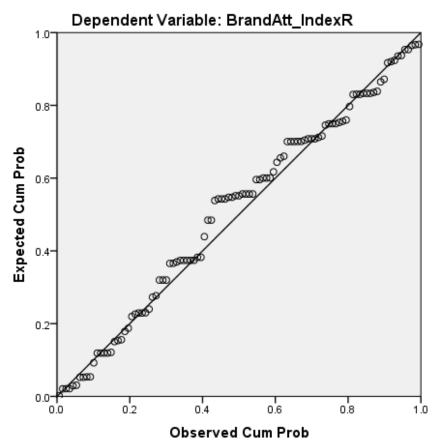
Normal P-P Plot of Regression Standardized Residual



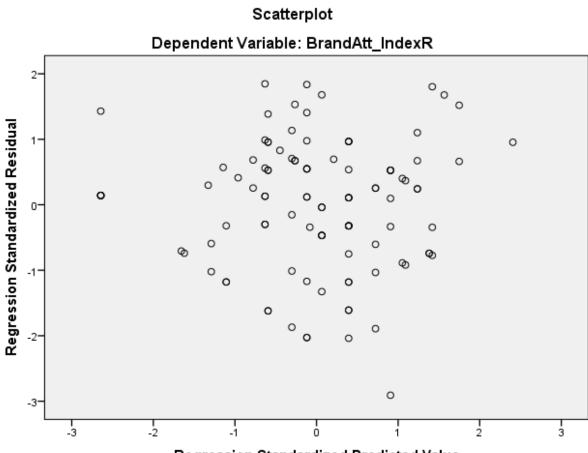
Model F:







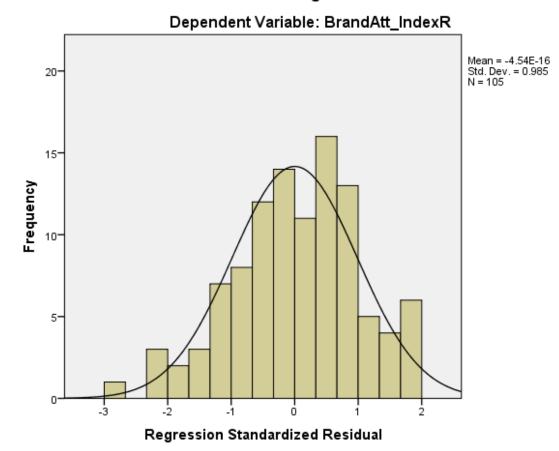
Normal P-P Plot of Regression Standardized Residual

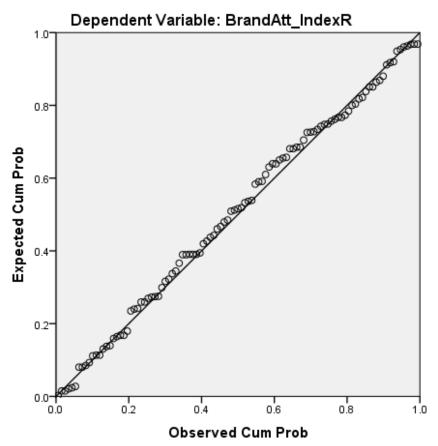


Regression Standardized Predicted Value

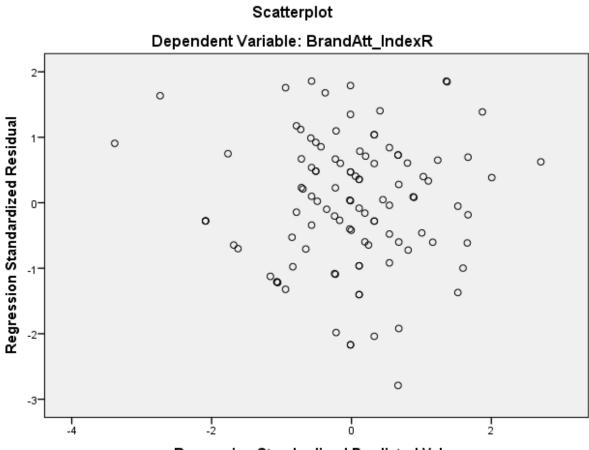
Model G:

## Histogram





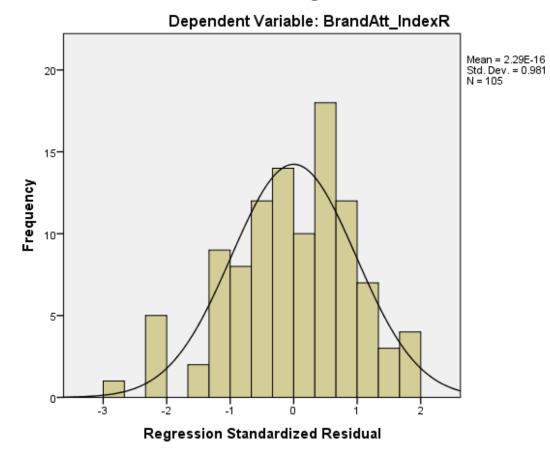
Normal P-P Plot of Regression Standardized Residual

