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**Sindre Knutsen and Erik Haverstad**

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## **Preface**

Almost two years ago, we started our master program in Strategic Marketing Management here at the Norwegian Business School BI. Through four semesters, we have acquired knowledge about several aspects within the field of marketing and learned new skills to bring into the next chapter. During our master program, and from our bachelor's degree, the interest in branding, and brand building have grown. For this reason, we wanted to explore branding to a greater extent than other courses when writing our final thesis.

First of all, we would like to thank our supervisor, Peter Jarnebrant. All over, he has helped us with the problem formulation, analyses, and supported our research throughout this master thesis. Furthermore, we would like to thank our fellow students for their inputs and comments. Also, thank you to all our friends and family that have been supportive for the last two years, during this thesis, and for proofreading. The library has also been an important resource for this research. They have helped with citations, references, and other questions in connection with our thesis. Thank you. Last but not least, a big thank you to all of our respondents. This research would not have been completed without you, and we are grateful for your help.

Covid-19 has to a great extent affected our daily teaching and life on campus with friends and teachers. There have been ups and downs, but in total it has been two great years. With the situation taken into consideration, we believe that our final thesis has more or less been unaffected.

We hope that this research will be of interest for marketers, students, and professors, but also others interested in our field of study. In addition, we are proud of what we have accomplished, and hope it will provide intensives for further research.

Good reading, thank you!

Sindre Knutsen & Erik Haverstad

Nydalen, Oslo, 2022

## **Abstract**

This research aims to analyse and evaluate to what extent marketing of a company's non-alcoholic beer influences customer purchase intention of the company's alcoholic beer. Through a quantitative study, the collected data provided informative insight to better understand how marketing of non-alcoholic beer influences customer purchase intention when operating in a dark market.

Initially, we confirm that marketing of non-alcoholic beer influences the purchase intention for beer with alcohol more than it influences the purchase intention towards beer without alcohol. Next, we show a presence of the spillover effect when there is a higher purchase intention of a firm's alcoholic beer, given that people have a higher awareness that the company owns the non-alcoholic beer. Then, H<sub>2</sub> is confirmed on how higher equity towards Munkholm indicates a higher purchase intention for beer, and on that basis for Ringnes' products. In addition, H<sub>3</sub> is statistically confirmed where heavier consumers of alcoholic beer will experience a higher purchase intention towards alcoholic beer when being exposed to a non-alcoholic commercial, than consumers with lower consumption. Finally, in contrast to the theory, marketing of beer with alcohol versus beer without alcohol *does not* influence the purchase intention of the non-alcoholic beer more than marketing of non-alcoholic beer versus beer with alcohol influences the purchase intention of beer with alcohol.

Ultimately, based on the five hypotheses, which make up different aspects of our research question, we conclude that marketing of a company's non-alcoholic beer do to some extent influences the customer purchase intention of the company's alcoholic beer.

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## 1. INTRODUCTION

Wherever we go, we are surrounded by brands - from the moment you get up, putting on your Adidas socks, till you brush your teeth at night with your Colgate toothpaste before going to bed.

Brands appear everywhere, and work as a shortcut or simplifications of a consumer's product decisions, (Jacoby et. al 1971; Jacoby et. al. 1977) and buying decisions (Fischer et. al 2010). Consequently, brand building becomes an important investment for many companies (Keller 2008; Keller and Swaminathan 2020). With different brand elements (Samuelsen et. al 2018) and marketing activities, companies expose their brands, and their corporate message to consumers. However, some brands might have less opportunities for marketing exposure due to laws and regulations. In Norway, businesses selling alcoholic products are prohibited to market themselves in accordance with the Norwegian law.

Based on the Norwegian alcohol law, companies are not allowed to conduct marketing activities with the intention to promote sales of alcoholic products or communicate sales promotive messages that might lead to increased sales (Helsedirektoratet 2016). In connection to this, how do local breweries, international brands, or Norwegian distilleries, create awareness or/and knowledge towards their alcoholic products in Norway? Throughout our course of study, we have been taught several different strategies, methods, models, and analyses, in order to build a brand in an innovative and creative way. However, what happens when the traditional marketing activities like TV, - and social media advertisement, inbound marketing, and sponsorships, contradict with the Norwegian law?

Consequently, our research question follows:

*To what extent does the marketing of a company's non-alcoholic beer influence a customer's purchase intention of the company's alcoholic beer?*

While the majority of companies have the opportunity of conducting marketing and advertising on social media, TV, commercials, magazines, and labelling, certain industries in countries like Sri Lanka, Turkey, Norway, and partly France

and Sweden, have severe government restrictions compared to other countries (Ryan, 2022). Typical industries these regulations refer to are tobacco, alcohol, betting, and pharmaceutical businesses. These industries have non or limited marketing and advertising options, and are known as *dark markets* (Financial Times, 2022). This has forced companies to rethink their marketing strategies on how to promote their products in this challenging market. Consequently, we interpret creating brand awareness to become more difficult. Furthermore, a marketing method called *dark marketing* has helped marketers to avert the law and promote their services/products in a new way (Dewhirst, 2012). Based on technology, data, and digital footprints (cookies), dark marketing has ensured that businesses have the ability to publish sponsored advertisements in regulated industries and target a specific group of consumers. These promotions are hyper-targeted to niche-audiences, and ensure that laws and regulations are avoided, since they are hard to track (Harel, 2022). Hence, companies have the opportunity to promote and compete in the dark – even though they are under strict regulations.

A report released by marketing consultancy company, Brand Finance, states that if firms like Coca-Cola and Mondelez were under the same restrictions as alcoholic companies in dark markets, they would approximately lose around one quarter of their yearly revenue, and 50% of their brand contribution. Furthermore, one of the world's largest spirits distributors, Diageo, states in the same report that they would lose more than 70% of the added value their brands bring, if they were under marketing restrictions (The Spirit Business).

However, operating in a dark market has some advantages for *some* companies. Previously marketing manager in Ringnes, Anders Røed, stated:

*“(...) if a company has a strong brand position, it is difficult for competitors to enter or capture market shares, since launching of a new product itself it is difficult if you are not able to tell any kind of story around it”*

- (Financial Times, 2022)

As a result of this, the field of research remains a wide spectrum of opportunities within the subject. To the best of our knowledge, there is little research conducted within branding of alcoholic beverages in Norway. By creating attractive labelling



and packaging for example, brands use neuromarketing as a legal way to get customers attention (Lee et al. 2007). However, how does marketing of non-alcoholic products owned by a brand with alcoholic products affect the brands` alcoholic products?

### **Ringnes and Munkholm**

Ringnes is one of Norway's leading companies within beverages, and started with beer brewing in 1877 – the same year as the company was established (Ringnes, 2022). Furthermore, Ringnes is owned by the Carlsberg Group, one of the biggest leading breweries in the world (Carlsberg, 2022). With headquarters in Grünerløkka, Oslo, Ringnes distributes their products across Norway. The company possesses four main production facilities, in addition to three smaller breweries and other facilities, and has 900 employees.

With approximately 42 000 000 liters of Ringnes beer sold in 2019, or 84 000 000 0,5l, the Ringnes product itself is the third most sold beer brand in Norway, after Tuborg and Hansa (Nielsen, 2022). However, when combining the whole Ringnes` portfolio, the company has the biggest revenue of approximately NOK 5 billion, which is close to five times higher than their biggest competitor Hansa Borg (Purehelp, 2022). In addition to the traditional Ringnes Pilsner, the company's product portfolio contains a wide range of products with both alcoholic and non-alcoholic beverages. Within the beer category, Ringnes` portfolio includes products like Frydenlund, Tuborg, Carlsberg, Kronenbourg and Brooklyn. In the non-alcoholic beer portfolio Ringnes have Munkholm, Carlsberg Alcohol free, and Kronenbourg Alcohol free. The soda and water portfolio contains brands like Pepsi, Solo, 7-up, Imsdal, Farris, and Bris. It is also worth mentioning that Schweppes and Battery are part of the product line (Ringnes, 2022).

### **Munkholm**

Munkholm is Ringnes` flagship product within the non-alcoholic beer category, named after an islet outside Trondheim. The non-alcoholic beer is brewed in the same way as regular beer where the fermentation is aborted right after the taste is created, and right before the alcohol is created (Munkholm 2022). Compared to Clausthaler, Munkholm sold more than twice the amount of liters from 2008-2019 (Nielsen, 2022).

## **Brand Architecture**

The way in which a brand portfolio is structured, managed, and interrelated to create shareholder value, is called brand architecture and constitutes an important part of brand management (Petromilli et. al 2002). Theory confirms that a coherent brand architecture can lead to impact, clarity, synergy, and leverage, rather than market weakness, confusion, waste, and missed opportunities for companies. Brand architecture is an organizing structure of the brand portfolio that specifies brand roles and the nature of relationships between brands (Aaker and Joachimsthaler, 2000). The brand architecture can be used to rejuvenate weak or dominant brands, and to launch new products. In addition, researchers have found several brand architecture businesses who designed a coherent and effective structure beneficially leveraging strong brands into markets, assimilate acquired brands, and rationalize the firm's branding strategy (Rajagopal and Sanchez, 2003). However, while there are several brand architectures models in the literature, Foster et al. (2018) provides two ideal-types: House of Brand and Branded House.

The contrast between a Branded House and House of Brands vividly describes the two extremes of alternative brand architectures (Aaker and Joachimsthaler, 2000). A House of Brand strategy involves a business having two or more independent brands to maximize the impact on the market, and usually target different customer segments. These independent brands are separate from the parent brand, and are not necessarily directly associated with the parent brand. They have a wide portfolio of brands, and most consumers do not know that the products are even affiliated with one another (Reibstein, 2005). However, this strategy is very costly for firms each time they launch a new brand. A Branded House architecture sells their products/services under one corporate umbrella brand. By developing sub-brands for each product, firms have the advantage of building strong marketing positions by exploiting already established customer equity, regarding the umbrella brand (Braun & Zenker, 2017).

However, *“in reality, organizations rarely follow these ideal-type strategies, and tend to use a “mix and match” approach depending on “branding similarities” between products and services”* (Foster et. al. (2018), Pp. 338; Strebinger (2014), Pp 1783). Based on the theory mentioned above, Ringnes can be characterized as having a mixture of the two ideal brand architectures, a hybrid model. This model

contributes to keeping existing customers, while avoiding confusions as new products are added to the mix (Raval & Srinivasan, 2018). Ringnes offers several sub-brands under their corporate umbrella brand (i.e., Ringnes Pilsner and Ringnes Lite), while distributing independent brands (i.e., Munkholm, Imsdal and Frydenlund). This allows Ringnes to offer different brands for different segments, while having synergies across the brands using the corporate name. We interpret the hybrid brand architecture for Ringnes to be a disadvantage on how the company may never fully exploit the advantages of being a House of Brand or Branded House. This is also reflected in the theory which states there are advantages and disadvantages of operating with just one of the ideal types, as well as not being able to fully exploit either one of the structures when choosing a hybrid structure (Raval & Srinivasan, 2018).

## 2. LITERATURE REVIEW

The spillover effect is a frequently used term across several research fields. In the economy, a parallel to the spillover effect is how externalities (Cornes and Sandler 1996) affect an uninvolved third party (Azariadis and Drazen 1990). Within psychology the spillover effect is connected with the cognition linked to a certain activity, and how it influences people's behavior (Juhl et al. 2017) in unrelated events (Xu et. al 2017). When looking at marketing, the literature provides several definitions of the spillover effect (Balachander and Ghose 2003; Schumann et al. 2014; Newmeyer et al. 2014; Simonin and Ruth 1998). However, we find the definition by Ahluwalia et. al (2001) to be apposite to our research: “Spillover refers to the extent to which information provided in messages changes beliefs about attributes that are not mentioned in the messages” (Ahluwalia et al., 2001, p. 458). Despite a variation in the definition of the spillover effect, we interpret the spillover effect to have an influence on a third party, not intended in the communication or the current event.

According to the definition of brand extensions by Aaker and Keller (1990), we conclude that Munkholm is not a brand extension by Ringnes. In the research of Swaminathan et al. (2011), an extended research of Desai and Keller (2002), they find evidence for a spillover effect between two brands in ingredient branding. This may be connected to Munkholm and Ringnes on how Munkholm is owned by Ringnes, and their brand name is to be found on Munkholm’s bottles. However, we interpret the link between Munkholm and Ringnes not to be sufficient enough to call it ingredient branding. Hence, the results from Swaminathan et. al (2011) creates a foundation of H<sub>1</sub>.

Previous research accentuated a brand alliance strategy to be a signal of product quality (Rao and Ruekert 1994; Rao and Ruekert 1999). Furthermore, Simonin and Ruth (1998) found that positively rated co-branding alliances had a spillover effect on the individual brands in the alliance. On top of that, John et. al (1998) discovered spillover from a product extension to the parent brand.

Operating in the dark market does not mean an absence of customer-based brand equity, but as previously mentioned, makes the branding more complex. In a study done by Porral and Levy-Mangin (2015), the results show that local and

global beer brands differ in brand equity, where local brands had higher brand value than global beer brands. Aaker (1992) is further elaborating how this benefits a company through associations and brand awareness.

In parallel with Aaker (1996), Keller and Swaminathan (2020) present how brand knowledge nearly works as a pillar or a cornerstone in creating brand equity. Further, they divide brand knowledge into brand awareness and brand image. In connection to this, there is a wide agreement in the existing empiri, that marketing communication influences brand equity (Keller 2009; Keller 2001; Villarejo-Ramos and Sánchez-Franco 2005;), making each step in the brand resonance model (Keller 2001) important in brand building.

