BUILDING A PORTFOLIO OF BRAND EQUITY METRICS THAT ARE SENSITIVE TO ADVERTISING

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EXECUTIVE SUMMARY

In today's market place where is becomes increasingly difficult to differentiate own products from competitors', brands are increasingly recognized as one of the most valuable intangible assets. Accordingly, companies are concerned about building a brand tracking measurement system with a reliable and sensitive set of brand equity metrics. This is also the situation for the media agency Mindshare. The company has experienced how some of their adopted brand equity metrics are not sensitive enough to tap the dynamics of the market for its client brands. This raised the opportunity for this thesis. Consequently, the purpose is to investigate how a portfolio of brand equity metrics, which are sensitive to advertising, can be selected and moreover to study what the effect of TV advertising is on the chosen metrics. Basing the analysis on one of Mindshare's client brands, Royal Beer, enables a concrete foundation for the analysis.

By taking a starting point in the current brand equity literature, the first step is taken towards selecting a portfolio of sensitive brand equity metrics. Thus, 21 brand equity metrics are identified to reflect customer-based brand equity. The metrics are chosen based on four criteria, the most important ones being that they frequently occurs in the literature and has importance to top and marketing management. While this list constitutes the "optimal" list of metrics, the thesis is constrained by the metrics already accessible through Mindshare's current brand tracking system. The second step is thus to compare Mindshare's current brand tracking system with the 21 metrics and discussing them in terms of relevance for Royal Beer. Accordingly, nine brand equity metrics are selected to be included in the quantitative analysis.

Through taking a deeper look into the literature surrounding how advertising works on the consumer, adstock is identified as the relevant concept for modeling the effect of advertising. Hence, extracting the TRP levels for Royal Beer and an aggregate of the four largest competitors in the beer category and convert them into adstock levels, is a necessary part of the analysis. Based on five hypotheses developed throughout the individual chapters, the problem statement is investigated through nine separate regression analyses.

The empirical analysis constitutes the last step in developing a portfolio of brand equity metrics, which are sensitive to advertising. Although all nine metrics proves to be sensitive to TV advertising to some extent, the findings show that especially five brand equity metrics are sensitive and affected by TV advertising in the short run. These metrics are: *popularity, unaided brand awareness, brand acceptance, perceived value* and *behavioral loyalty*. The effect of advertising on these five measures is investigated through the correlation coefficient, which ranges from 0.26 to 0.51. The thesis also acknowledge that marketers have both short-term and long-term goals and three extra brand equity metrics are argued to be important in the long run in order to maintain and build a strong brand. These are *familiarity, differentiation* and *perceived quality*.

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1   INTRODUCTION

Considering today's fierce competition in the global market place, building strong brand equity is essential for any company that plans to sustain a long-term competitive advantage (Kabiraj & Shanmugan, 2011). The most successful companies today are said to have strong brands. A strong brand with positive brand equity has several advantages such as higher margins, brand extension opportunities, more powerful communication impact and higher consumer preferences and purchase intentions (Buil, et al., 2008). In the realm of this, branding and brand management has emerged as a top management priority as well as an academic research priority due to the growing realization that brands are the most important intangible assets of any firm coping with a fast changing environment, in which it becomes increasingly problematic to differentiate own products from competitors' and satisfy the increasingly savvier consumer (MSI, 2010).

As such, the scope of marketing has moved from a merely product management approach, in which the psychical product is in focus, to a brand management approach, where both rational and tangible as well as symbolic, emotional and intangible dimensions are added to the product in order to differentiate it from other products designed to satisfy the same need (Keller, 2008). Following the brand management approach, the importance of understanding and measuring the consumers' attitudes, needs and behavior has perhaps never been higher. As several authors have pointed to advertising as being a key tool in the brand building process (e.g. De Pelsmacker et al. (2007) and Keller (2008)), many companies are also concerned about measuring to what extent their marketing investments are effective in building the brand.

Accordingly, it becomes essential for a company and their marketing managers to have a brand equity measurement system (Aaker & Joachimstaler, 2000) for tracking brand performance and in benchmarking against competing brands (Martensen & Grønholdt, 2006). Evidence of the significance of such a system for the business world is the fact that there are currently a substantial number of consulting firms (e.g. Interbrand, WPP, Young & Rubicam and Research International), each with their own proprietary method for measuring brand equity (Christodoulides & Chernatony, 2010). However, this also illustrates one of the challenges of the brand equity construct. Despite the considerable amount of interest, the literature surrounding the topic is largely fragmented and inconclusive. As Berthon et al. (2001) propose, *"perhaps the only thing that has not been reached with regard to brand equity is a conclusion"* (p. 39). Thus, there has been no agreement regarding what brand equity is and, more importantly, how it should be measured. A variety of brand equity measures exists and more than 300 models have been developed to estimate brand equity (Mirzaei, et al., 2011). Furthermore, one of the problems with empirical tracking is that, in general, brand equity does not change much over time, which emphasizes the need for a consistent, sensitive and reliable set of metrics (Aaker & Joachimstaler, 2000).

Developing further insights into the measurement of consumer-based brand equity is important in the face of the prominence of branding. Branding is a powerful means of differentiation (Pappu, et al., 2005) and the strategic impact of branding is duly recognized in the literature. Moreover, measuring brand equity properly is important for marketers due to its strategic value directing marketing strategy, assisting tactical decisions and providing a basis for assessing brand extendibility (Buil, et al., 2008).

1.1   Problem Statement

As the main challenge for every brand is to incorporate measures of brand equity that are reliable and sensitive, companies are concerned about which brand metrics that should be included in the brand equity measurement system for its brand or portfolio of brands. As advertising is a key tool for developing and sustaining strong customer-based brand equity, it is evident to study the effect advertising has on the brand equity metrics. In order to cope with these challenges, the objective of this thesis is to answer the following problem statement:

How can a portfolio of brand equity metrics, which are sensitive to TV advertising, be selected and what is the effect of TV advertising on the chosen metrics? This overall problem statement will be analyzed using Royal Beer's tracking data gathered through Mindshare.

While the overall problem statement will be the focal point of this thesis, four sub-problems (SP) will serve as pillars for structuring the thesis in order to ensure a comprehensive solution to the problem statement. In this respect, a brands' equity has received significant research attention in recent years due to its direct link to improving marketing productivity. Nevertheless, at the same time, these scholars tend to adopt rather differentiated approaches to the conceptualization of brand equity and no actual agreement has been reached. Accordingly, there has been no consensus on which constructs to include in the measurement process. For that reason, it is appropriate to thoroughly review the brand equity literature in order to determine a framework for how this thesis will develop suggestions for measuring brand equity. Therefore, the first sub-problem to be considered in the thesis is:

SP1: How can a firm's brand equity be measured?

Whereas the first SP provides a general and optimal framework for the measurement of brand equity, this does not necessarily mean that these measures exist in practice. Hence, the brand equity metrics utilized in Mindshare's own framework might differ from the theoretically well-founded brand equity metrics that frequently occurs in the literature. Accordingly, Mindshare's current measures of brand equity must be compared to the findings from SP1, in order to determine which metrics to include in the analysis. This leads to the second sub-problem:

SP2: Which brand equity metrics are relevant for capturing the brand equity of Royal Beer?

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In order to establish the link between TV advertising and the brand equity metrics in the final parts of the thesis, a framework must be developed in regards to how advertising affects the consumer. Although advertising is often referred to as being a brand building activity, the goal of the next SP is to build a foundation by which this effect can be assessed empirically. Based on this theoretical foundation, the effect of TV advertising must be quantified, so that the significance of the campaigns can be demonstrated in more detail. Therefore, the sub-problem below will be assessed:

SP3: How can Royal Beer's TV advertising be quantified?

The first three questions have been prerequisites for answering the fourth sub-problem, which includes an empirical analysis of *if* and *how* TV advertising affects the brand equity metrics. Thus, following the assessment of SP1, SP2, and SP3, the final sub-problem of the thesis can now be addressed:

SP4: Which of Royal Beer's brand equity metrics are sensitive to TV advertising?

Having outlined the problems to be explored above, the next section will concentrate on the delimitation of the thesis before moving to the methodology.

1.2 Delimitations and Definitions

In order to answer the above-mentioned problem statement in the best possible manner is it essential to shortly clarify the concepts of the problem statement, since a different perception of these might have given different results. Moreover, and equally important, the delimitations and constraints of the project must be discussed. Accordingly, the three following sections are concerned with these aspects.

1.2.1 Customer-based and Financial-Based Brand Equity

In the literature, brand equity has been examined from two different perspectives (Lassar, et al., 1995): Some authors focus on the customer-based perspective (Keller, 1993), (Aaker, 1991) while others focus on the financial perspectives of brand equity (Simon & Sullivan, 1993), (Haigh, 1999). The two perspectives cannot be isolated since customer-based brand equity is the preamble of financial brand equity. That is, brands have financial value because they have created assets in the minds of the customers (Kapferer, 2008). The latter perspective, which is not implemented in this thesis, discusses the financial value that brand equity creates to the firm and is often referred to as firm-based brand equity (FBBE) (Christodoulides & Chernatony, 2010). From a financial perspective, brand equity has been addressed as a firm level approach or company-oriented perspective (Simon & Sullivan, 1993). In general, the motivation for estimating the financial brand equity is usually for accounting purposes, mergers, acquisitions or divestiture purposes (Keller, 1993). The latter perspective, customer-based brand equity (CBBE), seeks to conceptualize the concept from the perspective of the individual consumer.

The definition of the brand equity concept in this thesis acknowledges the view that customer-based brand equity is the prerequisite of firm-based brand equity, as the elements of customer-based brand equity causes financial brand equity. This view of customer-based brand equity as being the driving force of increased profitability of the brand is similar to that of Christodoulides & Chernatony (2010). Furthermore, as this thesis takes is point of departure in marketing, the primary focus is on increasing the reliability of a customer-based brand equity system for managers with a marketing objective of strengthening their brand. Consequently, the customer-based brand equity is recognized as the primary perspective in this thesis.

1.2.2   Customer-based Brand Equity Metrics

As the focus of this thesis surrounds the perspective of customer-based brand equity, it means that the brand equity metrics refer to measurement of cognitive and behavioral brand equity at the individual consumer level through a consumer survey (Yoo & Donthu, 2001). The point of departure for the thesis is to develop an "optimal" list of customer-based brand equity measures that are the most valuable for management and commonly referred to in the literature, since the key requirement for managing a brand is the availability of good measures (Aaker & Joachimstaler, 2000) (Park & Srinivasan, 1994). Although it would be ideal to analyze the entire range of theoretically optimal measures of customer-based brand equity, this thesis is constrained by the already established brand equity metrics that Mindshare has constructed is its brand equity measurement system. However, as it is not the scope of this thesis to either measure the current level of brand equity or to set up a new tracking system, but to analyze the sensitivity of *current* brand equity metrics, the results will remain valid.

1.2.3   Advertising

In this thesis, advertising is defined as *"any paid form of nonpersonal communication about an organization, product, service, or idea by an identified sponsor"* (Belch & Belch, 2004, p. 16). The *paid* aspect of this definition refers to the fact that the advertising message generally must be bought. The *nonpersonal* aspect reflects the fact that advertising involves mass media (e.g. TV, radio, magazines, outdoor posters, newspapers) that can transmit the message to a large group of individuals at the same time. This nonpersonal aspect also means that, in general, there is no opportunity for immediate feedback from the message recipient (Belch & Belch, 2004). Advertising is the best-known element of the promotional mix (Belch & Belch, 2004). Other influential authors (e.g. Keller (2008) and De Pelsmacker, et al., (2007)) define advertising in much the same way as mentioned in the above.

Although advertising as a whole is seen as a brand-building activity (De Pelsmacker, et al., 2007), only the effects of *TV* advertising are included in the analysis due the scope of this thesis. There are several reasons

for this. Firstly, when comparing media groups through spending data gathered from Gallup Adfacts[1], TV undoubtedly accounts for the largest proportion of total spending (65%) for the beer category. Moreover, the sales models conducted within Mindshare have all validated that TV compared to other media groups has the largest impact on final sales for all analyzed fast-moving consumer good (FMCG) products (Thomas Queck, Mindshare). It is acknowledged that other media groups as well as other elements of the marketing mix, weather, economics, seasonality etc. have an influence in affecting brand equity as well, but this is disregarded in the thesis.

1.3   Methodology

In the following chapter, considerations regarding the methodology are presented. The methodology departs from the problem statement and aims to secure an appropriate standard and quality of the analysis. The chapter will begin with reflections on the research philosophy. Such reflections are necessary for ensuring consistency in the overall approaches and will provide a foundation from which the thesis' research approach and research strategy can be presented. Subsequently, to examine how TV advertising affect the different brand equity metrics in sensitivity, considerations about the choices of empirical data as well as data gathering techniques are presented in the light of the thesis' research approach and research strategy, as these lay the foundation for how knowledge will be generated. The data sources will then be discussed in terms of suitability, validity and reliability.

1.3.1   Research Philosophy

The chosen research philosophy has consequences for the thesis. Hence, when attempting to answer the problem statement, this will only be one out of many solutions, since another research philosophy would most likely have given different findings (Fuglsang & Olsen, 2004). How research should be achieved is embedded in the broader philosophies of science and is based on both reasoning (theory) and observations (information or data) (Blumberg, et al., 2008). How these two are interconnected is an ongoing philosophical debate on the development of knowledge. The two most notable research philosophies are *positivism* and *interpretivism* (or phenomenology) and are often expressed as two extremes, thus, between these two, various philosophies exist (Blumberg, et al., 2008). Positivists postulate that there can be no real knowledge except for the knowledge, which is based on observed facts. Thus, the social world is observed by collecting objective facts, which cannot be influenced and the researcher is independent, taking the role of an objective analyst (Saunders, et al., 2003). In contrast, interpretivists argue that an objective observation of the social world is impossible and instead, they argue that the social world is constructed and given meaning subjectively by individuals. Moreover, the researcher takes an active part of what is observed and the researchers interpretation is socially constructed (Blumberg, et al., 2008).

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[1] See Appendix 1

When considering the nature of the problem statement, it seems rational to adopt a positivistic approach. As the key challenge in this thesis is to study the effect TV adverting has on the brand equity metrics, the internal processes and emotions of the individual consumer as well as the involvement of the researcher naturally becomes less significant. The knowledge base will evolve around what exists externally and is observed objectively from the large amount of data. Adopting a positivistic research philosophy has implications for how research must be conducted in this thesis (Blumberg, et al., 2008). For positivists, the research process starts by identifying causalities which shapes the base of fundamental laws (building hypotheses). Subsequently, research is conducted to test whether observations of the world actually fit the derived laws and in the end to discuss to what extent the causalities are generalizable (Blumberg, et al., 2008).

1.3.2   Research Approach & Research Strategy

This thesis assumes that theory delivers an understanding of objects or situations and directs attentions to detail that would not otherwise be noticed. By noticing these details, an opportunity to exceed beyond regular assumptions is gained, and by that a new interpretation or meaning of the object can be realized (Andersen, 2008). Overall, this also has consequences for the applied method of reasoning and it affects the structure of the thesis to a great extent as the basis of extensive literature reviews form the theoretical frameworks, which will then be utilized as tools for gathering data and analyzing empirical findings.

Two different reasoning approaches exist in the literature (Blumberg, et al., 2008). Induction means that one draws general conclusions from empirical facts and the result of the data analysis (Andersen, 2008). Conversely, this thesis' method of reasoning is deduction, which means that a hypothesis (a testable proposition between the relationships of two or more concepts) is developed from theory and a research strategy is then designed in order to test the hypothesis (Saunders, et al., 2003). This implies that conclusions on single observations are based on general theories, which is an appropriate method when seeking to find causalities (Andersen, 2008). Obviously, this places specific importance upon the applied theory, since the value of the analysis is exceedingly dependent upon this.

Studies that establish causal relationships between variables can be termed as explanatory studies (Saunders, et al., 2003). In this case, the explanatory study relates to the relationship between the brand equity metrics and TV advertising. The research strategy of the thesis is an *experiment*, which tends to be used in explanatory research to answer "*how*" and "*why*" questions.

The purpose of an experiment is to test whether a change in an independent variable produces a change in the dependent variable (Saunders, et al., 2003). In order to answer the problem statement, two issues must be addressed during the analytical section. Firstly, it must be studied if TV advertising even affects the brand equity metrics. If they are not affected by TV advertising, it must be concluded that they are not reliable and

important measures of brand equity. In order to analyze this, *regression analysis* is utilized in the analytical part of this thesis, as this general statistical technique enables researchers to study and analyze the relationship between a single dependent variable and one or several independent variables (Hair, et al., 2010), which is relevant in regards to the overall problem formulation. How regression analysis is used in this thesis in particular, is explained thoroughly later in chapter 8. Secondly, *if* TV advertising has an effect on the brand equity metrics, the second step is to investigate how sensitive these brand equity metrics are towards TV advertising. The sensitivity is addressed by studying the correlation coefficient between each of the brand equity metric in turn and the TV advertising, as the correlation coefficient measures the strength of the relationship between two sets of variables (Newbold, et al., 2007). By using these techniques in combination, the identified theoretical hypotheses are investigated in combination with the empirical data gathered through Mindshare's tracking system of the beer category.

1.3.3 Data Collection Methods

As is the case with the theory, the empirical data is also presented where applied. On an overall basis, the project contains a comprehensive use of empirical data. The thesis will mainly adopt quantitative and secondary data, in addition to the gathered data through Mindshare. Thus, for answering the problem statement, several different sources of data collection have been utilized throughout the project. In line with positivism, most of the sources embrace quantitative research designs, in which the data collection has mainly been through questionnaires. A questionnaire is a formalized framework consisting of a set of questions and scales designed to generate primary data (Hair, et al., 2009). One key benefit of questionnaires is their capability to quickly accommodate large sample sizes at relatively low costs (Hair, et al., 2009) as well as collecting data that can be used together with advanced statistical analysis to identify trends in the gathered data. Although quantitative data are easy to administer and process, they may lack the flexibility that qualitative data can result in, since quantitative date are represented by number, while qualitative data are represented by detailed and comprehensive statements (Andersen, 2008).

The tracking data from the beer category serves as the most influential data source. This data is derived from Mindshare's tracking database and the category has been tracked since the beginning of 2010. The data is gathered though TNS Gallup and the target group consist of people within the age group of 18-50 that are responsible for grocery shopping. The data is subsequently weighted according to region, gender, and age, which is gathered from Index Danmark. A detailed review of the data collection of the beer category, the method of weighting and the questionnaire can be found in appendix 2. Thorugh Mindshare, I have also had the opportunity to implement essential data from valid sources such as Index Danmark, Gallup Adfacts and AdvantEgde[2]. In combination with Mindshare's tracking data, these sources will prove extremely useful

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[2] AdvantEdge is a highly useful program, which can be used to extract GRP/TRP levels for brands within certain target groups.

during the analytical parts as they ensure a valid and reliable picture of consumer behavior, advertising spending and TV pressure.

The use of academic journals plays a core role in this project. These are essential, as they allow a broad and in-depth research with a large number of respondents not obtainable by myself due to time and cost considerations (Hair, et al., 2009). To ensure the validity of the secondary data sources applied, they are all considered in regards to original purpose of data collection, the accuracy of the information compared to what is needed for Mindshare, the credibility of sources, times cited, and the methodology behind the data collection (Hair, et al., 2009). The main secondary data sources applied are therefore research articles from well-known journals explicitly explaining their methodology and were mainly gathered from Business Source Complete, JSTOR, WARC, Web of Science etc.

On an overall level, the project contains a comprehensive use of empirical data sources in order to reach a goal of ensuring a deep understanding of brand equity in particular.

1.3.4 Validity and Reliability

The analyst should report any errors in the research design and estimate the effect on the research findings, since some flaws may have little consequence on the validity and reliability of the data, while others might ruin the usefulness of the data completely (Blumberg, et al., 2008). Validity is concerned with whether the findings are really what they appear to be about, that is, the capability of a research measurement system to measure what it is claimed to measure. In contrast, reliability refers to the extent to which a scale produces consistent results if repeated measurements are made. Both concepts must be taken into consideration when conducting the research as well as when analyzing the findings since validity and reliability are a critical review of the quality of the methods applied.

The thesis is prepared for Mindshare, which means that I have been granted access to valuable sources of data. By using this data, I have obtained a considerably larger sample size than otherwise possible, which positively affects the validity and reliability of the research results.

In the context of this thesis, the overall validity of the thesis is determined by the link between theoretical variables and empirical variables (Andersen, 2008), and as the theoretical frameworks has been developed prior to analyzing the empirical data as well as critically having discussed the findings in terms of the theories, the overall validity is ensured. The research philosophy and the research design support a quantitative method, which ensures that the empirical data have high statistical validity, since the data collection is of quantitative nature.

The reliability of the quantitative data is considered high since TNS Gallup use closed-end questions. Although the closed-end questions might lack detail or depth, they reduce the risks of misinterpretation,

thereby, increasing reliability of the results based on the data (Hair, et al., 2009). Overall, the data and methods applied in the thesis are considered appropriate for answering the problem statement.

1.4   Structure of the Thesis

The first chapter of the thesis, the introduction and the methodology, aimed at meeting the conditions of *why* this thesis was prepared and *how* it will be carried out.

Chapter 2 presents Mindshare and the company's clients. By discussing the clients in terms of revenue and marketing investments, the tracking data for the beer category is selected to be the focal point of the analysis. This leads to a presentation of the Danish beer market in chapter 3 in order to set the stage for the remaining parts of thesis. In chapter 4, the actual analysis begins. The starting point of the chapter is to present this thesis' overall brand equity framework, which is based on an extensive literature review and a discussion of various brand equity frameworks and their suitability in terms of the objectives of this thesis. The remaining parts of the chapter serve to justify this setup. Overall, the chapter serves in answering SP1.

Chapter 5 investigates which brand equity metrics that are available in Mindshare's current tracking system, as these are the metrics that will be incorporated in the analytical section. Although the tracking system for Royal Beer might contain a large number of brand equity metrics, only the metrics that are comparable to the findings in chapter 4 are identified. Accordingly, the chapter will answer SP2.

Chapter 6 aims at answering SP3 and serves as an important milestone before the analysis can commence. In order to investigate if and how advertising affects the brand equity metrics, the media impact must be quantified. The SP3 is answered by looking and discussing prevailing theory within this area.

Chapter 7 shortly summarizes the identified hypotheses, which have been built throughout the theoretical sections of the thesis. Finally, these theoretically well-founded hypotheses constitute the relationship of the final model. Chapter 7 also includes the actual analysis concerning which brand equity metrics that are sensitive to advertising. The results are simply presented in this chapter and the chapter finishes off by accepting or rejecting the hypotheses as well as answering SP4.

In chapter 8, the findings are discussed and the overall problem statement is answered. Subsequently, the findings are discussed in terms of the managerial implications that the thesis is believed to have and the thesis proposes limitations and directions for future research. Finally, the thesis is concluded in the final chapter. Thus, chapter 9 seeks to give a short summary of how all of the sub-problems were answered as well as the overall problem statement.

The overall structure of the thesis is illustrated in Figure 1. The four sub-problems structure the body of the thesis.

Figure 1: Structure of the Thesis

1. Introduction

Problem statement:
How can a portfolio of brand equity metrics, which are sensitive to TV advertising, be selected and what is the effect of TV advertising on the chosen metrics? This overall problem statement will be analyzed using Royal Beer's tracking data gathered through Mindshare.

2. Methodology

3. Analysis

3.1. Theory: Building a theoretical framework for how brand equity can be measured.

3.2. Empirics: Based on the theoretical framework some brand equity metrics are chosen to reflect the brand equity for Royal Beer. This data is utilized in the analysis.

3.3. Theory: Building a theoretical framework for how advertising affects the consumer.

3.4. Empirics: By quantifying the media impact on consumers, this will be analyzed in conjunction with the brand equity metrics.

3.5. Establishing the link between brand equity metrics and TV advertising

4. Discussion and Conclusion

Source: Own contribution

2 PRESENTATION OF MINDSHARE

This thesis is prepared in collaboration with Mindshare, and the empirical data gathered through their tracking system serves as the most influential data source in the analytical section. Mindshare is a media agency, which conducts tracking for its client brands on a regular basis. The company is located in Copenhagen, Denmark. Globally, Mindshare is owned by WPP, which is listed on New York Stock Exchange (NYSE). GroupM is WPP's consolidated media investment management operation and serves as the parent company to Mindshare among other agencies. Mindshare is a traditional media agency in the sense that it offers some core services such as strategic media planning, negotiation and execution. Additionally, the services include econometric modeling, research and insights into consumer behavior and digital solutions (Mindshare, 2012). Overall, Mindshare seeks to improve the tools that its clients have in order to streamline the specific marketing strategy and are therefore particularly interested in the marketing-related components of brand equity.

Mindshare has observed that there are some challenges associated with the current tracking system and measurement of brand equity. Based on a broad range of gathered data from the Nordic countries, it has become comprehensible that while some brand metrics prove to be quite dynamic and sensitive towards changes in the market, others prove to be rather stabile over a longer period of time. Accordingly, some brand metrics proves to be very sensitive to TV advertising in particular, while other brand metrics are not affected at all by an activation of the brand (Thomas Queck, Mindshare). Therefore, it has been questioned whether or not Mindshare currently uses a tracking system with a reliable set of brand equity metrics.

At the moment, the effects of traditional mass media and other marketing activities are usually analyzed on a regular basis (per month and/or per quarter) through online questionnaires. The outcome of the reports serves as an input to the marketing strategy content of the firms, which highlights the importance of a precise auditing of the brand equity of the company even further. The brand tracking includes a brand equity system, which incorporates questions about unaided and aided brand awareness, the consideration set, perceived quality and associations of the brand etc.[3] In the end, the purpose of the system is to measure a brand's loyalty and how committed the consumers are to the client brand and its competitors.

As there has been little progression for academic researchers within the field of brand equity and its measurement, Mindshare cannot turn directly to the literature to solve the current challenges. Therefore, no further analyses have been conducted within Mindshare in order to gain knowledge of which brand metrics that should be included in the tracking for its client brands.

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[3] The entire questionnaire can be found in appendix 2.

2.1 Client Brands

Mindshare's current clients include various international and local customers such as Ford, Hyundai, Royal Unibrew A/S (including international brands, Pepsi and Heineken), Canal Digital and TUI among others. The brands have different levels of marketing investments, which are allocated to different media groups and obviously have different levels of consumer involvement. On an overall level however, these clients are tracked using the same brand equity metrics.

The tracking data for each client includes the client brand as well as main competitors. Mindshare's biggest client in terms of revenue is Royal Unibrew A/S. The company operates within the FMCG category and primarily sells and distributes carbonated-soft-drinks, bottled mineral water and beer. As the company has been a client since the beginning of 2010, the gathered data of the client and its competitors is substantial. Royal Unibrew A/S is concerned about measuring the effect of its own marketing program investments as well as that for its main competitor, which for all product categories is Carlsberg A/S. The beer category in particular includes brands that are active in terms of marketing program investments. Accordingly, I have chosen to build my analysis on this product category, and an introduction of the Danish beer market and its actors seems as an appropriate starting point.

3 THE DANISH BEER MARKET

The Danish market for beer is characterized by high production, intense price competition and continuously dropping beer consumption in the country. Beer consumption witnessed a 2% decline in total volume terms in 2011 (Euromonitor, 2011).
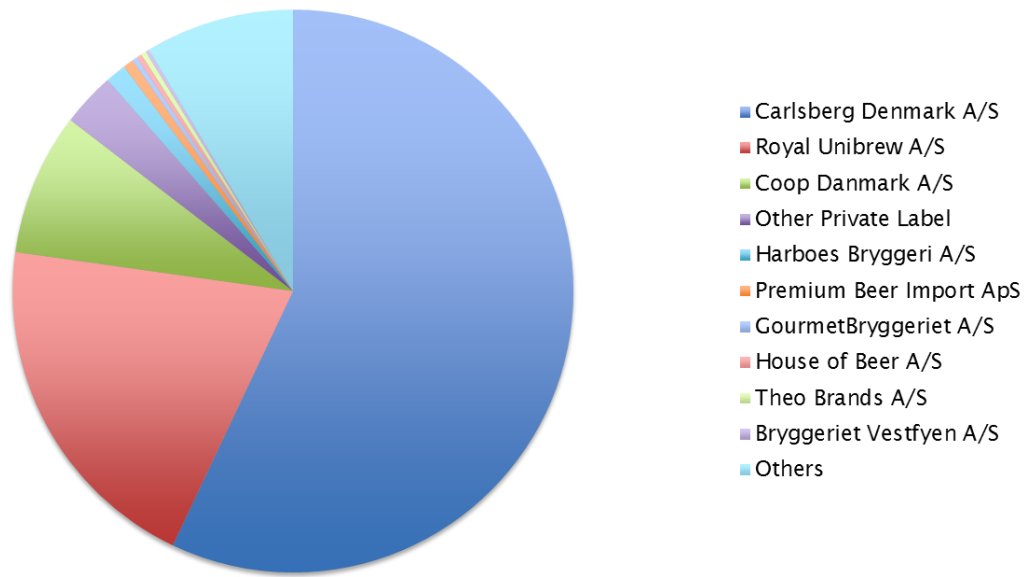
The key consumers of beer are younger men, since older, more affluent men prefer other products instead of beer, being mostly wine. Young women are not expected to start drinking more traditional beer, which explains why leading beer producers have launched new products in the hope of catching the demands of younger women (Euromonitor, 2011). The consumption patterns within the category suggest that people within the age group of 18-50 years, drinks beer 1-3 times a month (23%) and 27% drinks beer at least once a week[4]. The actual buying decision is based on various purchase criteria, where the most important ones are taste, accessibility, the brand and price[5].