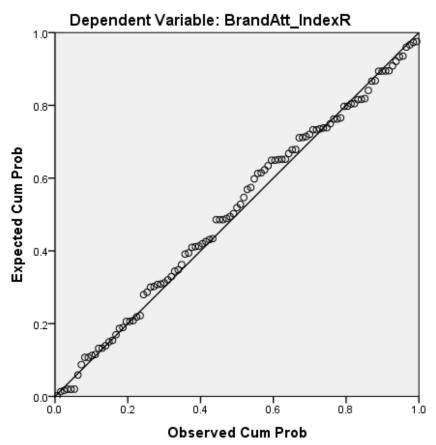


Regression Standardized Predicted Value

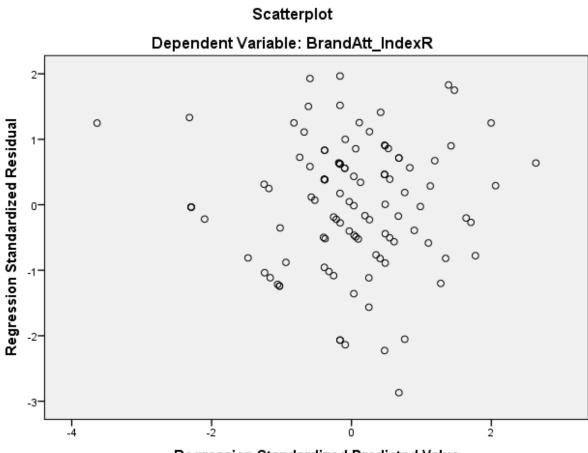
Model H:

## Histogram





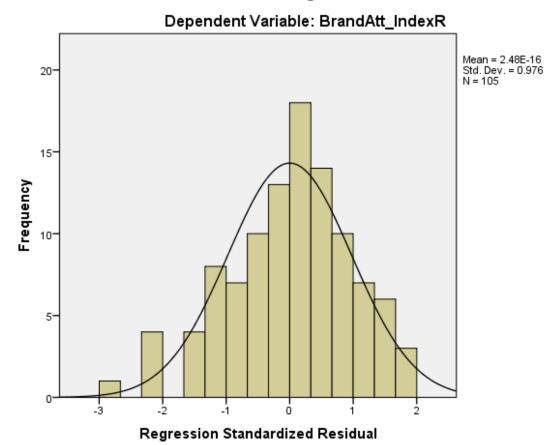
Normal P-P Plot of Regression Standardized Residual

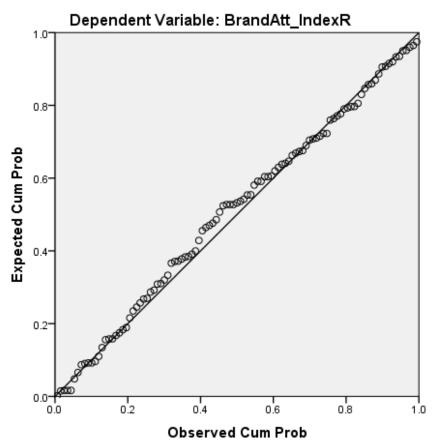


Regression Standardized Predicted Value

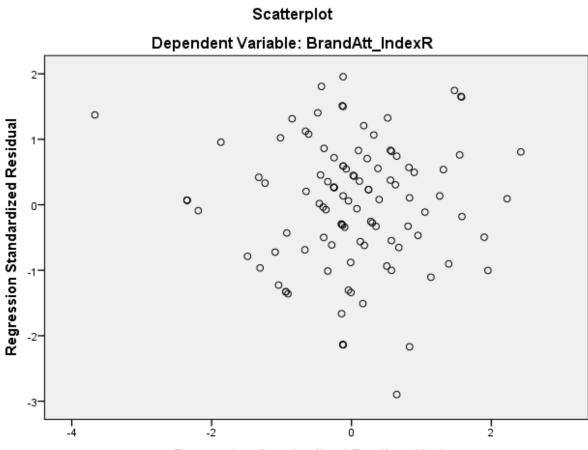
Model I:







Normal P-P Plot of Regression Standardized Residual



Regression Standardized Predicted Value

# Appendix E

### Output from reliability analyses

### **BrandAtt\_Index** (n = 276):

Table E1 Reliability Statistics	
Cronbach's Alpha	Items
.927	2

### Table E2 Item Statistics

Item	Mean	Std. Deviation	Ν
IndepVarLiking	4.1014	1.80420	276
IndepVarFeeling	4.2790	1.73469	276

### Table E3 Item total statistics

IndepVarLiking	IndepVarFeeling
4.2790	4.1014
3.009	3.255
.865	.865
•	•
	4.2790 3.009 .865

### **BrandAtt\_IndexH** (n = 139):

Table E4	
Reliability Statistics	
Cronbach's Alpha	Items
.915	2

#### Table E5 Item Statistics

Item	Mean	Std. Deviation	Ν
IndepVarLiking (Q21)	4.83	1.672	139
IndepVarFeeling (Q23)	5.06	1.495	139

### Table E6 Item total statistics

	IndepVarLiking	IndepVarFeeling
Scale Mean if Item Deleted	5.06	4.83
Scale Variance if Item Deleted	2.235	2.796
Corrected Item-Total Correlation	.848	.848
Cronbach's Alpha if Item Deleted		