In the brand resonance model, brand salience, brand imagery, and brand performance, are all a part of creating associations towards a brand (Keller 2001). By communicating knowledge and awareness, a company creates brand position in the consumers` mindset, (Keller and Swaminathan, 2020) and affects the decision-making process (Shocker et al. 1991). With this in mind, we introduce the research of Roehm and Tybout (2006) on how the spillover effect may occur to other products and categories if customers find it applicable. Based on this research, in addition to brand building elements like brand knowledge, we interpret marketing activity of non-alcoholic beer, to recall awareness towards alcoholic beer. For this reason we anticipate that:

**H<sub>1A</sub>:** *Marketing of non-alcoholic beer influences the purchase intention for beer with alcohol more than it influences the purchase intention towards beer without*

**H<sub>1B</sub>:** *There is a higher purchase intention of a firm's alcoholic beer, given that people have a higher awareness that the company owns the non-alcoholic beer.*

We interpret consumers to have strong associations to alcoholic beer even though they are exposed to marketing activities of non-alcoholic beer – resulting in a greater desire for another product category than the one they are exposed to. Additionally, we interpret “beer” to be heavily weighted when reading or hearing “non-alcoholic beer”. In connection to this, Low and Lamb Jr. (2000) discuss how consumers exposed to familiar brands versus unfamiliar brands, may be willing to

put more energy into processing the information. With the assumption that Munkholm and Ringnes is a familiar brand to many Norwegians, consumers will, according to Low and Lamb Jr, be willing to spend more energy processing the information perceived. Hence, will the process of evaluating information from Munkholm, influenced by associations and knowledge, lead to increased purchase intention for Ringnes.

On the basis of Wang and Tsai's (2014) study on the relationship between brand image and purchase intention, the authors conclude that brand image increases purchase intention. Further, the importance of brand image (Park et al. 1986) is according to Keller and Swaminathan (2020), built on brand awareness (Rossiter and Percy 1987) and associations. By connecting Bergkvist and Taylor's (2016) definition of Leveraged Marketing Communications as a brand building strategy, where one brand may benefit from the associations the target audience have with the paired object, we interpret the associations people have towards Munkholm, to spill over to Ringnes' product by an increased purchase intention. On the other hand, the research of Biehal and Sheinin (2007) highlights how corporate messages have broader effects on a portfolio than a product message itself. Nonetheless, when the corporation is held back by restrictions, a product message might be the only option of external communication to consumers. Hence, a brand's credibility, trustworthiness and attractiveness are positively related to purchase intention (Wang and Yang 2010).

In connection to the subject of brand image and awareness, Keller's customer-based brand equity (1993) highlights the importance of creating positive customer brand equity.

*“A brand is said to have positive (negative) customer-based brand equity when consumers react more (less) favorably to an element of the marketing mix for the brand, than they do to the same marketing mix element when it is attributed to a fictitiously named or unnamed version of the product or service”*

- (Keller, 1993 p. 1).

With consumers' response to the marketing of a brand to be of great importance, we interpret this to have an effect on the purchase intention. On that basis, we further predict that:

**H<sub>2</sub>:** *Consumers with a higher customer-based brand equity towards a companies' non-alcoholic beer will experience higher purchase intention towards alcoholic beer, to a greater extent than consumers with lower customer-based brand equity.*

This is again supported by the research of Ahluwalia et al. (2001) on how the level of familiarity to a brand influences the spillover effect. If we compare this with Keller's customer-based brand equity, we see the link between familiarity, brand awareness (Aaker 1996; Nedungadi and Hutchinson 1985) and brand image (Faircloth et al. 2001; Gardner and Levy, 1955). The consequence of branding starts to appear as we see how the different elements of brand building play an individual role towards the positioning of a brand in the consumer's mind.

In connection to customer equity, Lin and Chen (2006) find evidence for how product knowledge has a positive effect on consumer purchase decisions. Furthermore, Hollebeek et. al (2007) concludes that purchase decisions are also influenced by product involvement. Based on these two studies, we understand how knowledge and product involvement influence purchase decisions. Another important factor to consider is the research of Park and Moon (2003) conducted on how involvement and knowledge are correlated differently depending on the product being either hedonic or utilitarian. On top of that, they also include whether the product knowledge is objective or subjective. There are several aspects that indicate beer, with- or without alcohol, to be a hedonic product based on how consumers desire satisfaction and pleasure. Consequently, previous experiences with Ringnes and/or Munkholm will influence the respondents' purchase intention.

We assume that marketing in general, increases product sales to some extent immediately after exposure (Stautz et. al 2016) and may spill over to other products in the category (Roehm and Tybout, 2006). Hastings (2009), and Wind and Sharp (2009), explains how marketing campaigns aim to increase sales in a short-term perspective toward the chosen target audience, while in a longer-term,

establish a greater consumer involvement and identification towards products, and products associated within the same product category. A study by Koordeman et. al (2011), show how heavily involved consumers consume more of a product after being exposed to advertisement, than lightly involved consumers. Consequently, we interpret that a higher degree of consumer involvement towards a product category when being exposed to an alcoholic advertisement, will have a higher influence when consuming more of a product category after exposure (Jones & Field 2013). For this reason, we expect:

**H<sub>3</sub>:** *Heavier consumers of alcoholic beer will experience higher increased purchase intention towards alcoholic beer when marketing non-alcoholic beer, than consumers with lower consumption.*

Fraquar et. al (1990), suggest that consumers' process of brand-related information is influenced by the strengths of asymmetry brand-category linkages. This is later confirmed by the research of Lei et al. (2008), showing that associations between brands can be symmetric or asymmetric. “*Cognitive brand relatedness makes brands subject to spillover effects from other brands in a brand portfolio*”. (2008, p.120) On that basis, we predict that:

**H<sub>4</sub>:** *Marketing of beer with alcohol versus beer without alcohol influences the purchase intention of the non-alcoholic beer more than marketing of non-alcoholic beer versus beer with alcohol influences the purchase intention of beer with alcohol.*

Even though consumers are exposed to marketing activities by a non-alcoholic beer, their customer-based brand equity (i.e., brand knowledge, brand image, awareness, and position) may influence their decision process towards beer. Becoming aware of the connection between Munkholm and Ringnes, may increase the purchase intention for Munkholm to a greater extent than the purchase intention for Ringnes, and therefore H<sub>4</sub>.

In addition, when including the study of John et al. (1998) and Roehm and Tybout (2006), we know that there is a chance for a product to experience a spillover effect to a parent brand and to competing brands within the same product category. However, Collins and Loftus (1975) suggest that the linkages between two concepts can be transferred in both directions. The authors further state that



spillovers cannot be predicted by associations alone where the asymmetric linkage influences the spillover.

With the increasing importance of branding in marketing, companies often seek to enhance their brand power by uniting with other brands. In its simplest form, a marketing alliance is a partnership between two entities in which efforts are combined for a common interest, or to achieve a particular goal (Spethmann & Benezra 1994). The purpose is to create a positive association between two brands in the minds of consumers, and produce a positive spillover effect(s) (Keller 1993). Simonion and Ruth (1998) found that brand alliances rated positively, had a positive spillover effect on individual brands that formed an alliance. Usually, brand alliances involve two or more entirely different product categories, and have non or little similarity when comparing features between each other (Norman, 2017). However, *same company brand alliance* is a form of brand alliance to combine resources and leverage individual core competencies. Resulting in companies with more than one product to promote their own brands together (Jobber & Ellis-Chadwick, 2016).

Nevertheless, theory states that there are potential downsides of having a brand alliance between two brands when operating in a dark market (Woisetschlaeger et al., 2008). In the scope of marketing, we interpret brands having reduced or no possibilities to directly market their product, to be “weaker” compared to unregulated brands. One of the most significant findings in brand alliance research is that an unknown/weak brand can benefit from joining a brand ally with a favourable reputation (Rao and Ruekert 1994; Simonin and Ruth 1998; Washburn et. al 2000).

Ringnes is a well-known brand for many Norwegians, making the alliance with Munkholm “unnecessary”. However, by operating in a dark market Ringnes becomes a more debilitating brand in a marketing perspective – thereby making the brand alliance with Munkholm a suitable fit. Customers may think that strong brands will only ally with other strong brands, as companies will not risk damaging their own brand’s favourable reputation (Levin and Levin 2000). Hence, Ringnes' offering of non-alcoholic and alcoholic products fulfils the requirements of being a complementary alliance to target a broader share of the market, even though they belong to the same company. On the other hand, this

provides Ringnes the opportunity to avoid the Norwegian law, and benefit from the spillover effect deriving from their non-alcoholic product to their alcoholic products, if customers are aware of their brand alliance (Woisetschlaeger et. al 2008). In this manner, we acknowledge the challenges of having a collaboration between the two brands within the same company, and at the same time as it facilitates Ringnes to exploit future marketing opportunities.

In a tasting experiment conducted by Hover and Broun (1990), over 70% of the participants chose a known brand over an unfamiliar one, even though the unfamiliar brand was superior in taste. Ultimately, we understand the importance and relevance of the literature presented, and how brands affect customers' purchase decisions.

### **3. METHODOLOGY**

As provided in the previous chapter, there is a lot of existing literature on the spillover effect, brand building, and the relationship between the two. When comparing literature and different aspects of several different theories, we discover synergies within the different marketing elements, and the complexity of marketing and brand building. Consequently, in this section we want to define key terminology and measurements used in our chosen methodology.

Marketing research is strongly connected to information. To identify, collect, create, and use information to influence the decision process, in addition to exploring opportunities and solutions, we use marketing research to investigate our chosen field of study (Malhotra 2020). Furthermore, the problem statement is to a great extent indicative for selection of the methodology (Jacobsen 2018; Gripsrud et. al 2018). On the basis of how the purpose of this study is to expose *how many*, rather than *what* and *how*, a quantitative approach is preferable (Berg 2009).

Since we want to acquire information about attitude (in terms of equity), behaviour, and awareness among others, towards marketing of non-alcoholic beer, a survey as a quantitative method has been chosen. The survey was made in Qualtrics and distributed digitally. In connection to the survey, we will later in this chapter define terminology before deriving variables to operationalize the questions (Gripsrud et. al 2018).

There are limitations and acknowledgements within the methodology, which in its entirety will be presented in chapter 8.

#### **3.1 Research Design**

This study's research design outlines the process from problem statement to analysis (Gripsrud et. al 2018). As a result of our interest in a large, representative sample, extracted from an online survey, the study takes a conclusive research design. Moreover, since we want to describe the situation in a market where marketing of alcoholic beverages is illegal, a descriptive research design is presented (Malhotra 2020). Within the descriptive design, Malhotra (2020) highlights the cross-sectional design as a frequently used sub-design, which is

apposite to our research on how the data is collected, because our study does not involve pre-, - and post-tests.

### **3.2 Structure of Questionnaire**

The survey is a structured data collection questionnaire with several formal questions, containing different answering alternatives, in a prearranged order. Furthermore, it takes an indirect (disguised) approach, not revealing the purpose of the study (Malhotra 2020). Throughout the survey, the respondents are to a great extent exposed to closed-ended questions with fixed alternatives (Malhotra 2020).

Initially in the survey, the respondents are presented with a formal text about the survey, and information about their anonymity, before they are asked to consent their participation. If not consenting, they are not permitted to continue. By consent, the respondents are exposed to an information text about marketing of alcoholic products in Norway. The first question is a screening question (see 3.5.1), following a question about their five last purchases of beer in the grocery store, before answering several statements about Munkholm (customer-equity (3.5.4)).

A new information text about Ringnes is presented to the respondents. However, 50,5% of the respondents are given an additional information text that informs about the relationship between Munkholm and Ringnes, working as our moderator. Right after the information text (independent of exposure to the moderator or not), the respondents are exposed to a commercial of Munkholm (non-alcoholic beer), before answering several questions about their purchase intention towards beer with, - and without alcohol. Further, they are asked to choose what brand they are most likely to choose next time they buy beer at a grocery store.

Next, the respondents were asked three questions about their alcohol consumption, before a second commercial was shown. The film contained a Carlsberg alcoholic beer, starring Mads Mikkelsen. After the advertisement, the respondents were asked to answer the exact same questions as after the commercial with Munkholm. Finally, demographic questions were presented.

Based on our network and distribution channels, the survey was created in Norwegian.

### **3.3 Distribution**

Due to the complexity of this research in terms of both time and money, the survey was distributed through the authors' network, including Facebook, LinkedIn, and personal/work emails. We interpret social media to be a platform with wide coverage and sufficient accessibility. The survey was distributed with a link directly to the questionnaire and was feasible on mobile devices.

### **3.4 Sample**

As we interpret Malhotra (2020), determining sample size is a complex process. Further, we clarify that this is a master thesis with relatively limited time frame and resources. Nevertheless, the sample is what contributes to the output from this research. The survey collected a total of 218 respondents, with 178 respondents remaining after the screening.

### **3.5 Measurements**

The survey is constructed by several different measurements, in order to analyse the final results. In this section, we will define and elaborate on how the different questions in the survey will measure the different hypotheses, before presenting our findings in chapter 4.

#### **3.5.1 Screening**

In order to obtain and ensure reliability and validity in our research, a screening question regarding beer consumption was presented initially in the survey, and later repeated. Based on how this research aims to discover *to what extent does marketing of a company's non-alcoholic beer influence customer purchase intention of the company's alcoholic beer*, a screening question about beer consumption makes it easier to reach our target audience. Consequently, we exclude people who drink less than six times a year. However, we recommend future research to include non-beer drinkers in the analysis.

#### **3.5.2 Spillover Effect**

The spillover effect is the foundation for our research and is reflected in our hypotheses. On the basis of the presented literature, we expect the purchase intention towards Ringnes (and their products) to increase when marketing

Munkholm, given that people are aware of the connection between the two brands, and vice versa.

A general information text about beer was presented to all respondents. In addition, half of the respondents were presented with an in-depth information text about Ringnes, and their ownership of Munkholm. This information text represents our moderator, with the intention of influencing the respondents and their choice of beer brand next time they buy beer, dividing the respondents into two separate groups. In order to measure to what extent there is a spillover effect, the respondents (independent of the moderator) were asked to select their most frequently purchased beer, based on their five last purchases in a grocery store. Later, both groups were then asked which beer brand they were most likely to buy next time. By comparing and analysing the two groups, we will elaborate in section 4 and 5 about the effect of the moderator, and to what extent there is a spillover effect.