Denmark is ranked among the top countries in the world in terms of number of breweries per capita (Euromonitor, 2011). However, two major players dominate the market. The category leader is Carlsberg Danmark A/S (Carlsberg) with a volume share of 56% in total in 2011 (Euromonitor, 2011). The most successful brands of Carlsberg are the lager beers Grøn Tuborg and Carlsberg with volume shares of 22% and 13% respectively in 2011. Royal Unibrew A/S (Royal Unibrew) is ranked second as a provider of beer in Denmark in terms of volume with a 20% market share. Royal Unibrew's main brand is Royal Beer with a 9% volume share in 2011. Royal Unibrew also distributes and sells Heineken, which is the most popular imported beer in Denmark. Heineken's sale has significantly strengthened the position of Royal Unibrew in Denmark (Euromonitor, 2011). The third biggest player is Coop Danmark A/S with a volume share of 7%. The remaining volume share is represented by microbreweries. The amount of microbreweries has more than doubled during the last five years (Euromonitor, 2011). An overview of the market shares of the major beer brands in Denmark can be viewed in Figure 2.

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[4] Appendix 3 illustrates the consumption frequency and consumption quantity for beer consumers by data gathered through Index Denmark and Mindshare's tracking system for the beer category.
[5] Appendix 3 shows which purchase criteria beer consumers base their buying decision on.

Figure 2: Company Shares of Beer by National Brand Owner 2011

- ■ Carlsberg Denmark A/S
- ■ Royal Unibrew A/S
- ■ Coop Danmark A/S
- ■ Other Private Label
- ■ Harboes Bryggeri A/S
- ■ Premium Beer Import ApS
- ■ GourmetBryggeriet A/S
- ■ House of Beer A/S
- ■ Theo Brands A/S
- ■ Bryggeriet Vestfyen A/S
- ■ Others

Source: Euromonitor (2011)

In this context, it must also be emphasized that Carlsberg and Royal Unibrew are the largest spenders within the category, both in relation to overall spending as well as TV spending more specifically[6].

Royal Unibrew and Carlsberg are also players on the international beer market. Due to declining markets in Denmark, the export of beer is at a high level and is still increasing due to growing demand in other parts of Europe and Asia. Carlsberg is the fourth largest global brewer, with a leading volume share in Western Europe and a strong presence in Western Europe. The company has own breweries or has entered into partnerships with local breweries in multiple countries. Royal Unibrew has interests in Europe, America and Africa but the most significant markets are in Westerns Europe and the Baltic countries (Euromonitor, 2011).

As Royal Beer is Royal Unibrew's largest brand in terms of market share and spending[7], it seems evident to build the empirical analysis on this brand.

3.1   Presentation of Royal Beer

Royal Beer is a FMCG placed within the beer product category, and is more specifically classified as a standard lager beer (Euromonitor, 2011). The main target group for the brand is males within the age group

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[6] Appendix 4 presents an overview of the spending within the Danish beer category 2010-2012 gathered through Gallup Adfacts.

[7] Appendix 4 shows that Royal Beer's total spending is DKK 35.855.342 during the time period 2010-2012. It also illustrates that this level is significantly higher than Heineken's spending level, which is the second highest spender of Royal Unibrew brands.

of 25-40 years old. This means that the creative campaigns are mostly directed towards this clientele. This seems eligible since 85% of heavy users of beer are male and more than 33% of heavy users belong to this age group. Moreover, this target group simply drinks more beer per week than the total population on average[8]. The consumer profile[9] for the beer category also highlights that 86% of the individuals who has Royal Beer as their 'mostly bought' brand as well as being heavy users are men. However, Royal Beer should also take into consideration the large proportion of heavy users that exists within the age group of 40-50 years[10].

Royal Beer currently holds a brand identity based on six statements, which are *masculine, supports rock music, refreshing, festive, sympathetic* and *unique*. The brand identity statements are a set of unique brand associations that the brand strategist aspires to create or maintain (Aaker, 2002). Moreover, these associations represent what the brand symbolizes and imply a promise to the consumers (Aaker, 2002). The same brand identity statements are measured for Grøn Tuborg in the Mindshare tracking (see appendix 2) since Grøn Tuborg is seen as the biggest competitor to Royal Beer. The brand has a profile quite similar to Royal Beer. Hence, Grøn Tuborg has also built a communication platform, which revolves around supporting music such as sponsoring Denmark's yearly *Green Fest* (Tuborg.com, 2012).

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[8] See appendix 3 under "consumption of beer".
[9] See appendix 5
[10] See appendix.

4   DEVELOPING A CUSTOMER-BASED BRAND EQUITY FRAMEWORK

The starting point of the following chapter is to introduce this thesis' understanding and developed model concerning customer-based brand equity. The purpose of introducing the model in the beginning of the chapter is to facilitate the remainder of the chapter. Accordingly, after having introduced the overall model, the brand equity literature is discussed in more detail in order to justify the chosen set-up.

4.1   The Brand Value Chain

In order to gain a better understanding of the objective of the thesis, the *brand value chain*, introduced by Keller and Lehmann (2003) offers an overall integrated approach to understanding the value created by marketing. The brand value chain in Figure 3 seeks to explain the sources and outcomes of brand equity and the manner by which marketing activities can create value. Hence, the overall idea is integrated to some extent in this thesis as the conceptual framework for studying the problem statement.

Figure 3: The Brand Value Chain

Source: Keller & Lehmann (2003)
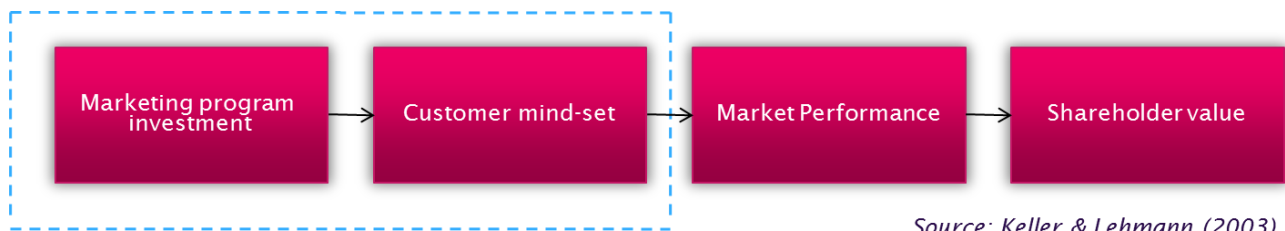
The brand value chain proposes three major perspectives for brand equity measurement: consumer mind-set outcomes, product market outcomes and financial market outcomes. The brand value chain has several basic premises. Overall, it assumes that the value of a brand ultimately resides with customers. In the realm of this, the model assumes that the brand value creation process begins with the firm investing in a marketing program (stage 1). The associated marketing activity then affects the customer mind-set, more specifically, what the customer know and feel about the brand (stage 2). The mind-set of the consumers produces the brand's performance in the market place, that is, the behavioral response in the market (stage 3). Finally, the investment community considers the market performance of the brand in order to determine the shareholder value in general and a value of the brand in particular. Relevant key performance indicators in the boxes are then made into concrete marketing performance metrics, which can be used to control the marketing program effort as well as an assessment of the company's future profits (Keller & Lehmann, 2003). Hence, the consumer mind-set measures involve e.g. awareness, attachment, association and loyalty (Mirzaei, et al., 2011). Product market outcomes emphasize market related benefits of the brand performance, such as market share, relative price, price premium etc. Conversely, the financial market outcome excludes the intangible assets of brand performance and strives to measure the value of the brand based on financial metrics (Mirzaei, et al., 2011). Rust et al. (2004) emphasizes that firms should have a business model that tracks how
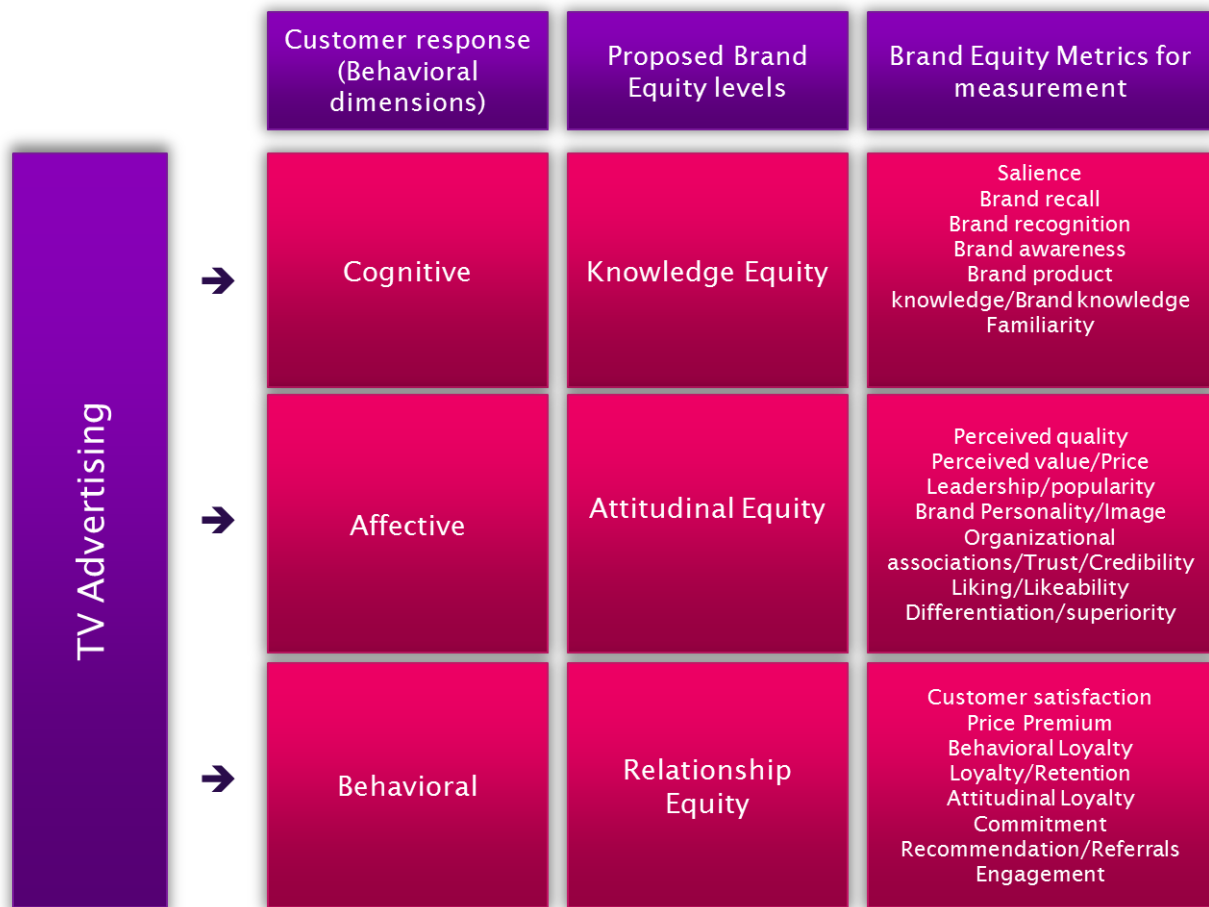
these marketing expenditures influences customers knowledge, attitudes and behavior. Rust, et al., (2004) has developed a similar chain in the form of *The Chain of Marketing Productivity*. The same elements are included in this model, which relates marketing actions to overall value of the firm.

The scope of this thesis is the boxes and relations that are within the dotted lines in Figure 3. Although the marketing program investment value stage might include various activities such as employee training, product development and design etc. (Keller & Lehmann, 2003), the main focus will be on marketing communications and more specifically on TV advertising due to the purpose of the thesis. Furthermore, although implementing market performance measures such as price elasticity, market share and shareholder value measures such as the stock price are inevitable for any company's total measurement system, it lies beyond the scope of this thesis, and would be more appropriate if the analysis concerned the firm-based brand equity (FBBE).

Based on the brand value chain provided in Figure 3 the developed framework for brand equity and its measurement is now presented. The model is formulated as a causal model, in order to point out that a relationship exists between the brand equity metrics and TV advertising.

The overall hypothesis is thus built on the link between the marketing investment and the customer mind-set as suggested by the brand value chain. It is therefore assumed that the activation of TV advertising will influence the customer response, which will then affect the brand equity metrics for measurement. If the brand equity metrics are not influences, they might not be sensitive measures.

Figure 4: Overall Brand Equity Framework

	Customer response (Behavioral dimensions)	Proposed Brand Equity levels	Brand Equity Metrics for measurement
TV Advertising	Cognitive	Knowledge Equity	Salience Brand recall Brand recognition Brand awareness Brand product knowledge/Brand knowledge Familiarity
	Affective	Attitudinal Equity	Perceived quality Perceived value/Price Leadership/popularity Brand Personality/Image Organizational associations/Trust/Credibility Liking/Likeability Differentiation/superiority
	Behavioral	Relationship Equity	Customer satisfaction Price Premium Behavioral Loyalty Loyalty/Retention Attitudinal Loyalty Commitment Recommendation/Referrals Engagement

Source: Own contribution

The proposed brand equity levels are developed based on some of the most influential brand equity conceptualizations that have originated from theory. The proposed brand equity levels originate from the conceptualization by Tolba & Hassan (2009) and are used since they bear great resemblance to Keller (1993) and Aaker's (1991) framework, as the key dimensions of Aaker and Keller's model can be categorized according to these levels. Moreover, as the literature review will show, several authors and practitioners take similar views. By linking the brand equity levels with the behavioral dimensions, we gain a better understanding of how advertising affects the consumer and his/her behavior. However, we need to be able to measure this effect as well and the proposed brand equity metrics for measurement are based on an extensive literature review. The brand equity metrics serve the purpose of measuring the effect on the consumer, that is, the scale items are relevant key performance indicators, which are made into concrete marketing performance metrics that can be used to control the marketing program effort as well as an assessment of the company's future profits (Keller & Lehmann, 2003). By establishing the overall link between the brand equity metrics for measurement and TV advertising, the overall hypothesis can be tested.

As described, the above model is based on a thorough discussion of the literature and is thus based on academic theories as well as practices about branding in order to include the most important brand equity topics. Accordingly, the following will provide as a discussion of some of the most debated and utilized model and conceptualizations, which are used as inputs in this thesis' understanding of brand equity as presented in Figure 4.

4.2 Theoretical Framework for Brand Equity

As a result of the multitude of perspectives within brand equity, scholars tend to adopt rather different approaches for conceptualizing brand equity. Accordingly, the present chapter will provide an answer to SP1 by thoroughly reviewing the brand management literature related to brand equity, in order to develop a framework for how brand equity is conceptualized and measured. On an overall level, an important marketing objective for all companies is to strengthen their brand and among theorists (e.g. Keller (1993), Aaker (1996) and Kapferer (2008)), there is a common agreement that brand equity is the key concept for measuring brand strength.

Brand equity relates to the added value a brand has (Farquhar, 1989). Increasing brand equity has become a key objective for firms, which can be achieved through gaining more favorable associations and feelings towards the product or service among target consumers. Hence, measuring brand equity is of great importance to a company's long-term success of future marketing programs since *"Perhaps a firm's most valuable asset for improving marketing productivity is the knowledge that has been created about the brand in consumers' minds from the firm's investment in previous marketing programs"* (Keller, 1993, p. 2). Today, brands are recognized as part of a company's capital, which is why they should be exploited and managed. Brands are intangible assets that can create added benefits for the business. Hunt and Morgan (1995) propose that while competitors can imitate financial and physical assets, intangible assets represent a more sustainable competitive advantage.

Measuring brand equity, which is the key focus of this thesis, is important due to its strategic value guiding marketing strategy, aiding tactical decisions and providing a basis for assessing brand extendibility (Buil, et al., 2008). However, in order to measure brand equity, it is essential to incorporate a theoretical foundation since a brand equity model must be built on a sufficient rigorous theoretical basis (Burmann, et al., 2009). One of the critiques of recent brand equity models is that they lack this theoretical foundation (Raggio & Leone, 2006). Accordingly, a framework must be conceptualized so that arbitrariness can be prevented. The following presented framework presents such a theoretical framework and is a necessary prerequisite for selecting the brand equity metrics for measurement later on in this thesis.

4.3 Defining Brand Equity

The concept of brand equity has evolved since traditional marketing data such as market share and market volume and financial measures such as sales and profits provide only partial indicators of marketing performance due to their historical orientation and typically short-term orientation (Mizik & Jacobsen, 2008). On the other hand, intangible, market-based assets provide a richer understanding of marketing performance, and by that, reconciling short- and long-term performance (Ambler, 2003).

A large number of various definitions exist in the branding literature[11], which proves the complexity of the concept. Winters (1991) proves this point by stating that *"if you ask ten people to define brand equity, you are likely to get ten (maybe 11) different answers as to what it means"* (p. 70). The conceptualizations of the customer-based brand equity have mainly derived from cognitive psychology and information economics (Christodoulides & Chernatony, 2010). The dominant stream of research has been grounded in cognitive psychology, focusing on memory structure (Aaker, 1991), (Keller, 1993). Hence, according to Keller (1993) *"Customer-based brand equity occurs when the consumer is familiar with the brand and holds some favorable, strong, and unique brand associations in memory"* (p. 2). Keller (1993) looked at customer-based brand equity strictly from a consumer psychology perspective and defines it as *"the differential effect of brand knowledge on consumer response to the marketing of the brand"* (p. 2). According to Keller's (1993) conceptualization, a brand has a positive (or negative) value if the consumer reacts more (or less) favorably to the marketing mix of a known brand name than to the same marketing mix of an element attributed to a fictitiously named or unnamed version of the product. This has implications for marketers since the positive customer-based brand equity will be higher when the consumer becomes more accepting of the brand.

Since then, many more studies have been published on brand equity. Although there is no universally accepted definition of brand equity, there is at least some consensus in that brand equity represents the added value endowed by the brand to the product as presented by Farquhar (1989) (Christodoulides & Chernatony, 2010). Companies, however, are not the only receivers of brand value. Aaker's (1991) definition of brand equity clearly suggests how customers can too benefit from the brand value. He defines brand equity as *"...a set of assets and liabilities linked to a brand, its name and symbol, that add or subtract from the value provided by a product or service to a firm and/or that firm's customers"* (Aaker, 1991, p. 15).

4.4 The Elements of Brand Equity

As brand equity has become more and more important as the key to understanding the objectives, mechanisms and impact of the holistic impact of marketing (Christodoulides & Chernatony, 2010), several researchers have proposed approaches of conceptualizing and measuring brand equity. Even when we delineate our area of research to only include customer-based brand equity, it is still a multidimensional

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[11] See Appendix 6 for some of the most utilized and well-known brand equity definitions.

construct (Mizik & Jacobsen, 2005) comprising several components, which together make up the concept. As a result, various models have been developed to explain the different sources of brand equity that can be used to define these components, and to identify the outcome of brand equity.

The two most utilized models have been derived from Aaker (1991, 2002) and Keller (1993, 2008). Kapferer (1997) has also created a well-known model of brand equity, but his view of brand value is monetary and, ultimately, focuses on the brand's financial value. In his model, however, he also includes some intangible brand assets, which are needed for building brand value since *"the value of the brand comes from its ability to gain an exclusive, positive, and prominent meaning in the minds of a large number of consumers"* (Kapferer, 1997, p. 25). There are some factors combined in the mind of the consumer, which will determine these brand assets as illustrated in Figure 5.

Figure 5: Kapferer's model of Brand Equity (from brand assets to brand equity)

Brand Awareness
+ Image
+ Perceived Quality
+ Evocations
+ Familiarity, Liking

= Brand Assets ⟶ Brand added value,
perceived by consumers
- Costs of branding
- Cost of invested capital

**= Brand financial capital
(Brand equity)**
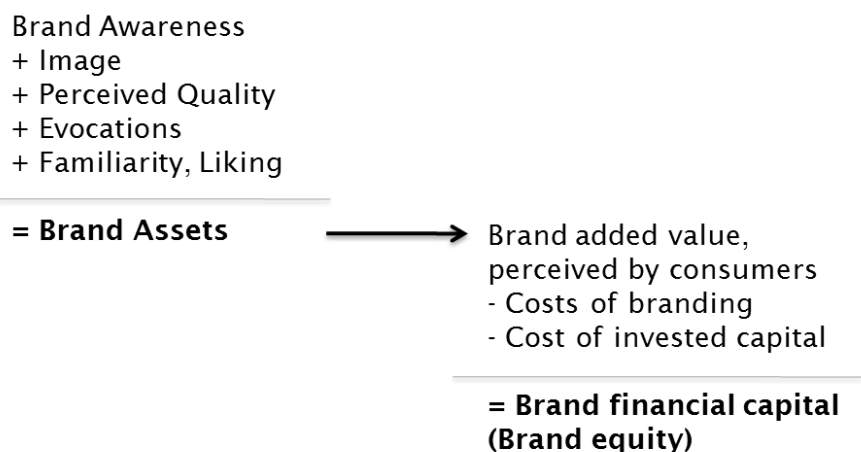
Source: Kapferer (1997)

When analyzing the context of a certain brand, that is, when looking at which analysis that needs to be conducted in order to derive brand equity, Kapferer (1997) takes a different strategic perspective than Aaker (1991) and Keller (1993). Thus, while Kapferer (1997) mainly has an inside-out view by focusing consequently on the corporate identity, the founders' values as well as the culture of the company, Aaker and Keller adopt an outside-in view. This is primarily done by including customer analysis, competitor analyses, and self-analysis (Aaker, 2002) and customer segmentation since *"marketers need a more thorough understanding of consumer behavior as a basis for making better strategic decisions about target market definition and product positioning"* (Keller, 1993, pp. 1-2). The objective of incorporating these analyses is to build a brand strategy that resonate with customers, avoid competitor strengths and exploit their

weaknesses, while at the same time exploiting its own strengths and neutralizes its weaknesses (Aaker, 2002).

The conceptualizing and elements of the brand equity framework presented by Aaker and Keller seems highly applicable to this thesis, since the thesis' view on brand equity is customer-based. Furthermore, since the two frameworks of Keller and Aaker include dimensions, which are suggested in most conceptualizations of brand equity, they are incorporated in the review below.

One of the first studies to conceptualize a model of brand equity and what brand equity is composed of was Aaker (1991). The purpose of his model was to define which measures that are most effective in evaluating and tracking brand equity over products and markets.

As can be observed in Figure 6, Aaker (1996) has identified five core dimensions of brand equity including: *Brand awareness, brand association, perceived quality, brand loyalty* and *other proprietary brand assets.* Aaker also acknowledges that brands can create value both to the customer's and the firm itself. This idea is later also adapted in Kapferer's (1997) framework.

Figure 6: Aaker's Brand Equity Model
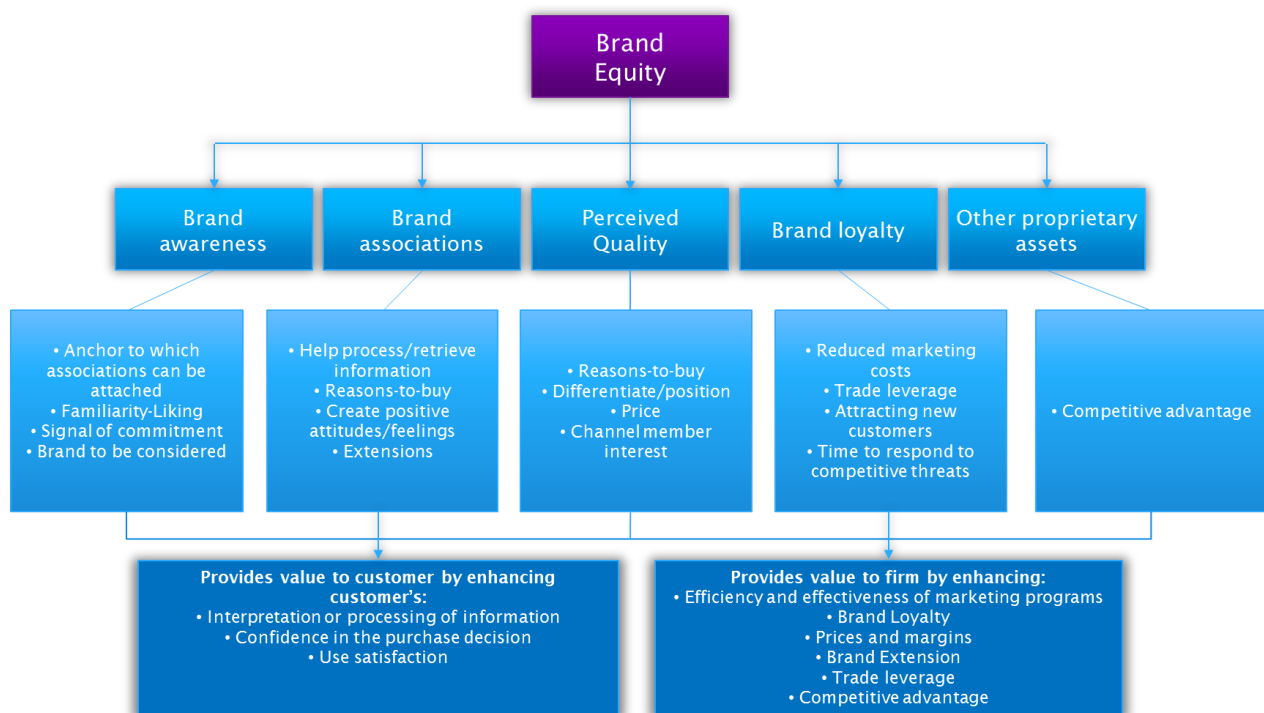
Source: Adapter from Aaker (2002)

The essence of Aaker's interpretation is a set of assets that, linked to the brand, can add value to the product or service based on consumers' memory-based brand associations. These assets, which together represent the concept of brand equity, are briefly described in the following section.

From the consumer perspective, brand awareness, brand associations, perceived quality and brand loyalty are the four most important dimensions.

Brand awareness is an essential and, according to Aaker (1996), often undervalued component of brand equity. It refers to *"the ability of a potential buyer to recognize or recall that a brand is a member of a certain product category"* (Aaker, 1991, p. 61). This construct is related to the strength of a brand's occurrence in consumer's minds. Recognition is the consumer's ability to remember the brand and validate prior exposure to the brand e.g. when the consumer visit the supermarket to buy a beer, and is exposed to various beer brands. For a company it is preferable if the consumer is able to recognize e.g. the brand as one to which he has already been exposed to. Brand recall, on the other hand, is the extent to which a person is able to remember a brand, given a certain product category (e.g. "What brands of beer have you heard of?") or need (e.g. if the consumer will think of Royal Beer when being thirsty). According to Aaker, brand awareness consists of many levels. These levels are brand recognition, brand recall, top of mind, brand dominance, brand knowledge and brand opinion. As one moves from brand recognition to brand opinion, the brand awareness increases. Most academics implement brand awareness into their conceptualizations of brand equity.

Brand awareness serves as the anchor for associations. The *brand associations* component of brand equity usually involves image dimensions that are unique to a product class or to a brand. Aaker (1991) defines brand associations as anything that is linked to the memory of the brand. These associations can derive from a wide range of different sources and vary according to their favorability, strength and uniqueness based on experiences and exposures to communications, and when a link of other associations supports it. While a brand may derive associations from a wide range of sources, brand personality and organizational associations are the two most important types of brand associations, which influence brand equity. Brand personality, as a key component of brand equity is defined in terms of the various traits or characteristics that brands can assume from the perception of the consumers (e.g. edgy, fun etc.). Brand associations can provide value to the consumer by providing a reason to buy the brand and by creating positive attitudes towards the brand.

Perceived quality is an association that is usually one of the key dimensions of brand equity according to Aaker. It refers to the consumer's opinion of the extent to which a particular brand will be able to meet his expectations. It is therefore not the objective and actual quality or performance of the product, but the consumer's subjective evaluation. It is essential that a consumer perceive the product to be of high quality since it will increase the brand preference and, by that, build brand equity. Brand name, product design, packaging, advertisement etc. are the types of information that communicates the unobservable quality. These elements can all help build favorable perceived quality in the minds of the consumers. Similar to

brand associations, perceived quality also provides value to consumers by providing a reason-to-buy and by differentiating the brand from competing brands.
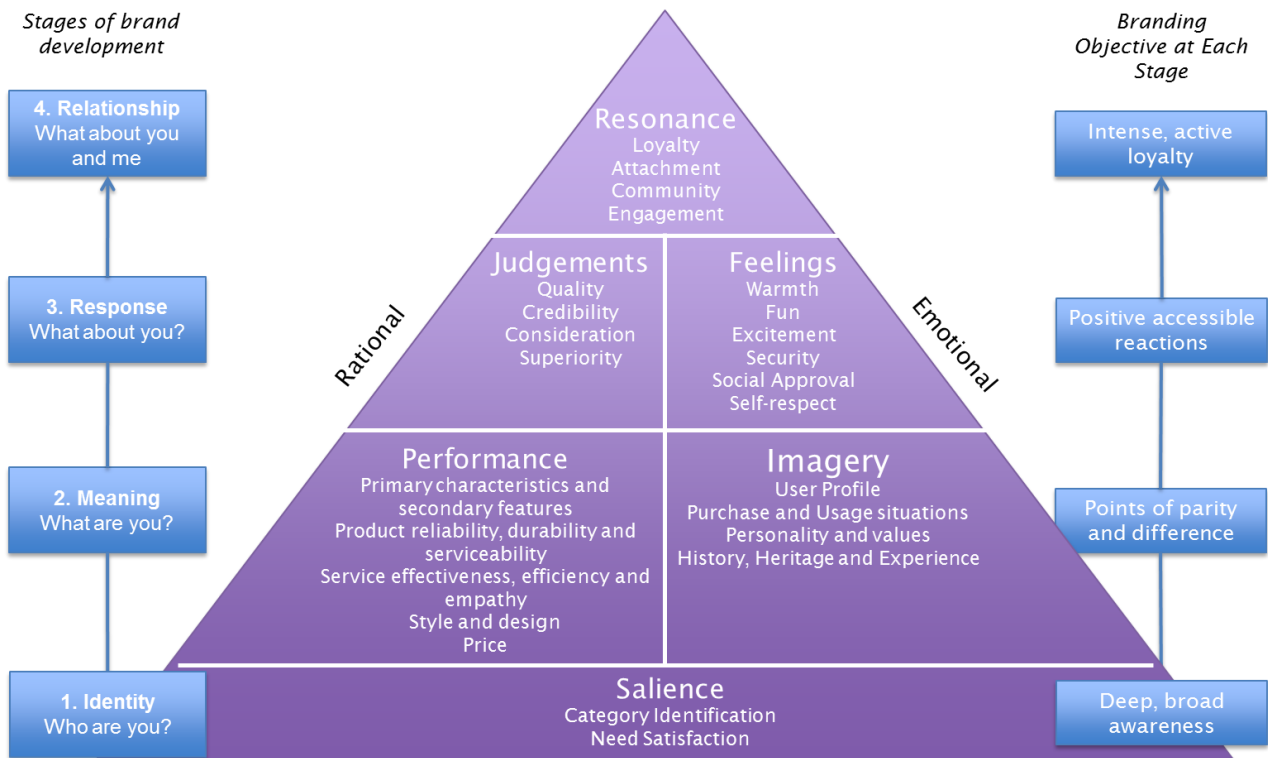
Loyalty is a core dimension of brand equity and is defined as *"the attachment that a consumer has to a brand"* (Aaker, 1991, p. 39). It is vital for most companies since a loyal customer base represents a barrier to entry, a basis for a price premium, time to respond to competitor innovations, cost savings, as well as an embankment against deleterious price competition. In addition, loyal customers can be expected to generate a very predictable sale and profit stream. Other measures such as perceived quality and associations can often be evaluated based on their capability to induce loyalty. If the perceived quality and the associations are positive towards a brand, the outcome might be that loyalty is strengthened. In the literature, loyalty is often defined as incorporating both a behavioral dimension and an attitudinal dimension[12]. Behavioral loyalty means that there is repeated purchase by the consumer, while attitudinal loyalty is characterized by a favorable attitude, intention and belief towards a brand.