## **BrandAtt\_IndexR** (n = 137):

Table E7 Reliability Statistics	
Cronbach's Alpha	Items
.904	2

Table E8			
Item Statistics			
Item	Mean	Std. Deviation	Ν
IndepVarLiking (Q88)	3.36	1.631	137
IndepVarFeeling (Q89)	3.48	1.596	137

### Table E9 Item total statistics

	IndepVarLiking	IndepVarFeeling
Scale Mean if Item Deleted	3.48	3.36
Scale Variance if Item Deleted	2.546	2.660
Corrected Item-Total Correlation	.825	.825
Cronbach's Alpha if Item Deleted	•	•

## Appendix F

### Additional t-test results including group statistics and explanation

### Usage imagery: Fit with food

To test the hypothesis that Hansa beer is perceived by consumers to be complimentary with food to a higher degree than is Ringnes beer, an independent samples t-test (a = .05) was performed on the variable *UsgImFit\_Food* using *Brand* (1, 2) as the grouping variable. As can be seen from Levene's test for Equality of Variances, the null hypothesis assuming equal variances cannot be rejected (p > .05). Thus, results can be extracted from the Student's t-test results (see table F2).

### Table F1

Sample size, mean, SD and SE mean of test conditions

	Brand	n	Mean	Std. Deviation	Std. Error Mean
UsgImFit_Food	1	129	4.5271	1.66338	.14645
	2	123	3.9756	1.52285	.13731

### Table F2

Independent Samples and Levene's Test of mean evaluation difference between sample conditions

		Levei	ne's				
		Test t-test for Equality of M			Means		
		F	Sig.	t	df	MD	SE Difference
UsgImFit_Food	Equal variances assumed	3.216	.074	2.74***	250	.55152	.20118
	Equal variances not assumed			2.75***	249.593	.55152	.20076

Note: \*\*\* *p* < 0.01 (2-tailed), *df* = degrees of freedom, *MD* = mean difference, *SE* = standard error

Results show that Hansa (mean = 4.53, SD = 1.66) was perceived as complimentary with food to a statistically significantly higher degree than was Ringnes (mean = 3.98, SD = 1.52). From this, the null hypothesis that the two brands are perceived to be equally fitting for consumption with food is rejected ( $t_{250}$  = 2.74, p < .05).

### Usage imagery: Fit in the party context

To test the hypothesis that Hansa beer is perceived by consumers as appropriate for consumption in the party context to a higher degree Ringnes beer, an independent samples t-test (a = .05) was performed on the variable *UsgImFit\_Party* using *Brand* (1, 2) as the grouping variable. As can be seen from Levene's test for Equality of Variances, the null hypothesis assuming equal variances cannot be rejected (p > .05). Thus, results can be extracted from the Student's t-test results (see table F4).

Table F3 Sample size	mean SD	and S	F mean a	f test conditions	
<u> </u>	-			Std. Deviation	Std. Error
UsgImParty	1	129	5.6512	1.20319	

123 4.7317

2

Table F4 Independent Samples and Levene's Test of mean evaluation difference between sample conditions

1.56851

Mean .10594

.14143

		Leve	ne's						
		Te	st	t	t-test for Equality of Means				
-			Sig.	t	df	MD	SE Difference		
UsgImParty	Equal variances assumed	3.861	.051	5.24***	250	.91946	.17561		
	Equal variances not assumed			5.20***	228.689	.91946	.17670		

Note: \*\*\* *p* < 0.01 (2-tailed), *df* = degrees of freedom, *MD* = mean difference, *SE* = standard error

Results show that Hansa (mean = 5.65, SD = 1.20) was perceived to fit in the party context to a statistically significantly higher degree than was Ringnes (mean = 4.73, SD = 1.57). From this, the null hypothesis that the two brands are perceived to be equally fitting for consumption in the party context is rejected ( $t_{250} = 5.24$ , p < .01).

### Usage imagery: Fit on all social occasions for adults

To test the hypothesis that Hansa beer is perceived by consumers as appropriate for consumption in all social occasions for adults to a higher degree than is Ringnes beer, an independent samples t-test (a = .05) was performed on the variable *UsgImFit\_AllSocial* using *Brand* (1, 2) as the grouping variable. As can be seen from Levene's test for Equality of Variances, the null hypothesis assuming equal variances cannot be rejected (p > .05). Thus, results can be extracted from the Student's t-test results (see table F6).

Table F5Sample size, mean, SD and SE mean of test conditions

	Brand	n	Mean	Std. Deviation	Std. Error Mean
UsgImFit_AllSocial	1	129	5.1240	1.62504	.14308
	2	123	4.3577	1.53714	.13860

Table F6

Independent Samples and Levene's Test of mean evaluation difference between sample conditions

		Leve	ene's					
		Te	st	t-test for Equality of Means				
		F	Sig.	t	df	MD	SE Difference	
UsgImFit_AllSocial	Equal variances assumed	.518	.472	3.84***	250	.76631	.19946	
		3.85***	249.985	.76631	.19920			
Note: *** <i>p</i> < 0.01 (2-tailed), <i>df</i> = degrees of freedom, <i>MD</i> = mean difference, <i>SE</i> = standard error								

Results show that Hansa (mean = 5.12, SD = 1.63) was perceived to fit on all social occasions for adults to a statistically significantly higher degree than was Ringnes (mean = 4.36, SD = 1.54). From this, the null hypothesis that the two brands are perceived to be equally fitting for consumption on all social occasions is rejected ( $t_{250}$  = 3.84, p < . 01).