The question regarding the respondents' five last purchases, is based on customer loyalty to a brand. Furthermore, Tucker (1964) and McConnell (1968) elaborates on how brand loyalty occurs when a purchase is made three or more times in a row. Inspired by Tucker and McConell, we increased the number of purchases to five based on how we interpret consumers to change beer brands more often compared to expensive products (ref. hedonic product). After answering on previous purchase behaviour, the manipulation was exposed to approximately 50% of the respondents using a randomizer in Qualtrics. By including which brand respondents were likely to buy next time, we were able to analyse which respondents switched from their initial answer – revealing to what extent there was a spillover effect when exposed to the moderator.

### **3.5.3 Multi-Item Scale**

According to Malhotra (2020), a multi-item scale is convenient for researchers looking to investigate to what extent respondents agree or disagree with a statement, and how they describe different objects. Furthermore, our interpretation of the Likert scale ensures the scale to be favourable for this research.

The majority of the questions in the survey is based on different assertions or questions, on a 7-point Likert scale. This type of Likert scale is a

symmetric/balanced scale, providing the respondents with the opportunity to answer neutrally (Joshi et. al 2015; Malhotra 2020). We interpret the symmetric scale to be suitable for our research, and for the assertions and questions that were raised. In addition, the scale avoids respondents to either choose an answer which can either be interpreted negatively or positively towards the questions (asymmetric scale).

The Likert scale is user friendly, and understandable to use for the respondents. In addition, the scale is undemanding and suitable for mobile phones and electronic devices (Malhotra 2020) – making the multi-item scale suitable for our use.

### **3.5.4 Customer-Based Brand Equity**

In order to test our second hypothesis regarding customer-based brand equity (also written as customer equity), we used several aspects of Kevin Keller's brand building elements with his Customer-Based Brand Equity Pyramid (Keller 1993; Keller 2001; Keller 2008 and Keller and Swaminathan 2020) as a pillar in our measurements (Appendix 1). Additionally, by including Aaker's (1996) research on equity measures, we were able to map respondents' customer equity towards Munkholm. The questions were created from five different elements: loyalty, perceived quality/leadership, associations/differentiation, awareness, and market behaviour (Aaker 1996, p 105).

The respondents were asked to the best of their knowledge, to answer eight assertions on a 7-point Likert scale, ranging from strongly disagree to strongly agree. We interpret a score of four to be neutral to the other options, where a score higher than four is positive and lower is negative. However, when measuring customer equity, we are interested in the extent of customer equity rather than categorizing the answers. On that basis, we are able to get an indication of the effect customer equity has on purchase intention.

### **3.5.5 Purchase Intention**

Purchase intention is defined in the literature as the likelihood of a customer to buy a particular product (Wang and Tsai, 2014; Fishbein and Ajzen, 1975; Dodds et al., 1991; Schiffman and Kanuk, 2000). Furthermore, Wang and Tsai write: “A greater willingness to buy a product means the probability to buy it is higher, but

*not necessarily to actually buy it. On the contrary, a lower willingness does not mean an absolute impossibility to buy” (2014, p 29).*

Purchase intention, as shown in the previous section, is commonly used in the marketing literature. When reading and understanding marketing and brand building, there are several influencing factors on purchase intention (Dodds et. al 1991). The complexity of a purchase (and purchase intention) is illustrated on how Zeithaml (1988) improved Dodds and Monroe’s (1985) model on how price, quality, and value, affect a purchase intention. As previously presented (ref. chapter 2), we are aware of how brand image, trustworthiness, and brand equity, constantly influences a purchase, and the purchase intention.

The purpose of our hypotheses is to test several aspects of purchase intention that further answer the research question. With the basis of Wang and Tsai’s elaboration of consumer's purchase intention, inspired by Bian and Forsythe (2012), the respondents were asked three questions in order to estimate their purchase intention. The questions were created with a 7-point Likert scale, where one represents low purchase intention, and seven represents high purchase intention. For the analysis, the extent of purchase intention will be analysed with a mean score of the three questions.

Purchase intention is measured towards both alcoholic, - and non-alcoholic beer.

### **3.5.6 Alcohol Consumption**

Based on the presented literature, we interpret alcohol consumption to influence the extent of purchase intention when exposed to a non-alcoholic beer commercial (H<sub>3</sub>).

World Health Organization has created an Alcohol Use Disorders Identification Test (AUDIT) (WHO, 2022) to identify alcohol consumption, to what extent, and with potential consequences (Barbor et. al 2001). AUDIT is a 10-question survey, which contains questions regarding alcohol consumption among others (Appendix 4). Every question gives a score between 0 and 4. According to the AUDIT report by Barbor et. al (2001), the respondents with a total score above 7 (8 or higher) should be aware of their consumption, and the health risk. Furthermore, AUDIT proposes consultations and monitoring of your alcohol consumption if your result scores above 15. With a score between 20-40, AUDIT defines the respondent of



having a risky or hazardous consumption and suggests conversations with specialists and treatment.

Inspired by the AUDIT, three questions were created to measure alcohol consumption. Note that we seek people with a certain level of consumption, thereby including a screening question, which will allow our respondents to influence the all over mean for our population. Nevertheless, three questions about recency were applied in the survey. By integrating these questions together, each respondent receives an alcohol consumption score. When analysing the different scores towards the hypotheses, we acquire data on how alcohol consumption influences the purchase intention.

### **3.6 Demographic**

Five demographic variables were asked at the end of the survey: gender, age, education, marital status, and employment status. With the demographic information, the participants provide informative background characteristics, represented as independent variables in the analysis in chapter 4.

### **3.7 Method for Analysis**

In order to analyse the collected data from the questionnaire, we used the statistical software platform IBM SPSS. Each of the individual hypotheses requires different analyses and will in their entirety be described below. For further readings and additional analyses, please read Janssens et. al 2008, *Marketing research with SPSS*. In this section you will find our theoretical approach to the given analyses, and justification for our choices. Further, each of the hypotheses will be individually analysed in chapter 4, before a discussion in chapter 5. The analyses will be elaborated in the same order as the hypotheses are presented, starting with H1.

#### **3.7.1 Significance Level and Confidence Interval**

For our analyses in their entirety, we use a significance level of 5% ( $p < .05$ ). However, variables under the 10% confidence interval will be contemplated, and commented on. In addition, insignificant values will be considered and analysed.

#### **3.7.2 Paired Sample T-test**

A paired sample t-test refers to two observations towards the same respondent. By

rating for example two different products, we are interested in the differences in mean between the two observations (Malhotra 2020).

Since we want to find out if there is a significant difference for the mean score in purchase intention towards alcoholic beer and non-alcoholic beer, after showing a commercial of beer without alcohol, a paired sample t-test is conducted. Since the respondents are measured twice, (1) purchase intention towards beer with alcohol, and (2) purchase intention towards beer without alcohol, a paired sample t-test is chosen.

### **3.7.3 Cross Tabulation**

Cross tabulation is a quantitative tool to analyse the relationship between multiple variables where a frequency of respondents are categorized with the provided characteristics. Furthermore, cross tabulation is convenient when operating with categorical variables or data, for example in a survey (Qualtrics 2022). We do also interpret that using a cross tabulation makes it more illustrative for both the researcher, and the reader.

Due to the fact that we want to discover the relationship between previous purchase behaviour, our manipulation, and future purchase behaviour, we found the cross tabulation analysis to be practical when analysing the data. In addition, our categorical variables make it convenient to exploit the cross tabulation.

To test if there is a statistical significance in the cross tabulation, we use chi-square ( $\chi^2$ ) (Malhotra 2020). The chi-square indicates to what extent there is a systematic association between the variables in the cross tabulation, and to what extent there is a discrepancy between the actual and expected frequency. For this reason, the chi-square should only be estimated with counts of data (Malhotra 2020).

### **3.7.4 Linear- and Multilinear Regression**

*“Multiple linear regression attempts to model the relationship between two or more explanatory variables and a response variable by fitting a linear equation to observed data”* (Yale, 2022).

This research aims to evaluate the causality between several independent variables, and a dependent variable. Furthermore, by utilizing a regression

analysis, we show to what extent the dependent variable is caused by the independent variables (Gripsrud et. al 2018). Gripsrud et. al also emphasize that a regression analysis can never confirm that there is a causal relationship, just to explain if there is a significant difference from zero (2018, p 297). Too short, or too, long regression models may also affect the precision of the model.

In a simple linear regression analysis, the researcher “(...) *tries to explain the variation in one dependent variable as much as possible on the basis of the variation in a number of relevant independent variables*” (Janssens et. al 2008, p135). We interpret the literature to distinguish between a simple regression and a multiple regression based on the number of independent variables. The regression analysis will be based on the following formulas from Janssens et. al (2008) and Gripsrud et. al (2018):

Simple regression formula:

$$Y = \beta_0 + \beta_1 X_1 + \epsilon$$

Multiple regression formula:

$$Y = \beta_0 + \beta_1 X + \beta_2 X + \dots \beta_i X_i + \epsilon$$

Symbol explanation:

Y represents the dependent variable which is affected by the independent variable(s)  $X_i$ .  $\beta_0$  is the equation's constant. Each of the independent variables is connected to a regression parameter  $\beta_i$ .  $\epsilon$  is the error margin, due to the interpretation of how the correlation may not be perfect (Gripsrud et. al 2018, p 296).

When running the regression analysis through SPSS, we are able to explain the index of fit, R-squared. The mathematics that underlies R-Squared:

$$R^2 = \frac{RSS}{TSS} \leftrightarrow R^2 = 1 - \frac{ESS}{TSS}$$

Total Variation	= Explained Variation	+ Unexplained Variation
TSS (total sum of squares)	= RSS (regression sum of squares)	+ ESS (error sum of squares)

(Source: Gripsrud et. al 2018, p 309)

In short terms, the R-squared explains how much of the variation of the dependent variable is explained by the regression. When reading literature about R-squared,

the value of a “good” R-squared varies. Therefore, we will comment on the R-squared in each of the individual analyses (Malhotra 2020; Janssens et. al 2008; Gripsrud et. al 2018).

Since we are interested in the causality between consumption and purchase intention, a regression analysis will provide valuable information for our hypotheses. Additionally, a multiple regression analysis contributes to a wider comprehension of the stated hypotheses.

### **3.7.5 Correlation**

By running a correlation analysis in SPSS, the output provides information about the degree of correlations between the variables, and if it is positive or negative. Furthermore, the correlation analysis indicates how the variation in one variable (X) is related to another one (Y) (Malhotra 2020).

In our second hypothesis we are interested in the extent of correlation between equity and purchase intention. In our third hypothesis, we are interested in if there is any correlation between alcohol consumption and purchase intention when exposed to a commercial. Consequently, correlation analyses were conducted in addition to the regression analysis for a deeper understanding.

### **3.7.6 One-Way Repeated Measure ANOVA**

According to Janssens et. al, ANOVA may be interpreted as an extension of the t-test where we have more than two samples involved. Moreover, the ANOVA analysis may tell the effect of nominal variables on an interval-scaled dependent variable in addition to determining the significance level of the difference between three or more means (2008, p71).

“The Repeated measures ANOVA procedure analyses groups of related dependent variables that represent different measurements of the same attribute” (IBM, 2022). Consequently, we implement the analysis to investigate our fourth hypothesis, and explore if the two commercials influence the purchase intention towards beer with, - and without alcohol.

By including the eta-squared ( $\eta^2$ ), we may interpret the effects of the independent variable(s) (X), on the dependent variable (Y). Eta-squared takes a value between

0 and 1 (Malhotra 2020).

### **3.8 Quality of Data**

On the basis of the chosen multi-item scale, and the question raised in the questionnaire, an assessment regarding validity, reliability and generalizability will be conducted to ensure accurate analysis and conclusion. Kindly note that the following paragraphs will not include every aspect of the scale evaluation, and for more information please read Malhotra (2020, Ch 9). Moreover, the affiliated analysis will be presented in chapter 4.

#### **3.8.1 Validity**

Malhotra defines validity “(...) *as the extent to which differences in observed scale scores reflect true differences among objects on the characteristic being measured, rather than systematic or random error*” (2020, p. 304).

##### **3.8.1.1 Content Validity**

In this research, the content validity is first subjective, but at the same time aids the interpretation of the scoring scale (Malhotra 2020). Furthermore, we interpret the scales and different measures to adequately measure our research question, and hypotheses.

##### **3.8.1.2 Criterion Validity**

Criterion validity is to the best of our knowledge fulfilling the literature in the way we base our measurements on previous research and supplementing theoretical framework. By including criterion variables like behaviour, equity, and other score scales, we show how criterion operates sufficiently in our study (Malhotra 2020; Gripsrud et. al 2018).

##### **3.8.1.3 Construct Validity**

“Fundamentally, construct validity is concerned with the extent to which a particular measure relates to other measures consistent with theoretically derived hypotheses concerning the concert (or constructs) that are being measured” (Carmines and Zeller, 1979, p23). To give a more versatile understanding of the literature presented initially, we based our four hypotheses on existing literature and theory. We interpret the theoretical terminology presented in the literature to be operationalized to a sufficient extent. On that basis, we interpret to produce interesting findings to the existing research. However, not every aspect of

construct validity is elaborated in our analyses, including convergent validity and discriminant validity (Malhotra 2020; Gripsrud et. al 2018).

### **3.8.2 Reliability**

Reliability refers to what extent the survey produces consistent results if repeated measures are implemented (Popham 2016; Thompson 2002; Sinha 2000). In connection to this, measuring internal consistency gives an indication of how accurate our measurements are, with coefficient alpha (Cronbach's Alpha) (Malhotra 2020; Gripsrud et. al 2018). Malhotra (2020) indicates a Cronbach's Alpha less than 0,60 to be unsatisfactory, while Nunally and Bernstein (1994), Bland and Altman (1997), and DeVellis and Thorpe (2021) write about acceptable values within the range from 0,70 to 0,95. As we interpret the literature, by being aware of how the coefficient tends to increase when adding several scale items, could potentially reduce/increase the reliability of the analysis. Therefore, the number of scale items will be considered when interpreting the analysis.