The fifth dimension of his model, *other proprietary brand assets* includes patents, trademarks, favorable channels relationship etc. and can be a starting point for obtaining a competitive advantage. It is normally excluded in brand equity research since it is not directly related to consumers (Buil, et al., 2008). Accordingly, the dimension will be disregarded in this thesis, where the focus is on customer-based brand equity, and it will have no effect on the outcome of the project. Within the scope of this thesis, the four dimensions already introduced are the most important ones as formative indicators causing strong brand equity. Aaker's conceptualization has been utilized in various recent brand equity studies, e.g. Yoo, et al. (2000), Baldauf, et al. (2003), and Washburn & Plank (2002).

Keller's (2008) model of conceptualizing brand equity is the *Customer-based Brand Equity Model* (CBBE model). Keller's conceptualization of the brand equity elements bear great similarity to Aaker's since they both concentrate on the consumer perspective based on consumers' memory-based brand associations. The CBBE model (Figure 7) looks at building a strong brand as a sequence of steps, each of which is dependent on successfully achieving the objectives of the previous one (Keller, 2008), which is why it can also be described as a "branding ladder". This basic idea of the existence of a hierarchical association between the individual components of brand equity is also seen in various other influential researches (e.g. Franzen (1999)).

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[12] This will be clarified in more detail in chapter 4.6.3.

Figure 7: Keller's Customer-based Brand Equity (CBBE) model

Stages of brand development

4. Relationship
What about you and me

3. Response
What about you?

2. Meaning
What are you?

1. Identity
Who are you?

Branding Objective at Each Stage

Intense, active loyalty

Positive accessible reactions

Points of parity and difference

Deep, broad awareness

Resonance
Loyalty
Attachment
Community
Engagement

Rational

Judgements
Quality
Credibility
Consideration
Superiority

Emotional

Feelings
Warmth
Fun
Excitement
Security
Social Approval
Self-respect

Performance
Primary characteristics and secondary features
Product reliability, durability and serviceability
Service effectiveness, efficiency and empathy
Style and design
Price

Imagery
User Profile
Purchase and Usage situations
Personality and values
History, Heritage and Experience

Salience
Category Identification
Need Satisfaction

Source: Adapter from Keller (2008)

There are four stages of brand development in the CBBE model, which represents a set of fundamental questions that customers ask about brands (at least implicitly). These four stages include *identity*, *meaning*, *response* and *relationship*, which are split into six "brand building blocks" that can be assembled into a pyramid. These building blocks are salience, performance, imagery, judgments, feelings and resonance. The ultimate aim is to reach the pinnacle of the CBBE pyramid – resonance – where a completely harmonious relationship exists between customers and the brand. The overall argument of the CBBE model is to ensure the correct brand identity. The purpose is to create an identification of the brand with the consumers, and an association in their minds with a specific product category or need. To do this, brand *salience* must exist, which represents aspects of brand awareness and the range of purchase and consumption situations in which the brand comes to mind. Two sub-dimensions therefore make up the salience building block: need satisfaction and category identification. Category identification is e.g. how easily a brand is evoked under various circumstances and situations (Keller, 2008).

The second step establishes brand meaning by linking tangible and intangible brand associations. Brand meaning is therefore characterized in either functional (brand performance) or abstract (image-related) associations. *Performance* includes the primary characteristics of the brand, i.e. a purchased beer can stop thirst etc. as well as the consumers' experience with the brand in terms of reliability, style and design, service effectiveness etc. *Imagery* depends on the extrinsic properties of the product, including the ways in which the
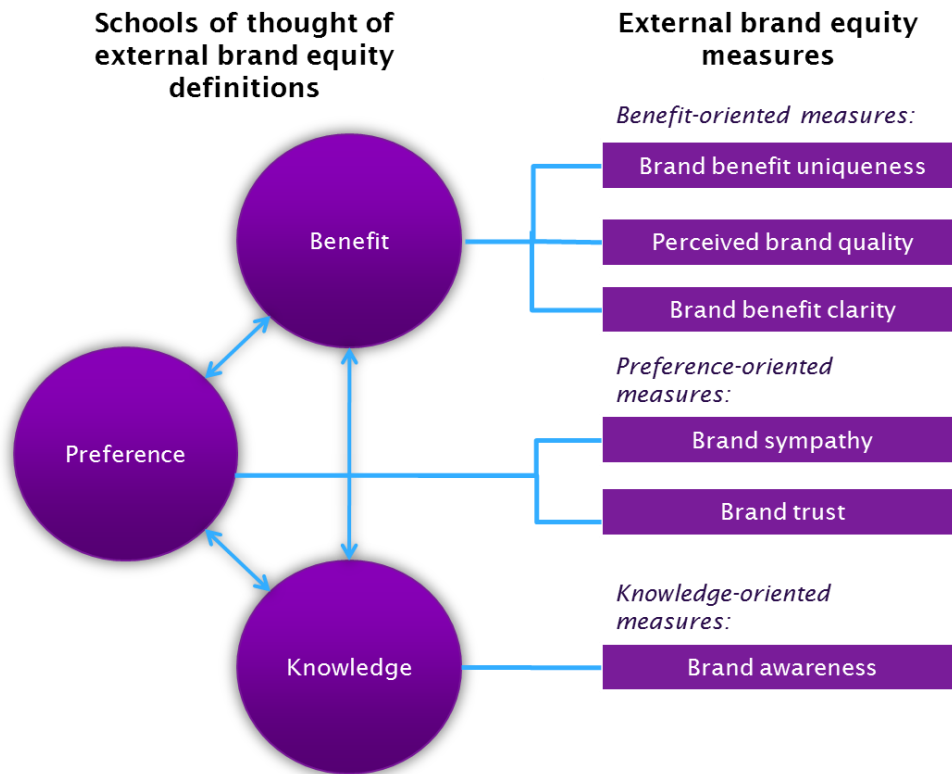
brand attempts to meet customers' psychological or social needs. Consumers can form imagery associations directly from their own experience (i.e. specific usage situations) or indirectly through advertising. The third step in the CBBE model is brand response and represents opinions and evaluations of the brand based on a combination of associations identified in brand meaning. These opinions include *judgments* about the quality, credibility, if the brand is included in the consideration set and the extent to which consumers view the brand as unique and better than other brands. Brand *feelings* include customers' emotional responses and reactions to the brand and can be evoked by diverse means of marketing programs. Keller postulates that there are six important types of brand-building feelings such as warmth, fun and excitement. Brand relationship constitutes the final step in the pyramid where brand response is converted to create an intense, active loyalty relationship between customers and the brand. The pinnacle of the pyramid is resonance, which refers to the nature of the relationship and identification between the customer and the brand. Harley Davidson and Apple are both good examples of customers feeling that they are "in sync" with the brand (Keller, 2008). It is described as having four elements, which are characterized by the intensity or the depth of the psychological bond that customers has with the brand as well as the level of activity engendered by this loyalty, e.g. repeat purchases and the extent to which customers seek out brand information, events and even other loyal customers. The model has received much interest, and other authors have used the "pyramid" as the overall framework for brand building, with the inclusion of both rational and emotional brand associations (e.g. Franzen (1999) and Martensen & Grønholdt (2006)).

As it applies to Aaker and Keller's models, the majority of conceptual studies on customer-based brand equity agree that awareness and associations are important components of customer-based brand equity, and the common denominator in all the models is the utilization of one or more dimensions of the Aaker model. The majority of these studies took place in the early/mid-1990s with subsequent research being mostly empirical (Christodoulides & Chernatony, 2010).

During recent years, emerging literature that has attempted to conceptualize brand equity has been scarce. However, Burmann, et al. (2009) has developed an influential conceptual model (Christodoulides & Chernatony, 2010), which has moved focus from a merely outside-in approach to an integrated approach, where an inside-out perspective is incorporated. This means that the model incorporates internal as well as external perspectives of brand equity creation. The model thus takes a wider view than Aaker and Keller's classical models.

Nonetheless, the Burmann model has obviously taken inspiration from both Aaker and Keller's framework and clearly agrees that awareness and associations are important components of brand equity. The external brand equity is conceptualized by using three distinct approaches that have emerged in the literature regarding brand equity conceptualizing (Burmann, et al., 2009).

Figure 8: External Brand Equity Model by Burmann, et al.

Schools of thought of external brand equity definitions

External brand equity measures

Benefit-oriented measures:

Brand benefit uniqueness

Perceived brand quality

Brand benefit clarity

Preference-oriented measures:

Brand sympathy

Brand trust

Knowledge-oriented measures:

Brand awareness

Benefit

Preference

Knowledge

Source: Adapted from Burmann et al (2009)

The first category focuses on brand knowledge as postulated by Keller (1993). This group perceives brand equity as a set of associations, which derive from different customer interaction and the level of brand equity therefore depends of the quantity and quality of brand association. The second category used brand benefits as a starting point (e.g. Farquhar (1989), Aaker (1991) and Simon & Sullivan (1993)). The level of benefit provided to buyers by the brand corresponds to the amount of brand equity endorsed to the brand. The third category focuses on long-term brand preferences, which constitute the relative attractiveness of the brand compared to its competitors (e.g. Park & Srinivasan (1994). All three approaches are included in the model since they all embrace important aspects of brand equity. Thus, since a strong position in the buyer's knowledge base is not sufficient for a strong brand, its benefits must be relevant and differentiating in actual purchase decisions. Only if these conditions apply, long-term preference for the brand can appear (Burmann, et al., 2009).

The conceptualization of brand equity is further classified into three categories of knowledge-, benefit-, and preference-oriented measures as shown in Figure 8. *Brand awareness* falls into the class of knowledge-oriented measures and forms the basis for external brand equity just as it does in Keller's and Aaker's model. Brand awareness is not sufficient in order to build brand equity, but represents a necessary prerequisite, since the positive or negative quality of brand equity is determined by other dimensions (Burmann, et al., 2009).

The benefit-oriented category reflects the necessity to access functional and symbolic brand benefit associations. The construct is divided into three subcategories: *Brand benefit clarity* postulates that a clear brand image requires consistency and integration of the underlying brand associations. The model also incorporates the widely accepted indicator of *perceived brand quality* taken from Aaker's model, which signifies the level of brand performance capabilities in the buyer's mind. It addresses functional and symbolic brand benefits associations, since quality does not represent a mean to the end in itself, but rather a mean to the end of satisfying buyer's needs. *Brand benefit uniqueness* represents the third indicator in building benefit-oriented brand equity. The uniqueness refers to the extent to which a brand is perceived to be different from competitors' brands. In this perspective, the self-concept of the consumer is significant, since the need to differentiate oneself from other buyers strongly affects purchase and usage decisions. Buyers will prefer brands that reveal their own uniqueness. This factor can also be perceived as an expression of the symbolic benefit associations and hence represent a major construct within external brand equity assessment as stated by Aaker (1991).

The third and final category of external brand equity reflects long-term brand preference. In the proposed model, brand sympathy and brand trust represent the two indicators of brand loyalty. *Brand sympathy* is a measure of the level of positive brand perception, whereas *brand trust* reflects how willing the buyer is to rely on the ability of a brand to fulfill the communicated functions and attributes. The concepts complement each other since brand sympathy covers impulsive and immediate brand preference, whereas the latter tends to be a result of an extensive cognitive evaluation process.

Taken as a whole, the Burmann model share strong similarities with both Keller's and Aaker's model as the brand equity measures are based on their brand equity definitions. Furthermore, similarly to both models, the Burmann model acknowledges that the brand building process must follow a sequence of steps, that is, that brand awareness is a necessary prerequisite for building brand equity, but it not sufficient and other measures must be included to determine if the quality of brand equity is positive or negative. Lastly, the model also acknowledges that a long-term brand-buyer relationship is evident for building strong brands.

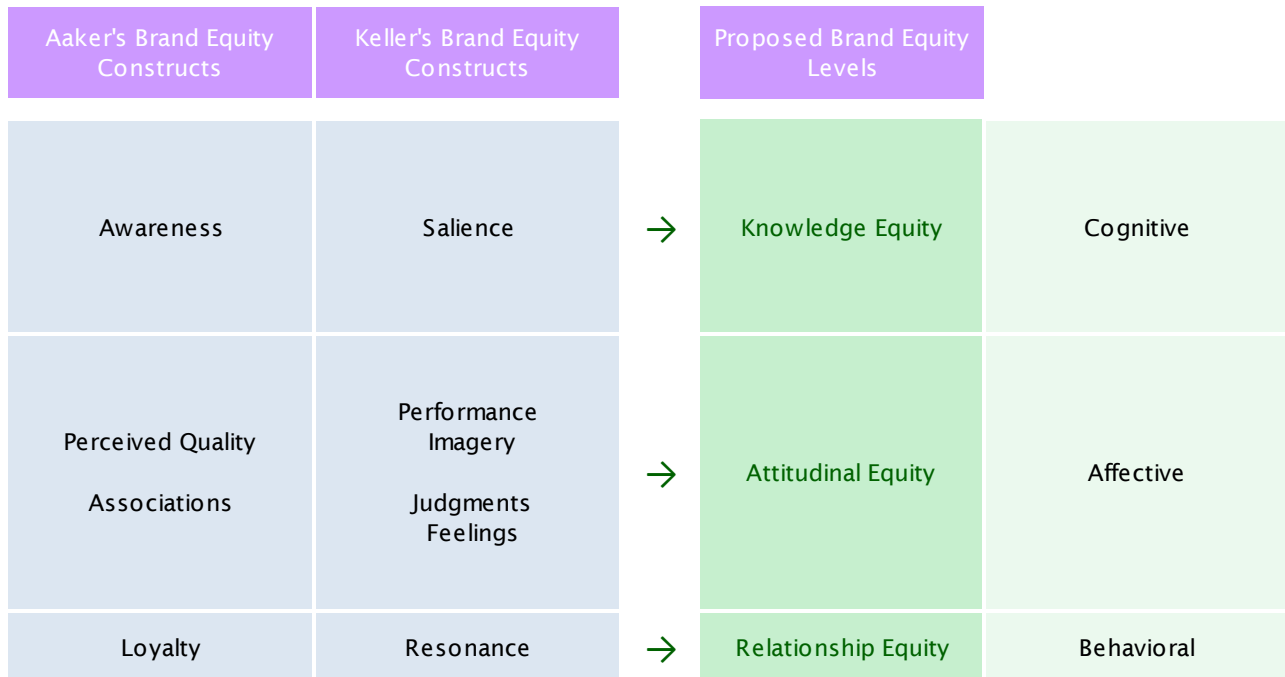## 4.5   Conceptualization of the proposed Brand Equity Framework

Overall, much recent research into brand equity has continued to draw on the conceptualizations by Keller (e.g. Magali & Cliquet (2012), Burmann, et al., (2009)) or Aaker, (e.g. Tolba & Hassan (2011), Pappu, et al., (2005), Buil, et al., (2008) and Lee, et al., (2011)) and Aaker's dimensions are often utilized *"as they the most acceptable to-date"* (Lee, et al., 2011, p. 1092). The Keller and Aaker model bear great similarities as they both focus on the customer's mindset and the consumer's response towards advertising, which is important to this thesis in particular.

The consumer's response mainly focuses on the effect hierarchies that seek to explain how communication affects the consumer and his behavior. Effect hierarchies are often the basis when discussing specific communication effectiveness, and by including this, the link between the brand equity dimensions and the customer response can be established. In addition, several studies have attempted to link customer-based brand equity constructs to the "Hierarchy of Effects Model" (Tolba & Hassan, 2009). The effects hierarchies represent the different stages that consumers go through when being exposed to an ad. The traditional hierarchy includes three related behavioral dimension: The *cognitive* (think) stage, the *affective* (feel) stage, and the *behavioral* (do) stage (Vakratsas & Ambler, 1999). The model assumes that potential buyers are new users who move from awareness to knowledge to liking to preference to intention-to-buy to actual purchase. More recent studies have proposed that consumers do not have to follow all the steps in the model (Tolba & Hassan, 2009). Hence, the sequence is not fixed, but depends on the context. The sequence may be reliant on the consumer's involvement in the product category and whether consumer choice, in that category, was determined primarily by cognition or affection (Vakratsas & Ambler, 1999), (Vaughn, 1980), i.e. low involvement consumers might follow a response sequence such as cognition → behavior → affect (Smith & Swinyard, 1982).

The consumer mindset can be categorized according to their *knowledge* (cognitive level), *attitudes* (affective level) and *relationship* (behavioral level) with the brand. These three levels, which originate from Tolba & Hassan (2009), are utilized since the conceptualizations of Aaker and Keller can be classified according to these three levels (knowledge, attitudes and relationship). Knowledge equity is the component of brand equity that evaluates consumer's awareness (recognition and recall) of the brand, and their familiarity with the brand characteristics, meaning, and functions. Knowledge equity incorporates the cognitive dimension in the minds of the consumer's as per the "hierarchy of effects model", and measures how effective the brand message reached the target group (Tolba & Hassan, 2009). Brand awareness in Aaker's model corresponds to salience in Keller's CBBE model, since both dimensions consider the levels of recognition and recall. Aaker even points out that: *"Brand awareness reflects the salience of the brand in the customers mind"* (1996, p. 114). Attitudinal equity refers to consumer's attitudes towards a brand. It incorporates the affective dimension in the minds of the consumer's as per the "hierarchy of effects model", and focuses on measuring the effectiveness of the different components of the marketing mix in influencing consumer's perceptions (Tolba & Hassan, 2009). In accordance, the four middle elements in Keller's CBBE model resemble the associations the consumer link to the brand as well as how the consumers judge the performance of the brand, e.g. the perceived quality. Relationship equity includes both consumers' satisfaction with as well as their attitudinal loyalty towards the brand and incorporates the behavioral dimension as per the "hierarchy of effects model". Optimally, it should measure the effectiveness of marketing activities in building a relationship between the brand and its target consumers. Equally, resonance (Keller) and loyalty (Aaker) are also comparable although Keller focuses more on the attitudinal attachment. In order to create a brand equity

framework applicable for companies that are interested in measuring brand equity, the three levels of knowledge, attitudes and relationship will be applied in this thesis. By establishing this link, which in illustrated in Figure 9, the most important conceptualizations of brand equity will be utilized as a foundation when discussing measurement scale items in the next chapter.

Figure 9: Association between Aaker, Keller and the proposed Brand Equity Levels

Aaker's Brand Equity Constructs	Keller's Brand Equity Constructs		Proposed Brand Equity Levels	
Awareness	Salience	→	Knowledge Equity	Cognitive
Perceived Quality Associations	Performance Imagery Judgments Feelings	→	Attitudinal Equity	Affective
Loyalty	Resonance	→	Relationship Equity	Behavioral

Source: Own Contribution

Although Aaker (1991) and Keller (1993), among others, conceptualized brand equity there is no such thing as *a* universal measure of brand equity (Christodoulides & Chernatony, 2010). This has spawned a large number of methodologies to quantify this highly regarded intangible asset, most of which employ complex statistical procedures, making them difficult to comprehend and use among practicing marketers (Yoo & Donthu, 2001).

In the light of the framework developed in Figure 9 the next section will discuss which brand equity metrics for measurement that are most suitable when measuring brand equity.

4.6 Brand Equity Metrics

The conceptualization and structure of brand equity should guide the development of the measure set (Aaker, 1996). After careful consideration of the literature regarding the concept of brand equity, a discussion of the brand equity metrics that reflect the different dimensions of brand equity should now be considered. The measures should be credible and sensitive measures of brand equity that should capture the full scope of brand equity and measures that truly drive the market because they are associated with future sales and profit

(Aaker, 1996). The measurement scales are divided into the three overall dimensions of brand equity based on the findings in chapter 4.5.

A large number of brand equity measures exist today, which makes it difficult to get an overview of them all and determine which ones that are most useful in capturing brand equity. The below is based on an extensive literature review based on both academic articles and contributions from practice. In order to narrow down the list of measures, the criteria that are presented as screening criteria by Martensen & Grønholt (2004) are utilized. That is, that the measure frequently occurs in the literature, that it has importance to top management, that it has importance to the marketing management and to most companies and that it lies within the scope of the brand value chain presented in chapter 4.1.

4.6.1 Knowledge equity variables

Knowledge equity incorporates the cognitive dimension in the minds of the consumers (Tolba & Hassan, 2009). It corresponds to the *salience* and *awareness* in Keller and Aaker's models. Knowledge equity is the consumer's ability to identify the brand under different circumstances.

Table 1: Scale items for measuring the cognitive dimension (Knowledge Equity)

Variable	Source
Salience	(Munoz & Kumar 2004)
Unaided awareness (brand recall)	(Aaker, 1996) (Mackay, 2001), (Franzen, 1999), (Keller 1993), (Pappu, et al., 2005)
Aided awareness (brand recognition)	(Aaker, 1996), (Yoo & Donthu, 2001), (Washburn & Plank, 2002), (Franzen, 1999), (Munoz & Kumar 2004), (Keller 1993), (Pappu, et al., 2005)
Brand Awareness	(Ambler, et al., 2004), (Davidson 1999), (Burmann, et al., 2009)
Brand product knowledge /Brand knowledge	(Ambler, et al., 2004), (Aaker 1996)
Familiarity	(Yoo & Donthu, 2001), (Buil, et al., 2008), (Mackay, 2001), (Tolba & Hassan, 2009)

Source: Own contribution

One way or the other, awareness always plays a key role when measuring brand equity, since it is an important first step in building brand equity (Franzen, 1999), (Keller, 2008). As shown in Table 1, brand awareness can be measured as unaided brand awareness (brand recall), or as aided awareness (brand recognition). Measurement of brand recognition is especially useful when tracking a fairly newly introduced brand, or for brands where the decision to buy the product is not to occur until the customer is in the store. For more mature brands, it applies that they do not always warrant measurement of brand recognition, since the aided brand awareness will often be at a very high and stable level (Franzen, 1999). Some academics do

not even consider using more than one variable when measuring knowledge equity, but only uses a single *brand awareness* variable for capturing this level (e.g. Burmann, et al., (2009) and Davidson (1999)).

Salience can be measured by determining the "spontaneous brand awareness", that is "Top-of-mind awareness" (TOMA), which indicates which brand is the most salient in the product group (Franzen, 1999). Thus, TOMA is the first recollection of the brand name relative to other brand names in the product group (Franzen, 1999). Keller (2008), however, also includes recall and recognition besides from TOMA when measuring brand salience and Aaker (1996) takes a similar view and incorporates recognition, recall and top-of-mind measures in measuring brand awareness. Many academics also implement familiarity into their brand equity measurement system (e.g. Yoo & Donthu (2001) and Mackay (2001)). *Brand familiarity* is the number of product related experiences that has been accumulated by the consumer (Alba & Hutchinson, 1987) and increased familiarity with the brand may result in a better developed knowledge structure – in terms of higher degree of brand recognition and recall. Thus, familiarity with the brand corresponds to how well the consumer knows the brand.

In general, various newer studies have validated that brand awareness may be measured by including recall and recognition (e.g. Pappu, et al., (2005)) and familiarity (Yoo & Donthu, 2001), (Buil, et al., 2008).

Many other variables exist in the literature that attempts to capture the awareness or knowledge that a consumer has of a brand. However, not all of them have proven as important as the variables mentioned in the above. Davidson (1999) and Ambler, et al., (2004) have each developed a list of the most important marketing metrics, which are chosen in terms of the metrics that are most valuable and commonly used in practice. The lists[13] include measures for accessing the marketing performance through the entire brand value chain and Ambler, et al., (2004) includes measures that can be categorized according to all three levels of brand equity. Aaker (1991) also suggests other variables for measuring brand awareness, since recall can sometimes be inconvenient to employ in a survey in practice. An alternative can therefore be brand opinion (I have an opinion about the brand), but no other study mentioned in this thesis uses this variable in the knowledge equity level and it is not within the scope of either Davidson's (1999) or Ambler, et al.'s (2004) list. Aaker also uses brand knowledge (I know what the brand stands for). In relation to this, Ambler, et al. (2004) involves *brand product knowledge* as being an important marketing metric. However, this variable is not as important as simple brand awareness, which ranks number 4 in an overall assessment of marketing metrics in terms of being most commonly used among practitioners (Ambler, et al., 2004).

Several studies in the literature support the relationship knowledge equity has with advertising (e.g. De Pelsmacker, et al., (2007)). As the above brand equity metrics are some of the most utilized in the literature

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[13] See Appendix 7 for the full lists.

and in practice, and since valuable metrics should reflect changes in brand equity (Aaker, 1996), it may be inferred that the mentioned metrics are sensitive measures. This leads to the following hypothesis:

H1: The TV advertising of a brand positively affects the brand equity metrics within the knowledge equity level.

The hypothesis is further supported by Vakratas & Ambler (1999), who argues that advertising will affect the consumer response on the cognitive level. Similarly, Franzen (1999) supports this relationship.

4.6.2 Attitudinal equity variables

Attitudinal equity refers to consumer's attitudes towards a particular brand (Tolba & Hassan, 2009). It incorporates the "affective" dimension in the minds of the consumers' as per the hierarchy of effects model and corresponds to the perceived quality and associations of the Aaker model as well as the four middle building blocks of Keller's pyramid; performance, imagery, judgments and feelings.

Table 2: Scale items for measuring the affective dimension (Attitudinal Equity)

Variable	Source
Perceived Quality	(Yoo & Donthy, 2001), (Aaker, 1996), (Pappu, et al., 2005), (Buil, et al., 2008), (Tolba & Hassan 2009), (Ambler, et al., 2004), (Martensen & Grønholt, 2004), (Munoz & Kumar 2004), (Keller, 2008), (Burmann, et al., 2009)
Perceived value/Price	(Lassar, et al. 1995), (Tolba & Hassan 2009), (Buil, et al., 2008), (Franzen, 1999), (Martensen & Grønholt, 2004), (Mackay, 2001)
Leadership/popularity	(Aaker, 1996), (Franzen, 1999)
Differentiation/superiority	(Martensen & Grønholt, 2004), (Davidson, 1999), (Aaker, 1996), (Franzen, 1999), (Ambler, et al., 2004), (Munoz & Kumar 2004), (Keller, 2008)
Brand Personality/Image/Identity	(Aaker, 1996), (Buil, et al., 2008), (Pappu, et al., 2005), (Tolba & Hassan 2009), (Franzen, 1999), (Ambler, et al., 2004)
Organizational associations/Trust/credibility	(Aaker, 1996), (Buil, et al., 2008), (Pappu, et al., 2005), (Martensen & Grønholt, 2004), (Lassar, et al., 1995), (Munoz & Kumar, 2004), (Keller, 2008), (Burmann et al., 2009)
Brand Acceptance (consideration)	(Franzen, 1999), (Dyson, et al. 1996)
Liking/Likeability	(Buil, et al., 2008), (Pappu, et al., 2005), (Munoz & Kumar, 2004)

Source: Own contribution

Clearly, the attitudinal equity has both emotional and cognitive dimensions, as can be observed in Table 2. According to Aaker (1996), this level should be measured using perceived quality and leadership measures as well as perceived value, brand personality, and organizational associations. Keller (2008) includes *judgments* (perceived quality, credibility, consideration and superiority), *performance* (price, reliability, durability, serviceability, style and design etc.), *imagery* (personality, values, experiences etc.) and *feelings*

(what feelings does the brand give you). Tolba & Hassan (2009) include perceived value and image (an aggregate of perceived quality, prestige and affect).

All the above-mentioned theorists agree that perceived quality and perceived value should be included in this level. Moreover, the variable is also present in Ambler, et al.'s (2004) list regarding the 15 most commonly used marketing metrics. Perceived quality is not necessarily equal to the product's actual quality, but is often the key point of differentiation between companies (Aaker, 1996). The price/value is essential since consumer choice of a brand depends on a perceived balance between the price of a product and all its utilities. Accordingly, some brands have higher brand equity due to their price value (Lassar, et al., 1995). Aaker (1996) and Franzen (1999) also include leadership measures to tap the construct of perceived quality, since the construct itself can often lack sensitivity. Leadership measures includes that the brand is a sales leader, known for being innovative and growing in popularity.