### User imagery: Students' fit as typical consumers

To test the hypothesis that consumers perceive *Student* to be descriptive of a typical brand consumer to a higher degree for Hansa beer than for Ringnes beer, an independent samples t-test (a = .05) was performed on the variable *UserImFit\_Student* using *Brand* (1, 2) as the grouping variable. As can be seen from Levene's test for Equality of Variances, the null hypothesis assuming equal variances must be rejected (p < .05). Thus, results must be extracted from the Welch t-test results (see table F8).

Table F7         Sample size, mean, SD and SE mean of test conditions											
				Std.							
	Brand	n	Mean	Deviation	Std. Error Mean						
UserImFit_Students	1	134	4.9627	1.40036	.12097						
	2	125	4.2160	1.21539	.10871						

### Table F8

Levene's	
Test	t-test for Equality of Means

		F	Sig.	t	df	MD	SE Difference
UserImFit_Students	Equal variances assumed	4.742	.030	4.57***	257	.74669	.16344
	Equal variances not assumed			4.59***	255.692	.74669	.16264

Note: \*\*\* p < 0.01 (2-tailed), df = degrees of freedom, MD = mean difference, SE = standard error

Results show that *Student* was perceived to describe typical Hansa consumers (mean = 4.96, SD = 1.40) to a statistically significantly higher degree than typical Ringnes consumers (mean = 4.22, SD = 1.22). From this, the null hypothesis that consumers perceive both brands to be equally preferred by students is rejected (t<sub>255.692</sub> = 4.59, p < .01).

### User imagery: Healthy lifestyle

To test the hypothesis that consumers perceive Hansa beer to be consumed by customers with a healthy lifestyle to a higher degree than what is the case for Ringnes beer, an independent samples t-test (a = .05) was performed on the variable *UserImFit\_Health* using *Brand* (1, 2) as the grouping variable. As can be seen from Levene's test for Equality of Variances, the null hypothesis assuming equal variances cannot be rejected (p > .05). Thus, results can be extracted from the Student's t-test results (see table F10).

#### Table F9 Sample size mean SD and SE mean of test conditions

Sample size, mean, SD and SE mean of test conditions									
Brand n Mean Std. Deviation Std. Error Mean									
UsrImFit_Health	1	134	3.4925	1.19991	.10366				
	2	125	3.1280	1.09968	.09836				

### Table F10

Independent Samples and Levene's Test of mean evaluation difference between sample conditions								
		Leve	ene's					
		Te	est	t	t-test for Equality of Means			
		F	Sig.	t	df	MD	SE Difference	
UsrImFit_Health	Equal variances assumed	.054	.817	2.54***	257	.36454	.14333	
	Equal variances not assumed			2.55***	256.922	.36454	.14290	

Note: \*\*\* *p* < 0.01 (2-tailed), *df* = degrees of freedom, *MD* = mean difference, *SE* = standard error

Results show that Hansa-respondents (mean = 3.49, SD = 1.20) perceived the brand to be consumed by people leading healthy lifestyles to a statistically significantly higher degree than did Ringnes-respondents (mean = 3.13, SD = 1.10). From this, the null hypothesis that the two brands' typical customers are perceived to be leading equally healthy lifestyles is rejected ( $t_{257} = 2.54$ , p < .05).

### User imagery: All professions

To test the hypothesis that Hansa beer is perceived as more appropriate to be consumed by *customers with any profession* than is Ringnes beer, an independent samples t-test (a = .05) was performed on the variable *UserImFit\_AllJobs* using *Brand* (1, 2) as the grouping variable. As can be seen from Levene's test for Equality of Variances, the null hypothesis assuming equal variances cannot be rejected (p > .05). Thus, results can be extracted from the Student's t-test results (see table F12).

### Table F11

Sample size, mean, SD and SE mean of test conditions									
	Brand	n	Mean	Std. Deviation	Std. Error Mean				
UserImFit_AllJobs	1	134	5.2537	1.17420	.10144				
	2	125	4.5360	1.34130	.11997				

### Table F12

Independent Samples and Levene's Test o	f mean evaluation difference between	sample conditions
independent sumples und Levene s rest o	j mean evaluation aljjerence between	sumple conditions

		Leve	ne's				
		Te	st	t-test for Equality of Means			
		F	Sig.	t	df	MD	SE Difference
UserImFit_AllJobs	Equal variances assumed	1.421	.234	4.59***	257	.71773	.15638
	Equal variances not assumed		4.57***	246.982	.71773	.15710	

Note: \*\*\* p < 0.01 (2-tailed), df = degrees of freedom, MD = mean difference, SE = standard error

Results show that Hansa-respondents (mean = 5.25, SD = 1.17) perceived the brand to be fitting for consumption by people in all professions to a statistically significantly higher degree than did Ringnes-respondents (mean = 4.54, SD = 1.34), respectively. From this, the null hypothesis that both brands are perceived to be consumed to an equal degree by people in all professions, is rejected ( $t_{257} = 4.59$ , p < .01).