### **3.8.3 Generalizability**

“ Generalizability refers to the extent to which one can generalize from the observations at hand to a universe of generalizations” (Malhotra 2020, p 305). To the best of our knowledge, there has not been any research dealing with our hypotheses from existing literature, meaning that a comparison is difficult. However, we notice how our questions regarding alcohol consumption match other findings from statistical databases, indicating a generalizability (SSB 2022; Statista 2022). Furthermore, due to our screening question regarding consumption, we interpret the research representativeness to diminish in opposition for the total population.

## **3.9 Ethics**

Since we do not hold any personal information that may recognise the respondents, we have, in accordance with the guidelines of Norsk Senter for Forskningsdata, NSD (Norwegian Center for Research Data), not reported our study. However, the collected data has been stored safely in an external hard drive with personal pin codes to access. Based on NSD's guidelines, the data will be deleted after the research is completed.

The respondents in the survey are not connected to any IP-addresses, which preserves their anonymity. In addition, as mentioned in 3.2, the respondents can withdraw their participation at any time during the survey.

#### 4. DESCRIPTIVES - OBTAINED DATA

The survey generated 218 complete answers with no missing values. However, after taking the screening question into consideration, a total of 178 respondents created the foundation for the analysis. Furthermore, the sample consists of 110 men (61,8%) and 68 women (38,2%), ranging from the age between 20 to 59, where 74.2% of the sample is between 20-30 years old, and approximately 12% is older than 40. A total of 78% has at least a bachelor's degree and 5% has a PhD or similar. Almost 39% of the respondents are single, while the majority either have a cohabitant, or are married. The majority of the sample are full-time employed (70%), and 25% are students. Ultimately, 88 of the respondents (49,4%) got the manipulation, while the remaining 90 participants (50,6%) did not receive the manipulation.

Based on their five last purchases of beer in a grocery store, Frydenlund is the most preferable beer among the 13 different beer options. 39 respondents (22%) bought Frydenlund based on their five last purchases, while zero respondents bought Sol. Ringnes products in total (Ringnes, Frydenlund, Corona, Carlsberg, Kronenbourg and Tuborg) are chosen by 99 (55%) of the respondents. Further, 13 respondents chose Ringnes Pilsner, (original Ringnes beer), while Hansa, one of Ringnes' biggest competitors, was bought by 13 of the respondents. Heineken, Kronenbourg, BARE and Mack are the survey's least purchased beers.

##### *Equity*

With the statement "Munkholm is a familiar brand to me", 99 respondents answered, "totally agree" (7), giving a total mean score of 6,33. On top of that, 106 respondents (59,6%) agreed that Munkholm is a leading brand within the category. However, only 16 answered "totally agree" when stating "I buy Munkholm when I buy non-alcoholic beer". This is also the statement with the lowest mean score (M=3,76) within customer equity. For the other statements about equity, the median ranges from 4 to 6, and the total mean score for customer-based brand equity towards Munkholm is 4,77. When calculating the weighted average between men and women with an individual score of 4 or higher, women have a higher customer equity than men.

##### *Purchase intention - Non-alcoholic beer*

When showing a non-alcoholic beer commercial, 51,1% (n=91) answered "low"



(2) or “very low” (1) when being asked to what extent they would like to buy non-alcoholic beer. A total of 83,7% (n=149) of the sample answered between “very low” (1) and “neither nor” (4) to the same question. Only 16.3% (n=29) answered “some high” (5), “high” (6) or “very high” (7). Furthermore, the degree of likelihood of buying non-alcoholic beer in the future and at a store next time the respondents are visiting, were respectively 86% and 87,1%. Consequently, the mean purchase intention for beer without alcohol scored 2,63 when showing a non-alcoholic commercial.

When marketing alcoholic beer, the mean purchase intention for non-alcoholic beer decreases to 2,40. See appendix 4 for tables.

### *Consumption*

On average, almost 60% of the respondents consume beer weekly or more often. Furthermore, a larger group of the respondents (37,1%, n =66) drink 3-4 units of beer on each occasion. In addition, a total of 59,6% (n=106) drink a maximum of 4 units. On the other side of the scale, more than 1 out of 5 respondents drink more than 8 units of beer each occasion. In connection to this, approximately 55% consume more than six units monthly or more, and 13% drink more than six units once a week or more frequently.

Of the respondents drinking 3-4 units of beer when drinking, 30% (n=20) consume beer 2-3 times a month. Further, 22% (n=22) consume beer 4-5 times a month, and 24% (n=16) consume beer 6-8 times a month.

### *Purchase intention - Alcoholic beer*

When marketing non-alcoholic beer, 62,3% (n=111) answered “some high” (5), “high” (6) or “very high” (7) when asking to what extent they wanted to buy beer after watching the commercial. Less than 1 out of 5 respondents answered, “very low” (1), “low” (2) or “some low” (3). In addition, 43,3% (n=77) of the respondents answered, “some high” (5) or higher to questions about their likelihood to buy beer in the future and next time visiting a grocery store. For this reason, the mean purchase intention for alcoholic beer takes the value 4,25.

The mean purchase intention for alcoholic beer when showing an alcoholic beer commercial is slightly lower than when marketing a non-alcoholic beer, with a score of 4,11. The reason will be discussed in chapter 5. Despite a lower mean

score, the individual answers are in the vicinity of the scores from the non-alcoholic beer commercial.

The question about which beer you are most likely to buy next time you will buy beer at a grocery store, will be presented through the hypothesis in chapter 5, and discussed in chapter 6.

## 5. ANALYSES

**H<sub>1A</sub>:** *Marketing of non-alcoholic beer influences the purchase intention for beer with alcohol more than it influences the purchase intention towards beer without alcohol*

In order to confirm or reject H<sub>1A</sub>, a paired sample t-test was conducted. As both groups were exposed to the same non-alcoholic commercial, the aim was to test if there was a difference, and to what extent, in purchase intention between the purchase intention for beer with alcohol, and without alcohol.

When the two groups are compared and when applying a 95% confidence interval, we observe that there is a significant difference between the purchase intention for beer with alcohol and the purchase intention of beer without alcohol. In addition, the results showed that the mean purchase intention of purchasing beer with alcohol was significantly higher (M=4.25, SD=1.42), in contrast to the purchase intention for non-alcoholic beer (M=2.64, SD=1.42),  $t(177) = 11.88$ ,  $p < .001$ .

### Paired Sample Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Intention_Beer_AD1	4,2528	178	1,42232	.10661
	Intention_Non-Beer_AD1	2,6367	178	1,41567	.10611

### Paired Sample Test

		t	df	Significance	
				One-Sided p	Two-Sided p
Pair 1	Intention_Beer_AD1 - Intention_Non-Beer_AD1	11,883	177	<.001	<.001

Consequently, we can with statistical evidence confirm H<sub>1A</sub>, and that marketing of non-alcoholic beer influences the purchase intention for beer with alcohol more than it influences the purchase intention towards beer without alcohol.

**H<sub>1B</sub>:** *There is a higher purchase intention of a firm's alcoholic beer, given that people have a higher awareness that the company owns the non-alcoholic beer.*

The three-way cross tabulation showed that 44,38% (n=79) of the respondents bought a different brand than the firm's (Ringnes) alcoholic beer portfolio, based on their five previous purchases in a grocery store, while 55,62% (n=99) of the respondents chose one of the firm's alcoholic beers. Furthermore, out of the total 178 respondents, 49,44% (n=88) did not receive the manipulation with the

information text about the firm's ownership of the non-alcoholic beer brand (Munkholm), while 50,56% (n=90) received the information. See appendix 7 for tables for this analysis.

By only comparing the participants previous, - and expected beer brand purchases, without the manipulation, 89 respondents expected to continue purchasing a Ringnes product. 10 respondents that previously bought a Ringnes product answered they were likely to buy another beer brand next time. Furthermore, 62 respondents answered that they did not buy Ringnes based on their five previous purchases and will not buy a Ringnes product next time. On the other hand, 17 respondents that previously did not buy a Ringnes product, wanted to buy a Ringnes product next time.

When interpreting the data from respondents who did *not receive the manipulation*, we observed that 30 of the 35 respondents who did not buy one of the firm's alcoholic brands, did not choose a Ringnes product after being exposed to the non-alcoholic commercial. This represents 85,7% of the total respondents within this group. Consequently, the remaining 5 respondents expected to buy one of the firm's alcoholic products next time when purchasing beer at a grocery store, representing 14,3%. Of the respondents who bought Ringnes (n=53), 6 (11,3%) did not expect to buy a Ringnes product next time. On the other hand, 47 (88,7%) respondents were likely to buy a Ringnes product next time.

Of the respondents who *received the manipulation* and who did not buy Ringnes (n=44), 32 (72,7%) answered that they were not likely to buy a Ringnes product at their next alcoholic beer purchase. In connection to this, 12 (27,3%) of the respondents who did not buy Ringnes before, and were exposed to the manipulation, are expected to buy a Ringnes product next time. Only 4 (8,7%) participants who bought Ringnes (n=46), and received the manipulation, were expected to buy another beer brand at their next purchase, while 42 (91,3%) participants were expected to continue purchasing a Ringnes product.

Finally, when comparing respondents' purchase behaviour before and after the commercial, we observe that there is a change towards participants' purchase intention in regards to the firm's alcoholic products. The study showed that 106

(59,6%) of the respondents (n=178) were expected to buy a Ringnes product next time they buy beer in the grocery store, compared to 99 (55,62%) respondents earlier. Furthermore, 72 (40,4%) of the respondents answered that they were not going to buy a Ringnes product next time, compared to the 79 (44,3%) respondents who did not buy a Ringnes product before. For this reason, we interpret the results to show a change in the purchase intention towards Ringnes' products.

To confirm whether the relationship between purchase intention and whether participants have higher awareness if the company owns the alcoholic beer is statistically significant in regards to the manipulation in our sample, we include the results of the chi-square test. For participants who did not receive the manipulation the chi-square test statistic value is 48.260,  $df(1)$ ,  $p < .001$ . Among the participants who did not receive the manipulation, we can interpret that there is evidence against the hypothesis, and that there is not a higher purchase intention of a firm's alcoholic beer. Further, it is therefore not associated in the population from which our sample data was obtained from.

In addition, by observing the sample who did receive the moderator, we can interpret the test statistics of 38,149,  $df(1)$ ,  $p < .001$ . Therefore, there is sufficient evidence for our hypothesis that our two variables of a participant's purchase intention before and after are independent and that they therefore are not associated in the population where the sample data was drawn.

Consequently, when working with a 5% significance level, we can with statistical evidence confirm  $H_{1B}$  and that there is a higher purchase intention of a firm's alcoholic beer, given that people have higher awareness that the company owns the non-alcoholic beer. In conclusion, when providing people with the information that Ringnes owns several alcoholic brands and in addition informing them about the connection to Munkholm, the relationship between purchase intention before and purchase intention after is statistically significant overall.

***H<sub>2</sub>: Consumers with a higher customer-based brand equity towards a companies' non-alcoholic beer will experience higher purchase intention towards alcoholic beer, to a greater extent than consumers with lower customer-based brand equity.***

This hypothesis tests whether consumers with a positive customer-based brand equity towards a companies' non-alcoholic beer, will experience higher purchase intention to the companies' alcoholic beer. The dependent variable *purchase intention* to the companies' alcoholic beer was first computed by finding the mean between purchase intention for the non-alcoholic commercial and the alcoholic commercial, creating the new variable, *purchase intention for beer*. By applying a linear regression, the purchase intention was regressed on predicting the variable equity, to test the hypothesis H<sub>2</sub>. Equity significantly predicted purchase intention to alcoholic beer,  $F(1,176) = 14.603$ ,  $p < .001$ , which indicates that equity can play a significant role in predicting purchase intention to alcoholic beer ( $\beta = .401$ ,  $p < .001$ ). These results clearly direct the positive effect equity has on purchase intention. Moreover, the  $R^2 = .077$  depicts that equity explains 7.7% of the variance in purchase intention of alcoholic beer (Appendix 8).

When applying equity in a linear regression, we operationalize the effect of equity has on the purchase intention for beer.

$$Y = \beta_0 + \beta_1 X_1 + \epsilon$$

$$Y = \beta_0 + \text{Equity} X_1 + \epsilon$$

$$\text{Purchase intention for beer} = 2.275 + \text{Equity} * .401 + .105$$

Furthermore, The Pearson correlation test between equity and purchase intention to alcoholic beer was interpreted to be a somewhat low positive correlation, but statistically significant ( $r = .277$ ,  $p < .001$ ).

Based on the linear regression analysis, we find statistical evidence for supporting H<sub>2</sub>. This shows that an increase in equity would lead to a higher purchase intention towards alcoholic beer.

**H<sub>3</sub>:** *Heavier consumers of alcoholic beer will experience higher increased purchase intention towards alcoholic beer when marketing non-alcoholic beer, than consumers with lower consumption.*

Based on the linear regression analysis, the unstandardized beta coefficient highlights the effect on the dependent variable, purchase intention for beer with alcohol, after being exposed to the non-alcoholic commercial, resulting in the

equation (Appendix 9A):

$$Y = \beta_0 + \text{Consumption } X_1 + \varepsilon$$

Purchase intention for beer with non-alcoholic commercial = 3.150 +  
Consumption\*.346 +  $\varepsilon_i$ .

The descriptive table below shows that participants scored from 1,33 - 5,33 in average consumption level, even though the scores originally ranged from 1-7.

### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Consumption	178	1,33	5,33	3,18	1,06

When observing individuals' answers in regards to consumption, we can calculate candidates' purchase intention towards alcoholic beer by applying the regression equation. According to the regression, a participant with higher consumption will score higher on purchase intention compared to a participant with lower consumption score. For example, an individual with a consumption level of 2.67 will receive a lower purchase intention score, compared to a consumer with 4.67 (see table 4.1).