Measuring the brand acceptance (consideration set) is part of measuring brand attitude (Franzen, 1999). Attitude is sometimes defined as the mental outcome of an evaluation, which is expressed as a certain degree of brand preference (brand acceptance or brand rejection) and when measuring this construct, it becomes important to study if the brand is part of the consideration set (Franzen, 1999). Measuring brand acceptance is essential, since it gives an overall indication of which brands that are mostly preferred within the product category and this has a close relation to intention-to-purchase (in case of non-users) and behavioral loyalty (in case of users) (Tolba & Hassan, 2009). Dyson, et al., (1996) also demonstrate that a strong correlation exists between the historical development of consideration scores and development in brand sales.

The consumer decision process is also influenced by the emotional benefits related to a brand. It is difficult to differentiate products based on their functional characteristics alone, which is why most brands will benefit from creating associations in the minds of the consumers that add extra emotional benefits, which expand beyond simple products attributes and functional benefits (Martensen & Grønholdt, 2004). Accordingly, differentiation is often included as a measure in this dimension. Moreover, the importance of incorporating brand personality/identity into a measurement system is clearly documented in the literature as being a key part of the symbolic/emotional brand associations (Pappu, et al., 2005), and it is of vital importance to define the truly distinguishing brand personality features and translate them into a measurement tool (Franzen 1999). Accordingly, brand personality has been included in both Aaker's (1996) and Keller's (2008) framework and it is also part of brand image (which is implemented in the Tolba & Hassan model).

Aaker (1996) postulates that organizational associations (which are an indicator of whether or not the customer admires the organization) are also part of the overall brand associations. Newer studies have also included the organizational associations, by using the underlying constructs of credibility and trust (e.g. Buil,

et al., (2008), Pappu, et al., (2005) and Martensen & Grønholt (2004)). Hence, an important part of the brand is the trust consumers have in the brand living up to its expectations, both in regards to functional and emotional benefits. The company should thus be careful in not communicating something that it cannot live up to (Martensen & Grønholdt, 2004). Moreover, many studies have shown that the consumers' perception of a company's credibility plays a central role for their perception of and attitude towards the brand, its products and ads, which can be explained by the contention that when consumers have some knowledge about a company, they have already created some perceptions about the company's credibility. These perceptions will be used to evaluate any new information that is seen in ads and promotions etc. (Martensen & Grønholdt, 2004).

Liking/likeability has also been acknowledged in numerous academic journals as an important variable when measuring the associations a consumer has towards a brand (Buil, et al., 2008), (Munoz & Kumar, 2004). This variable is also often utilized when attempting to tap the construct of organizational associations as e.g. seen in Buil, et al., (2008).

Overall, the variables of the attitudinal equity level contribute to building a favorable relationship between the consumer and the brand, which increases "intentions to purchase" (Tolba & Hassan, 2009). Building these attitudes is essential, since it offers a way to differentiate the company and at the same time creates a strong position in regards to the competition. For the consumer, the existence of brand attitudes/associations helps to organize information in the memory. That is, the associations serve as a starting point for the consumer's opinion of a brand and the related choices that are made about buying the different brands (Martensen & Grønholdt, 2004). The most successful companies are those that create positive associations via its communication and actions and will by that be the most favorable in the consumer's mind (Martensen & Grønholdt, 2004).

Following hypothesis 1, brand equity metrics should be able to tap the dynamics of the market (Aaker, 1996). Accordingly, the most utilized measures in the literature and in practice within the attitudinal equity level are believed to be sensitive measures of brand equity. Based on this, the following hypothesis can be developed:

H2: The TV advertising of a brand positively affects the brand equity metrics within the attitudinal equity level.

Several other authors also support the relationship between attitudinal equity and advertising (e.g. Franzen (1999) and De Pelsmacker (2007).

4.6.3   Relationship Equity Variables

In the brand equity literature, authors agree that the final step in brand-building is the customer brand relationship (Martensen & Grønholdt, 2004) and building a relationship with the customer has become the focal point of branding theory (Franzen, 1999). According to Aaker (1996) loyalty is the core of brand equity. Tolba & Hassan (2009) define this level as relationship equity. This level corresponds to the *loyalty* and *resonance* dimensions of the Aaker model and the Keller model relatively. Relationship equity incorporates the attachments dimension between the consumers and the brand as per the hierarchy of effects model (Tolba & Hassan, 2009).

Table 3: Scale items for measuring the behavioral dimension (Relationship Equity)

Variable	Source
Customer satisfaction	(Aaker, 1996), (Tolba & Hassan, 2009), (Ambler, et al., 2004), (Munoz & Kumar, 2004), (Davidson, 1999)
Price Premium	(Aaker, 1996), (Mackay, 2001)
Behavioral Loyalty	(Martensen & Grønholt, 2004), (Keller, 2008), (Aaker, 1996)
Loyalty/Retention	(Munoz & Kumar 2004), (Ambler, et al., 2004), (Davidson, 1999)
Attitudinal Loyalty	(Tolba & Hassan, 2009), (Lassar, et al., 1995), (Yoo & Donthy, 2001), (Martensen & Grønholt, 2004), (Pappu, et al., 2005), (Yoo & Donthy, 2001), (Buil, et al., 2008), (Washburn & Plank, 2002)
Commitment	(Davidson, 1999), (Munoz & Kumar 2004), (Franzen, 1999), (Ambler, et al., 2004)
Recommendation/Referrals	(Aaker, 1996), (Munoz & Kumar, 2004), (Martensen & Grønholt, 2004), (Davidson, 1999)
Engagement	(Martensen & Grønholt, 2004), (Keller, 2008)

Source: Own contribution

A long list of measures that are meant to tap loyalty has emerged in the literature and some of the most common ones are shown in Table 3. In order to measure the customer brand relationship, Tolba & Hassan (2009) include customer's satisfaction with the brand. Aaker (1996) and several other authors (e.g. Davidson (1999) and Munoz & Kumar (2004)) also include satisfaction and Ambler, et al., (2004) even argue that this measurement is on the top 10 list of most important marketing metrics. According to Aaker (1996), satisfaction can be an indicator of loyalty for a product class in which the use and purchase represents habitual behavior (e.g. milk or soap). Aaker (1996) (as well as Mackay (2001)) also uses price premium, which represents a very basic indicator of loyalty as the amount a customer is willing to pay for the brand in comparisons to other similar brands.

Keller's (2008) final step, resonance, is also quite similar to that of the Tolba & Hassan model. Resonance thus refers to the nature of the relationship and the level of identification that the consumer has with the brand and the extent to which customers are "in sync" with the brand. According to Keller (2008) resonance should be measured by including behavioral loyalty, attitudinal attachment, sense of community and active engagement. Whereas Aaker (1996) focuses on satisfaction and price premium, he also argues that a more direct measure of loyalty can be found by asking intend-to-buy questions. The intention to re-purchase corresponds to what Keller calls behavioral loyalty. Other authors have emphasized the behavioral dimension of loyalty by measuring customer retention. Hence, Davidson (1999) proposed that customer retention was one of the 10 most valuable marketing performance measures, while Ambler, et al., (2004) suggest that it is one of the 15 most commonly used measures.

Many authors agree that attitudinal loyalty towards the brand (i.e. the level of commitment the average consumer towards the brand) is an important measure of overall loyalty (e.g. Lassar, et al., (1995), Washburn & Plank (2002) and Pappu, et al., (2005)) and it is also the second loyalty measure (besides from satisfaction) in the Tolba & Hassan model. Some authors have argued that it is important to include both attitudinal and behavioral loyalty since it is possible that the customer has a negative attitude towards the product but still buys it again and again, e.g. if there is a limited selection or due to limited economic resources (Martensen & Grønholdt, 2004). Thus, customer loyalty becomes a reality when the customer continues the relation to the company, which represents the customers purchase intention and future behavior and when the customer thinks that the company is unique and particular attractive compared to competitors products. Some academics use the measurement commitment instead of attitudinal loyalty (e.g. (Franzen, 1999)), but when the questions that are used to measure this construct are compared, they are quite similar. Thus, Franzen (1999) measures commitment by e.g. *I am very loyal to this brand* and *If one shop doesn't have the brand, I'll go somewhere else to buy it*, whereas e.g. Yoo & Donthu (2001) measures attitudinal loyalty by *I consider myself very loyal to the brand* and *I will not buy other brands if the brand is not available in the store.*

In connection to the attitudinal loyalty it follows, that if a customer's experience with the company is positive enough he will recommend the company/its products to family, friends etc. A recommendation is therefore an expression of a very strong positive attitude and preference for the brand, and truly reflects customer loyalty, which had not been forced as a result of lacking alternatives (Martensen & Grønholdt, 2004). Aaker (1996) takes a similar view and argues that a more intense level of loyalty would be represented by questions about the willingness to recommend the product to others. Recommendation can simply be measured by asking about the customer willingness to recommend the product to friends, family etc. (Martensen & Grønholdt, 2004).

A very high level of engagement marks the strongest customer-brand relationships (Keller, 2008). Keller (2008) argues that the strongest type of verification of brand loyalty is when customers are willing to invest time, money and energy on the product that goes beyond those expended during the purchase. Martensen & Grønholt (2004) agrees with Keller and includes engagement as an independent variable into their brand equity framework.

Similarly to hypothesis 1 and 2, it can be inferred that the metrics within the relationship equity level that are most often mentioned in the literature are sensitive measures intended to tap changes in the market. Moreover, according to Franzen (1999) the metrics within this level can be affected by utilizing methods such as *relationship advertising* in order to develop an intimate relationship between the brand and the user, by stressing the value of the brand to the consumer. Accordingly, the following hypothesis can be deducted:

H3: The TV advertising of a brand positively affects the brand equity metrics within the relationship equity level.

In total, the three overall hypotheses postulate that if Royal Beer increases its TV spending, the level of the brand equity metrics should increase as well.

Having examined the brand equity literature and developed the three main hypotheses, another issue becomes apparent. Although all of the chosen brand equity metrics are believed to be sensitive towards advertising, some of the metrics may be more sensitive than others, since they are not evenly distributed among the three dimensions (Yoo & Donthu, 2001). This leads to the following hypothesis:

H4: Some of the proposed brand metrics are more sensitive towards TV-advertising than others.

4.7 Sub-conclusion to Brand Equity Framework

Brand equity is regarded as a very important concept in business practice as well as in academic research because marketers can gain a competitive advantage through successful and strong brands. Because the source of brand equity is customer perceptions, it is important for marketers to be able to measure and track it at the customer level. The outcome of the measurement system becomes the input for deciding on which marketing activities to engage in.

Although brand equity has been one of the most debated topics of modern marketing literature and research, no single conceptualization and measurement system has been agreed upon. Based on some of the most well-known and cited conceptualizations of brand equity along with newer studies with focus on how to measure the construct, a list of some of the most essential brand equity metrics has been developed.

In order to operationalize the brand equity metrics, the overall framework needs to be connected to the thesis' understanding of consumer response to marketing. The measurement system must therefore include

cognitive, affective and behavioral dimensions. Hence, the conceptualized framework incorporates all three levels of brand equity as well as the effect of TV advertising, since it is hypothesized that the marketing program investment will affect the brand equity metrics.

Within the knowledge equity level, some of the most commonly used and valuable brand equity metrics include salience, brand recall, brand recognition, brand awareness, brand knowledge and familiarity. The most important variables for capturing the attitudinal level is perceived quality, perceived value, leadership/popularity, brand personality, organizational associations, liking and differentiation. Lastly, the relationship equity level may be measured by satisfaction, price premium, behavioral loyalty, retention, attitudinal loyalty, commitment, recommendation and engagement.

5 MINDSHARE'S BRAND EQUITY FRAMEWORK

The objective of chapter 4.6 was to give an overview of some of the most utilized and valuable brand equity metrics in practice and in theory. In contrast, the objective of this chapter is to present those brand equity metrics that are actually used in Mindshare's brand equity measurement system and discuss which ones that are relevant in regards to Royal Beer. This is a vital step as these are the variables that are implemented in the quantitative analysis. Accordingly, a short presentation of the variables and their measurement scale is appropriate. Mindshare also implements other variables than what are presented in the below sections, however, as these are not comparable with the brand metrics in chapter 4.6, they will not be discussed further.

5.1 Knowledge Equity Metrics

Mindshare has acknowledged that brand awareness plays a key role for the initial building of a brand. Accordingly, TOMA, brand recall (unaided brand awareness) and brand recognition (aided brand awareness) are incorporated into the knowledge equity level. Moreover, familiarity (how well do you know the brand?) is an essential part of the tracking as illustrated in Table 4.

Table 4: Mindshare's Knowledge Equity Metrics

Proposed Brand Equity Metrics	Mindshare's Brand Equity Metrics	Measurement Scale
Salience Brand recall Brand recognition Brand awareness Brand product knowledge/Brand knowledge Familiarity	Salience (TOMA)	Which (beer) brands do you know or have you heard of? (First mentioned =TOMA) 0=no 1=yes
	Brand Recall	Which (beer) brands do you know or have you heard of? 0=No 1=Yes
	Familiarity	Knows a lot about it 0=No 1=Yes
		Has ever tried or bought 0=No 1=Yes
		Bought the last time 0=No 1=Yes

Source: Own contribution

As aided brand awareness will often be at a very high and stabile level for mature brands (Franzen, 1999), it does not seem appropriate to incorporate aided awareness in a measurement system that aims to track brands

such as Royal Beer, Heineken, Carlsberg and Grøn Tuborg. Thus, aided awareness is consistently measured to be around 90% for all four brands (RU tracking[14]). Moreover, researchers have found that aided brand awareness does not seem to be closely related to overall brand attitude and brand buying behavior (Franzen, 1999). In contrast, unaided brand awareness is usually closely connected to these two within the FMCG product categories.

TOMA and unaided brand awareness is measured in the same way (since TOMA is the first answer of unaided brand awareness). The variables are measured at the individual level by whether the brand is recalled or not without the use of any aid (coded as 0 or 1). During the analytical section, only the percentage of respondents who has been coded as 1 (has TOMA/unaided awareness of the brand) are implemented in the analysis. Familiarity is measured based on three single binary variables. This means that if a person has familiarity with a brand he/she either "knows a lot about it", "has ever tried or bought the product" or/and "bought the product the last time". Providing a positive answer to the three questions indicates that the consumer has product related experiences with the brand (which was stated in chapter 4.6.1 to be the definition of familiarity). Accordingly, the percentage of individuals who have familiarity with a brand are the respondents who replied "yes" to at least one of the three questions.

5.2 Attitudinal Equity Metrics

In order to capture the attitudinal equity of its client brands, Mindshare implements a number of variables that are used to measure the consumers' attitudes towards the brand. These are illustrated in Table 5.

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[14] See Appendix 8

Table 5: Mindshare's Attitudinal Equity Metrics

Proposed Brand Equity Metrics	Mindshare's Brand Equity Metrics	Measurement Scale
Perceived quality Perceived value Leadership/popularity Brand Personality/ Image/Identity Organizational associations/Trust/ Credibility Liking/Likeability Brand Acceptance Differentiation/ superiority	Perceived Quality	0=Has Unacceptable qualities 1=Has acceptable qualities
	Perceived value/Price	1= Costs more than you are willing to pay 2= Too cheap to be of acceptable quality 3= Has an acceptable price level
	Leadership/popularity	A brand that becomes more and more popular 0= No 1= Yes
	Brand Acceptance	The brand is one of the brands that I buy most often 0=No 1=Yes
	Differentiation/superiority	Offers something different than other brands 0= No 1= Yes

Source: Own contribution

Mindshare has to some extent attempted to implement measures that are comparable to the literature and the current tracking system incorporates both rational and emotional attitudinal metrics. As Aaker (1991) states, one of the most important aspects of the associations is the brand-as-product (value) proposition, which usually involves a functional benefit and it seems essential to include metrics to measure if the brand provides good value for the money. Aaker (1991) also suggest that perceived quality is one of the key dimensions of brand equity and the variable is implemented in most brand equity conceptualizations and have been validated in newer studies (e.g. Yoo & Donthu (2001)). Accordingly, Mindshare has chosen to implement both metrics into its measurement system. Out of the optimal list of brand equity metrics, Mindshare also incorporates the leadership/popularity variable. The brand identity variable is also a part of the tracking system, which is used to identify to what extent the consumer thinks that the brand is characterized by some predetermined brand identity statement. For Royal Beer, these statements were originally chosen by the Royal Unibrew brand manager, and were later validated through factor analyses conducted by Mindshare. Consequently, some of the statements were excluded due to overlap. However, these statements have been changed on numerous occasions during the last two years. The statements that are currently integrated in the tracking system were implemented in week 27 2012. Since no long-term data exist for this brand metric, it is not implemented in the analysis. Mindshare does, however, measure if the brand is superior compared to competing recognized brands in a differentiation variable.

As table Table 5 indicates, the entire set of brand equity metrics within the attitudinal equity level are measured by binary variables. For all five metrics, it applies that the percentage of respondents who have answered "yes" to the respective questions signifies the level of each of the metrics.

5.3 Relationship Equity Metrics

In order to measure the relationship equity, the current Mindshare tracking system only implements one single variable, which is intention-to-purchase (in case of non-users)/behavioral loyalty (in case of users). This is illustrated in Table 6. It would be ideal if Mindshare had implemented more of those relationship equity variables that were presented in chapter 4.6.3, so that the relationship equity was in total characterized by a more valid and reliable measure. Since this is not the case, the behavioral loyalty variable is the only relationship equity variable that is used in the analysis.

Table 6: Mindshare's Relationship Equity Metrics

Proposed Brand Equity Metrics	Mindshare's Brand Equity Metrics	Measurement Scale
Customer satisfaction Price Premium Behavioral Loyalty Loyalty/Retention Attitudinal Loyalty Commitment Recommendation/ Referrals Engagement	Behavioral loyalty	Will consider next time 0= No 1= Yes

Source: Own contribution

The behavioral loyalty is also measured through a binary variable. As it applies to the variables in the other levels, only the positive answer is considered in the analysis.

5.4 Sub-conclusion to Mindshare's Brand Equity Metrics

Although the findings from answering SP1 provided an "optimal" list of some brand equity metrics that are believed to be sensitive measures, these are not always found in practice. Hence, after having compared this optimal list of scale items with Mindshare's framework and discussing the relevance in relation to Royal Beer, nine brand equity metrics were chosen to reflect brand equity. In accordance with the overall brand equity framework presented in the beginning of the thesis, these metrics in total represent all three brand

equity levels as well as the behavioral dimensions. The chosen metrics are TOMA, brand recall, familiarity, perceived value, perceived quality, brand acceptance, popularity, differentiation, and behavioral loyalty/intention-to-purchase. The findings from this chapter is important as the nine brand equity metrics will be the brand equity metrics that are analyzed in regards to sensitivity later in the thesis.

6 EFFECT OF ADVERTISING

The idea that advertising can reinforce and build brand equity is widely recognized in the literature (e.g. De Pelsmacker, et al., (2007), Vakratsas & Ambler (1999) and Jones (1998)). For almost a century market researchers and academics have been trying to understand exactly how consumers will respond to advertising, however, in its general formulation, the question remains unanswered. In general, advertising's effect on sales is not necessarily immediate or direct. In contrast, advertising is thought to work through people's attitudes as an intermediary stage to modify their behavior (Jones, 1998). This is due to the fact that advertising is often believed to be able to attach an image or a specific consumer benefit to a brand in order to differentiate it from competitors in the minds of the consumer (Jones, 1998).

This chapter focuses on the important aspect of how advertising affects the consumer and how this can be measured. Accordingly, the findings from this chapter serves as an important milestone before being able to make the final link between the brand equity metrics and TV advertising in the analytical part of the thesis.
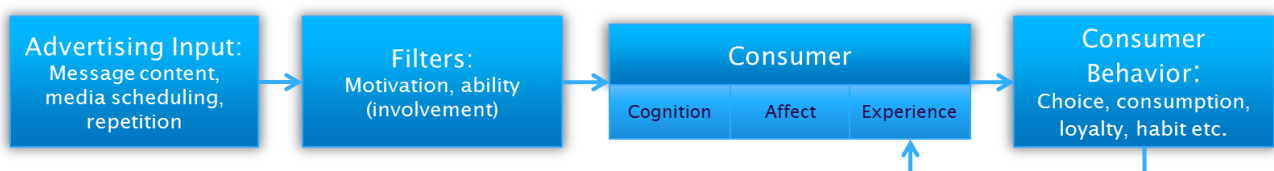
6.1 How Advertising work on Consumers

One of the first and most well-known communication models and proponents of the traditional cognition-affect-conation sequence is the AIDA model (Attention-Interest-Desire-Action), which was introduced by Lewis around 1900 (Barry, 1987). The model postulated that salespeople had to attract attention (Cognition), maintain interest and create desire (Affect) in order to "get action" (Experience) and thus followed a CAE sequence. In general, the hierarchy-of-effects models postulate that things have to happen in a certain order, implying that earlier effects form necessary conditions in order for the later effects to occur, and consumers go through different stages in responding to advertising (De Pelsmacker, et al., 2007). The AIDA model proposed a stair-step hierarchical framework (going from attention to action). The AIDA model proposed by Lewis was one of the *early development* hierarchy-of-effects models. What these models all had in common was the fact that they were based on intuition. There was virtually no empirical analysis of any of them (Barry, 1987). Moreover, consumers were continuously seen as unresisting recipients of persuasive, manipulative advertising campaigns, which also gave rise to the DAGMAR model. The model stands for *defining advertising goals for measured advertising results* and as the AIDA model, it entails a four stage model: ACCA (awareness, comprehension, conviction and action) (Franzen, 1999). One of the later well-known hierarchy of effects models were proposed by Lavridge and Steiner in 1961 and includes a seven-step model, that ranges from being *unaware* of a product/service to *awareness* and *knowledge* (cognition) to *liking, preference* and *conviction* (affect) to *the actual purchase* (conation/behavioral). What the "modern" hierarchy of effects models had in common was that most of them had purchase/action as the final step (Barry, 1987).

New insights into consumer behavior and information processing in the 1970's and 1980's gave rise to new views of how advertising works. Firstly, a major critique of the classical effect hierarchies is that empirical support for the fact that consumers go through each stage in the hierarchy is still lacking (De Pelsmacker, et al., 2007). Second, the strange thing about the hierarchy of effect models is that they all finish with "action" and thereby neglect that all advertising for established brands takes place after action for experienced buyers (Franzen, 1999). In contrast, later models have argued that the buying process in not just a hierarchical process but is a cyclical process that continues to develop as the consumer is evaluating the brand (e.g. Vandermerwe (2000)). Another problem with the hierarchy-of-effects models was that they assumed rational behavior, that is, the consumer were thought to weigh up all the functional characteristics and then reach an optimum choice. However, in the 1980, researchers acknowledged that consumers often chose products that appeals to them emotionally, and the new advertising frameworks included this perspective. What the hierarchy-of-effects models also disregarded was the fact that some products are simply bought out of habit, by impulse etc. and by that the sequence of the models were destroyed. In the 1960's involvement was added to the models as an important variable and Vaughn (1980) later suggested that the sequence depends on the level of involvement. Similar models even implemented motivation (e.g. the *Rossiter-Percy grid*) in order to account for the fact that recipients are not always attuned to process the content of the advertisement (Franzen, 1999).

Newer researches into the subject also takes a broader view and acknowledges that general advertising models are not sufficient, and that different types of advertising may generate different types of consumer responses, and thus build brand equity in different ways (e.g. Franzen (1999)). Vakratas & Ambler (1999) also acknowledge that no general models of advertising can be developed, as there are many variables that influence how the specific advertising works (e.g. the role of the product in people's life, the brand equity, the content of the advertising itself, the context in which it is presented and the advertising pressure that is exercised). Based on a thorough analysis of more than 250 studies concerning advertising effectiveness, Vakratas & Ambler (1999) built a simple credited framework of how advertising works on the consumer, which is illustrated in Figure 10.

Figure 10: Vakratas & Ambler's framework of how Advertising works

Advertising Input: Message content, media scheduling, repetition	→	Filters: Motivation, ability (involvement)	→	Consumer			→	Consumer Behavior: Choice, consumption, loyalty, habit etc.
				Cognition	Affect	Experience		

Source: Vakratas & Ambler, 1999

The idea behind the framework is as follows: Advertising of own as well as competing brands are shown as an input for the consumer. The message content, scheduling of the media and repetition are main components of this input and represent the advertising strategy that triggers a consumer's response. The intermediate type of response means that advertising, consciously or not, must have some mental effect (e.g. awareness, attitude towards the brand etc.) before it can affect consumer behavior. Cognition (the "thinking dimension of an individual's response) and affect (the "feeling" dimension of the response) are illustrated as two influential advertising effects (Vakratsas & Ambler, 1999). Any changes in individual purchasing and brand usage behavior represent the consequential, behavioral effects of advertising in the model. For most products within the FMCG category (e.g. the beer category), the consumer's mind most often already contains conscious and unconscious memories of product purchasing and usage. Hence, consumer behavior feeds back to experience, which is the third principal intermediate effect in the model. The responses to advertising are intervened by factors such as motivation, the ability to process the information and attitude towards the ad, and these filters can drastically change the responses to advertising (Vakratsas & Ambler, 1999). In this way, the idea of some filters that affects the link between the advertising and the consumer seems quite similar to the multipliers of Keller & Lehmann's (2003) brand value chain framework.

Vakratas & Ambler's (1999) framework differ from the classical hierarchy of effect models as they conclude that cognition, affect and experience should be represented in a three-dimensional space (*EAC Space*) rather than in a hierarchy. The coordinates of each of the three dimensions denote the relative strength of the corresponding advertising effect. More specifically this also means that advertising can build brand equity in several ways. Thus, it can influence brand attitude, build brand awareness and associations. It can also enable the consumer to retrieve brand information more easily. It is important to highlight that the *EAC Space* should then be adjusted according to the context: the product category, the competitive environment, the target audience etc. (Vakratsas & Ambler, 1999).

The above discussion of advertising effects serves as an input to the analytical parts of this thesis in several ways. Firstly, the advertising input must be taken into account and the media scheduling and repetition in particularly seems important due to the quantitative character of this thesis. Moreover, the thesis acknowledges that involvement into the chosen target audience and product category may have an effect on the results of this thesis[15]. In regards to this, due to the chosen product category that will be analyzed, it is acknowledged that the consumer's mind probably already hold some conscious and unconscious memories of product purchasing and usage and more importantly, some purchases might simply be a choice of habit. This could suggest that the effect of advertising may be less influential in the attitude formation and during the purchase decision. Lastly, the advertising effect on the brand metrics must not only be analyzed based on Royal Beer alone, as Vakratas & Amber suggest that the competitive context is essential. Consequently, the

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[15] This will be discussed in more depth in chapter 8.2.

competitors advertising efforts must be taken into consideration in order to improve the prediction. This leads to the subsequent and final hypothesis of the thesis:

H5: The TV advertising of major competitors negatively affects the brand equity metrics for a brand

More specifically, this hypothesis indicates that the higher level of advertising spending by the most influential competitors in the category, the smaller in the possibility that Royal Beer is e.g. "Top-of-Mind".

As both Royal Beer's own advertising as well as the advertising of competitors is believed to affect the brand equity metrics, the next section revolves around quantifying these advertising effects in order to make it applicable to the analytical section.

6.2   Modeling the Effects of Advertising

For several years, there has been increasing interest in applying statistical and quantitative models to describe the effect of advertisements (Grønholdt, 2006). This development stems from the fact that both advertisers, advertisement agencies, media agencies as well as media providers has a natural interest in gaining more insight into the field concerning the effect of the advisements and the measurement of these, since advertising is seen as an investment and the profitability must be evaluated (Grønholdt, 2006).

Overall, when looking at a company that markets a certain product, one of the company's decision variables is advertising and a model for the advertising effect and response is called an *advertising response model*. Two variables are included in such a model: an effect or response variable and one or more explanatory variables, which expresses the advertising efforts. The effect of advertising can be measured in several ways, e.g. the consumer's attention of the message of the ad, the understanding of that message, the attitude towards it, knowledge of the advertised product, preference for the product, buying intention etc. (Grønholdt, 2006). Generally speaking, the ad can have an impact on different stages in the communication process, ranging from the attention towards the actual purchase (Grønholdt, 2006) as was mentioned in chapter 6.1. The choice of effect variables may vary depending on the goal of the campaign. Due to the nature of the problem statement in this thesis, the effect of advertising is here only measured by brand related metrics, whereas more advertising related metrics might be more interesting in other situations. That is, the response variables will (in turn) be each of the nine brand metrics presented earlier. This will be explained in more depth in chapter 7.2.1.

The advertising efforts may also be measured in several ways. However, the most preferred way of quantifying media impact is GRP (Gross Rating Points), which is a measure that can be applied across all media. GRP is simply reach times frequency and is a measure of media impact (Pickton & Broderick, 2005). Accordingly, the following holds true (Grønholdt, 2006, p. 180):

$$GRP = Net\ Coverage \times Average\ frequency \qquad \text{(Equation 1)}$$

The net coverage in equation (1) is defined by the proportion (%) of the target group that are exposed at least once to the advertisement. GRP are often measured within a certain target group and in order to highlight this, TRP (Target Rating Points) is often utilized as this is identical to GRP within the target group. Exposure of an ad can also be denoted as *opportunity to see (OTS)*, and exposure it thus *media* exposure more than being actual *advertisement* exposure. This concept covers the idea that media offers an opportunity to be seen (Randrup, 2006). Whether or not the opportunity is realized, depends on how the opportunity is creatively exploited, i.e. whether or not a TV spot or an outdoor advertisement it interesting enough. However, the person is said to have been exposed no matter what. The average frequency in equation (1) is defined as the average number of exposes among those individuals in the target group that are exposed at least once (Grønholdt, 2006).