### User imagery: Suitable for consumers of all (adult) ages

To test the hypothesis that Hansa beer is perceived to be more typically consumed by *customers of all ages* than is Ringnes beer, an independent samples t-test (a = .05) was performed on the variable *UserImFit\_AllAges* using *Brand* (1, 2) as the grouping variable. As can be seen from Levene's test for Equality of Variances, the null hypothesis assuming equal variances cannot be rejected (p > .05). Thus, results can be extracted from the Student's t-test results (see table F14).

### Table F13

Sample size, mean, SD and SE mean of test conditions

	Brand	n	Mean	Std. Deviation	Std. Error Mean
UserImFit_AllAges	1	134	5.2836	1.19278	.10304
	2	125	4.5680	1.32188	.11823

#### Table F14

Independent Samples and Levene's Test of mean evaluation difference between sample conditions

			t-	test for Ed	quality of	Means
	F	Sig.	t	df	MD	SE Difference
Equal variances assumed	.955	.329	4.58***	257	.71558	.15627
Equal variances not assumed			4.56***	249.633	.71558	.15683
-	•	Te F	Equal variances assumed .955 .329	Test         t-           F         Sig.         t           Equal variances assumed         .955         .329         4.58***	Test         t-test for Equal variances assumed           .955         .329         4.58***         257	Test         t-test for Equality of           F         Sig.         t         df         MD           Equal variances assumed         .955         .329         4.58***         257         .71558

Note: \*\*\* p < 0.01 (2-tailed), df = degrees of freedom, MD = mean difference, SE = standard error

Results show that Hansa-respondents (mean = 5.28, SD = 1.19) perceived the brand to be fitting for consumption by people of all ages to a statistically significantly higher degree than did Ringnes-respondents (mean = 4.57, SD = 1.32), respectively. From this, the null hypothesis that both brands are perceived to be consumed to an equal degree by adult customers of *all ages*, is rejected ( $t_{257} = 4.58$ , p < .01).

### Experiential benefit: sense of belonging

To test the hypothesis that consumers associate sense of belonging more with consuming Hansa than with consuming Ringnes, an independent samples t-test (a = .05) was performed on the variable *ExpBen\_Belong* using *Brand* (1, 2) as the grouping variable. As can be seen from Levene's test for Equality of Variances, the null hypothesis assuming equal variances cannot be rejected (p > .05). Thus, results can be extracted from the Student's t-test results (see table F16).

Sample size, mean, SD and SE mean of test conditions							
	Brand	n	Mean	Std. Deviation	Std. Error Mean		
ExpBen_Belong	1	116	4.2586	1.29293	.12005		
	2	105	3.5905	1.49161	.14557		

#### Table F16

Table F15

Independent Samples and Levene's	Test of mean evaluation diffe	rence between sample conditions

		Lever	ne's				
		Те	Test t-test for Equality of Mea			Means	
		F	Sig.	t	df	MD	SE Difference
ExpBen_Belong	Equal variances assumed	3.047	.082	3.57***	219	.66814	.18735

Note: \*\*\* p < 0.01 (2-tailed), df = degrees of freedom, MD = mean difference, SE = standard error

Results show that Hansa-respondents (mean = 4.26, SD = 1.29) perceived consumption of the brand to be associated with a sense of belonging to a statistically significantly higher degree than did Ringnes-respondents (mean = 3.59, SD = 1.49). From this, the null hypothesis that both brands are perceived to be equally associated with a sense of belonging, is rejected ( $t_{219}$  = 3.57, p < .01).

### Brand attitude (index variable):

To test the hypothesis that brand attitude towards Hansa is more favorable than that of Ringnes, an independent samples t-test (a = .05) was performed on the variable *BrandAtt\_Index* using *Brand* (1, 2) as the grouping variable. As can be seen from Levene's test for Equality of Variances, the null hypothesis assuming equal variances cannot be rejected (p > .05). Thus, results can be extracted from the Student's t-test results (see table F18).

#### Table F17

Sample size, mean, SD and SE mean of test conditions							
Brand n Mean Std. Deviation Std. Error Mean							
BrandAtt_Index	1	139	4.9460	1.52241	.12913		
	2	137	3.4234	1.54097	.13165		

#### Table F18

Independent Samples and Levene's Test of mean evaluation difference between sample conditions

_	Levene's Test			t-test for Equality of Means		
	F	Sig.	t	df	MD	SE Difference
Equal variances assumed	.015	.902	8.26***	274	1.52269	.18439
Equal variances not assumed			8.26***	273.805	1.52269	.18441
	•	•	qual variances assumed .015 .902	qual variances assumed .015 .902 8.26***	qual variances assumed .015 .902 8.26*** 274	qual variances assumed .015 .902 8.26*** 274 1.52269

Note: \*\*\* *p* < 0.01 (2-tailed), *df* = degrees of freedom, *MD* = mean difference, *SE* = standard error

Results show that Hansa-respondents (mean = 4.95, SD = 1.52) perceived the brand to be fitting for consumption by people of all ages to a statistically significantly higher degree than did Ringnes-respondents (mean = 3.42, SD = 1.54), respectively. From this, the null hypothesis that consumers' attitude towards both brands is equal, is rejected ( $t_{274} = 8.26$ , p < .01).

### Unique salience:

To test the hypothesis that consumers reportedly observe brand elements of Hansa more than those of Ringnes, an independent samples t-test (a = .05) was performed on the variable *UnqSalience* using *Brand* (1, 2) as the grouping variable. As can be seen from Levene's test for Equality of Variances, the null hypothesis assuming equal variances cannot be rejected (p > .05). Thus, results can be extracted from the Student's t-test results (see table F16).