Table 4.1 - Consumption

Consumption frequencies	Score
1,33	3,61
1,67	3,72
2,00	3,84
2,33	3,95
2,67	4,07
3,00	4,18
3,33	4,30
3,67	4,41
4,00	4,53
4,33	4,64
4,67	4,76
5,00	4,87
5,33	4,99

$$\beta_0 = 3,150 \quad X_1 = .346$$

By summarizing the linear regression model, we observe the analysis to be significant,  $F(1,176) = 3.54, p < .001$ . Moreover, the  $R^2 = .067$  depicts that the model explains 6.7% of the variance in consumption affects the dependent variable. We interpret the variance explained to be fairly low, and further interpret that there are other variables which are not included in the model that may affect

the dependent variable (purchase intention for beer with alcohol) additionally. Furthermore, the results show that consumption ( $\beta = .346$ ,  $p < .001$ ) is a significant predictor of purchase intention of beer with alcohol after being exposed to the non-alcoholic commercial.

In addition, the Pearson correlation test between consumption and purchase intention towards alcoholic beer when marketing non-alcoholic beer, was found to be of a fairly low positive correlation and statistically significant ( $r=.258$ ,  $p<.001$ ). This shows that an increase in consumption would lead to a higher purchase intention towards alcoholic beer when marketing non-alcoholic beer.

Consequently, we can with statistical evidence confirm  $H_3$ , and that heavier consumers of alcoholic beer will experience higher purchase intention towards alcoholic beer when marketing non-alcoholic beer, than consumers with lower consumption.

Furthermore, when adding the independent variable, *equity*, the analysis showed that this independent variable had a positive effect on the model ( $\beta = .406$ ,  $p<.001$ ). When looking at the standardized beta, and comparing the two independent variables, equity do to some, make a stronger contribution in explaining the purchase intention after being exposed to the non-alcoholic commercial ( $\beta=.274>.228$ ) In addition, we observed that the variance explained increased from previous analysis ( $R^2=.137>.067$ ). Therefore, we can conclude with statistical evidence that the two independent variables, *equity*, and *consumption*, explain 13,7% of the variance of the dependent variable, purchase intention for beer, after being exposed to the non-alcoholic commercial (see appendix 9B).

**H4:** *Marketing of beer with alcohol versus beer without alcohol influences the purchase intention of the non-alcoholic beer more than marketing of non-alcoholic beer versus beer with alcohol influences the purchase intention of beer with alcohol.*

When conducting a one-way within-subjects ANOVA, the results indicated that marketing of beer with alcohol versus beer without alcohol influences the



purchase intention on the non-alcoholic beer more than marketing of non-alcoholic beer versus beer with alcohol influences the purchase intention of beer with alcohol were significantly different at least for one of the purchase intentions,  $F(3,531) = 120.52$ ,  $p < 0.01$ ,  $\text{partial } n^2 = .405$ . The pairwise comparison test revealed that the purchase intention for non-alcoholic beer ( $M=2.40$ ) was significantly different from the purchase intention for beer ( $M=4.12$ ) when being exposed to marketing of alcoholic beer ( $p < .001$ ). Furthermore, the purchase intention for non-alcoholic beer ( $M=2.64$ ) also scores significantly different from the purchase intention for beer with alcohol ( $M=4.25$ ), when being exposed to marketing of non-alcoholic beer ( $p < .001$ ). The purchase intention for beer with alcohol (when marketing non-alcohol) was significantly different from the purchase intention for beer without alcohol (when marketing alcoholic beer) ( $p < .004$ ). In contrast, purchase intention for beer with alcohol (when marketing non-alcoholic beer) compared to purchase intention for beer with alcohol (when marketing beer with alcohol), cannot be statistically supported ( $p = .062 > .05$ ).

To confirm or reject the hypothesis, we computed two new variables to get the mean score for purchase intention for beer without alcohol and for beer with alcohol for the two commercials. Consequently, the mean purchase intention for alcoholic beer becomes 4,19, and 2,52 for the non-alcoholic beer. When conducting a one sample t-test the model indicates that there is a significant difference between the two means,  $t(177) = 12.57$ ,  $p < .001$ .

By summarizing these findings, we can with statistical evidence not confirm  $H_4$ , and conclude that three of the four pairwise differences were significant. The one-way within-subjects ANOVA indicated that it was only purchase intention for beer with alcohol (when marketing non-alcoholic beer) compared to purchase intention for beer with alcohol (when marketing beer with alcohol) that was not statistically confirmed. Furthermore, when comparing the two new mean variables, we can with statistical evidence conclude that marketing of beer with alcohol versus beer without alcohol influences the purchase intention of the non-alcoholic beer more than marketing of non-alcoholic beer versus beer with alcohol influences the purchase intention of beer with alcohol is not supported. The results show the opposite, meaning that marketing of non-alcoholic beer, influences the

purchase intention for beer more than marketing of beer influences the purchase intention for non-alcoholic beer. (See appendix 11 and 12)

## 6. DISCUSSION

The primary goal for this research is to identify *to what extent marketing of a company's non-alcoholic beer influences customer purchase intention of the company's alcoholic beer*. Furthermore, we put together five individual hypotheses based on the presented literature to create a better and deeper understanding of our research question. In the following section we will discuss and elaborate about these hypotheses in their presented order, before concluding at the end of each hypothesis. A final conclusion will be presented in chapter 8.

**H<sub>1A</sub>:** *Marketing of non-alcoholic beer influences the purchase intention for beer with alcohol more than it influences the purchase intention towards beer without*

When reading brand building and marketing literature, we know the importance of knowledge and awareness, as well as associations. The latter is what we interpret to make this hypothesis plausible. After being exposed to the non-alcoholic beer commercial, the mean purchase intention for beer *with* alcohol was 4,25, while only 2,63 for the purchase intention for beer *without* alcohol. An interesting observation was how the respondent's connected beer with alcohol to the non-alcoholic commercial and the extent of the difference.

The reason for this connection, and/or association, may vary from individuals. The Munkholm commercial does not show their product until the last 8 seconds of a 1-minute sequence. Further, the 52 first seconds contain several occasions where a man holds his hand out (visualizing that he is holding something) with a sound of a can (in this case, Munkholm) being opened and poured into a glass. We interpret this sound to represent a strong association to beer and is probably one of the reasons for the high mean score for the purchase intention towards beer. However, would the associations be the same if asking a 10-year-old, or a person that does not drink alcohol? Would a 10-year-old think of a can of Coca-Cola being opened and poured into a glass? In this study, we have only included participants over 18 years old, with a certain beer consumption, which might affect the results. When including non-beer drinkers, abstainers, and people below the legal drinking age, the results might change. Consequently, we recommend future research to investigate this further.

In addition to the sound of a can being opened, there are other aspects of the commercial that might connect consumers' minds to beer with alcohol. The sound of the opened can is presented right after the man in the commercial accomplishes something and “celebrates”. By presenting several accomplishments during the commercial, the sender might reach different consumers and their associations. We interpret that many consumers associate beer with a positive situation, which applies with the celebration in the commercial. Again, strengthening the beer association.

During the last 8 seconds of the commercial, the viewer sees the product (Munkholm) being poured into a glass. The logo is clearly exposed, but the content of the non-alcoholic beer is visualized and presented just like an alcoholic beer. This is what we interpret as another visual association to beer with alcohol. By putting all the elements of the commercial together, we interpret the strong association(s) to beer to influence the purchase intention towards beer to a greater extent than to the non-alcoholic beer. Additionally, the viewers are exposed to the word “beer”, which could potentially trigger associations. Even though the word is connected to the non-alcoholic concept, reading “beer” might automatically draw connections to alcoholic beer.

With the assumption of Munkholm being a familiar brand to many Norwegians, and the study of Low and Lamb Jr. (2000) on how one put more energy into processing the given information on familiar brands, we interpret the respondents to absorb the commercial to a great extent. Consequently, we interpret the respondents to evaluate the commercial, and to a greater extent trigger their associations.

Why the low mean score for purchase intention towards non-alcoholic beer when showing a non-alcoholic commercial? We do not know if the respondents drink non-alcoholic beer, and if so, what brand they prefer, in addition to their consumption. Also, people that drink a competitive brand might score lower on their purchase intention towards non-alcoholic beer, due to the Munkholm commercial, than respondents drinking Munkholm. In connection to this, a linear regression analysis (Appendix 12) with equity towards Munkholm as the independent variable, shows a positive effect on purchase intention towards non-alcoholic beer, after being exposed to the non-alcoholic commercial, as the

dependent variable. We interpret the results to show that consumers with higher equity towards Munkholm, will experience greater purchase intention to non-alcoholic beer (when exposed to a Munkholm commercial), than consumers with lower equity. This confirms Keller's (1993) customer-based brand equity theory.

The results of H<sub>1A</sub> does to a great extent operationalize Keller's many elements in brand building, and the different levels in the customer-based brand equity pyramid. In addition, we interpret associations to be of great importance for the spillover effect to happen, and when operating with products in a dark market. When computing a paired sample t test in SPSS, we can confirm with statistical evidence that there is a difference between the mean purchase intention towards alcoholic beer, and the mean purchase intention towards non-alcoholic beer, when marketing non-alcoholic beer - in this case, Munkholm. Further, we conclude that marketing of non-alcoholic beer influences the purchase intention for beer with alcohol more than it influences the purchase intention towards beer without alcohol

**H<sub>1B</sub>:** *There is a higher purchase intention of a firm's alcoholic beer, given that people have a higher awareness that the company owns the non-alcoholic beer.*

This hypothesis is in many ways where the theory of the spillover effect will occur. Based on the respondents' previous purchase behaviour, we added a manipulation and a commercial to observe to what extent there is an effect on their future purchase intention.

Without the manipulation being taken into consideration, a total of 106 respondents answered that they were likely to buy a Ringnes product next time buying beer at a grocery store, compared to 99 respondents who previously bought a Ringnes product. At first glance it seemed that the spillover effect existed to a small degree. However, by analysing the three-way cross tabulation, we discovered several interesting findings.

Respondents who bought Ringnes before, and are likely to buy it next time, decreased to a greater extent when not receiving the moderator, than respondents who did. This indicated that the moderator decreased the dropout rate when respondents choose a Ringnes product based on their five last purchases, till the next purchase. Furthermore, one might interpret the manipulation as a method of

branding in the way it informs the consumers, reminding them of the brand. This is also connected to the theory of Hastings (2009), and Wind and Sharp (2009), on how marketing in a long-term perspective aims to establish consumer involvement and awareness. On the other hand, the effect of the manipulation on the purchase intention when already buying a Ringnes product is marginal in our study, and probably not sufficient to be generalizable. However, the results are interesting and should be investigated with a bigger sample.

Of the participants who did not purchase a Ringnes product before, and received the manipulation, a total of 27,3% changed their preferred beer brand and were expected to buy a Ringnes product next time. We interpret this to be a result of showing a Munkholm commercial. On that basis, and by looking at the chi-square, we find statistical support for saying that there is a spillover effect towards Ringnes, when marketing Munkholm, and consumers are aware of the connection. However, some respondents who previously bought a Ringnes product, and were exposed to the manipulation, stated they were likely to choose another beer brand next time buying beer. Despite this change, these respondents represent only 8,7% (n=4) of the group that bought Ringnes in the first place (n=46). Further, this leads us to an interesting question about loyalty, and to what extent consumers are loyal in the beer category. Still, we will not elaborate about loyalty further.

From H<sub>1A</sub>, we already know that the purchase intention for beer is greater than the purchase intention for non-alcoholic beer, when exposed to a non-alcoholic commercial. By including the findings from H<sub>1B</sub>, we interpret that Ringnes might gain more customers when marketing Munkholm. However, the challenge for Ringnes then becomes how they are going to communicate the connection between Munkholm and Ringnes without violating any laws regarding marketing of alcoholic products or names. Therefore, should Ringnes invest more in communicating the connection between the two brands? We do not want to elaborate further, but according to our analysis the purchase intention towards Ringnes' products will increase when people are aware of the connection and see a non-alcoholic advertisement for their non-alcoholic beer.

When looking at the chi-square statistics, we understand that the manipulation differs enough to conclude that there is a difference between the two groups, with significant values. Ultimately, we can, with statistical evidence, conclude that

there is a higher purchase intention of a firm's alcoholic beer, given that people have a higher awareness that the company owns the non-alcoholic beer.

**H<sub>2</sub>:** *Consumers with a higher customer-based brand equity towards a companies' non-alcoholic beer will experience higher purchase intention towards alcoholic beer, to a greater extent than consumers with lower customer-based brand equity.*

We already know from H<sub>1A</sub> and H<sub>1B</sub> that there is a higher purchase intention for beer with alcohol, when showing a non-alcoholic commercial, and that there is a spillover effect on a firm's alcoholic beer when people are aware of Ringnes' ownership of Munkholm. A continuation of this is to investigate how equity affects the purchase intention. This hypothesis has its foundation in Keller's customer-based brand equity theory and was tested with a linear regression. The results show that equity did have a positive effect on purchase intention for beer, and that there is a positive correlation between the variables.

Initially in the survey, the respondents were given an information text about Ringnes' product portfolio among others. Carlsberg, which is a brand under the Ringnes umbrella, is the second commercial, which means that the respondents were exposed to two Ringnes products - one with alcohol, and one without alcohol. The positive correlation between equity and purchase intention to beer may be a dissemination of H<sub>1A</sub> and partly H<sub>1B</sub>. However, how does equity affect Ringnes' products?