In general, TRP represents the current pressure of campaigns. However, many researchers have acknowledged that the effect of advertising in a time period extends over several periods in the past and future and is not as static as the TRP measure (Grønholdt, 2006). In regards to this, a more correct representation of the current advertising pressure can be described by implementing *adstock modeling* (Broadbent, 1999). Accordingly, the next section surrounds this important concept.

6.2.1 Adstock Modeling

Adstock is central to econometric modeling of advertising effects over time (Ephron & McDonald, 2002). The adstock concept captures the idea that response to an individual advertising exposure cannot be viewed in isolation, but is part of a continuity of advertising pressure that follows from exposures in the past and carries forward to those exposures in the future. Simply put, *"Adstock is the calculated current pressure from current and past ratings"* (Broadbent, 1999, p. 42). Thus, adstock is a model of how response to advertising builds and decays in consumer markets. Each new exposure lifts e.g. awareness to a new level, but that new level will be higher if there have been exposures in the rather recent past and lower if not (Ephron & McDonald, 2002). The overall idea is that advertising pressure does not end as soon as the advertisement has been seen, but decays over time back to its base level, until this decay is reversed by a new exposure. The longer after the OTS, the smaller these effects are (Broadbent, 1999). Adstock is then the mathematical modeling of this decay process (Ephron & McDonald, 2002). Adstock was originally used specifically for TV advertising. Accordingly, GRP or TRP are used as a measure of the advertising efforts (Grønholdt, 2006). As the data for the response variables (e.g. TOMA, brand acceptance) is gathered within a certain target group, this thesis uses TRP within the *same* target group as a measure of the advertising efforts.

The tribute from the TRP of one time period to the "stock" of advertising effort decreases geometrically over time (Grønholdt, 2006). Estimation of the adstock model is usually carried out by the researcher a priori calculating a range of adstock from the data based on TRP, and the adstock are typically calculated using the following recursion (Fry, et al., 2000, p. 321):

$$Adstock_i = TRP_i + \lambda \times Adstock_{i-1}, \; i = 1,...,n. \hspace{2cm} \text{(Equation 2)}$$

The λ signifies the carry-over effect of previous TV advertising and it naturally applies that $0<\lambda<1$. The chosen adstocks are defined by a list of *half-lives* (η) that the researcher believes may be appropriate for the response variable (Fry, et al., 2000). The half-life is defined as the period by which half the impact of advertising is decreased, so a "two-week half-life" means that it takes two weeks for half the awareness effect of that advertising to be gone. Broadbent (1999) suggests that the method to finding λ is straight-forward: the researcher must try different values to find the one that fits data best. As mentioned earlier, the use of geometrical distribution means that the largest contribution to adstock from an advertising effort is achieved during the same period. Hereafter, the contribution is decreasing from period to period (Broadbent, 1999), which seems apparent from the formula. Modeling the effects of advertising is done by using adstock as the explainers in the advertising response model on the effects studied during the quantitative analysis of the thesis.

6.3 Sub-conclusion to Effect of Advertising

In order to establish the link between TV advertising and the brand equity metrics in the next chapter of the thesis, a framework has been developed in regards to how advertising affects the consumer. As such, various quantitative and qualitative variables trigger a consumer response towards advertising. Due to the quantitative nature of this thesis, the main focus is on the quantitative variables.

This chapter has implications for the analysis in two ways in particular. Firstly, the TV advertising of major competitors is postulated to affect the brand metrics of Royal Beer negatively. This hypothesis, which is the final hypothesis of the thesis, will be tested in the quantitative analysis. As both Royal Beer's own advertising as well as the advertising of competitors is thought to affect the brand equity metrics, the goal was to quantify these effects so that they could be implemented in the analysis. A preferred way of quantifying the media impact is by the notion of GRP (or TRP within a certain target group). However, this thesis acknowledges that by using adstock to quantify the media impact, a more correct representation of the current advertising pressure can be obtained. Accordingly, the adstock levels for both Royal Beer and competitors should be calculated and their impact on the brand metrics is assessed in chapter 8.

7 QUANTITATIVE ANALYSIS OF THE BRAND EQUITY METRICS

After having introduced the concept of adstock modeling in the previous chapter, the entire set-up has now been created to conduct the actual quantitative analysis of the sensitivity of brand metrics. Based on the previous chapters, five hypotheses were developed, which together constitute some relationships among certain variables. Accordingly, the next section summarizes these hypotheses, which constitute the overall model. Subsequently, the results are presented before turning to the discussion.

7.1 Hypotheses and the Advertising Response Model

Based on the theoretical frameworks developed in this thesis, five hypotheses have been developed. As these hypotheses will structure the quantitative analysis, they are summed up in the below.

Table 7: The Hypotheses of the Thesis

H1	*The TV advertising of a brand positively affects the brand equity metrics within the knowledge equity level.*
H2	*The TV advertising of a brand positively affects the brand equity metrics within the attitudinal equity level.*
H3	*The TV advertising of a brand positively affects the brand equity metrics within the relationship equity level.*
H4	*Some of the proposed brand equity metrics are more sensitive towards TV advertising than others.*
H5	*The TV advertising of major competitors negatively affects the brand equity metrics for a brand.*

Source: Own contribution

The above-mentioned well-grounded hypotheses constitute the relationship of the final *advertising response model*, which is illustrated in Figure 11. The model simply indicates that brand equity consists of three levels, and within each level of brand equity a number of brand equity metrics to measure brand equity exists. Moreover, advertising, which is quantified as the adstock level for Royal Beer and major competitors, is believed to affect these.

Figure 11: The developed Advertising Response Model
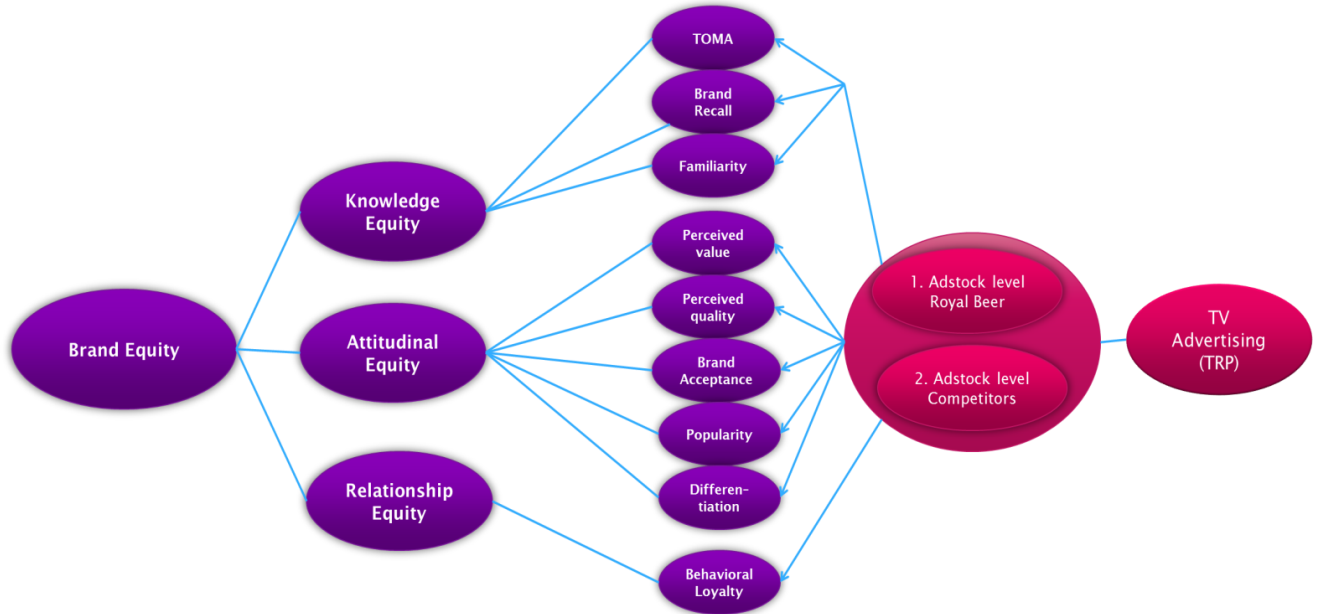
Source: Own contribution

It is worth mentioning that the above model only represents parts of the overall reality. Accordingly, in order to make the problem formulation of this thesis measurable and manageable, it is at the expense of additional complex relationships, which should in fact be included to make the analysis more valid. Thus, the model has omitted important aspects such as the quality of the campaign and other aspects such as distribution, price, other components of the marketing mix, weather, seasonality etc., which might affect the levels of brand metrics.

Before testing the relationships in the model and presenting the results, the following section aims to explain and justify the set-up of the analysis.

7.2   Multiple Regression Analysis

In order to test the constructed advertising response model in Figure 11, regression analysis is utilized in this thesis. Multiple regression analysis is a statistical technique, which can be used to analyze the relationship between a single dependent (criterion) variable and several independent (predictor) variables. The objective of the multiple regression analysis is to utilize those independent variables whose values are believed to predict the single dependent value selected by the researcher (Hair, et al., 2010). The regression model is a linear combination and is determined in a manner that maximizes the correlation between the multiple independent variables and the single dependent variable. The basic formula of multiple regression (Hair et al., 2010, p. 166) is:

$$Y = b_0 + b_1V_1 + b_2V_2 + \ldots + b_nV_n + e \hspace{4cm} \text{(Equation 3)}$$

In equation 3, Y is the outcome (dependent) variable, the intercept is represented by b_0, and the amount of change in the dependent variables due to the independent variable are then denoted as b_1 and b_2, also known as the regression coefficient and e is the prediction error. Multiple regression is utilized in this thesis, as it is the most widely used and versatile technique when studying relationships among several variables (Hair et al., 2010). Accordingly, the technique is chosen to clarify the effect that TV advertising has on the different brand metrics. Multiple regression analysis is elaborated further in appendix 9.

Before commencing the multiple regression analysis, the researcher must first make sure that the data is metric and which variables are to be dependent and independent variables (Hair et al. 2010). Accordingly, the model specification will be discussed in the below.

7.2.1   Model Specification

As noted in the above, multiple regression analysis is the use of two or more independent variables in the prediction of a dependent variable. The starting point in any regression analysis is to detect the single dependent variable (Hair, et al., 2010). When selecting the variables, especially three issues must be considered. These are strong theory, measurement error, and specification error (Hair, et al., 2010). These three selection criteria are elaborated in appendix 9, where they are discussed in terms of this thesis. In this case, the dependent variable is each of the brand metrics that were summed up in chapter 5.4, which means that a total of nine multiple regression models must be conducted. In this way, the sensitivity of each of the brand equity metric can be compared later. The next step is to add those independent variables that have the greatest additional predictive power (Hair, et al., 2010). In order to answer the problem statement in the best possible way, it seems evident to incorporate the adstock level of Royal Beer as an independent variable. However, as mentioned in chapter 6.1 the competitor's marketing investments in regards to TV should also be taken into account. For competitors spending, aggregate expenditure in the category is often a good enough explanatory input (Broadbent, 1998). As chapter 3 clarified, the Danish Beer market consists of two major players and a large number of smaller breweries when considering the market share. Not surprisingly, this also holds true in relation to the spending, where Carlsberg, Grøn Tuborg, Royal Beer, Tuborg Classic and Heineken account for 99% of all TV spending within this category[16]. Accordingly, it seems relevant to include the media impact of these four competing brands as well in a single independent variable.

By implementing the chosen dependent (e.g. TOMA) and independent variables, the regression model can be formulated as follows, which is similar to Broadbent's (1999) instructions of the link between adstock and effect:

$$Response = b_0 + b_1 V_1 + b_2 V_2 \qquad \text{(Equation 4)}$$

---

[16] See Appendix 4

where

b_0 = Intercept (constant level of TOMA independent of Adstock levels)

b_1 = Change in TOMA level associated with Adstock level (Royal Beer)

b_2 = Change in TOMA level associated with Adstock level (competitors)

V_1 = Adstock level (Royal Beer)

V_2 = Adstock level (competitors)

For each variable in the model, several measures need to be defined[17]: the regression coefficient, the standard error of the coefficient and the *t* value of the variables (Hair, et al., 2010). The above model is tested on a 0.05 significance level, as this is the most widely used level (Hair, et al., 2010). This indicates that the t-values for the variables must be ±1.96 to be included in the regression model. For each model, the correlation coefficient is utilized to tap the sensitivity as the correlation coefficient provides a measure of the strength of the linear relationship between the two variables, with the measure being limited to range from -1 to +1 (Newbold, et al., 2007).

The entire analysis is conducted in Excel. To solve the initialization problem (knowledge of V_1 and V_2), the first step is to insert the TRP level for Royal Beer and competitors. Moreover the response variables must be inserted. All of the data is appended on a weekly basis and by using equation (2), the adstock is calculated for different levels of λ. Appendix 10 shows an example of how the adstock are calculated for a fixed value of λ, since it applies that this constant will differ from each regression analysis to the next, since the data of the response variables (e.g. familiarity and popularity) will be different. So when modeling other data sets, other values of λ are found to fit better (Broadbent, 1999). In order to choose the optimal values, the response variable must be regressed against each of these calculated adstocks in turn. The chosen adstocks are the ones that together yield the highest R^2 for the equation (Fry, et al., 2000).

After having established the regression model based on the overall advertising response model and established hypotheses in chapter 7.1, the actual analysis will now commence. Following the structure of previous chapters, the chapter is divided into three sections, which concerns the knowledge equity metrics, the attitudinal equity metrics and the relationship equity metrics relatively. The results are simply presented in these three sections and the hypotheses are confirmed or rejected. Subsequently, the results are discussed in the next chapter.

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[17] A definition of these can be found is Appendix 9

7.3 Testing the Knowledge Equity Measures

7.3.1 Top of Mind Awareness (TOMA)

In order to choose the optimal levels of λ, TOMA is regressed against each of the adstocks in turn and the optimal λ for Royal Beer and competitors is found to be 0.58 and 0.85 respectively[18], as these two levels of λ are the ones that yields the highest R^2. After having calculated the adstock level for Royal Beer and competitors, the dependent and independent variables can now be illustrated on a weekly basis in the below figure. The Adstock levels are illustrated on the primary axis, whereas TOMA is illustrated on the secondary axis.

Figure 12: The regression model for TOMA
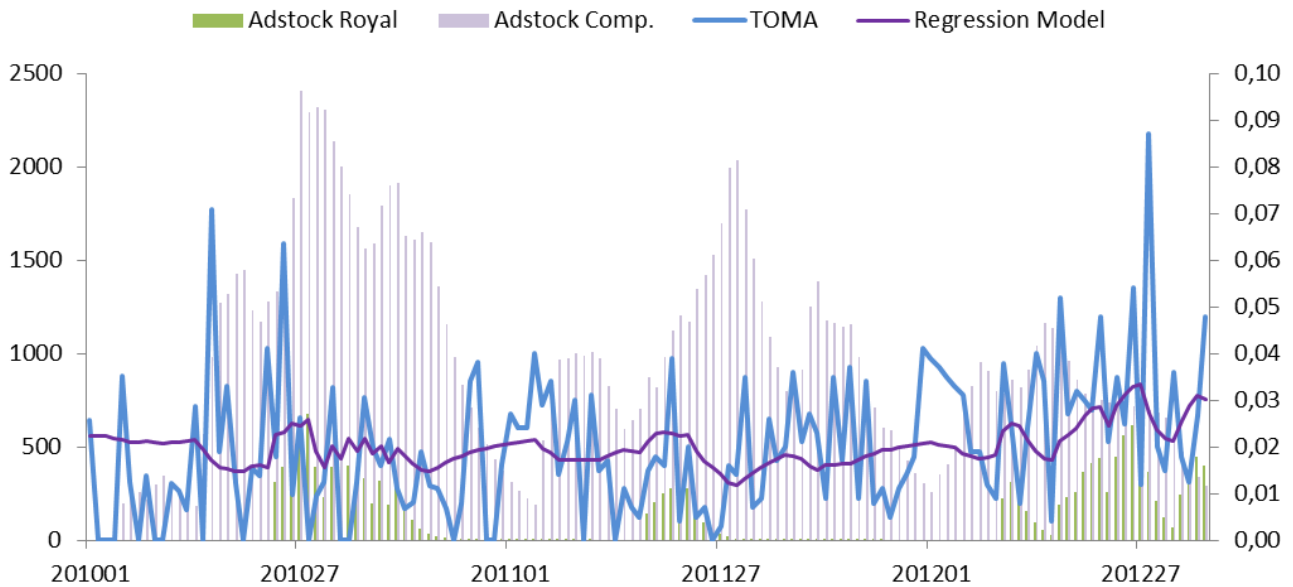
Source: Own contribution

With a fixed λ, the adstock levels in each week in now also fixed and by inserting the values of the coefficients and adstock levels into Equation 4, the regression model can be drawn as in Figure 12.

Due to the chosen significance level, both independent variables must be implemented in the regression model (since it holds true that t>±1.96 for both variables), which indicates that both the advertising of Royal Beer as well as the advertising of major competitors has an effect on TOMA. The multiple regression model with two independent variables, when estimated with the least square procedure[19], provides a constant of 0.0225 with regression coefficients of 0.000023 and -0.000005 for V_1 and V_2 respectively. The result of the regression analysis is illustrated in Table 8 and indicates that TV advertising is a weak predictor of TOMA.

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[18] Appendix 10 provides as an example of measuring the optimal λ for Royal Beer.
[19] This procedure is defined in appendix 9.

Table 8: Output of the Regression Model for TOMA

Variables entered into the regression	Regression Coefficient		Statistical Significance	Correlation	Prediction Accuracy
	B	Std. Error	t	Zero-order	R^2
Constant (b_0)	0,022452	0,0025420	8,832432		
Adstock Royal Beer (V_1)	0,000023	0,000008	2,933700	0,191283	**0,068900**
Adstock Competitors (V_2)	-0,000005	0,000002	-2,154327	-0,099977	

Regression model: TOMA = 0.0225 + 0.000023V_1 – 0.000005V_2
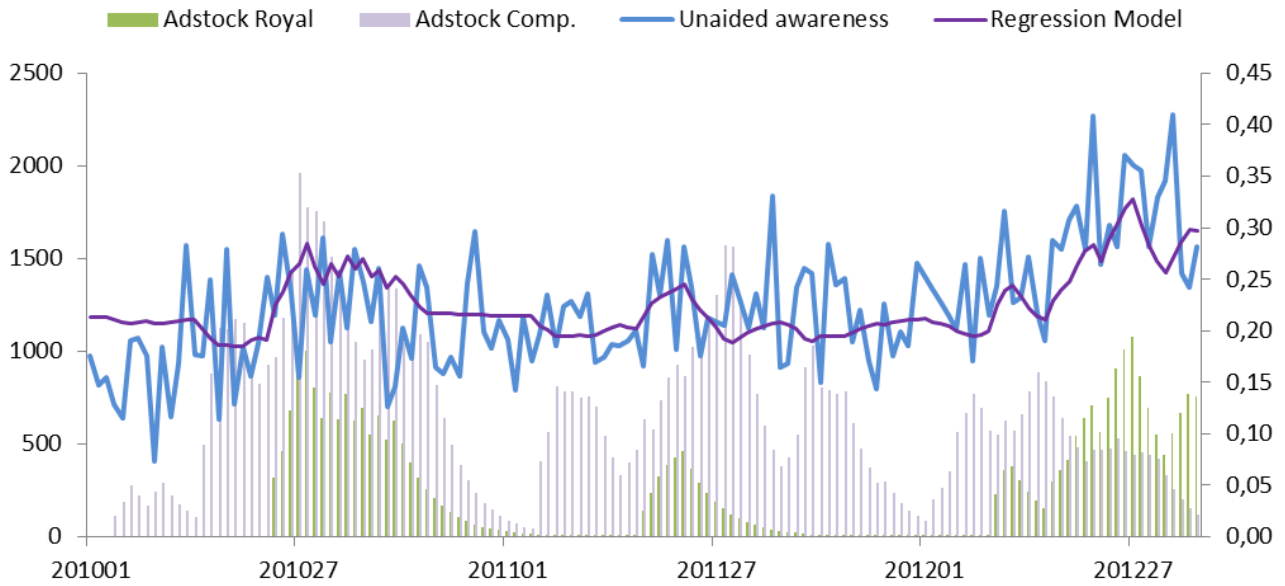
Source: Own contribution

As can be observed in the table, the coefficient of determination (R^2) is 0.0689 and the correlation coefficient between the adstock level for Royal Beer and TV advertising also seems rather low.

7.3.2 Unaided Brand Awareness

As it applies that λ will differ from each regression analysis to the next, since the data of the response variables will be different (Broadbent, 1999), the adstock levels must be determined anew by the λ's that yields the highest R^2. After having regressed unaided brand awareness against each of the adstocks in turn, the optimal levels of λ are found to be 0.8 and 0.72 respectively for Royal Beer and competitors. The dependent and independent variables can now be illustrated on a weekly basis in Figure 13. Both Adstock levels are illustrated on the primary axis, whereas unaided brand awareness is illustrated on the secondary axis.

Figure 13: The regression model for Unaided Brand Awareness

Source: Own contribution

With the fixed λ's for both independent variables, the regression model can also be drawn in the above figure. As it applied to TOMA, both independent variables must be integrated in the model, since they are both statistical significant at the chosen significance level. Hence, unaided brand awareness for Royal Beer decreases when competitors have active TV campaigns, but increases when Royal Beer has active campaigns. The multiple regression model with two independent variables, when estimated with the least square procedure, provides a constant of 0.2135 with regression coefficients of 0.000115 and -0.000025 for V_1 and V_2 respectively. The output of the regression analysis is shown in Table 9, which clarifies that the prediction accuracy is significantly higher compared to TOMA.

Table 9: Output of the Regression Model for Unaided Brand Awareness

| Regression model: Unaided Brand Awareness = 0.2135 + 0.00011V_1 – 0.000025V_2				
	Regression Coefficient		Statistical Significance	Correlation	Prediction Accuracy
Variables entered into the regression	B	Std. Error	t	Zero-order	R^2
Constant (b_0)	0,213500	0,0080180	26,631501		
Adstock Royal Beer (V_1)	0,000115	0,000016	7,130796	0,495932	**0,273000**
Adstock Competitors (V_2)	-0,000025	0,000011	-2,252272	-0,035669	

Source: Own contribution

The table also clarifies that a rather strong correlation (0.49) exists between the adstock level of Royal Beer and unaided brand awareness for the brand.

7.3.3 Familiarity

Familiarity is the last of the knowledge equity metrics that will be tested. Initially, the λ's must be specified anew for this specific data set. The optimal level of λ is 0.7 for Royal Beer and 0.82 for competitors as these are the levels that maximize R^2. Based on this, the two independent variables as well as the dependent variable are illustrated in Figure 14. Both adstock levels are illustrated on the primary axis, whereas familiarity is illustrated on the secondary axis. With fixed λ's, the adstock levels in each week in now also fixed and by inserting the values of the coefficients and adstock levels into Equation 4, the regression model can be drawn as in Figure 14.

Figure 14: The regression model for Familiarity

Source: Own contribution
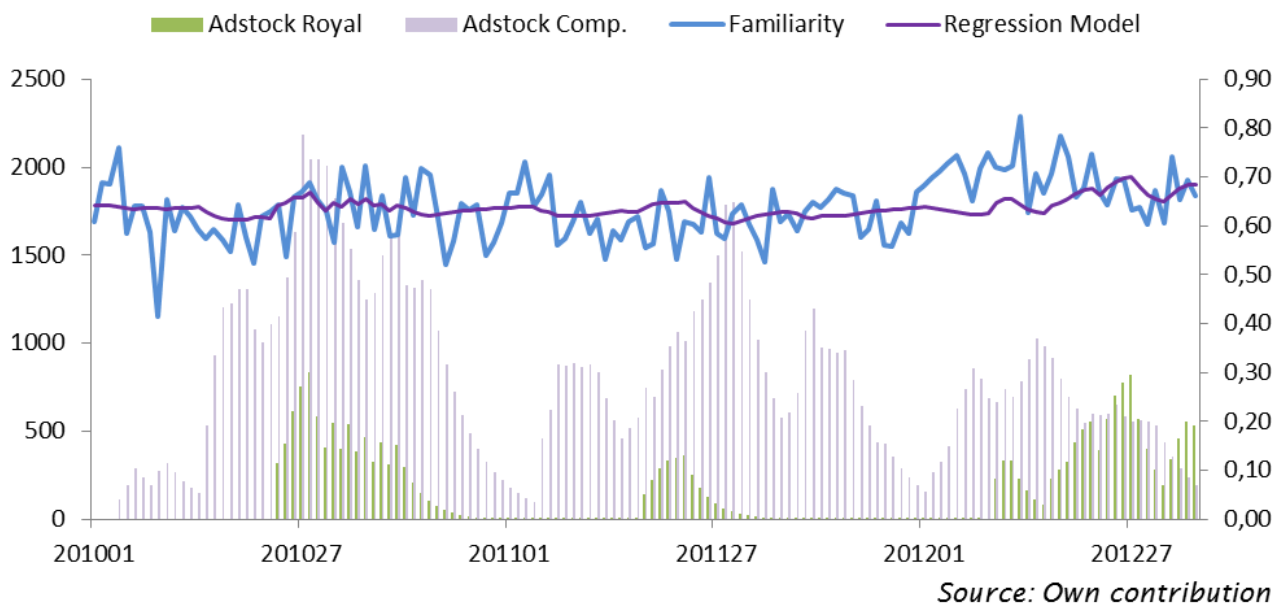
Similarly to the other brand metrics within the knowledge equity level, both independent variables are implemented in the regression model, as they are both statistical significant. This indicates that the adstock level for Royal Beer affects the familiarity of Royal Beer positively, whereas the adstock level for competitors affects the familiarity negatively.

The multiple regression model with two independent variables, when estimated with the least square procedure, provides a constant of 0.6416 with regression coefficient of 0.000088 for V_1 and 0.000023 for V_2. The output of the regression analysis is shown in Table 10, and the prediction accuracy is 0.0847, thus, not much higher than for TOMA. The correlation coefficient between the adstock for Royal Beer and familiarity is 0.24.

Table 10: Output of the Regression Model for Familiarity

| Variables entered into the regression	Regression Coefficient		Statistical Significance	Correlation	Prediction Accuracy
Regression model: $Familiarity = 0.6416 + 0.00008V_1 - 0.000023V_2$					
	B	Std. Error	t	Zero-order	R^2
Constant (b_0)	0,641602	0,0098146	65,372014		
Adstock Royal Beer (V_1)	0,000088	0,000025	3,472185	0,240172	**0,084700**
Adstock Competitors (V_2)	-0,000023	0,000011	-2,004724	-0,059944	

Source: Own contribution

After having tested all the brand metrics within the knowledge equity level, the next section revolves around the five attitudinal equity metrics.

7.4 Testing the Attitudinal Equity Metrics

7.4.1 Perceived Value

Perceived value is the first of the attitudinal equity metrics that will be tested; nevertheless, the procedure of testing will obviously be the same. When attempting to specify λ for the adstock of Royal Beer and competitors by regressing perceived value against each of the adstock levels in turn, it becomes apparent that the adstock level of competitors is not statistical significant at the chosen significance level (the t-value is -1,48 when R^2 is maximized). Thus, V_2 is removed from the overall model and only the adstock level for Royal Beer as well as the perceived value is illustrated in the below figure. The optimal level of λ for the adstock of Royal Beer is 0.7 as this is the level that maximizes R^2. With this fixed level of λ, the regression model can also be calculated based on the coefficients and adstock level of Royal Beer. The regression model is illustrated in Figure 15.

Figure 15: The regression model for Perceived Value
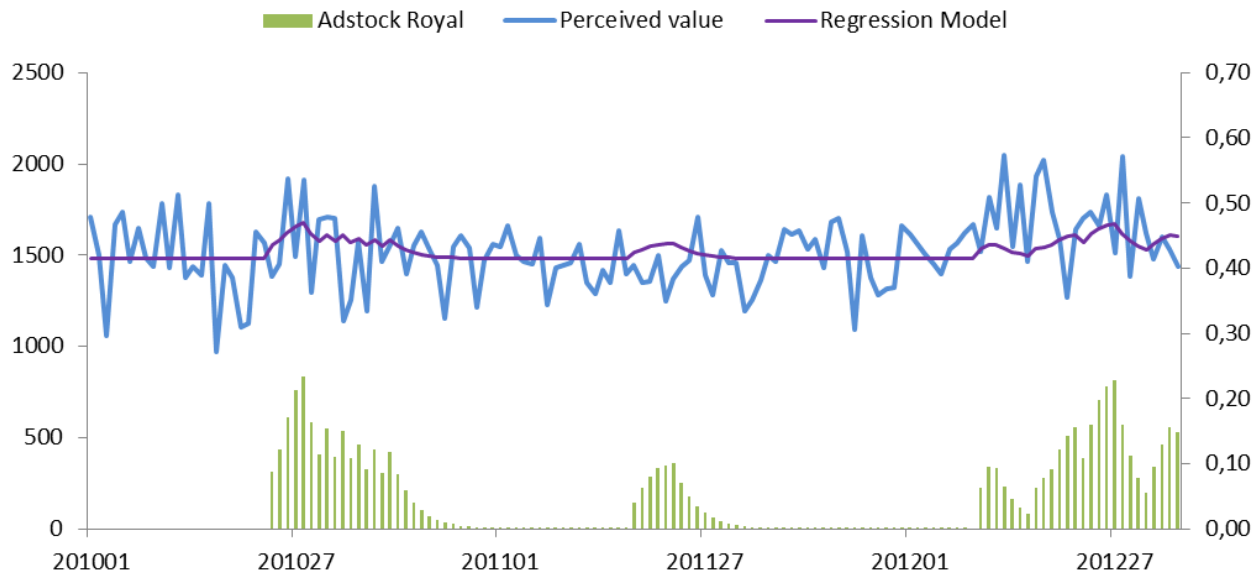
Source: Own contribution

Removing the V_2 variable from the overall model, signifies that the TV spending of Royal Beer does affect perceived value, whereas the spending of competitors do not affect the perceived value of Royal Beer. The single regression model with only one independent variable, when estimated with the least square procedure, provides a constant of 0.4136 with regression coefficient of 0.000067 for V_1. The output of the regression analysis is shown in Table 11, which shows that the extent to which the TV advertising for Royal Beer can predict or explain perceived value is at the same level as was the case for TOMA. The coefficient of determination (R^2) is 0.0686.