Table F19         Sample size, mean, SD and SE mean of test conditions								
	Brand	n	Mean	Std. Deviation	Std. Error Mean			
UnqSalience	Hansa	118	4.4915	1.64730	.15165			
	Ringnes	114	3.1228	1.54657	.14485			

Table 20

Independent Samples and Levene's Test of mean evaluation difference between sample conditions

		Leve	ene's				
		Test			t-test for Equality of Means		
	F Sig. t df MD SE Differen					SE Difference	
UnqSalience	Equal variances assumed	.299	.585	6.52***	230	1.36872	.20994
	Equal variances not assumed 6.53*** 229.814 1.36872 .20971						
Note: *** $p < 0.01$ (2-tailed), $df$ = degrees of freedom, $MD$ = mean difference, $SE$ = standard error							

Results show that Hansa-respondents (mean = 4.49, SD = 1.65) perceived the brand to be salient to a statistically significantly higher degree than did Ringnes-respondents (mean = 3.12, SD = 1.55), respectively. From this, the null hypothesis that the brand elements are perceived to be equally salient, is rejected ( $t_{230} = 6.52$ , p < .01).

# Appendix G

Principal components analysis SPSS output (additional tables and Scree plot)

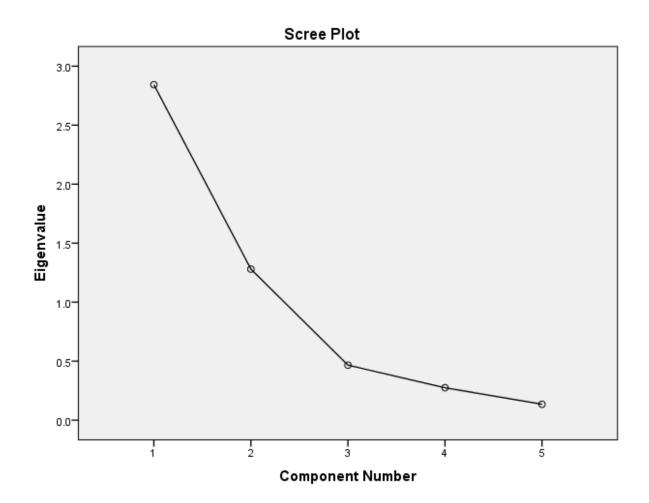


Figure G1: Scree plot of principal components analysis

Table G1	
Component Matrix <sup>a</sup>	
	Component
	1 2
IndepVarLiking	.907259
IndepVarFeeling	.909246
IndepVarPI	.860264
IndepVarStrength	.405 .790
IndepVarTrust	.539 .677
Extraction Method: Principal Component Analysis	

a. 2 components extracted.

Table G2 Structure Matrix

Component

	1	2
IndepVarLiking	.943	.264
IndepVarFeeling	.942	.276
IndepVarPI	.899	.234
IndepVarStrength	.169	.885
IndepVarTrust	.330	.860

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

### Table G3 Component Correlation Matrix

Component	1	2
1	1.000	.276
2	.276	1.000

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

## Appendix H

### **Multiple linear regressions**

Overview of individual model outputs from regression analyses conducted in SPSS for both brands.

### Model A:

Table H1 Model Su		b			
Model	R	R Square	Adj. R^2	SE of Estimate	Durbin-Watson
А	.591ª	.350	.332	1.20106	2.008

a. Predictors: (Constant), usgim\_food\_h, expben\_belong\_h, usgim\_party\_h

b. Dependent Variable: BrandAtt\_IndexH

### Table H2 ANOVAª

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
А	Regression	86.839	3	28.946	20.066	.000 <sup>b</sup>
	Residual	161.564	112	1.443		
	Total	248.403	115			

a. Dependent Variable: BrandAtt\_IndexH

b. Predictors: (Constant), usgim\_food\_h, expben\_belong\_h, usgim\_party\_h

### Table H3 Coefficients<sup>a</sup>

	Unstandardized Standardized		_		Collinearity	Statistics	
Model	В	SE	Beta	t	Sig.	Tolerance	VIF
A (Constant)	.561	.606		.927	.356		
expben_belong_h	.204	.093	.179	2.189	.031	.866	1.155
usgim_party_h	.516	.113	.400	4.574	.000	.758	1.319
usgim_food_h	.156	.075	.176	2.072	.041	.802	1.246

a. Dependent Variable: BrandAtt\_IndexH

### Model B:

### Table H4

Model Sum	mary <sup>b</sup>		
	-	<b>D</b> .C	

Model	R	R Square	Adj. R^2	SE of Estimate	Durbin-Watson
В	.603ª	.364	.341	1.19312	2.053
	10 .				

a. Predictors: (Constant), usgim\_allsocial\_h, expben\_belong\_h, usgim\_food\_h, usgim\_party\_h

#### b. Dependent Variable: BrandAtt\_IndexH

Table H5 ANOVAª						
Model		Sum of Squares	df	Mean Square	F	Sig.
В	Regression	90.392	4	22.598	15.875	.000 <sup>b</sup>
	Residual	158.011	111	1.424		
	Total	248.403	115			

a. Dependent Variable: BrandAtt\_IndexH

b. Predictors: (Constant), usgim\_allsocial\_h, expben\_belong\_h, usgim\_food\_h, usgim\_party\_h