Based on the findings in H<sub>1A</sub> and H<sub>1B</sub>, and the regression analysis in H<sub>2</sub>, we interpret that equity towards a company's non-alcoholic beer will have a positive effect on the purchase intention towards the company's alcoholic beer. Meaning that higher equity towards Munkholm will increase the purchase intention towards Ringnes' products. When being exposed to two commercials from the same "house of brands" may strengthen the purchase intention compared to showing other commercials including other brands. The regression shows how equity had a positive impact on purchase intention for beer, and that the higher the equity, the higher the purchase intention. An interesting study would be to compare equity for Munkholm and equity for Clausthaler (which is under Hansa), and their

individual effect on purchase intention towards beer when being exposed to a “Ringnes commercial”.

As stated earlier, since women have an average higher equity than men, will on average have a higher purchase intention to alcoholic beer. However, this study indicates that men are heavier drinkers compared to women, which could potentially be another influencing factor towards the purchase intention for beer, due to the high product involvement. In addition, the equity only explains 7,7% of the variation in purchase intention for beer, meaning that there are several other factors to include. For future studies it would be interesting to include demographic variables like gender and age since we interpret these variables to be of importance on the purchase intention. On the other hand, we interpret a percent of 7,7% to be sufficient in this analysis due to the complexity of purchase behaviour.

In conclusion, we may with statistical evidence confirm that consumers with higher equity will experience a greater purchase intention to beer when having higher equity to one (or more) products in the commercial, than consumers with lower equity. The higher the equity to Munkholm, the higher the purchase intention for beer, and consequently, higher purchase intention for Ringnes products.

**H<sub>3</sub>:** *Heavier consumers of alcoholic beer will experience higher increased purchase intention towards alcoholic beer when marketing non-alcoholic beer, than consumers with lower consumption.*

Koordeman et. al (2011) states that people are more likely to consume more of a product, based on consumers' involvement towards a product. In connection to this, we interpret that higher consumption of beer results in a higher involvement. In addition, we assumed that product involvement was strengthened when participants were exposed to the commercial of alcoholic and non-alcoholic beverages, which included sound and image. For this reason, we assume that people who absorb the commercial and drink a lot of beer to a greater extent, possess several of Keller's (2001; 1993) brand building elements in terms of equity.



The reason for H<sub>3</sub> was to identify if higher degree of consumer involvement towards non-alcoholic beer, when being exposed to a non-alcoholic commercial, would have a higher influence in regards to purchase intention towards beer with alcohol after exposure (Jonas & Field, 2013).

One of the goals was to measure consumers' alcohol consumption. Based on Koodeman, we further interpret higher involvement to create stronger associations, and consequently expect that higher consumption increases the purchase intention. Marketers could therefore exploit the findings of this research if a business is conducting dark marketing, when operating in dark markets. The results clearly show that consumption is a sufficient factor towards the purchase intention for beer given people with higher consumption compared to consumers with lower consumption.

An interesting finding was when adding equity into the equation. We observed that equity had a greater impact on purchase intention of beer, after being exposed to the non-alcoholic commercial, than consumption itself ( $\beta=.406>.308$ ). However, based on literature we interpreted consumption to have a greater influence due to the fact that consumers actually experience a product through taste, smell, and appearance. On the other hand, when showing a specific product in a commercial, consumers' equity towards this product seems to have a greater effect on the purchase intention, than the level of consumption (Appendix 9B).

However, when looking at equity towards the *alcoholic commercial*, we observe that the scores for these two variables are switched ( $\beta=.328<.461$ ). For this reason, we assume that likeness of the non-alcoholic commercial, where consumers had a positive equity towards Munkholm, do not have the same impact when showing a commercial of the alcoholic product (Carlsberg). In addition, we find it interesting that the correlation between equity and purchase intention for beer, after being exposed to the non-alcoholic commercial, is stronger ( $R=.292$ ) than the correlation between consumption and the non-alcoholic commercial ( $R=.258$ ). We interpret the result to be an indication of fit towards the commercial. The greater the fit, due to equity, the greater the purchase intention. However, when observing the alcoholic commercial, where the participants have not been asked to state their opinion towards equity of Carlsberg, the correlation is

reversed ((equity,  $R=.237$ ) and (consumption,  $R=.357$ )) (Appendix 9C).

When looking at these two predictors together, towards the purchase intention after being exposed to the non-alcoholic commercial, we observe that the total correlation coefficient is  $R =.37$ . This explains the strength of the linear relation between our two variables, which are stronger combined than separated.

Therefore, we can assume that both predictors have a positive effect when looking at whether heavier consumers will experience higher purchase intention towards alcoholic beer when marketing non-alcoholic beer. In addition, the total variance of the two predictors contributed in explaining 13,7%, of the dependent variable, which is a fairly good result to predict a consumers' purchase intention, because of other underlying variables like, state of mind, gender, and economic situation among others (Appendix 9B).

In conclusion for hypothesis  $H_3$ , we can to a small extent confirm Koordeman et. al theory that people are more likely to consume more of a product when they have a higher product involvement. Thus, we conclude that heavier consumers of alcoholic beer will experience a higher purchase intention towards alcoholic beer when being exposed to a non-alcoholic commercial, than consumers with lower consumption.

***H<sub>4</sub>: Marketing of beer with alcohol versus beer without alcohol influences the purchase intention of the non-alcoholic beer more than marketing of non-alcoholic beer versus beer with alcohol influences the purchase intention of beer with alcohol.***

As previously emphasized in the theory, brand-related information is influenced by the strengths of asymmetry brand-category linkages, and that associations between brands can be symmetric or asymmetric (Lei et al., 2008). Furthermore, we recall that “*Cognitive brand relatedness makes brands subject to spillover effects from other brands in a brand portfolio*”. (Lei et. al 2008, p.120). For this reason, we expected  $H_4$ .

The paired sample t-test showed that there was a significant difference between the groups, but the purchase intention for non-alcoholic beer was *not* greater than

purchase intention for beer in contrast to what the theory states. This means that we do not have statistical evidence to support H<sub>4</sub>.

We may interpret the result to say that beer with alcohol has to a greater extent a higher brand relevance in category when marketing non-alcoholic beer, than non-alcoholic beer has when marketing alcoholic beer. This is also reflected through the other hypothesis on how the purchase intention towards alcoholic beer is greater than the purchase intention towards non-alcoholic beer. The results may also indicate that there is a greater spillover effect from a non-alcoholic commercial to the purchase intention towards beer, than the spillover effect from an alcoholic beer commercial to the purchase intention of non-alcoholic beer. However, there is a small effect on the purchase intention towards non-alcoholic beer,  $p < .004$  (when marketing beer), meaning that the theory of Lei et. al, to a small extent is reflected in the results. When that being said, the results are to a great extent contradicting the theory, and the hypothesis is not confirmed.

The linkage between the marketing product and the purchase intention to another product (the spillover effect) is, from our point of view after the analysis, to a great extent influenced by several factors outside this study. However, we noticed that there was a linkage between purchase intention and non-alcoholic beer and vice versa, again showing the importance of association, knowledge and equity. As opposed to the other hypotheses, H<sub>4</sub> puts the theory to a test, and reveals important considerations when applying theory into practice when operating in a dark market.

Based on the result from the analysis we conclude that marketing of beer with alcohol versus beer without alcohol *does not* influence the purchase intention of the non-alcoholic beer more than marketing of non-alcoholic beer versus beer with alcohol influences the purchase intention of beer with alcohol. The results contradict with the theory to a great extent but shows a tendency of a spillover effect.

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Based on these findings, how can marketers utilize this study to successfully operate in a dark market? This study has given marketers valuable insights regarding how consumers react to both non-alcoholic, - (potential for dark

marketing), and alcoholic commercials. We are aware that these results are reflecting a proportion of the Norwegian population, but we interpret the outcome to be valuable for future marketing efforts. By utilizing the information from the study, marketers have the opportunity to secure more accurate marketing activities. Furthermore, exploiting the information regarding equity, consumption, and product knowledge for the two commercials separately and compared, marketers should focus on which variable could affect/impact/influence the consumers' purchase intention.

However, when operating in a dark market it is challenging to influence all the different aspects of the study to achieve the same results, as easy as it is for companies who are not located in such a market. It is worth mentioning that our population sample is limited, due to the use of the author's own network. Therefore, by carefully considering which factors alcoholic businesses can influence, based on laws and regulations, need to be taken into consideration. In addition, this study has used two commercials, with two well-known Ringnes products. Hence, the results could vary from product-to-product and country-to-country.

Consequently, we interpret the results of all the hypotheses to be of great importance when operating in dark markets. This clearly shows that marketers, especially in Norway, have the information to choose which variables and marketing approach they should focus on going forward, based on the presented analyses with the given variables. Ultimately, it all comes down to how alcoholic businesses are able to communicate the connection between their "dark marketing product", and the product they want to achieve a spillover effect on. Is dark marketing the solution?

Note: Of the presented literature within the field of marketing and brand building, we are aware of how the latter is a complicated process involving time, money, and creativity among others. When presenting our manipulation, as a short information text in a substantially larger survey only one time, we interpret the brand building element to be considerably impaired. Consequently, the manipulation may not be to a great extent generalizable to other brand building processes. However, the field of research remains to be explored and

experimented with. For the complexity of this research, we find the manipulation to be sufficient.

## **7. LIMITATIONS, PRACTICAL IMPLICATIONS AND FUTURE RESEARCH**

To the best of our knowledge, there is little research conducted within our research question, which makes our contribution an initial research with room for improvements. We do acknowledge that there are limitations, but also hope it will give incentives for future research.

Due to our situation as students, and our distribution of the survey through our network, our sample consisted of a majority of people below 30 years old. In terms of generalizability, we interpret the results to be sufficient enough to conclude the spillover effect. On the other hand, younger people may not drink as much non-alcoholic beer as the older generation, and an older generation may not drink as much or often as a younger population - like students. In connection to this, we interpret the reliability of the study to be reduced. Further, the generalizability also reduces. However, our main goal for the research was to explore the spillover effect, and we interpret the result to be sufficient enough to support the conclusion.

Second, the study was conducted with consumers from one of the European countries with laws that forbids marketing of alcohol. Therefore, it would be interesting to conduct future research in other countries with the same regulations as Norway and compare the findings. Consumers might react differently to the chosen commercials depending on factors like culture, economic situation, and alcoholic habits among others.

Third, we have to a small extent included demographics when conducting the analysis. In further research it would be interesting to test if other variables like gender, income, and education could give a deeper understanding of which factors could explain purchase intention towards both alcoholic beer and non-alcoholic beer better.

Fourth, regarding content validity and the measurements used in the survey, we acknowledge that by only applying a few aspects to measure equity, purchase intention and consumption, we recommend future research to use a more complex model to better understand the variables. However, the measurements are conducted from theory, and as a result of this we interpret the content validity to

be sufficient for our study. When that being said, to create an even more complex understanding and accuracy, we recommend including additional questions for measuring the effect of the variables.

Fifth, we acknowledge that a question regarding consumption of non-alcoholic beer should have been implemented in the survey to get a better understanding of the consumption level towards non-alcohol beer and not just beer with alcohol. We believe this could aid marketers to better understand participants' product involvement towards product category, and if they should exclude participants based on their answers. For this reason, we also recommend future research to include non-beer drinkers, abstainers, and people below the legal drinking age, to observe if the result changes.

We are aware that our participants may have become biased, based on the fact that they were asked about customer equity towards Munkholm before the Munkholm commercial, and their purchase intention towards non-alcoholic beer. Another interesting question would be to observe whether the participants would answer differently if they were asked about their equity regarding Munkholm at the end of the survey instead of the beginning. In addition, the purchase intention questions for both the non-alcoholic, - and alcoholic beer were on the same page in the questionnaire. Since the study discovered that people had stronger associations towards beer after being exposed to the non-alcoholic commercial, compared to the purchase intention of non-alcoholic beer after being exposed to the alcoholic commercial, we interpret that participants could subconsciously rate purchase intention for non-alcoholic beer lower than what they would if the purchase intention questions were separate.

Sixth, regarding liking towards the two commercials, the participants' attitude towards the content being shown could have an impact on consumers' purchase intention. We acknowledge that emotional values, brand familiarity, and awareness should to a greater extent be implemented in the survey to discover likeness of the commercial, to ensure creating emotions, values and interactions from a consumer perspective. Additionally, it would be interesting to conduct an experiment with a fictive alcoholic brand to observe if the scores change. This

could give marketers an indication of the extent of the effect the brand itself, product involvement, and equity has on the purchase decision.

Seventh, based on the chosen advertisement, the study may have delimited its results by only showing video commercials. However, we interpret this format to be sufficient enough for the complexity of this study but think it would be interesting to observe whether radio, and still pictures would affect the result. Furthermore, an implication we think would be interesting to look further into is the sound and length of the commercials. The time sequence of the commercials shown in our survey are between 30 seconds and 1 minute, which could have an effect on the results. By creating the commercials to be as equal to another as possible, could ensure more accurate and reliable results. Also, we interpret the sound in the Munkholm commercial to be of great importance for absorbing the commercial. For this reason, we interpret this to be an interesting study to observe if a radio commercial with the same sound, would trigger the same associations without seeing motion pictures.

Eighth, the Norwegian alcohol law states that *“If the sender has financial interest in informing about or giving associations to alcohol, this will for example be a strong indication that there are marketing purposes”* (Translated from Norwegian, Helsedirektoratet, 2016). In isolation, marketing of Munkholm, with the intention of selling more Munkholm, is legal. However, if the intention of marketing Munkholm is what we have been discussing in this study, it becomes illegal. Then, one may debate the purpose of the commercial. Consequently, we see how the dark market is a strategically difficult market to operate in. This might be an implication but also an opportunity for future research. Based on this, we interpret that Munkholm has faced several challenges when desiring to market one of their non-alcoholic products, without contradicting the law.

As mentioned, we interpret the study to be generalizable in terms of the spillover effect, but the question remains if there is a generalizability towards other products and categories. Therefore, we recommend future research to look into other products within the same category as tonic water and gin, or other product categories. Would there be a spillover effect towards gin when marketing tonic water, or will this activity contradict the law?