Table 11: Output of the Regression Model for Perceived Value

|	Regression model: Perceived value = 0.4142 + 0.000067V₁				
	Regression Coefficient		Statistical Significance	Correlation	Prediction Accuracy
Variables entered into the regression	B	Std. Error	t	Zero-order	R^2
Constant (b_0)	0,414244	0,0056485	73,336517		**0,068600**
Adstock Royal Beer (V_1)	0,000067	0,000021	3,177374	0,261980	

Source: Own contribution

The output of the model also indicates that a zero-order correlation of 0.26 exists between the adstock for Royal Beer and perceived value.

7.4.2 Perceived Quality

The regression model for perceived quality also only implements one independent variable, V_1, since the variable is not statistical significant at the chosen significance level (t-value = -1.24) when R^2 is maximized. The level of λ that maximizes R^2 is found to be 0, which means that the effect of advertising on perceived quality is only significant during the weeks, where the brand is active in terms of TV spending. Hence, the adstock level in the below figure is actually equal to the TRP level.

The adstock/TRP level for Royal beer and perceived quality are illustrated in Figure 16. By fixing λ to be 0, the adstock level in each week in now also fixed and by inserting the values of the coefficients and the adstock level into Equation 4, the regression model can also be drawn in Figure 16.

Figure 16: The regression model for Perceived Quality

Source: Own contribution
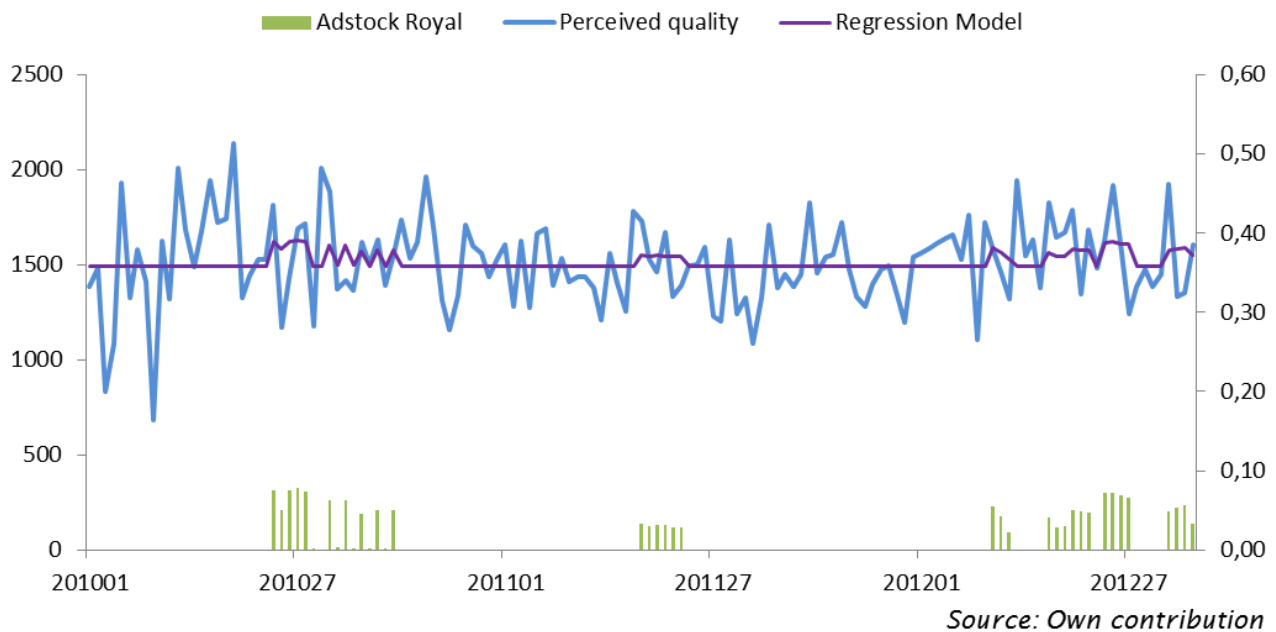
Since the V_2 variable is removed from the model, is can be concluded that the level of TV spending of major competitors does not affect how well the quality of Royal Beer is perceived. The single regression model with only one independent variable provides a constant of 0.03581 with regression coefficient of 0.0001 for V_1. The output of the regression analysis is shown in Table 12, and the coefficient of determination (R^2) is 0.0305. Accordingly, perceived quality proves to be the variable that has the smallest prediction accuracy, that is, TV advertising has almost no effect on the metric.

**Table 12: Output of the Regression Model for Perceived Quality**

	Regression Coefficient		Statistical Significance	Correlation	Prediction Accuracy
	Regression model: Perceived Quality = 0.3581 + 0.0001V₁				

Regression model: Perceived Quality = $0.3581 + 0.0001V_1$					
	Regression Coefficient		Statistical Significance	Correlation	Prediction Accuracy
Variables entered into the regression	B	Std. Error	t	Zero-order	R^2
Constant (b_0)	0,358168	0,0051305	69,811690		**0,030500**
Adstock Royal Beer (V_1)	0,000100	0,000048	2,076843	0,174708	

7.4.3   Brand Acceptance

Similarly to the two previous regression analyses, V_2 is also removed from the regression model regarding brand acceptance, as the variable is not statistical significant (t-value = -1.22) when R^2 is maximized. The level of λ for Royal Beer that maximizes R^2 is also found to be 0 (similarly to perceived quality), which means that the effect of advertising on brand acceptance is only significant during the weeks, where the brand has an active TV campaign. Accordingly, the adstock level in the below figure is equal to the TRP level for Royal Beer. Brand acceptance is illustrated on the secondary axis. With a fixed level of λ, the regression model can now be calculated based on the coefficients and adstock level of Royal Beer and the model is illustrated in Figure 17.

Figure 17: The regression model for Brand Acceptance
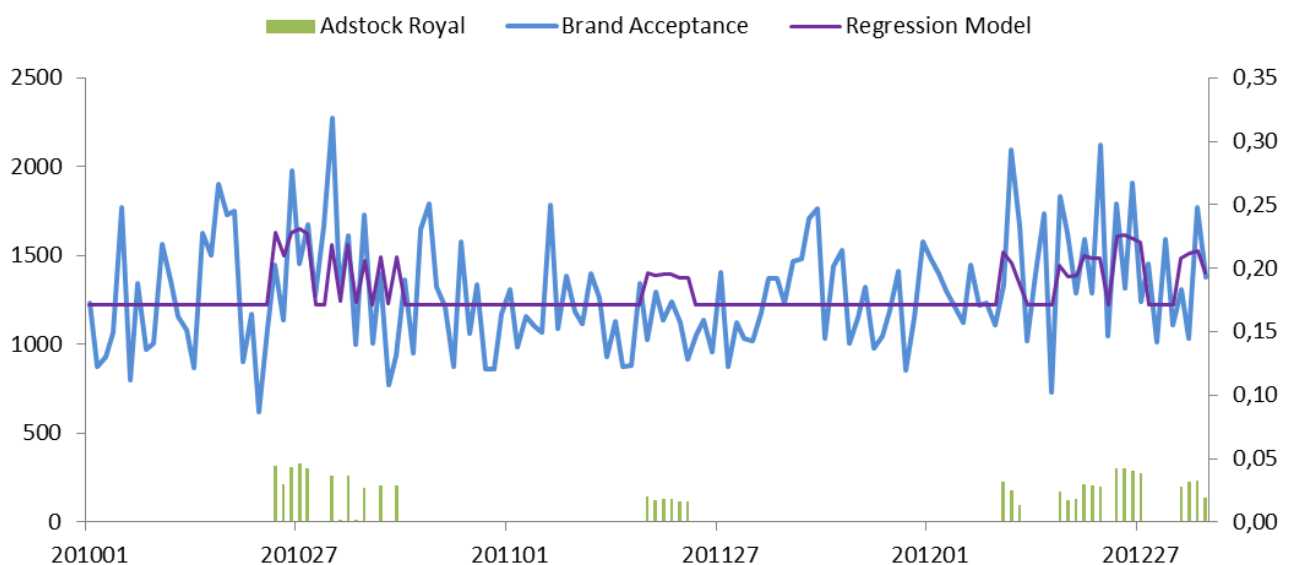
Since V_2 is removed from the model, this suggests that the TV advertising of competitors does not affect whether or not consumers consider Royal Beer. In contrast, TV advertising of Royal Beer does affect brand acceptance to some extent.

The regression model with only one independent variable, delivers a constant (b_0) of 0.1711 with regression coefficient (b_1) of 0.000182 for V_1. The output of the regression analysis is shown in Table 13, and the coefficient of determination (R^2) is 0.1521. The correlation coefficient between the adstock for Royal Beer and brand acceptance is 0.15.

**Table 13: Output of the Regression Model for Brand Acceptance**

	Regression model: Brand Acceptance = 0.1711 + 0.000182V $_1$				
	Regression Coefficient		Statistical Significance	Correlation	Prediction Accuracy
Variables entered into the regression	B	Std. Error	t	Zero-order	R^2
Constant (b_0)	0,171121	0,0039201	43,652519		**0,152100**
Adstock Royal Beer (V_1)	0,000182	0,000037	4,956948	0,389971	

Source: Own contribution

7.4.4 Popularity

The regression model for the popularity metric also only implements one independent variable, V_1, as the second variable is not statistical significant at the chosen significance level (t-value = -1.37), when R^2 is maximized. The optimal level of λ for the adstock of Royal beer is 0.71. The popularity metric and the adstock level for Royal Beer are illustrated in the below figure. With this fixed level of λ, the regression model can also be calculated based on the coefficients and adstock level of Royal Beer. The regression model is illustrated in Figure 18.

Figure 18: The regression model for Popularity

Source: Own contribution
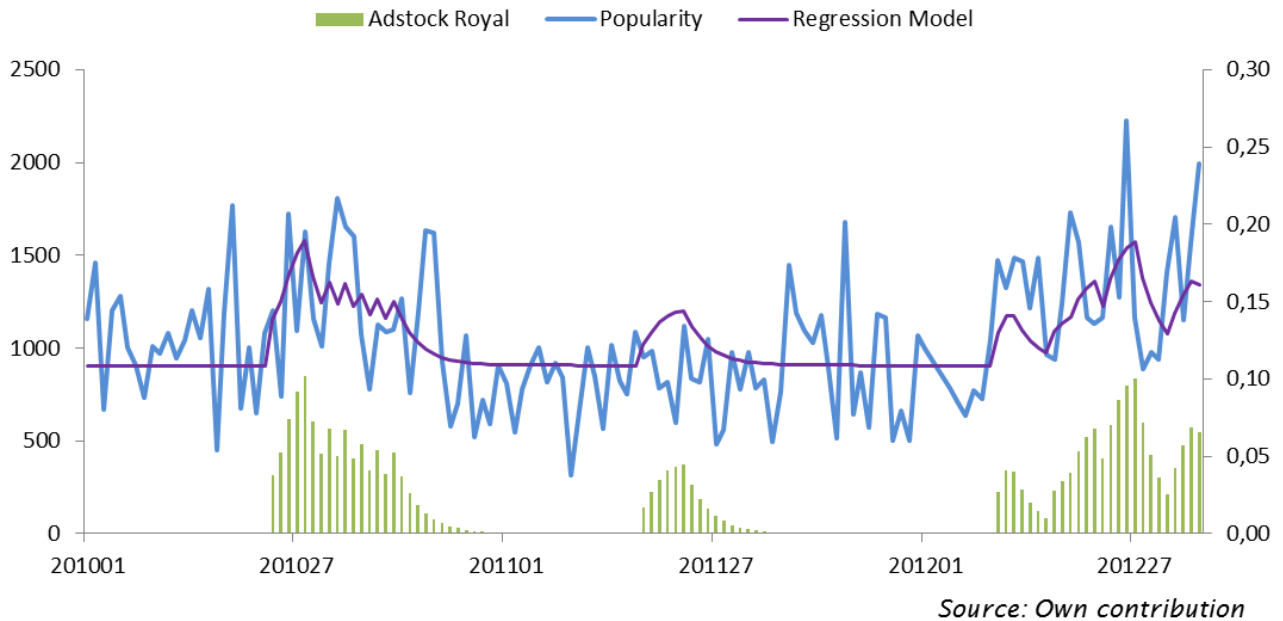
Since V_2 is not part of the overall model, this signifies that the TV spending of Royal Beer affects popularity, whereas the spending of competitors does not have an effect. The regression model with the one independent variable provides a constant of 0.1087 with regression coefficient of 0.0001 for V_1. The output of the regression analysis is shown in Table 14, and the coefficient of determination (R^2) is 0.2577.

Table 14: Output of the Regression Model for Popularity

|	Regression model: Popularity = 0.1087 + 0.000095V_1				
	Regression Coefficient		Statistical Significance	Correlation	Prediction Accuracy
Variables entered into the regression	B	Std. Error	t	Zero-order	R^2
Constant (b_0)	0,108742	0,0038237	28,439395		0,257700
Adstock Royal Beer (V_1)	0,000095	0,000014	6,896713	0,507654	

Source: Own contribution

The table also illustrates that popularity is a very sensitive measure of brand equity that is strongly affected by TV advertising. The level of correlation (0.51) is almost at the same level as unaided brand awareness.

7.4.5 Differentiation

Similarly to the other tested brand metrics within the attitudinal equity level, only the Adstock level for Royal Beer is incorporated into the regression model, since the t-value for V_2 is -1.1. The optimal level of λ is 0.72 for Royal Beer. The adstock level for Royal Beer is illustrated on the primary axis in the below figure, whereas the differentiation metric is observed on the second axis.

Figure 19: The regression model for Differentiation

Source: Own contribution
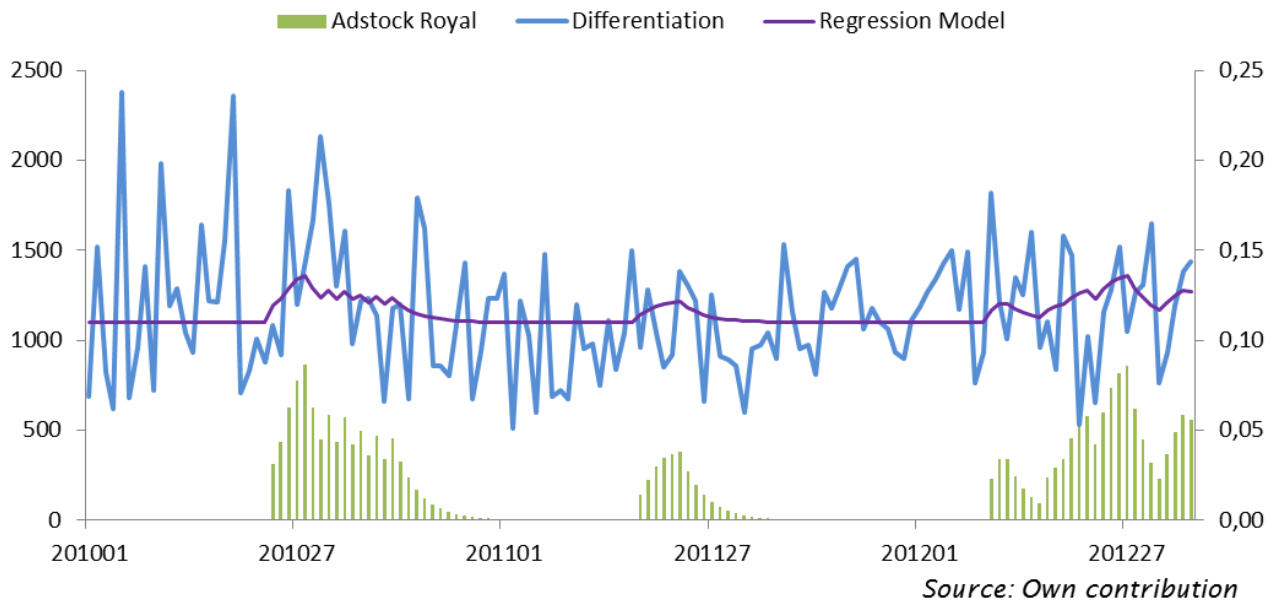
The results of the regression model indicates that the TV advertising of Royal Beer affects whether or not consumers believe that Royal Beer offers something different than other brands. In contrast, the spending of competitors does not have an influence on the differentiation metric.

The regression model with only one independent variable provides a constant of 0.1098 with a regression coefficient of 0.00003 for V_1. The output of the regression analysis is shown in Table 15, and the coefficient of determination (R^2) is 0.0401. The correlation (0.2) is much lower than the previous (popularity) model.

Table 15: Output of the Regression Model for Differentiation

|	Regression Coefficient		Statistical Significance	Correlation	Prediction Accuracy
	Regression model: Differentiation = 0.1099 + 0.00003V_1
Variables entered into the regression	B	Std. Error	t	Zero-order	R^2
Constant (b_0)	0,109875	0,0036126	30,414750		**0,040100**
Adstock Royal Beer (V_1)	0,000030	0,000013	2,392555	0,200269	

Source: Own contribution

7.5 Testing the Relationship Equity Metrics

7.5.1 Behavioral Loyalty

Behavioral Loyalty is the only relationship equity metric that exists within the Mindshare brand equity framework, hence, the only metric that will be tested within this level. Similarly to all of the conducted regression analyses within the attitudinal equity level, the adstock level for competitors is rejected from the model, as it does not affect behavioral loyalty for Royal Beer. The t-value is -1.04 and the variable is thus not statistical significant at the given significance level. Similarly to the brand acceptance and the perceived quality metrics, the optimal level of λ is 0 as this is the level that maximizes R^2. The adstock level for Royal Beer as well as behavioral loyalty is illustrated in Figure 20. With this fixed level of λ=0, the regression model can also be calculated and drawn in the figure.

Figure 20: The regression model for Behavioral Loyalty
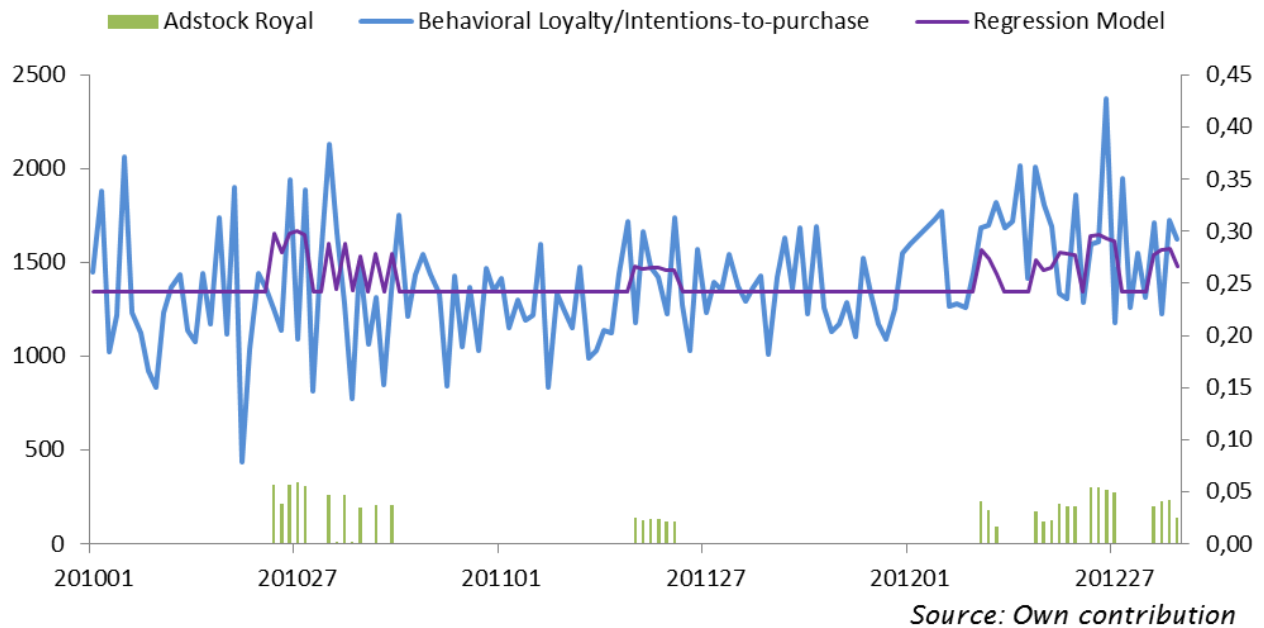
Since V_2 is removed from the model, this suggests that the TV advertising of competitors do not affect whether or not consumers will buy Royal Beer the next time they are shopping for beer. In contrast, TV advertising of Royal Beer does affect behavioral loyalty.

The single regression model with only one independent variable, provides a constant of 0.238 (b_0) with a regression coefficient (b_1) of 0.00018 for V_1. The output of the regression analysis is shown in Table 16, and the coefficient of determination (R^2) is 0.0948. The correlation between the adstock for Royal Beer and behavioral loyalty is 0.31.

Table 16: Output of the Regression Model for Behavioral Loyalty

	Regression model: Behavioral Loyalty = 0.2415 + 0.00018V₁				
	Regression Coefficient		Statistical Significance	Correlation	Prediction Accuracy
Variables entered into the regression	*B*	*Std. Error*	*t*	*Zero-order*	*R^2*
Constant (b_0)	0,241543	0,005059	47,742677		**0,094800**
Adstock Royal Beer (V_1)	0,000180	0,000047	3,787517	0,307872	

Source: Own contribution

After having tested the 9 brand metrics within all three level of brand equity, the findings will be summarized in the next section before discussing them in the next chapter.

7.5.2 Sub-conclusion to the Quantitative Analysis of Brand Equity Metrics

This chapter aimed at answering SP4 based on an extensive analysis of the sensitivity of brand metrics. Firstly, by conducting the nine regression analyses it was found that all the analyzed brand equity metrics are affected by Royal Beer's own TV advertising. Accordingly, we can accept the first three hypotheses of the thesis. An interesting finding was that whereas the TV advertising for major competitors (Carlsberg, Grøn Tuborg, Tuborg Classic and Heineken) does affect the brand metrics within the knowledge equity level, the variable was not significant for the remaining six variables within the attitudinal and relationship equity level. More specifically, this indicates that competitors' active TV campaigns may negatively affect the levels of brand equity for TOMA, unaided brand awareness and familiarity, which are all related to the cognitive consumer response. In contrast, the brand equity metrics that evaluates the attitudes towards the brand (attitudinal equity) and the metrics that evaluates the building of a relationship between a consumer and a brand (relationship equity) are not disturbed by the marketing actions of competitors. Hence, the fifth hypothesis, H5, is only accepted for brand equity metrics within the knowledge equity level.

In order to answer hypothesis 4, the correlation coefficient between the adstock levels and each of the brand equity metrics is utilized to determine how sensitive the brand equity metrics are towards advertising. The correlation coefficient between the fixed adstock levels and the brand equity metrics are summarized in Table 17.

Table 17: Summary of Analysis

	Brand Equity Metric	Correlation Coefficient (Adstock Royal Beer)	Correlation Coefficient (Adstock Competitors)	Ranking of sensitivity	R^2
Knowledge Equity Metrics	TOMA	0,1913	-0,1000	8	0,0688
	Unaided Brand Awareness	0,4959	0,0357	2	0,2731
	Familiarity	0,2402	-0,0599	6	0,0847
Attitudinal Equity Metrics	Perceived Value	0,2620		5	0,0686
	Perceived Quality	0,1747		9	0,0305
	Brand Acceptance	0,3900		3	0,1521
	Popularity	0,5077		1	0,2577
	Differentiation	0,2003		7	0,0401
Relationship Equity Metrics	Behavioral Loyalty	0,3079		4	0,0948

Source: Own Contribution

The correlation coefficient between competitors' adstock level and the brand equity metrics proved to be very low. In contrast, the advertising of Royal Beer proved to share a strong correlation with some of the brand equity metrics in particular. Hence, some brand equity metrics are more sensitive towards advertising than others and H4 must therefore be accepted.

The findings that have emerged from Table 17 will now be discussed in chapter 8 and the overall problem statement will be answered.

8 DISCUSSION

This chapter will serve to discuss the most noteworthy findings that have arisen during the analytical section of this thesis and aims to discuss how a portfolio of brand equity metrics, which are sensitive to advertising, can be chosen as well as the actual effect of TV advertising on the metrics.

The present study pursued to study the relationship between TV advertising and the brand equity metrics empirically for a product category (the beer category), which, to the authors knowledge, has not been attempted before. The thesis was specifically concerned about *sensitivity* of brand metrics, that is, to what extent are the brand metrics affected by advertising on a short-term level. However, marketers must look beyond focusing on merely the brand equity metrics that are reliable and sensitive in the short run (Ambler, 2003). Accordingly, this discussion will discuss two aspects 1) which brand equity metrics are valuable for marketers in the short run? 2) Which brand equity metrics are (also) valuable for marketers in the long run?

On an overall level, the sensitivity of the brand equity metrics were found to be independent of the three proposed brand equity levels, thus, the results does not indicate that the TV advertising mainly affect the cognitive dimension of brand equity (unaided brand awareness was one of the most sensitive measures, whereas TOMA was one of the least sensitive measure). In contrast, the findings support that advertising may affect consumers on both the cognitive, affective and behavioral dimension as suggested by Vakratas & Ambler (1999). The results did indicate, however, that competitors' actions are only able to affect the cognitive dimension of brand equity i.e. knowledge equity.

The brand equity metrics that should be included in a portfolio of brand equity metrics on a short term level are those metrics that were found to be the most sensitive to Royal Beer's TV advertising. An interesting finding of the thesis was that popularity was the most sensitive measure of brand equity – even more sensitive than unaided brand awareness. This indicates that when a brand has an active TV campaign, the brand is also perceived to be growing in popularity. The findings perfectly supports Aaker's (1996) proposition that the measurement of perceived quality is not always sensitive enough to explain or predict changes in market response but that the leadership/popularity measure is often more helpful in tapping the dynamics of the market.

The conclusion that unaided brand awareness is one of the two most sensitive measures is also supported by Aaker's (1996) proposition that claims that for well-known brands (such as Royal Beer), brand recall (unaided brand awareness) is a very sensitive and meaningful measure (Aaker (1996) states that it is more sensitive that e.g. aided brand awareness). However, Aaker (1996) also states that TOMA is a sensitive and meaningful measure of brand equity for mature brands. Nevertheless, it was found that TOMA had a very low correlation coefficient with the advertising efforts of Royal Beer. This may be explained by the general problem with TOMA: that only one brand can be named first. Accordingly, this measure often overestimates

the importance of market leaders, particularly when they are brands which are firmly anchored in a country's culture (Franzen, 1999). Obviously, Carlsberg and Grøn Tuborg are both brands, which can be classified according to this. In such cases the position of other brands is systemically underestimated and this may help explain why TOMA is only to a small degree predicted by advertising and does not always increase much when Royal Beer has active campaigns and may even decrease during active campaign periods, when the competitors spending is large. This leads to the conclusion that unaided brand awareness must be included in a measurement system, whereas TOMA is not relevant for the given product category.

Brand acceptance and behavioral loyalty also proved to be highly sensitive towards advertising, which may be due to its strong correlation with unaided brand awareness as postulated by Franzen (1999). Accordingly, unaided brand awareness is often not only limited to the consumer's knowledge of a brand. Often it is connected to the behavior as well, that is, the brands in question are nearly always ones which people have bought at some times in the past, and will, in many instances buy again in the future. They usually belong to a consumers consideration set, which is why this variables must be implemented in a brand tracking system. Although practitioners often believe that loyalty is relatively unstable, research has shown that the real-life situations are different (Baldinger & Rubinson, 1996). This may be due to the fact that consumer have varying degrees of loyalty. Hence, whereas some consumers are classified as *hard-core loyals*[20], a large number of consumers are loyal to more than one brand or even shifts from one brand to another every time a purchase takes place (Kotler, 2003). The majority of the beer consumers in the Danish beer market shift between brands and they are also sensitive to price changes and discounts (Euromonitor, 2011). This supports that loyalty is sensitive to advertising. As behavioral loyalty is also the core dimension of brand equity (Aaker, 1996), is seems evident to include this variable in a tracking system.

Perceived value ranked number 5 in terms of sensitivity, and is the last of the analyzed brand equity metrics that are recognized as being valuable to marketers in the short run. Perceived value must in general be perceived as a valuable measure since consumers of beer rely heavily on the price when purchasing a beer brand (Euromonitor, 2011). It is in particular a primary driver for non-users of a brand, which in turn affects intention-to-purchase (Tolba & Hassan, 2009). The perceived value not only comes into play when brands such as Royal Beer and Carlsberg advertise, but to a large extent also when supermarkets presents discounts for certain beer brands in their TV ads. Moreover, measuring the perceived value of a brand is extremely important since it directly affects brand performance and eventually sales (Keller, 2008). Accordingly, when consumers believe that Royal Beer does not have an acceptable price level, e.g. because competitors have lowered their price extensively, it will probably be reflected directly in the perceived value metric.

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[20] A definition of the four types of loyalty status can be found in appendix 11.