# Table H6

**Coefficients**<sup>a</sup>

	Unstand	ardized	Standardized	_		Collinearity	Statistics
Model	В	SE	Beta	t	Sig.	Tolerance	VIF
B (Constant)	.575	.602		.955	.342		
expben_belong_h	.210	.093	.185	2.270	.025	.864	1.157
usgim_party_h	.397	.135	.307	2.929	.004	.520	1.921
usgim_food_h	.130	.077	.147	1.704	.091	.766	1.305
usgim_allsocial_h	.147	.093	.160	1.580	.117	.557	1.794

a. Dependent Variable: BrandAtt\_IndexH

### Model C:

Model R R Square Adj. R^2 SE of Estimate Durbin-W	able H7 Iodel Su	ımmary	,Ь			
	odel	R	R Square	Adj. R^2	SE of Estimate	Durbin-Watson
C .570 <sup>a</sup> .325 .313 1.21843 1.99	С	.570ª	.325	.313	1.21843	1.994

a. Predictors: (Constant), usgim\_party\_h, expben\_belong\_h

b. Dependent Variable: BrandAtt\_IndexH

Table H ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
С	Regression	80.647	2	40.324	27.162	.000 <sup>b</sup>
	Residual	167.756	113	1.485		
	Total	248.403	115			

a. Dependent Variable: BrandAtt\_IndexH

b. Predictors: (Constant), usgim\_party\_h, expben\_belong\_h

### Table H9 Coefficients<sup>a</sup>

	Unstand	ardized	Standardized			Collinearity	Statistics
Model	В	SE	Beta	t	Sig.	Tolerance	VIF
C (Constant)	.675	.612		1.102	.273		
expben_belong_h	.229	.094	.202	2.450	.016	.882	1.134
usgim_party_h	.604	.106	.468	5.684	.000	.882	1.134

a. Dependent Variable: BrandAtt\_IndexH

### Model D:

### Table H10 Model Summary<sup>b</sup>

Model	R	R Square	Adj. R^2	SE of Estimate	Durbin-Watson
D	.513ª	.263	.251	1.28377	2.006

a. Predictors: (Constant), usgim\_food\_h, usgim\_sport\_h

b. Dependent Variable: BrandAtt\_IndexH

#### Table H11 ANOVA<sup>a</sup>

ANOV	A					
Mode		Sum of Squares	df	Mean Square	F	Sig.
D	Regression	74.092	2	37.046	22.479	.000 <sup>b</sup>
	Residual	207.656	126	1.648		
	Total	281.748	128			
-						

a. Dependent Variable: BrandAtt\_IndexH

b. Predictors: (Constant), usgim\_food\_h, usgim\_sport\_h

### Table H12 Coefficients<sup>a</sup>

	Unstandardized Standardized			_		Collinearity S	Statistics
Model	В	SE	Beta	t	Sig.	Tolerance	VIF
D (Constant)	2.147	.460		4.669	.000		
usgim_sport_h	.299	.093	.277	3.207	.002	.782	1.279
usgim_food_h	.286	.077	.321	3.708	.000	.782	1.279

a. Dependent Variable: BrandAtt\_IndexH

### Model E:

Table H13 Model Su	-	у <sup>ь</sup>			
Model	R	R Square	Adj. R^2	SE of Estimate	Durbin-Watson

E	.543ª	.295	.276	1.29459	2.001	
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a. Predictors: (Constant), unq\_heritage\_h, usgim\_food\_h, usgim\_sport\_hb. Dependent Variable: BrandAtt\_IndexH

Table I ANOV						
Model		Sum of Squares	df	Mean Square	F	Sig.
Е	Regression	79.905	3	26.635	15.892	.000b
	Residual	191.061	114	1.676		
	Total	270.966	117			

a. Dependent Variable: BrandAtt\_IndexH

b. Predictors: (Constant), unq\_heritage\_h, usgim\_food\_h, usgim\_sport\_h

### Table H15 Coefficients<sup>a</sup>

	Unstanda	rdized	Standardized			Collinearity	Statistics
Model	В	SE	Beta	t	Sig.	Tolerance	VIF
E (Constant)	1.565	.536		2.922	.004		
usgim_sport_h	.256	.099	.237	2.588	.011	.739	1.353
usgim_food_h	.253	.080	.283	3.173	.002	.778	1.285
unq_heritage_h	.202	.087	.195	2.311	.023	.872	1.147

a. Dependent Variable: BrandAtt\_IndexH

### Model F:

### Table H16 Model Summary<sup>b</sup>

Model	R	R Square	Adj. R^2	SE of Estimate	Durbin-Watson
F	.655ª	.429	.418	1.16465	2.139

a. Predictors: (Constant), expben\_belong\_r, usgim\_allsocial\_r

b. Dependent Variable: BrandAtt\_IndexR

Table H17	
<b>ANOVA</b> <sup>a</sup>	

Model		Sum of Squares	df	Mean Square	F	Sig.
F	Regression	104.108	2	52.054	38.376	.000 <sup>b</sup>
	Residual	138.354	102	1.356		
	Total	242.462	104			