## 8. CONCLUSION

The goal of this research was to describe *to what extent marketing of a company's non-alcoholic beer influences customer purchase intention of the company's alcoholic beer* in a context of operating in a dark market. We hope that this research will contribute and assist companies operating with products that fall under marketing restrictions by laws and regulations.

Our study reveals several areas where purchase intention could be affected by different marketing efforts. Furthermore, we conclude that associations, awareness, and knowledge to a greater extent influences the spillover effect, than additional information connecting a “dark product” towards a product which is legal to market. In connection to this, consumption, equity, and loyalty, indicates that these may be directly or indirectly helpful in changing consumer's purchase intention. Our analysis shows to what extent how a high/low score influences these variables toward a company's legal product. As a result of this, a higher score on one of these variables indicates that a consumer is more likely to switch, or continue choosing the company's “dark products” (i.e., Ringnes, Carlsberg, Kronenbourg, etc.).

Initially, we confirm that marketing of non-alcoholic beer influences the purchase intention for beer with alcohol more than it influences the purchase intention towards beer without alcohol. Next, we show a presence of the spillover effect when there is a higher purchase intention of a firm's alcoholic beer, given that people have a higher awareness that the company owns the non-alcoholic beer. Then H<sub>2</sub> is confirmed on how higher equity towards Munkholm indicates a higher purchase intention for beer, and on that basis for Ringnes’ products. In addition, H<sub>3</sub> is statistically confirmed where heavier consumers of alcoholic beer will experience a higher purchase intention towards alcoholic beer when being exposed to a non-alcoholic commercial, than consumers with lower consumption. In the end, in contrast to the theory, marketing of beer with alcohol versus beer without alcohol *does not* influence the purchase intention of the non-alcoholic beer more than marketing of non-alcoholic beer versus beer with alcohol influences the purchase intention of beer with alcohol.

Based on the analysis and the provided information, we suggest that marketers who operate in a dark market, should explore factors that potentially affect the purchase intention, and identify how consumers perceive products, which may result in attracting and retaining customers. For this reason, we hope our findings will help marketers to formulate their marketing strategies, distribution channels, communication, and segmenting in dark markets. Additionally, the purchase intention insight after being exposed to both an alcoholic, - and non-alcoholic commercial will contribute to better understanding consumers` desire for beer with alcohol regardless of the content of the commercial (with or without alcohol). Distributors, bars, marketers and other businesses that operate in the alcohol business can utilize this information to promote the sales of beer regardless of what market they are operating in, and/or whether they have the opportunity to promote beer with or without alcohol. Nevertheless, when consumers do not obtain the full information that a company owns several products containing alcohol, when being exposed to the company's non-alcoholic beer, they do not necessarily desire the company's own beer, but rather resulting in the intention of desire a beer with alcohol.

Ultimately, based on the five hypotheses, which make up different aspects of our research question, we conclude that marketing of a company's non-alcoholic beer do to some extent influences the customer purchase intention of the company's alcoholic beer.

## Appendix 1 - Multinomial Logistic Regression

“The goal of logistic regression is to explain a categorical variable, divided into two groups, on the basis of interval-, ratio-scales and/or categorical variables” (Janssens et. al 2008, p184). This is also the reason why Janssens et. al prefer logistic regression over other techniques, like linear regression, which is based on an interval or ratio measurement of the dependent variable. As we interpret the logistic regression, the main goal is to predict an “event” to occur or not, and to what extent the variables affect this event. The regression is implemented in SPSS, and the mathematical basis for the analysis follows:

Logistic regression formula in the event of *one independent variable* (Janssens et. al 2008, p185):

$$Probability(event) = \frac{e^{\beta_0 + \beta_1 X}}{1 + e^{\beta_0 + \beta_1 X}}$$

$\beta_0$  and  $\beta_1$  are coefficients estimated from the data, and X is the independent variable.

$e = 2,718$ . In this research, we are using a multinomial logistic regression with more than one independent variable.

Logistic regression formula in the event with *more than one independent variable* (Janssens et. al 2008, p185):

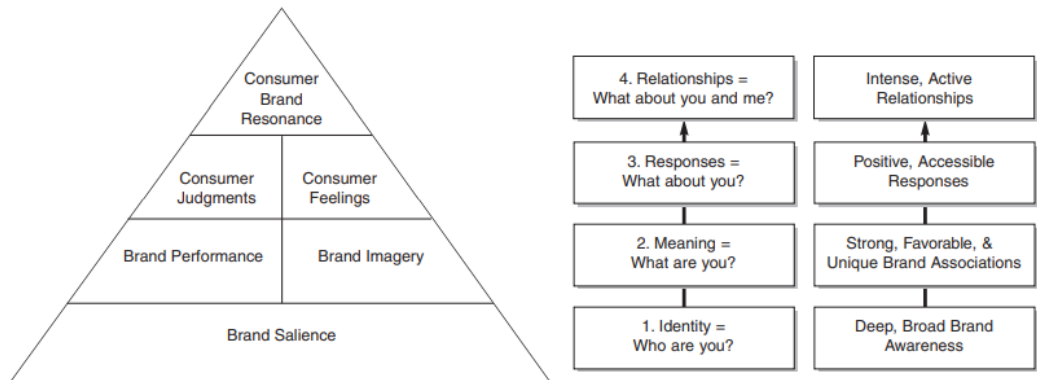
$$Probability(event) = \frac{e^z}{1 + e^z}$$

Where  $Z = \beta_0 + \beta_1 X + \beta_2 X + \dots \dots \beta_n X_n$

$\beta_i$  is the coefficient estimated from the data using the maximum likelihood method (Janssens et. al 2008).  $X_i$  represents the  $i$ 'th independent variable.  $e = 2,718$

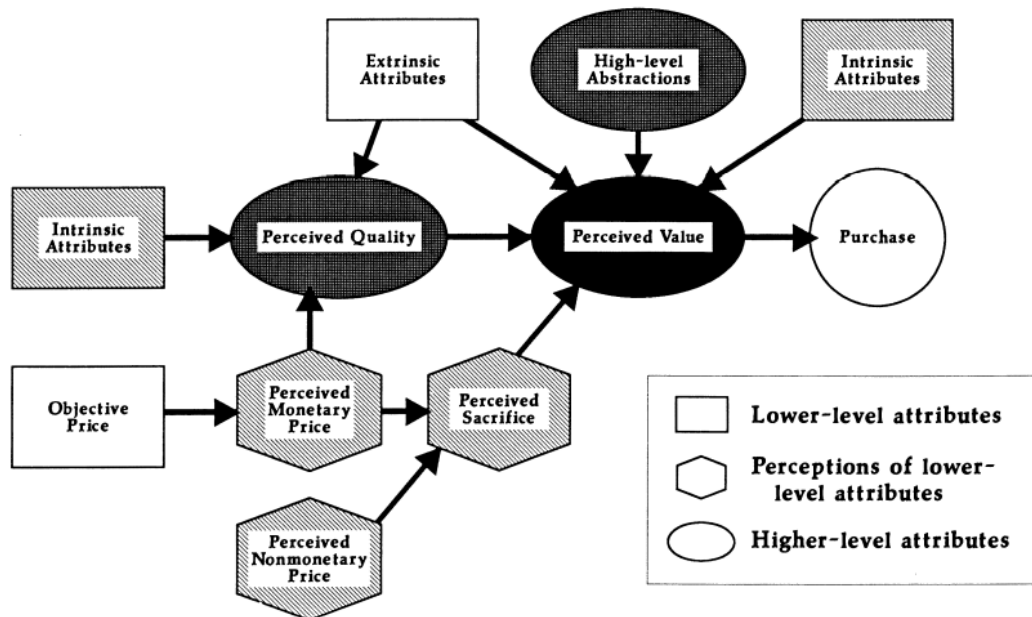
The basis for multinomial logistic regression is found in H1b and H2. In H1b we want to find out how your previous purchase behaviour is affected by the moderator on your next purchase. In our second hypothesis we are interested in how customer equity affects the purchase intention towards a company's alcoholic beer. Additionally, by including the moderator, we are able to interpret if additional information affects the probability for the event to occur.

## Appendix 2 - Customer-Based Brand Equity Pyramid



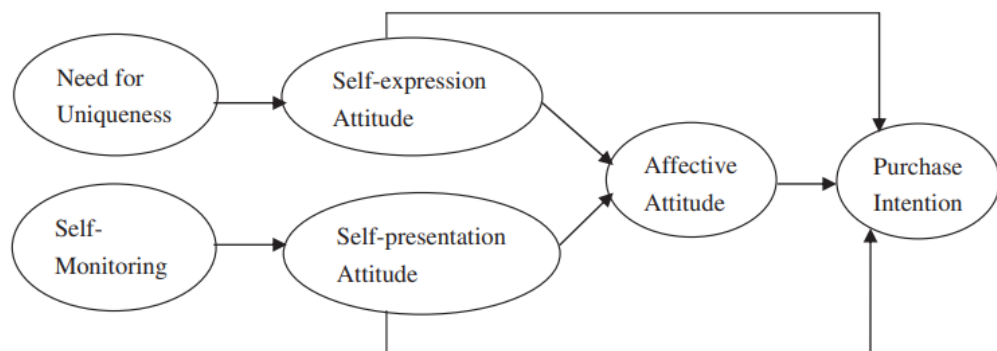
Source: Keller (2001, p 7)

## Appendix 3A - A Means-End Model Relating Price, Quality, and Value



Source: Zeithaml (1988, p 4)

## Appendix 3B - Conceptual Model of Purchase Intention



Source: Bian and Forsythe (2012, p 1445)

## Appendix 4 - The Alcohol Use Disorders Identification test (AUDIT)

<h3>The Alcohol Use Disorders Identification Test: Interview Version</h3> <p>Read questions as written. Record answers carefully. Begin the AUDIT by saying "Now I am going to ask you some questions about your use of alcoholic beverages during this past year." Explain what is meant by "alcoholic beverages" by using local examples of beer, wine, vodka, etc. Code answers in terms of "standard drinks". Place the correct answer number in the box at the right.</p>	
<p>1. How often do you have a drink containing alcohol?</p> <p>(0) Never [Skip to Qs 9-10]            (1) Monthly or less            (2) 2 to 4 times a month            (3) 2 to 3 times a week            (4) 4 or more times a week</p> <p style="text-align: right;"><input type="text"/></p>	<p>6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?</p> <p>(0) Never            (1) Less than monthly            (2) Monthly            (3) Weekly            (4) Daily or almost daily</p> <p style="text-align: right;"><input type="text"/></p>
<p>2. How many drinks containing alcohol do you have on a typical day when you are drinking?</p> <p>(0) 1 or 2            (1) 3 or 4            (2) 5 or 6            (3) 7, 8, or 9            (4) 10 or more</p> <p style="text-align: right;"><input type="text"/></p>	<p>7. How often during the last year have you had a feeling of guilt or remorse after drinking?</p> <p>(0) Never            (1) Less than monthly            (2) Monthly            (3) Weekly            (4) Daily or almost daily</p> <p style="text-align: right;"><input type="text"/></p>
<p>3. How often do you have six or more drinks on one occasion?</p> <p>(0) Never            (1) Less than monthly            (2) Monthly            (3) Weekly            (4) Daily or almost daily</p> <p><i>Skip to Questions 9 and 10 if Total Score for Questions 2 and 3 = 0</i></p> <p style="text-align: right;"><input type="text"/></p>	<p>8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?</p> <p>(0) Never            (1) Less than monthly            (2) Monthly            (3) Weekly            (4) Daily or almost daily</p> <p style="text-align: right;"><input type="text"/></p>
<p>4. How often during the last year have you found that you were not able to stop drinking once you had started?</p> <p>(0) Never            (1) Less than monthly            (2) Monthly            (3) Weekly            (4) Daily or almost daily</p> <p style="text-align: right;"><input type="text"/></p>	<p>9. Have you or someone else been injured as a result of your drinking?</p> <p>(0) No            (2) Yes, but not in the last year            (4) Yes, during the last year</p> <p style="text-align: right;"><input type="text"/></p>
<p>5. How often during the last year have you failed to do what was normally expected from you because of drinking?</p> <p>(0) Never            (1) Less than monthly            (2) Monthly            (3) Weekly            (4) Daily or almost daily</p> <p style="text-align: right;"><input type="text"/></p>	<p>10. Has a relative or friend or a doctor or another health worker been concerned about your drinking or suggested you cut down?</p> <p>(0) No            (2) Yes, but not in the last year            (4) Yes, during the last year</p> <p style="text-align: right;"><input type="text"/></p>
<p style="text-align: right;">Record total of specific items here <input type="text"/></p> <p><i>If total is greater than recommended cut-off, consult User's Manual.</i></p>	

Source: Barbor et. al 2001

## Appendix 5 - Purchase intention for non-alcoholic beer

### Purchase intention - Alcohol free beer

#### Alcohol free commercial

Munkholm commercial - Alcohol free beer				
To what extent did you feel like buying alcohol free beer?				
	Frequency	Valid Percent	Cumulative Percent	
Valid	1	53	29,8	29,8
	2	38	21,3	51,1
	3	20	11,2	62,4
	4	38	21,3	83,7
	5	18	10,1	93,8
	6	10	5,6	99,4
	7	1	0,6	100
Total	178	100		

MEAN: 2,8

Munkholm commercial - Alcohol free beer				
To what degree did your likelihood of buying alcohol free beer increased?				
	Frequency	Valid Percent	Cumulative Percent	
Valid	1	65	36,5	36,5
	2	28	15,7	52,2
	3	21	11,8	64
	4	39	21,9	86
	5	20	11,2	97,2
	6	4	2,2	99,4
	7	1	0,6	100
Total	178	100		

MEAN: 2,65

Munkholm commercial - Alcohol free beer				
To what extent are you likely to buy alcoholfree beer next time in a grocery store?				
	Frequency	Valid Percent	Cumulative Percent	
Valid	1	69	38,8	38,8
	2	40	22,5	61,2
	3	15	8,4	69,7
	4	31	17,4	87,1
	5	17	9,6	96,6
	6	6	3,4	100
	7	-	-	
Total	178	100		