Some of the analyzed brand equity metrics proves to be particularly valuable in the long run although they did not demonstrate to be sensitive to advertising in the present study. Familiarity ranked number 6 in terms of sensitive brand equity measures. The fact that this measure is not particularly sensitive to advertising might be similar to the problem of aided brand awareness as presented earlier, that is, that for mature brands aided brand awareness will often be at a very high an stabile level. The average familiarity for Royal Beer is around 65%[21] and it can be argued that whether a consumer e.g. "has ever tried or bought Royal Beer" does not vary much with TV advertising. In contrast, whether a consumer has bought a particular brand the last time is more dependent on the awareness level, hence, to advertising (Franzen, 1999). Moreover, familiarity has also been proven to correlate highly with the market share of a company (Mackay, 2001). Overall, this leads to the conclusion that familiarity might not be a valuable measure in the short term, but exceedingly valuable in the long run.

Differentiation was only a bit more sensitive than TOMA and ranked number 7 in terms of sensitivity. The fact the differentiation is insensitive towards TV advertising may indicate that the marketing managers of Royal Beer might not invest enough in achieving and communicating brand differentiating characteristics (Franzen, 1999). Differentiation continues to be an important measure of brand equity as it influences the profitability of a brand to a large extent. Keeping differentiation in a brand tracking system in the long term also means that on a longer-term basis, marketers are capable of monitoring if additional TV campaigns can increase differentiation if the campaign is successful in creating tangible and/or intangible differences in the minds of the consumers.

Perceived quality was the least sensitive measure of brand equity, which is why this variables was not included as an important measure in the short run. Nevertheless, the fact that the perceived quality is at a relatively steady level might simply suggest that consumers are content with Royal Beer's current product attributes. This can be demonstrated by applying the Kano model (Johnson, 1998). The Kano model offers some basic insights into the product attributes that are perceived to be important to customers. The model states that providing a basic quality only has the potential to eliminate dissatisfaction, whereas not providing this quality has a major impact on dissatisfaction. Hence, some attributes are taken for granted when fulfilled, but will result in dissatisfaction when not fulfilled. In relation to the case of Royal Beer, this means that consumers expect the quality of the beer to be good and view them as basic and as long as Royal Beer continues to hold this degree of quality, the perceived quality measure may not be very sensitive. However, as perceived quality has a major impact on price premiums (Aaker, 1996) and may change drastically if the basic attributes are not met (Johnson, 1998), this measure is extremely important in the long run.

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[21] Familiarity continuously has the highest level among all the tested brand equity metrics.

Figure 21 summarizes the findings from the discussion. In conclusion, this discussion has identified a portfolio of brand equity metrics that are sensitive to advertising in the short run and where TV advertising proved to have the largest effect. The table also illustrates the identified portfolio of brand equity metrics that are viewed to be important in the long run.

Figure 21: Selecting portfolios of Brand Equity Metrics

	Brand Equity Metric	Metrics included in a short-term portfolio	Metrics (also) included in a long-term portfolio
Knowledge Equity Metrics	TOMA		
	Unaided Brand Awareness	√	
	Familiarity		√
Attitudinal Equity Metrics	Perceived Value	√	
	Perceived Quality		√
	Brand Acceptance	√	
	Popularity	√	
	Differentiation		√
Relationship Equity Metrics	Behavioral Loyalty	√	

Source: Own Contribution

8.1   Managerial Implications

Due to the competitive advantages provided by brands, it has become vital for marketers to have valid and reliable instruments to measure brand equity (Pappu, et al., 2005). Most studies examining the performance of marketing actions focus on short-term and tangible financial metrics (Mizik & Jacobsen, 2008), which do not fully reflect the performance of marketing actions. In contrast, the findings from this thesis fill this gap to some extent and should contribute to better decisions about managing and measuring brand equity.

The findings from the thesis serve as guidance for two actors in particular: Media agencies (e.g. Mindshare) and marketing managers.

Firstly, media agencies such as Mindshare may utilize the results when building or reviewing their brand tracking system and deciding on which metrics to use. Moreover, as no agreement has been met in relation to

how each of the brand metrics must be weighted, the findings may give an indication of which of the given brand equity metrics that are most useful in building overall brand equity, that is, the relative importance of each dimension. More specifically, it may be postulated that measures such as popularity, unaided brand awareness and brand acceptance may be given higher weights than the brand equity metrics that has a weak correlation with TV advertising (at least in the short run).

Secondly, marketing managers may utilize the results as support for brand management strategy to improve customer-brand relationships and, by that, creating a stronger brand. Building a brand tracking system with sensitive measures provides as an important milestone in evaluating the company's marketing program (Lassar, et al., 1995). Thus, the brand tracking system with sensitive measures will provide feedback from the consumers to the company and will aid in identifying product performance problems, identifying advertising and positioning problems (Lassar, et al., 1995). The findings also prove that competitors' actions negatively affect the brand equity metrics of a brand (although the correlation coefficient was low). The implications of this are evident: if a brand has a long period of time where the brand is not activated through TV but where the competitors' investments remain, the awareness levels for the brand will drop to some extent.

The results also create empirical evidence of TV advertising as a brand building activity, e.g. unaided brand awareness was to a large degree predicted by TV advertising. The fact that unaided brand awareness proves to be among the most sensitive of the brand equity metrics is especially interesting to marketing managers since this metric is usually closely related to building overall brand attitude and the actual buying behavior in the FMCG category (Franzen, 1999).

Lastly, the results can be used for forecasting and scenario planning, which can prove to be extremely relevant for marketing managers when planning future marketing strategies. Hence, a marketing manager may have a budget, which can be converted to a certain number of TRP's. By utilizing the regression models developed earlier, we can approximately predict how the campaign can lift brand equity. Conversely, a marketing manager may have a goal of creating a level of e.g. 10% unaided brand awareness, and the regression model can be used in order to predict the number of TRP that are necessary in order to reach this goal.

8.2 Limitations and Future Research

As in all empirical studies, this study has limitations that must be addressed in future research. This thesis is constrained by the brand equity metrics that are currently a part of Mindshare's tracking system and one of the main limitations surrounds the scales by which the brand equity metrics are measured. Accordingly, much research that has attempted to validate and build a measurement system for brand equity argues that the variables should be measured on interval scales (Pappu, et al., 2005). Hence, Yoo & Donthu (2001)

implements five-point Likert scales, while Washburn & Plank (2002), Buil, et al. (2008) and Martensen & Grønholdt (2004) use seven-point response scale. In contrast, the variables in this study are measured on a dichotomous scale (Yes/No). This may have biased the results. Moreover, by using data from an already established brand equity system, some interesting questions remain unanswered, e.g. to what extent can TV advertising affect and change brand personality, so that people perceive Royal Beer to be more masculine, refreshing etc.? Similarly, only the item related to the behavioral loyalty were analyzed in the present study for measuring the relationship equity. Other authors also suggested other types of loyalty such as customer satisfaction (e.g. Aaker), attitudinal loyalty (e.g. Martensen & Grønholdt (2004)), recommendation (e.g. Munoz & Kumar (2004)) and engagement (Keller, 2008). Future research should incorporate items related to the above-mentioned types of loyalty in a study that attempts to investigate the extent by which brand equity metrics are sensitive to advertising.

As stated more than once throughout the thesis, many other variables than what was included in this thesis trigger the consumer response towards advertising. Thus, several qualitative variables such as the content of the advertising, the motivation to process the information and the attitude towards the ad and the overall campaign quality can drastically change the responses to advertising (Vakratsas & Ambler, 1999), (Keller & Lehmann, 2003). Including these variables should be a goal for future research within this area.

Given that the thesis has adopted a positivistic approach, it is essential to assess to what extent the findings are generalizable. Given that the study was conducted with data gathered from the beer category, the results are strictly generalizable within this product category. Accordingly, future research should examine the sensitivity of brand equity metrics among other products and services since the effect of advertising is affected by the level of involvement (Vakratsas & Ambler, 1999). Furthermore, the study was conducted within a certain target group, which may affect the results, since e.g. older consumers generally have higher brand equity (Chen & Green, 2012).

9 CONCLUSION

On the basis of the entire thesis, the purpose of this chapter is to provide an answer to the overall problem statement. This thesis was motivated by the ongoing debate of incorporating sensitive and reliable measures of brand equity metrics into a company's brand measurement system. Additionally, the idea that TV advertising is a key tool for developing strong brands is what directed this thesis towards the following problem statement:

How can a portfolio of brand equity metrics, which are sensitive to TV advertising, be selected and what is the effect of TV advertising on the chosen metrics?

In order to give a reliable and well-founded answer to this specific problem statement, validity has been deducted from theory and the thesis consequently built a set of testable hypotheses between the brand equity metrics and TV advertising. The analysis was based on theoretical frameworks identified carefully to fit the aim of the individual chapters and sub-problems. In most cases, the applied theory was a merge of more theories, tailored for the purpose, of course with respect to the original frameworks and their limitations. By applying the theoretical frameworks, context was given to the chapters, but in regards to building the content theory did not provide sufficient guidance, hence, extensive primary and secondary sources was gathered to ensure strong content. Thus, the hypotheses were tested by applying empirical data from Mindshare's tracking system of the beer category. Using this method has successfully allowed for the different theoretical concepts to be interpreted from this thesis' perspective and resulted in a framework applicable to Royal Beer.

Initially, it was necessary to develop a framework in regards to customer-based brand equity. This thesis' understanding of brand equity was mainly based on Aaker's and Keller's credited and well-known models, as these have been validated in various studies. Subsequently, through an extensive literature review concerning the measurement of brand equity, an "optimal" list of 21 brand equity metrics that can measure brand equity was developed according to the thesis' overall proposed brand equity levels (knowledge equity, attitudinal equity and relationship equity) and by that, SP1 was answered.

Although it would have been ideal to incorporate the entire set of the identified brand equity metrics from the "optimal" list, the thesis was constrained by the brand equity metrics that were already available through Mindshare's brand tracking system. By comparing and discussing the current brand equity metrics of Mindshare with the optimal list of measurement scales, those brand equity metrics for the beer category that were relevant for the analysis were selected. Accordingly, the answer to SP2 was nine brand equity metrics: TOMA, unaided brand awareness, familiarity, perceived quality, perceived value, popularity, brand acceptance, differentiation, and behavioral loyalty.

To accommodate SP3, the thesis included theories on how advertising affects the consumer and how the media impact can be quantified. It was concluded that by using adstock modeling as a measure of advertising effectiveness, a more correct representation of the current media pressure is obtained, since adstock recognizes that the media impact may affect the consumer in other periods than simply during those weeks where the media investment takes place. Moreover, it was postulated that the TV advertising of major competitors may affect the brand equity metrics of Royal Beer negatively. The spending of the competitors was defined as the four largest TV spenders within the category: Carlsberg, Grøn Tuborg, Tuborg Classic and Heineken, which together with Royal Beer account for 99% of total TV spending within the beer category. By implementing the adstock levels for Royal Beer and an aggregate adstock for the competitors into an advertising response model, the main hypotheses were ready to be tested by using regression analysis.

The findings of the analytical section verified that the TV advertising of Royal Beer does positively affect all of the nine brand equity metrics and it was therefore empirically verified that TV advertising can be seen as a brand-building activity. In contrast, only the brand equity metrics within the knowledge equity level was (negatively) affected by the TV advertising of competitors, whereas the brand equity metrics within the attitudinal and relationship equity level were not disturbed by the TV spending of competitors. The effect of TV advertising differed greatly among the nine brand equity metrics relevant for Royal Beer. All of the brand equity metrics were sensitive to advertising to some extent, although especially popularity and unaided brand awareness were sensitive measures within this product category. These findings answered SP4.

Previous chapters had already attempted to approach the question of *how* a portfolio of brand metrics that are sensitive to TV advertising should be selected. Accordingly, the initial list of brand equity metrics selected in chapter 4 represented the first step and were selected based on four screening criteria: that the metrics occurs frequently in the literature, that it has importance to top management, that they have importance to marketing management and to most companies, and that it lies within the scope of the brand value chain. Chapter 5 made the selection even more concrete by discussing which metrics that are included in Mindshare's brand tracking system and are relevant for Royal Beer. Nevertheless, only by conducting the empirical analysis, the objective of the thesis was reached. The findings from the empirical section and the discussion of the results thus served as the last milestone in answering the problem statement and a portfolio of five brand equity metrics, which are sensitive to advertising, were chosen. These brand equity metrics were: *popularity, unaided brand awareness, brand acceptance, perceived value* and *behavioral loyalty*, thus, metrics derived from all three overall levels of brand equity. The correlation between the metric and the adstock level of these five measures ranged from 0.26 to 0.51.

By taking the discussion a step further, it became apparent that not only the five identified metrics are important to marketers. This discussion derived from the distinction between short term and long term

branding goals, which takes into consideration that some brand equity metrics are especially useful in the short run as they are predominantly sensitive to advertising, whereas other metrics are important to monitor in the long run in order to maintain a strong brand. The discussion thus concluded that an "extra" portfolio of brand equity metrics might be incorporated in a brand tracking system as these are useful in the long run. These were *familiarity, differentiation* and *perceived quality*. The effects of advertising on these three brand equity metrics were considerably smaller than the short-term metrics and the correlation coefficient ranged from 0.17 to 0.24. TOMA was the only measure, which was suggested to be completely eliminated in Royal Beer's brand tracking system, as the general problem with TOMA is that it often overestimates the importance of market leaders.

The findings have important implications for practitioners that are concerned about building a reliable brand tracking system as well as for marketing managers that wish to continually evaluate their marketing efforts. The thesis also presents direction for future research and limitations of the current study.

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Tools and other sources of information:

Index Denmark (TNS Gallup Denmark)

Gallup Adfacts

AdvantEdge

Material and data from Mindshare

Conversations with Thomas Queck, Mindshare.

11 APPENDIX OVERVIEW

Appendix 1: TV's Share of Spending

Appendix 2: Questionnaire for the beer category

Appendix 3: Consumer Behavior within the Beer Category

Appendix 4: Spending within the Beer Category

Appendix 5: Consumer Profile for the Beer Category

Appendix 6: Definitions of brand equity

Appendix 7: Important Marketing Metrics

Appendix 8: Aided Brand Awareness for the Beer Category

Appendix 9: Selection of Variables in Multiple Regression Analysis

Appendix 10: Calculating Adstock for fixed λ

Appendix 11: Four Types of Loyalty Status

Appendix 1: TV's Share of Spending

TV has the largest share of total spending for the beer category 2010-YTD (July) 2012. This is illustrated in the table below.

Table 18: TV's Share of Spending

Sum of Spending	Year				Share of
MediaType	2010	2011	2012	Grand Total	Spend
TV	75.496.830	53.177.820	25.727.421	154.402.071	65,2%
OUTDOOR	6.359.682	17.660.628	13.025.409	37.045.719	15,7%
DAILIES	3.070.586	12.065.073	3.601.925	18.737.584	7,9%
MAGAZINES	3.934.785	6.028.786	2.004.745	11.968.316	5,1%
CINEMA	1.606.863	3.586.834	2.043.103	7.236.799	3,1%
SUNDAY NEWSPAPERS	920.561	2.076.716	334.398	3.331.675	1,4%
RADIO	1.842.862	20.868	310.614	2.174.345	0,9%
WEEKLIES	66.400	731.400	133.600	931.400	0,4%
DISTRUBUTED TO HOUSEHOLDS	248.179	267.058	26.937	542.174	0,2%
JOURNALS	91.565	55.390	171.950	318.905	0,1%
Grand Total	93.638.313	95.670.572	47.380.101	236.688.987	

Source: Gallup Adfacts

As can be observed in Table 18, TV accounts for more than 65% of total spending. The second largest tribute to total spending stems from outdoor, which only account for 15.7%.

Appendix 2: Data Gathering & Questionnaire for the Beer category

Tracking of the Beer category

Mindshare continuously tracks the beer category for progress and has 150 respondents per week. In the questionnaires, the respondents are asked about their knowledge of the brands within the specific product categories as well as their attitudes. The overall purpose of the tracking data is to assess brand loyalty and it includes both prescriptive and predictive question is terms of State-of-Being data, State-of-Mind data as well as State-of-Behavior and State-of-Intention data (Hair, et al., 2009). Most of the gathered data is State-of-Mind data, which represents the mental attributes or emotional feelings of the respondents that are not directly observable (Hair, et al., 2009).

The respondents are people within the age group of 18-50 years old that are responsible for grocery shopping for their household. When the data is gathered, the raw data is weighted by Mindshare according to age, gender and region within the target group, so that the data is representative for the population. Based on an extract from Index Denmark, the weights are as follows (in 2012):

Table 19: Weighting the data

Age	Gender	Region	Persons (000)	Weight
18-34 years	Man	East of Storebælt	176	0,094
18-34 years	Man	West of Storebælt	293	0,157
18-34 years	Woman	East of Storebælt	166	0,089
18-34 years	Woman	West of Storebælt	179	0,096
35-50 years	Man	East of Storebælt	330	0,176
35-50 years	Man	West of Storebælt	294	0,157
35-50 years	Woman	East of Storebælt	164	0,088
35-50 years	Woman	West of Storebælt	270	0,144
Total			1872	

Source: Index Danmark/2+3 q. 2011

The overall questionnaire for the beer category is as follows:

Spørgeskema for Royal Unibrew Beer – 2012 tracking
(Målgruppe:18-50 år, indkøbsansvarlige for dagligvareindkøb – 150 respondenter per uge)

[SCREENING]

Screening 1.

Hvad er din alder?

Screenes fra hvis under 18 år eller over 50 år (gå til luk)

Screening 2 LYD

For at kunne deltage i denne undersøgelse skal lyden være aktiveret på din computer.

For at teste dette, beder vi dig svare på hvilken lyd der afspilles?

NB! Du skal muligvis justere lydstyrken på din computer

1. Dørklokke
2. Bilhorn
3. Ko
4. Havet
5. Hund
6. Kat
7. Fugl
8. Flyvemaskine
9. Hest
10. Telefon
11. Ingen/kunne ikke høre nogen lyd

Screening 3. D_BRANCHE

Arbejder du, eller nogen i din husstand, indenfor en af følgende brancher?

1. Reklamebureau (gå til luk)
2. PR (gå til luk)
3. Markedsundersøgelser (gå til luk)
4. Produktion/salg af øl
99. Ingen af overstående

Screening 4. D_GROCERYSHOPPING. Indkøbsansvarlig (single)

I hvor høj grad står du for indkøb af dagligvarer til din husstand?

1. Jeg foretager alle dagligvareindkøb
2. Jeg foretager til dels dagligvareindkøb
3. Jeg foretager ingen dagligvareindkøb (Gå til luk)

Indledningvis vil vi gerne bede dig om at tage stilling til nogle spørgsmål omkring øl.

Screening 5. D_FREQUENCY

Hvor ofte drikker du øl?

1. Dagligt/næsten dagligt

2. 3-4 gange om ugen
3. 1-2 gange om ugen
4. 1-3 gange om måneden
5. 1-5 gange i det sidste ½ år
6. Sjældent
7. Aldrig (Gå til luk)
99. Ved ikke

BRAND/AD AWARENESS

1. B_UNAIDED - Brand awareness – Uhjulpet (multi)

Hvilke ølmærker kender du, eller har du hørt om? (Gerne flere svar)

(10 felter - Førstnævnte kodes som "Top of Mind")

_____

Mulighed for at svare:

- Husker ingen/ved ikke

2. A_UNAIDED - Ad awareness – Uhjulpet (multi)

Hvilke ølmærker kan du huske at have set eller hørt reklamer for inden for den sidste måned?

(Betingelse: Kun hvis svarmuligheden 'ved ikke' ikke er valgt i B_UNAIDED)

(10 felter - Førstnævnte kodes som "Top of Mind")

_____

Mulighed for at svare:

- Husker ingen/ved ikke

3. B_AIDED - Brand awareness – Hjulpet (multi)

Hvilke af følgende ølmærker kender du, eller har du hørt om? (Gerne flere svar)

Husk også her at notere de mærker, som du har skrevet ind i de åbne svarfelter i spørgsmålene forinden.

(Randomiser svarmuligheder)

1 Heineken
2 Albani/Odense pilsner
3 Royal Beer
4 Ceres Top
5 Grøn Tuborg
6 Tuborg Classic
7 Carlsberg

8 Carls
9 Harboe
10 Corona
12 Thor
13 Ølfabrikken
15 Kay-Sar
16 Albani/Odense Classic
17 Albani/Odense 1859 Four Malt
18 Albani/Odense Giraf beer
98. Andre
99. Ved ikke

4. A_AIDED - Ad awareness – Hjulpet (multi)

Hvilke af følgende ølmærker kan du huske at have set reklamer for inden for den sidste måned? (Gerne flere svar)

Husk også her at notere de ølmærker, som du har skrevet ind i de åbne svarfelter i spørgsmålene forinden

(Betingelse: Kun svar som er valgt i B_AIDED)

(Randomiser svarmuligheder)

1 Heineken
2 Albani/Odense pilsner
3 Royal Beer
4 Ceres Top
5 Grøn Tuborg
6 Tuborg Classic
7 Carlsberg
8 Carls
9 Harboe
10 Corona
12 Thor
13 Ølfabrikken
15 Kay-Sar
16 Albani/Odense Classic
17 Albani/Odense 1859 Four Malt
18 Albani/Odense Giraf beer
98 Andre
99 Husker ingen/Ved ikke

CONSUMER BEHAVIOUR

5. D_COMSUMPTION. Forbrug (single)

Hvor mange øl drikker du gennemsnitligt om ugen?

1. Op til 2 øl
2. 3-5 øl
3. 6-10 øl

4. 11-15 øl
5. 16-20 øl
6. Mere end 20 øl
99. Ved ikke

6. D_PURCH_FREQ – Frekvens – køb (Single)

Hvor ofte køber du øl?

Skala - Dagligvare

1. Aldrig
2. Mindre end halvårligt
3. En gang hvert halve år
4. 3 eller 4 gange om året
5. Ca. en gang om måneden
6. Ca. en gang om ugen
7. Næsten dagligt/dagligt
99. Ved ikke

7. D_PURCHASE_POINT - Behov (single)

I det følgende vil vi bede dig om at fordele dit indkøb af øl. Hvis du antager, at du bruger 100 kroner, hvordan fordeler du dit køb på de følgende steder?

Summen af de fire steder skal give 100 kr.

(Betingelse: Ikke svar "1" eller "99" i D_PURCH_FREQ)

1. I byen (eksempelvis café, natklub, bar, restaurant)
2. Supermarkeder
3. Kiosker
4. Benzinstationer

8. D_PURCH_CRITERIA Valgkriterier (single per kategori)

I hvor høj grad er følgende kriterier vigtige for dig, når du skal købe øl ?

(Betingelse: Ikke svar "1" i D_PURCH_FREQ)

Du bedes besvare spørgsmålene på en skala fra 1 til 7, hvor 1 er 'i meget lav grad' og 7 er 'i meget høj grad'. Har du ikke nogen holdning bedes du svare 'ved ikke'.

RANDOM

7 punkt skala – 1=I meget lav grad, 7=I meget høj grad, 99= ved ikke

(Betingelse: Har ikke svaret "1. aldrig" eller "99. ved ikke" i B_PURCH_FREQ)

1. Smag/aroma
2. Pris
3. Emballage
4. Mærke
5. Det er sundt/miljørigtigt

6. Fås hvor jeg handler

9. D_JOURNEY_TIME - Involvering per fase (Single)

Når du skal købe øl, hvor lang tid bruger du gennemsnitlig på de følgende faser?

(Betingelse: Ikke svar "1" i D_PURCH_FREQ)

1. Søge information om øl der kan opfylde dit behov (på internettet, gennem venner/bekendte, artikler)
2. Søge information om et specifikt mærke i kategorien
3. Se reklamer og øvrig mærkekommunikation, der fortæller om mærkets fysiske egenskaber
4. Se reklamer og øvrig mærkekommunikation, der fortæller om mærkets image
5. Bruge tid til selve købet af mærket
6. Efterfølgende dele din viden omkring mærket med familie, venner og bekendte

Skala:

1. Bruger ikke tid på dette
2. Op til 15 minutter
3. Op til en halv time
4. Op til 1 time
5. Op til 2 timer
6. Op til 3 timer
7. 3 timer eller mere
99. Ved ikke

10. D_INVOLVEMENT - generel involvering (single per kategori)

Hvordan opfatter du overordnet set ølmærker?

Du bedes forholde dig til nedenstående skalaer, og vælge et svar pr. linje. (randomiser)

(7 punkt skala – "slider")

1. Ikke vigtig/Vigtig
2. Irrelevant/Relevant
3. Triviel/Inspirerende
4. Uinteressant/Interessant
5. Kedelig/spændende
6. Har ikke brug for/har brug for
7. Viser intet om mig som person / Fortæller hvem jeg er som person
8. Bruges ikke af andre til at vurdere mig / Andre bruger det til at bedømme mig

11. D_EXP – DKK Forbrug (Single)

Hvor stort et beløb bruger husstanden i gennemsnit om måneden på øl?

Betingelse: ikke hvis "1" i D_PURCH_FREQ

1. 0-49 kr.

2. 50-99 kr.
3. 100-149 kr.
4. 150-199 kr.
5. 200-249 kr.
6. 250 kr. eller mere
99. Ved ikke

BRAND PREFERENCE

12. B_ACCEPTANCE - Brand – Acceptance (multi)

Hvilke ølmærker køber du for det meste? (Gerne flere svar)

(Betingelse: Kun svar som er valgt i sp. B_AIDED OG ikke hvis "1" i D_PURCH_FREQ

(Randomiser svarmuligheder)

1 Heineken
2 Albani/Odense pilsner
3 Royal Beer
4 Ceres Top
5 Grøn Tuborg
6 Tuborg Classic
7 Carlsberg
8 Carls
9 Harboe
10 Corona
12 Thor
13 Ølfabrikken
15 Kay-Sar
16 Albani/Odense Classic
17 Albani/Odense 1859 Four Malt
18 Albani/Odense Giraf beer
98. Andre
99. Ved ikke

13. B_REJECTION - Brand Rejection (multi)

Hvilke af følgende ølmærker ville du aldrig overveje at købe?

(Gerne flere svar)

(Betingelse: Kun svar som ikke er valgt i B_ACCEPTANCE og er valgt i B_AIDED)

1 Heineken
2 Albani/Odense pilsner
3 Royal Beer
4 Ceres Top
5 Grøn Tuborg
6 Tuborg Classic
7 Carlsberg
8 Carls

9 Harboe
10 Corona
12 Thor
13 Ølfabrikken
15 Kay-Sar
16 Albani/Odense Classic
17 Albani/Odense 1859 Four Malt
18 Albani/Odense Giraf beer
99. Ingen af disse/ved ikke

MEDIA

14. A_TV_AW - TV ad awareness – billedvisning (single)

Kan du huske at have set denne TV-reklame inden for den seneste måned?

(Indsæt screenshots fra reklamefilm)

1. Ja
2. Nej
99. Ved ikke

15. A_TV_ID - TV ad awareness – afsenderidentifikation (single)

Hvilket mærke reklameres der for i TV-reklamen?

(Betingelse: Har svaret ja i sp. 9)

(Randomiser svarmuligheder)

1 Heineken
2 Albani/Odense pilsner
3 Royal Beer
4 Ceres Top
5 Grøn Tuborg
6 Tuborg Classic
7 Carlsberg
8 Carls
9 Harboe
10 Corona
12 Thor
13 Ølfabrikken
15 Kay-Sar
16 Albani/Odense Classic
17 Albani/Odense 1859 Four Malt
18 Albani/Odense Giraf beer
98. Andre
99. Ved ikke

16. A_PRINT_AW - Print ad awareness – billedvisning (single)

Kan du huske at have set denne annonce inden for den seneste måned?

1. Ja
2. Nej
99. Ved ikke

17. A_PRINT_ID - Print ad awareness – afsenderidentifikation (single)

Hvilket mærke reklameres der for i annoncen?

(Betingelse: Har svaret ja i sp. A_PRINT_AW)

(Randomiser svarmuligheder)

1 Heineken
2 Albani/Odense pilsner
3 Royal Beer
4 Ceres Top
5 Grøn Tuborg
6 Tuborg Classic
7 Carlsberg
8 Carls
9 Harboe
10 Corona
12 Thor
13 Ølfabrikken
15 Kay-Sar
16 Albani/Odense Classic
17 Albani/Odense 1859 Four Malt
18 Albani/Odense Giraf beer
98. Andre
99. Ved ikke

18. A_INT_AW - Internet ad awareness – billedvisning (single)

Kan du huske at have set denne internet-reklame inden for den seneste måned?

1. Ja
2. Nej
99. Ved ikke

19. A_INT_ID - Internet ad awareness – afsenderidentifikation (single)

Hvilket mærke reklameres der for i internet-reklamen? *(Betingelse: Har svaret ja i sp. A_INT_AW)*

(Randomiser svarmuligheder)

1 Heineken
2 Albani/Odense pilsner
3 Royal Beer
4 Ceres Top
5 Grøn Tuborg
6 Tuborg Classic
7 Carlsberg
8 Carls

9 Harboe
10 Corona
12 Thor
13 Ølfabrikken
15 Kay-Sar
16 Albani/Odense Classic
17 Albani/Odense 1859 Four Malt
18 Albani/Odense Giraf beer
98. Andre
99. Ved ikke

20. A_OUT_AW. Outdoor ad awareness – billedvisning (single)

Jeg vil nu vise dig et billede fra en reklame, der har været vist på reklamesøjler i bybilledet. Kan du huske at have set denne udendørs-reklame inden for den seneste måned?