a. Dependent Variable: BrandAtt\_IndexR

b. Predictors: (Constant), expben\_belong\_r, usgim\_allsocial\_r

# Table H18

Coefficients<sup>a</sup>

Unstandardized Standardized				Collinearity S	Statistics	
В	SE	Beta	t	Sig.	Tolerance	VIF
008	.414		018	.985		
.513	.082	.489	6.282	.000	.924	1.082
.329	.080.	.322	4.136	.000	.924	1.082
-	B 008 .513	B SE 008 .414 .513 .082	B         SE         Beta          008         .414         .513         .082         .489	B         SE         Beta         t          008         .414        018         .018           .513         .082         .489         6.282	B         SE         Beta         t         Sig.          008         .414        018         .985           .513         .082         .489         6.282         .000	B         SE         Beta         t         Sig.         Tolerance          008         .414        018         .985           .513         .082         .489         6.282         .000         .924

a. Dependent Variable: BrandAtt\_IndexR

### Model G:

Table H19 Model Summary <sup>b</sup>								
Model	R	R Square	Adj. R^2	SE of Estimate	Durbin-Watson			
G	.679ª	.462	.446	1.13685	2.142			

a. Predictors: (Constant), userim\_alljobs\_r, expben\_belong\_r, usgim\_allsocial\_rb. Dependent Variable: BrandAtt\_IndexR

#### Table H20 ANOVA<sup>a</sup>

ANOV	-					
Model		Sum of Squares	df	Mean Square	F	Sig.
G	Regression	111.927	3	37.309	28.868	.000 <sup>b</sup>
	Residual	130.535	101	1.292		
	Total	242.462	104			

a. Dependent Variable: BrandAtt\_IndexR

b. Predictors: (Constant), userim\_alljobs\_r, expben\_belong\_r, usgim\_allsocial\_r

### Table H21 Coefficients<sup>a</sup>

	Unstandardized Standardized			_		Collinearity	Statistics
Model	В	SE	Beta	t	Sig.	Tolerance	VIF
G (Constant)	.599	.474		1.266	.209		
expben_belong_r	.364	.079	.355	4.606	.000	.895	1.117
usgim_allsocial_r	.577	.084	.550	6.882	.000	.834	1.200
userim_alljobs_r	225	.091	196	-2.460	.016	.842	1.188

a. Dependent Variable: BrandAtt\_IndexR

### Model H:

### Table H22 Model Summary<sup>b</sup>

Model	R	R Square	Adj. R^2	SE of Estimate	Durbin-Watson		
Н	.697ª	.486	.466	1.11603	2.173		
a. Predictors: (Constant), usgim_party_r, userim_alljobs_r, expben_belong_r,							
usgim_allsocial_r							

b. Dependent Variable: BrandAtt\_IndexR

#### Table H23 ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
Н	Regression	117.909	4	29.477	23.666	.000 <sup>b</sup>
	Residual	124.553	100	1.246		
	Total	242.462	104			

a. Dependent Variable: BrandAtt\_IndexR

b. Predictors: (Constant), usgim\_party\_r, userim\_alljobs\_r, expben\_belong\_r, usgim\_allsocial\_r

## Table H24

### **Coefficients**<sup>a</sup>

	Unstandardized Standardized			_		Collinearity	Statistics
Model	В	SE	Beta	t	Sig.	Tolerance	VIF
H (Constant)	.285	.487		.585	.560		
expben_belong_r	.307	.082	.300	3.754	.000	.805	1.243
usgim_allsocial_r	.457	.099	.436	4.623	.000	.578	1.730
userim_alljobs_r	239	.090	208	-2.656	.009	.838	1.194
usgim_party_r	.230	.105	.214	2.191	.031	.538	1.860

a. Dependent Variable: BrandAtt\_IndexR

### Model I:

### Table H25

Model Summary<sup>b</sup>

Model	R	R Square	Adj. R^2	SE of Estimate	Durbin-Watson
I	.712ª	.507	.482	1.09892	2.079

a. Predictors: (Constant), usgim\_food\_r, expben\_belong\_r, userim\_alljobs\_r, usgim\_party\_r, usgim\_allsocial\_r

b. Dependent Variable: BrandAtt\_IndexR

## Table H26

Model	Sum of Squares	df	Mean Square	F	Sig.
I Regression	122.907	5	24.581	20.355	.000 <sup>b</sup>

F	Residual	119.555	99	1.208
Г	Гotal	242.462	104	

a. Dependent Variable: BrandAtt\_IndexR

b. Predictors: (Constant), usgim\_food\_r, expben\_belong\_r, userim\_alljobs\_r, usgim\_party\_r, usgim\_allsocial\_r

### Table H27 Coefficients<sup>a</sup>

	Unstandardized Standardized		_		Collinearity	Statistics	
Model	В	SE	Beta	t	Sig.	Tolerance	VIF
I (Constant)	.116	.486		.238	.812		
expben_belong_r	.297	.081	.290	3.680	.000	.802	1.247
usgim_allsocial_r	.336	.114	.321	2.947	.004	.421	2.375
userim_alljobs_r	239	.088	208	-2.699	.008	.838	1.194
usgim_party_r	.224	.103	.209	2.172	.032	.537	1.861
usgim_food_r	.190	.093	.188	2.034	.045	.581	1.720

a. Dependent Variable: BrandAtt\_IndexR