MEAN: 2,47

Total mean purchase intention : 2,63

#### Alcoholic commercial

Carlsberg commercial - Alcoholic beer				
To what extent did you feel like buying alcohol free beer?				
	Frequency	Valid Percent	Cumulative Percent	
Valid	1	75	42,1	42,1
	2	31	17,4	59,6
	3	19	10,7	70,2
	4	39	21,9	92,1
	5	9	5,1	97,2
	6	2	1,1	98,3
	7	3	1,7	100
Total	178	100		

MEAN: 2,4

Carlsberg commercial - Alcoholic beer				
To what degree did your likelihood of buying alcohol free beer increased?				
	Frequency	Valid Percent	Cumulative Percent	
Valid	1	72	40,4	40,4
	2	30	16,9	57,3
	3	19	10,7	68
	4	41	23,3	91
	5	13	7,3	98,3
	6	1	0,6	98,9
	7	2	1,1	100
Total	178	100		

MEAN: 2,46

Carlsberg commercial - Alcoholic beer				
To what extent are you likely to buy alcoholfree beer next time in a grocery store?				
	Frequency	Valid Percent	Cumulative Percent	
Valid	1	76	42,7	42,7
	2	34	19,1	61,8
	3	22	12,4	74,2
	4	30	16,9	91
	5	11	6,2	97,2
	6	4	2,2	99,4
	7	1	0,6	100
Total	178	100		

MEAN: 2,34

Total mean purchase intention : 2,40

## Appendix 6 - Purchase intention for alcoholic beer

### Purchase intention - Alcoholic beer

#### Alcohol free commercial

Munkholm commercial - Alcohol free beer				
To what extent did you feel like buying alcoholic beer?				
Frequency Valid Percent Cumulative Percent				
Valid	1	11	6,2	6,2
	2	14	7,9	14
	3	8	4,5	18,5
	4	34	19,1	37,6
	5	61	34,3	71,9
	6	34	19,1	91
	7	16	9	100
	Total	178	100	

MEAN: 4,61

Munkholm commercial - Alcohol free beer				
To what degree did your likelihood of buying alcoholic beer increased?				
Frequency Valid Percent Cumulative Percent				
Valid	1	16	9	40,4
	2	24	13,5	57,3
	3	8	4,5	68
	4	53	29,8	91
	5	37	20,8	98,3
	6	26	14,6	98,9
	7	14	7,9	100
	Total	178	100	

MEAN: 4,15

Munkholm commercial - Alcohol free beer				
To what extent are you likely to buy alcoholic beer next time in a grocery store?				
Frequency Valid Percent Cumulative Percent				
Valid	1	16	9	42,7
	2	27	15,2	61,8
	3	16	9	74,2
	4	42	23,6	91
	5	46	25,8	97,2
	6	21	11,8	99,4
	7	10	5,6	100
	Total	178	100	

MEAN: 4

Total mean purchase intention : 4,25

#### Alcoholic commercial

Carlsberg commercial - Alcoholic beer				
To what extent did you feel like buying alcoholic beer?				
Frequency Valid Percent Cumulative Percent				
Valid	1	12	6,7	6,7
	2	15	8,4	15,2
	3	14	7,9	23,9
	4	52	29,2	52,2
	5	47	26,4	78,7
	6	22	12,4	91
	7	16	9	100
	Total	178	100	

MAEN: 4,33

Carlsberg commercial - Alcoholic beer				
To what degree did your likelihood of buying alcoholic beer increased?				
Frequency Valid Percent Cumulative Percent				
Valid	1	16	9	9
	2	19	10,7	19,7
	3	14	7,9	27,5
	4	62	34,8	62,4
	5	38	21,3	83,7
	6	15	8,4	92,1
	7	14	7,9	100
	Total	178	100	

MAEN: 4,06

Carlsberg commercial - Alcoholic beer				
To what extent are you likely to buy alcoholic beer next time in a grocery store?				
Frequency Valid Percent Cumulative Percent				
Valid	1	20	11,2	11,2
	2	19	10,7	21,9
	3	18	10,1	32
	4	53	29,8	61,8
	5	37	20,8	82,6
	6	19	10,7	93,3
	7	12	6,7	100
	Total	178	100	

MAEN: 3,97

Total mean purchase intention : 4,11

## Appendix 7 - Alcohol Consumption

### Alcohol consumption

On average, how often do you drink beer per month?				
		Frequency	Valid Percent	Cumulative Percent
Valid	0-1	18	10,1	10,1
	2-3	52	29,2	39,3
	4-5	50	28,1	67,4
	6-8	33	18,5	86
	9-10	14	7,9	93,8
	10 +	11	6,2	100
Total		178	100	

MEAN: 3,03

How many beers do you drink on an average occasion ?				
		Frequency	Valid Percent	Cumulative Percent
Valid	1-2	40	22,5	22,5
	3-4	66	37,1	59,6
	5-7	34	19,1	78,7
	8-10	26	14,6	93,3
	11+	12	6,7	100
Total		178	100	

MEAN: 2,46

How often do you drink more than 6 units?				
		Frequency	Valid Percent	Cumulative Percent
Valid	1-5 times a year	52	29,2	29,2
	6-11 times a year	28	15,7	44,9
	1 a month	33	18,5	63,5
	2-3 times a month	39	21,9	85,4
	1 time a week	22	12,4	97,8
	2-3 times a week	3	1,7	99,4
	More than 3 times a week	1	0,6	100
Total		178	100	

MEAN: 2,8



## Appendix 8 - Cross tabulation - Purchase intention towards a firm's alcoholic beer

Ringnes Before * Ringnes After * Moderator					
			Ringnes After		Total
			0	1	
Not moderator	0	Count	30	5	35
		% within Ringnes Before	85,70 %	14,30 %	100 %
		% within Ringnes After	83,30 %	9,60 %	39,80 %
		% of Total	34,10 %	5,70 %	39,70 %
Ringnes Before	1	Count	6	47	53
		% within Ringnes Before	11,30 %	88,70 %	100 %
		% within Ringnes After	16,70 %	90,40 %	60,20 %
		% of Total	6,80 %	53,40 %	60,20 %
Total		Count	36	52	88
		% within Ringnes Before	40,90 %	59,10 %	100 %
		% within Ringnes After	100 %	100 %	100 %
		% of Total	40,90 %	59,10 %	100 %

Ringnes Before * Ringnes After * Moderator					
			Ringnes After		Total
			0	1	
Moderator	0	Count	32	12	44
		% within Ringnes Before	72,70 %	27,30 %	100 %
		% within Ringnes After	88,90 %	22,20 %	48,90 %
		% of Total	35,60 %	13,30 %	48,90 %
Ringnes Before	1	Count	4	42	46
		% within Ringnes Before	8,00 %	91,30 %	100 %
		% within Ringnes After	11,10 %	77,80 %	51,10 %
		% of Total	4,40 %	46,70 %	51,10 %
Total		Count	36	54	90
		% within Ringnes Before	40,00 %	60,00 %	100 %
		% within Ringnes After	100 %	100 %	100 %
		% of Total	40,00 %	60,00 %	100 %

Ringnes Before * Ringnes After					
			Ringnes After		Total
			0	1	
Total	0	Count	62	17	79
		% within Ringnes Before	78,50 %	21,50 %	100 %
		% within Ringnes After	86,10 %	16,00 %	44,40 %
		% of Total	34,80 %	9,60 %	44,40 %
Ringnes Before	1	Count	10	89	99
		% within Ringnes Before	10,10 %	89,90 %	100 %
		% within Ringnes After	13,90 %	84,00 %	55,60 %
		% of Total	5,60 %	50,00 %	55,60 %
Total		Count	72	106	178
		% within Ringnes Before	40,40 %	59,60 %	100 %
		% within Ringnes After	100 %	100 %	100 %
		% of Total	40,40 %	59,60 %	100 %

### Chi-Square Tests

Moderator		Value	df	Asymptotic Significance (2-sided)
Not moderator	Person Chi-Square	48,26	1	<.001
	N of Valid Cases	88		
Moderator	Person Chi-Square	38,992	1	<.001
	N of Valid Cases	90		
Total	Person Chi-Square	85,291	1	<.001
	N of Valid Cases	178		

## Appendix 9 - Linear Regression and Pearson Correlation - Customer Based Brand Equity

### Model Summary

Model	R	R Square	Adjusted R Square
1	.277	.077	.071

### ANOVA

Model	df	F	Sig.
1 Regression	1	14.603	<.001
Residual	176		
Total	177		

### Coefficients

Model		Unstandardized B	Coefficients Std. Error	Standardized	
				Coefficients Beta	t Sig.
1	(Constant)	2,275	.510		4,459 <.001
	Equity	.401	.105	.277	3,821 <.001

### Correlations

		Equity	Purchase intention beer
Equity	Pearson Correlation	1	.277
	Sig. (2-tailed)		<.001
	N	178	178
Purchase intention beer	Pearson Correlation	.277	1
	Sig. (2-tailed)	<.001	
	N	178	178

## Appendix 10A - Linear Regression - Consumption

### Model Summary

Model	R	R Square	Adjusted R Square
1	.258	.067	.061

### ANOVA

Model	df	F	Sig.
1 Regression	1	12,555	<.001
Residual	176		
Total	177		

### Coefficients

Model		Unstandardized B	Coefficients Std. Error	Standardized	
				Coefficients Beta	t Sig.
1	(Constant)	3.150	.328		9,603 <.001
	Consumption	.346	.098	.258	3,543 <.001

## Appendix 10B - Multiple Linear Regression - Consumption and Equity

### Model Summary

Model	R	R Square	Adjusted R Square
1	.370	.137	.127

### ANOVA

Model	df	F	Sig.
1 Regression	2	13,836	<.001
Residual	174		
Total	176		

### Coefficients

Model		Unstandardized B	Coefficients Std. Error	Standardized	
				Coefficients Beta	t Sig.
1	(Constant)	1.339	.573		2,337 .021
	Consumption	.308	.095	.228	3,233 .001
	Equity	.406	.105	.274	3,881 <.001

## Appendix 10C - Pearson Correlation Table

### Correlations

		Equity	Pur.Int.Beer.Non-Alc.Com	Consumption
Equity	Pearson Correlation	1	.292	.079
	Sig. (2-tailed)		<.001	<.296
	N	178	178	178
Purchase intention beer non-alc com.	Pearson Correlation	.292	1	.258
	Sig. (2-tailed)	<.001		<.001
	N	178	178	178
Consumption	Pearson Correlation	.079	.258	1
	Sig. (2-tailed)	.296	<.001	
	N	178	178	178

### Correlations

		Equity	Pur.Int.Beer.Alcoholic.Com	Consumption
Equity	Pearson Correlation	1	.237	.079
	Sig. (2-tailed)		.001	.296
	N	178	178	178
Purchase intention beer alcoholic com.	Pearson Correlation	.237	1	.357
	Sig. (2-tailed)	.001		<.001
	N	178	178	178
Consumption	Pearson Correlation	.079	.357	1
	Sig. (2-tailed)	.296	<.001	
	N	178	178	178

## Appendix 11 - One-way within-subjects ANOVA - Commercial effects

### Descriptive Statistics

	Mean	Std.Deviation	N
Purchase intention_Beer_AD1	4,2528	1,42232	178
Purchase intention_Non-Beer_AD1	2,6367	1,41567	178
Purchase intention_Beer_AD2	4,1199	1,50183	178
Purchase intention_Non-Beer_AD2	2,4007	1,40323	178

### Tests of Within-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Purchase intention_Beer	501.529	3	167,176	120,521	<.001	.405

### Pairwise Comparisons

(I) Purchase intention	(J) Purchase intention	Mean			95% Confidence Interval for Difference	
		Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
1	2	1.616	.136	<.001	1,348	1,885
	3	.133	.071	.062	-.007	.273
	4	1,852	.143	<.001	1,571	2,133
2	1	-1,616	.136	<.001	-1,885	-1,348
	3	-1,483	.147	<.001	-1,773	-1,193
	4	.236	.081	.004	.076	-.396
3	1	-.133	.071	.062	-.273	.007
	2	1,483	.147	<.001	1,193	1,773
	4	1,719	.147	<.001	1,43	2,009
4	1	-1,852	.143	<.001	-2,133	-1,571
	2	-.236	.081	.004	-.396	-.076
	3	-1,719	.147	<.001	-2,009	-1,43

AD1 = Commercial for Munkholm (non-alcoholic beer)

AD2 = Commercial for Carlsberg (alcoholic beer)

#### Purchase intention:

- 1 - Purchase intention for beer when marketing non-alcoholic beer
- 2 - Purchase intention for non-alcoholic beer when marketing non-alcoholic beer
- 3 - Purchase intention for beer when marketing beer
- 4 - Purchase intention for non-alcoholic beer when marketing beer

## Appendix 12 - Paired Sample T-test

### Paired Sample Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Mean_Intention_Beer	4,1863	178	1,3843	0,10376
	Mean_Intention_NonAlc	2,5187	178	1,30212	0,0976

### Paired Samples Statistics

		N	Correlation	Significance	
				One-Sided p	Two-Sided p
Pair 1	Mean_Intention_Beer	178	0,133	0,039	0,077
	Mean_Intention_NonAlc				

### Paired Sampel Test

		Mean	Std Deviation	t	df	One-Sided p
Pair 1	Mean_Intention_Beer - Mean_Intention_NonAlc	1,6676	1,7701	12,569	177	<.001

## Appendix 13 - Linear Regression Analysis

### Model Summary

Model	R	R Square	Adjusted R Square
1	.388	.15	.146

### ANOVA

Model	df	F	Sig.
1 Regression	1	31,178	<.001
Residual	176		
Total	177		

### Coefficients

Model		Unstandardized B	Coefficients	Std. Error	Standardized	
					Coefficien	t Sig.
1	(Constant)	-.103	.500		-.206	.837
	Equity	.574	.103	.388	5,584	<.001

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