1. Ja
2. Nej
99. Ved ikke

21. A_OUT_ID. Outdoor ad awareness – afsenderidentifikation (single)

Hvilket mærke reklameres der for i udendørs-reklamen? *(Betingelse: Har svaret ja i sp. A_INT_ID)*

(Randomiser svarmuligheder)

1 Heineken
2 Albani/Odense pilsner
3 Royal Beer
4 Ceres Top
5 Grøn Tuborg
6 Tuborg Classic
7 Carlsberg
8 Carls
9 Harboe
10 Corona
12 Thor
13 Ølfabrikken
15 Kay-Sar
16 Albani/Odense Classic
17 Albani/Odense 1859 Four Malt
18 Albani/Odense Giraf beer
98. Andre
99. Ved ikke

AD EVALUATION

Vi vil på næste side vise dig en kort reklamefilm, som vi efterfølgende vil bede dig svare på nogle spørgsmål om. Husk at have lyden slået til på din computer. Klik på pilen for at få vist filmen.

Du vil nu se en reklamefilm, der har været vist i fjernsynet. Når du har set filmen bliver du automatisk sendt videre i spørgeskemaet.

(vis film)

22. A_MESSAGE_AIDED - TV ad awareness – budskabsforståelse hjulpet

I hvor høj grad mener du at reklamen kommunikerer følgende budskaber?

Du bedes besvare spørgsmålene på en skala fra 1 til 5, hvor 1 er 'i meget lav grad' og 5 er 'i meget høj grad'. Har du ikke nogen holdning bedes du svare 'ved ikke'.
(Skala fra 1=I meget lav grad til 5=I meget høj grad)
(Randomiser)

1. Budskab 1
2. Budskab 2
3. Budskab 3
4. Budskab 4
5. Budskab 5

23. A_4S – 4S spørgsmål (single)

I det følgende vil vi bede dig svare på nogle spørgsmål om reklamen. Du bedes besvare spørgsmålene på en skala fra 1 til 10, hvor 1 er 'i meget lav grad' og 10 er 'i meget høj grad'. Har du ikke nogen holdning bedes du svare 'ved ikke'.

(Skala fra 1=I meget lav grad til 10=I meget høj grad – mulighed for at svar "ved ikke")

1. Reklamen skiller sig ud i forhold til andre reklamer for øl
2. Du ville kunne lide at se reklamen igen
3. De ting der bliver kommunikeret om mærket virker troværdige
4. Reklamen er relevant for dig eller andre i husstanden
5. Reklamen giver dig mere lyst til at købe mærket
6. Du får en mere positiv holdning til mærket efter at have set reklamen
7. Reklamen passer til den opfattelse, du har af mærket

24. A_DESC - Stil i reklamen (multi)

Hvordan vil du, ved hjælp af følgende ord, beskrive stilen i reklamen?

Træk pilen hen mod det ord du mener passer bedst på stilen i reklamen.
(randomiser)
(skala fra 1-7, træk pilen)

1. Nede på jorden - Snobbet
2. Stilskabende (trendy) – Ikke trendy
3. Ærlig - Uærlig
4. Munter - Dyster
5. Nyskabende - Traditionel
6. Fantasifuld - Forudsigelig
7. Nutidig - Gammeldags
8. Troværdig - Utroværdig
9. Varm – Kold

10. Relevant – Irrelevant
11. Seriøs – Plat
12. Unik – Som alle andre

25. A_4S_NEG - Negativ købsappel (multi)

Du har i et tidligere spørgsmål svaret, at reklamen ikke i så høj grad giver dig mere lyst til at købe mærket. Hvorfor ikke?

(Betingelse: Har svaret ”1, 2, 3, 4” i sp. A_4S,5*) (Gerne flere svar) (Randomiser)*

1. Jeg bryder mig ikke om reklamen
2. Jeg har et dårligt indtryk af mærket
3. Jeg foretrækker et andet mærke
4. Den siger intet om produktet
5. Reklamer påvirker ikke mit valg af øl
98. Andet
99. Ved ikke

BRAND SPECIFIC

26. B_3D_AW - 3D – Kendskabsniveau

Hvad er dit kendskab til følgende mærker?

(5 kolonner: Royal Beer, Carlsberg, Heineken og Tuborg – kun valgte mærker fra B_AIDED)

1. Har hørt tale om
2. Kender en del til
3. Kender meget til

27. B_3D - 3D Royal Beer, Carlsberg, Heineken og Tuborg

I de følgende spørgsmål vil vi gerne bede dig om at forholde dig til nedenstående ølmærker.

 (Markér de udsagn du er enig i)

(4 kolonner: Royal Beer, Carlsberg, Heineken og Grøn Tuborg – kun valgte mærker fra B_AIDED)

1. Har du nogensinde prøvet eller købt mærket
2. Købte du sidste gang
3. Vil overveje at købe næste gang
4. Tilbyder noget anderledes end andre mærker
5. Har bedre egenskaber end andre mærker
6. Har en bedre mening om end andre mærker
7. Et mærke som andre gerne må se dig bruge
8. Er et mærke der bliver mere og mere populært
9. Er det mest populære mærke

27. 1. 3D Price

Vurdér venligst:

(Kun ét svar pr. mærke)

1. Koster mere end du er villig til at betale
2. Har et acceptabelt prisniveau
3. For billig til at være af acceptabel kvalitet
99. Ved ikke

27.2. 3D Appeal

Vurdér venligst:

(Kun ét svar pr. mærke)

1. Appellerer mere end andre mærker
2. Appellerer lige så meget som andre mærker
3. Appellerer mindre end andre mærker
99. Ved ikke

27.3. 3D Qualities

Vurdér venligst:

(Kun ét svar pr. mærke)

1. Har gode egenskaber
2. Har uacceptable egenskaber
99. Ved ikke

27.4. 3D Needs

(Kun ét svar pr. mærke)

3. Tilfredsstiller dine eller din families behov
4. Tilfredsstiller ikke dine eller din families behov
99. Ved ikke

28. B_IDENTITY_1 – Brand Identity (single)

Hvilke af følgende udsagn mener du kendetegner Heineken? (Gerne flere svar)

(Du bedes besvare spørgsmålene på en skal fra 1 til 7, hvor 1 er 'helt uenig' og 7 er 'helt enig'. Har du ikke nogen holdning bedes du svare 'ved ikke'.)

(Betingelse: Har svaret "1" i B_AIDED)

(Randomiser svarmuligheder)

1. Innovativ
2. Forfriskende
3. Festlig
4. International
5. God kvalitet
6. Helt sin egen

29. B_IDENTITY_7 – Brand Identity (single)

Hvilke af følgende udsagn mener du kendetegner Carlsberg? (Gerne flere svar)

(Du bedes besvare spørgsmålene på en skal fra 1 til 7, hvor 1 er 'helt uenig' og 7 er 'helt enig'. Har du ikke nogen holdning bedes du svare 'ved ikke'.)

(Betingelse: Har svaret "7" i B_AIDED)

(Randomiser svarmuligheder)

1. Innovativ
2. Forfriskende
3. Festlig
4. International
5. God kvalitet
6. Helt sin egen

30. B_IDENTITY_3 – Brand Identity (single)

Hvilke af følgende udsagn mener du kendetegner Royal Beer?

(Du bedes besvare spørgsmålene på en skal fra 1 til 7, hvor 1 er 'helt uenig' og 7 er 'helt enig'. Har du ikke nogen holdning bedes du svare 'ved ikke'.)

(Betingelse: Har svaret "3" i B_AIDED)

(Randomiser svarmuligheder)

1. Maskulin
2. Støtter rock musikken
3. Forfriskende
4. Festlig
5. Sympatisk
6. Helt sin egen

31. B_IDENTITY_5 – Brand Identity (single)

Hvilke af følgende udsagn mener du kendetegner Grøn Tuborg?

(Du bedes besvare spørgsmålene på en skal fra 1 til 7, hvor 1 er 'helt uenig' og 7 er 'helt enig'. Har du ikke nogen holdning bedes du svare 'ved ikke'.)

(Betingelse: Har svaret "5" i B_AIDED)

(Randomiser svarmuligheder)

1. Maskulin
2. Støtter rock musikken
3. Forfriskende
4. Festlig
5. Sympatisk
6. Helt sin egen

32. B_AIDED_SUB. – Brand Awareness – Royal serien (multi)

Du nævner at du kender Royal Beer. Hvilke af følgende produkter kender du i Royal Beer serien?

(Betingelse: Skal have svaret "3" i B_AIDED)

1. Royal Export
2. Royal Classic
3. Royal Pilsner
4. Royal Stout
5. Royal Free
6. Royal Strong Ale
99. Ved ikke

33. B_TRIAL_SUB. – Brand trial– Royal serien (multi)

Hvor ofte drikker du følgende produkter i Royal Beer-serien?

(RANDOM)

(Betingelse: dem man kender i B_AIDED_SUB)

1. Royal Export
2. Royal Classic
3. Royal Pilsner
4. Royal Stout
5. Royal Free
6. Royal Strong Ale

Skala:

1. Aldrig
2. Sjældent
3. 1-5 gange i det sidste ½ år
4. 1-3 gange om måneden
5. 1-2 gange om ugen
6. 3-4 gange om ugen
7. Dagligt/næsten dagligt
99. Ved ikke

Appendix 3: Consumer Behavior within the Beer Category

Consumption Frequency

The consumption frequency for the Danish lager beer consumers (18-50 years) are shown in the below figure.

Figure 22: Consumption Frequency: (How often do you drink lager beer?)
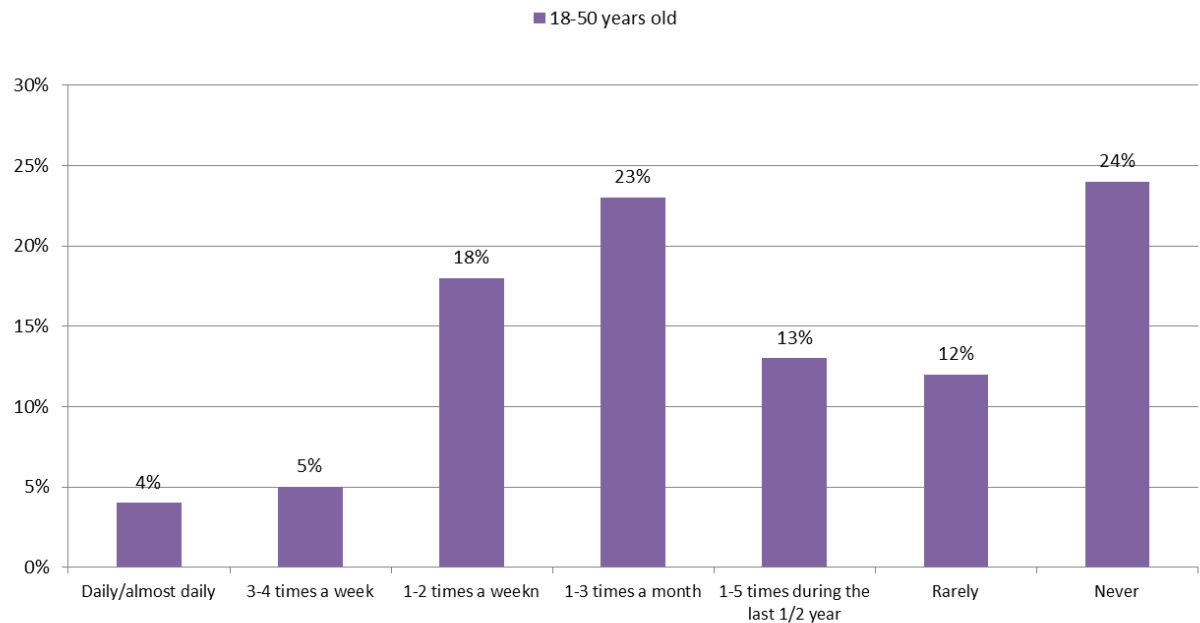
■ 18-50 years old

Source: Index Danmark (1H 2012, Base: 4.772)

Consumption of Beer

The weekly consumption of beer is generally higher for Royal Beer's target group of males within the age group of 25-40 years old.

Figure 23: Weekly Consumption of beer (How many beers do you drink per week?)

■ Total (18-50 years) ■ Target group (M25-40 years)
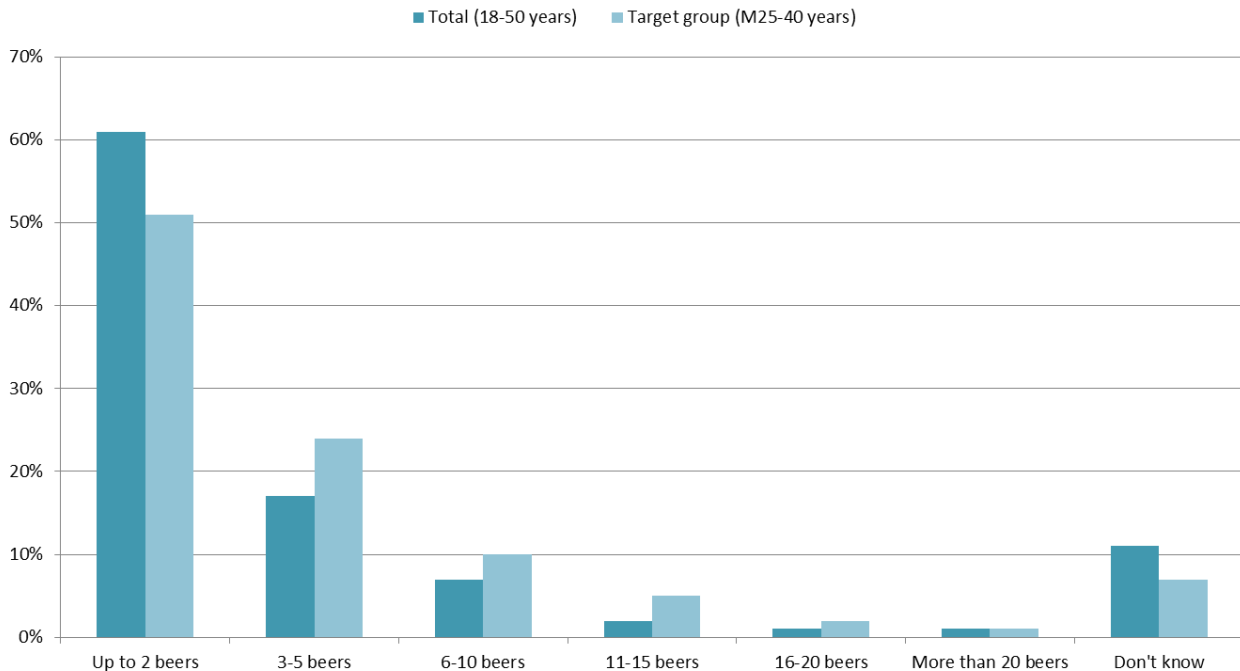
Source: Mindshare's Beer Tracking,
Base: 4.060

Purchase criteria for the beer category

The most important purchase criteria for beer consumers can be viewed in the Figure 24. A total of six criteria have been chosen by Mindshare and Royal Unibrew that are believed to influence the buying decision. The criteria are each rated on a scale ranging from 1 to 7, with 7 being "to a very high extent" and 1 being "to a very low extent". The answers are then converted to a 0-100 scale.

Figure 24: Purchase Criteria within the beer category (To what extent are the following criteria important to you, when buying beer?)
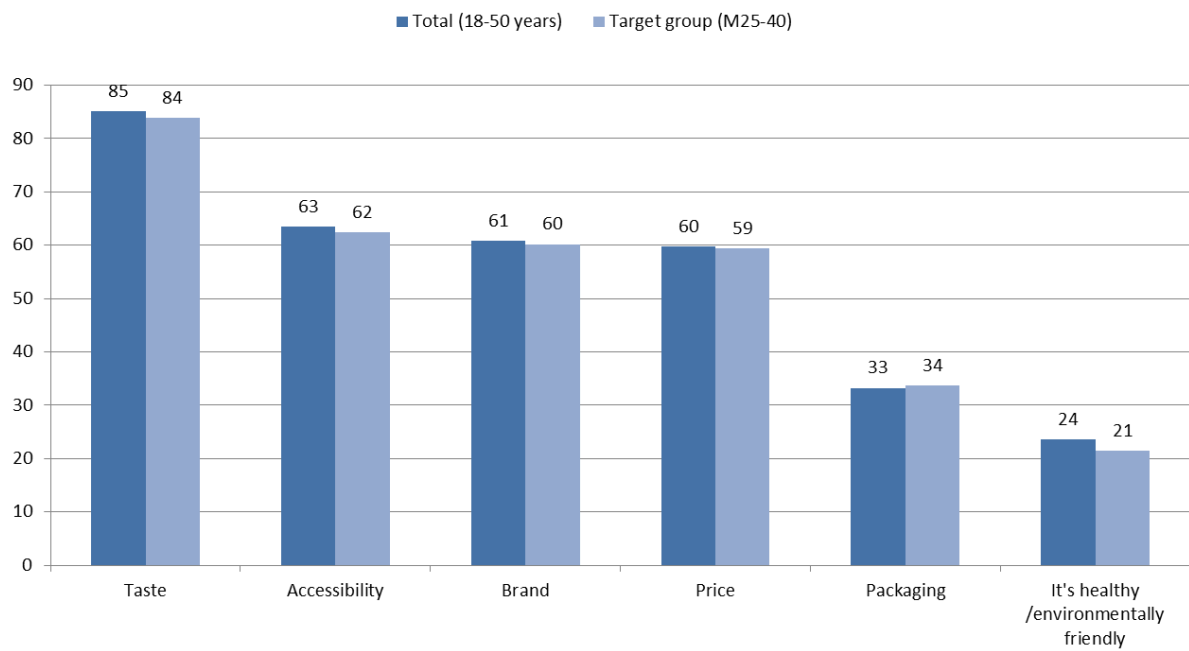
Source: Mindshare Beer Tracking

The figure includes both data from the ratings of the total population (18-50) as well as for the Royal Beer target group (male 25-40). When being compared, the purchase criteria for the beer category illustrates that the relative importance of the purchase criteria are more or less the same.

Appendix 4: Spending within the Danish Beer Category

The spending within the Danish beer category is characterized by two major holding groups that account for more than 90% of all spending (2010-2012 (until week 30)). The two holding groups are Carlsberg Danmark A/S and Royal Unibrew A/S, and their marketing efforts are mainly divided among five brands: Carlsberg, Grøn Tuborg, Royal Beer, Tuborg Classic, and Heineken. The total amount of spending for each advertiser is illustrated in Table 20.

Table 20: Total Spending (all Media Groups) for the Beer Category

Sum of Spending	Year			
Brands	2010	2011	2012	Grand Total
CARLSBERG	17.828.999	35.412.306	14.700.109	67.941.414
GRØN TUBORG	26.138.080	23.874.362	11.128.761	61.141.203
ROYAL BEER	16.437.610	6.935.668	12.482.064	35.855.342
TUBORG CLASSIC	19.594.496	8.053.825	862.208	28.510.530
HEINEKEN	10.194.131	6.592.537	4.532.068	21.318.735
FUGLSANG	31.925	5.283.465		5.315.390
JACOBSEN BEER	1.236.995	2.574.477	1.000.400	4.811.872
ALBANI	1.239.224	2.579.200	713.811	4.532.234
CULT KAY-SAR BEER		2.034.771		2.034.771
KRONENBOURG 1664 BEER			1.579.464	1.579.464
STRONZO GOLDEN SANTA HORNSLETH JULEBRYG LUKSU		1.271.818		1.271.818
DE 5 GAARDE	66.400	342.810	117.000	526.210
CORONA EXTRA ALM. BEER	128.280	181.167		309.447
VIBORG BRYGHUS	23.385	116.509	46.308	186.201
VESTFYEN	136.934	32.464		169.398
HANCOCK BEER	46.870	90.133	23.596	160.599
THISTED BEER	114.752			114.752
INDSLEV BRYGGERI	88.500	20.547		109.047
WILLEMOES LUXUS BEER		84.881	22.593	107.474
APOLLO BREWERIES	85.899			85.899
FANØ ØL	51.363	20.440		71.802
WIIBROE DIV. BEER	70.632			70.632
KRENKERUP	36.459	10.316	20.485	67.260
SVANEKE CHOKO STOUT LUXUS BEER		36.900		36.900
FUR BEER	16.624			16.624
HARBOE DIVERSE BEER	13.688			13.688
HERSLEV BRYGHUS STJERNE BRYG LUXUS BEER	9.130			9.130
GESSNER HELLER DOPPEL-BOCK ALM. BEER		9.045		9.045
BRYGGERIET HERNING JULEBRYG LUXUS BEER	7.480			7.480
NIBE BRYGHUS KNARREN GOLDEN ALE LUXUS BEER			5.535	5.535
MYLIUS-ERICHSEN BRYGHUS BEER		4.956		4.956
MIDTFYNS BRYGHUS LUXUS BEER	4.374			4.374
Grand Total	93.602.227	95.562.595	47.234.401	236.399.223

Source: Gallup Adfacts

The tendency is even more obvious when looking at the TV spending more specifically. In this case, the five brands account for 99% of total spending.

Table 21: TV spending for the Beer Category

Sum of Spending	Year			
Brands	2010	2011	2012	Grand Total
CARLSBERG	11.274.992	22.146.563	6.911.112	40.332.667
GRØN TUBORG	21.267.921	14.971.858	7.371.337	43.611.115
ROYAL BEER	15.569.879	3.783.831	7.457.237	26.810.947
TUBORG CLASSIC	18.221.307	5.994.339		24.215.646
HEINEKEN	9.034.452	5.878.887	3.987.734	18.901.073
CORONA EXTRA ALM. BEER	128.280	144.267		272.547
CULT KAY-SAR BEER		162.383		162.383
UNCLASSIFIED BEER		95.692		95.692
Grand Total	75.496.830	53.177.820	25.727.421	154.402.071

99% SOV

Source: Gallup Adfacts

Appendix 5: Consumer Profile for the Beer Category

Based on the data gathered through TNS Gallup, the Mindshare tracking for the beer category is constructed in terms of gender, age, geography and income. The consumer profile both shows how the distribution is in terms of "all beer consumers" as well as for those who view Royal Beer as part of their 'mostly bought' (brand acceptance) brands. The profile shows that 85% of consumers who has Royal Beer as their considered brand are men. Moreover, a large percentage (52%) of heavy users is not included in Royal Beer's current target group.

Table 22: Consumer Profile for Beer Consumers YTD (July) 2012

	All beer consumers				Royal Beer is part of 'mostly bought' brands			
	Heavy users	Medium users	Light users	Total	Heavy users	Medium users	Light users	Total
Base	(378)	(2.271)	(1.404)	(1.351)	(98)	(498)	(213)	(809)
Men	85%	60%	27%	51%	86%	59%	31%	55%
Women	15%	40%	73%	49%	14%	41%	69%	45%
Age 18-28 years	15%	23%	15%	19%	6%	18%	9%	14%
Age 29-39 years	33%	37%	39%	37%	36%	36%	37%	36%
Age 40-50 years	52%	40%	46%	43%	58%	46%	54%	50%
Capital Area	38%	35%	34%	35%	24%	24%	23%	24%
Other Sealand	14%	11%	14%	12%	18%	11%	14%	12%
Funen and Southern Islands	5%	8%	9%	8%	6%	6%	12%	8%
Jutland	43%	47%	43%	45%	53%	59%	51%	56%
Low income (0-399,999)	35%	36%	35%	36%	24%	30%	34%	30%
Medium income (400,000-699,999)	35%	30%	30%	30%	48%	31%	33%	34%
High income (700,000+)	21%	23%	21%	22%	26%	27%	22%	26%
Will consider Royal Beer next time	35%	33%	21%	29%	82%	79%	75%	78%
Total – Allocation of segments	10%	55%	35%	100%	12%	62%	26%	100%

Source: Mindshare Beer Tracking

The definition of heavy users, medium users and light users are based on how often they drink beer. Mindshare's definitions are as follows:

- *Heavy users*: Daily – 3-4 times a week
- *Medium users*: 1-2 times a week – 1-3 times a month
- *Light users*: 1-5 times a week during the last six months

Appendix 6: Definitions of Brand Equity

Many different definitions of the brand equity constructs exist in the literature and some of the most quoted brand equity definitions are illustrated in Table 23.

Aaker (1991) was one of the first academics to define and introduce brand equity (Mirzaei, et al., 2011). Aaker's definition clearly states that brand equity can be both positive and negative and the definition also acknowledges that the brand assets give value to both consumers and companies. Similarly to Aaker, and more output-oriented is the definition by Srivastava & Shocker (1991). Keller's (1993) definition differs from both Aaker's (1991) and Farquhar's (1989) definitions since "added value" is not mentioned. In contrast, "differential effects" is used to define brand equity in terms of the marketing investment. Similarly to Keller, Park & Srinivasan (1994) also focus on the differential effect, that is, that brand equity is connected to the extra value endorsed to the brand which stems from brand-building activities. Both Yoo & Donthu (2001) and Kotler (2003) also emphasize consumer's different response between a branded and an un-branded product.

Baldauf, et al, (2003) acknowledge what Aaker (1996) pointed out long ago; that price premium directly reflects brand equity. This definition resembles the definition by Srivastava & Shocker (1991) (in Mirzaei, et al., (2011)). Raggio & Leone's (2006) definition is more concerned about the promise that a firm gives its consumers. The company needs to live up to this promise in order to generate or maintain brand equity. Srinivasan's (1992) (in Franzen (1999) definition emphasizes that brand equity is what cannot be explained by tangible product attributes.

The definition by Simon & Sullivan (1993) is included in the table as it is a well-known definition. However, the focus is on the firm-based brand equity, hence, not relevant for the purpose of this thesis.

Table 23: Definitions of Brand Equity

| Source	Definition
Aaker (1991, p. 15)	*"Brand equity is a set of assets and liabilities linked to a brand, its name and symbol, that add to or subtract from the value provided by a product or service to a firm and/or that firm's customers'"*
Keller (1993, p. 2)	*"Customer-based brand equity is defined as the differential effect of brand knowledge on consumer response to the marketing of the brand."*
Park & Srinivasan (2005, p. 1446)	*"We define brand equity at the firm level as the incremental contribution per year obtained by the brand in comparison to the same product at the same price but with no brand-building efforts."*
Farquhar (1989, p. 24)	*"We define brand equity as the "added value" with which a given brand endows a product"*
Raggio & Leone (2006, p. 385)	*"We therefore define brand equity as the perception or desire that a brand will meet a promise of benefits."*
Baldauf, et al., (2003, p. 221)	*"Brand Equity reflects the price premium of a strong brand in combination with the sales it attracts compared to and average brand."*
Srinivasan (1992) in Franzen (1999, p. 174)	*"Brand equity is the component of overall preference for a branded product, not explained by objectively measured product attributes."*
Simon & Sullivan (1993, p. 29)	*"We define brand equity as the incremental cash flows which accrue to branded products over and above the cash flows which would result from the sale of unbranded products."*
Srivastava & Shocker (1991) in Mirzaei, et al., (2011, p. 326)	*"...a set of associations and behaviors on the part of a brand's consumers, channels members and parent corporation that enables a brand to earn greater volume or greater margins than it could without the brand name, and, in addition, provides a strong, sustainable and differential advantage."*
You & Donthu (2001, p. 1)	*"We define brand equity as consumers' different response between a focal brand and an unbranded product when both have the same level of marketing stimuli and product attributes."*
Kotler (2003, p. 422)	*"Brand equity is the positive differential effect that knowing the brand name has on customer response to the product or service."*

Source: Own contribution

Appendix 7: Important Marketing Metrics

Some authors have attempted to answer the important question of which metrics that firm's should use when trying to capture marketing performance.

Davidson's (1999) base his analysis on the marketing literature, existing research among analysts and shareholders, and examples of current practice among 25 companies. By further applying some selection criteria, his list contains the 10 marketing metrics that are most likely to be valuable in corporate reporting:

Figure 25: Davidsons' Most Valuable Marketing Metrics
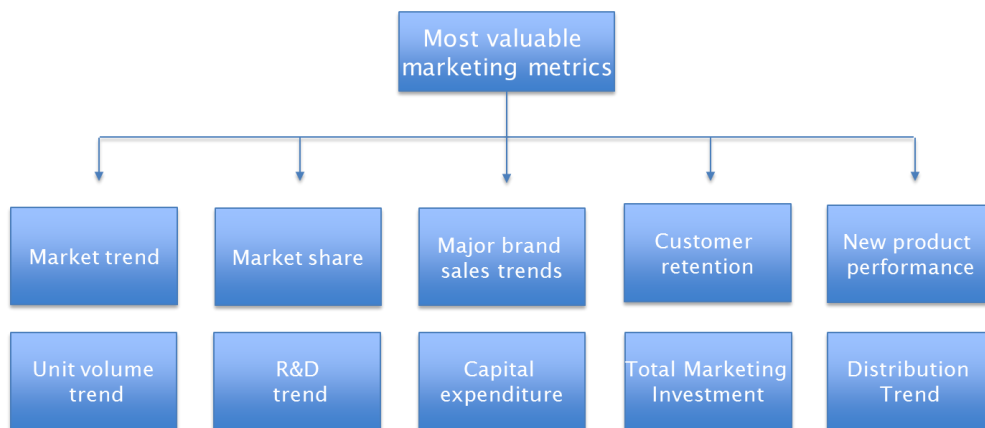
Source: Davidson (1999)

However, Davidson does not rank the marketing metrics in terms of importance as seen by Ambler, et al., (2004). Their study focuses in particular on the role of brand equity in the performance assessment and top management orientation, when selecting the metrics. Their ranking of the most commonly used marketing measures are:

Table 24: Most commonly used Marketing Measures by Ambler, et al.

Ranking	Marketing Metric
1.	Profit/Profitiability
2.	Sales, Value and/or Volume
3.	Gross Margin
4.	Awareness
5.	Market Share (Volume or share)
6.	Number of New Products
7.	Relative Price
8.	Number of Consumer Complaints
9.	Consumer Satisfaction
10.	Distribution/Availability
11.	Total Number of Customers
12.	Marketing Spend
13.	Perceived Quality/Esteem
14.	Loyalty/Retention
15.	Relative perceived quality

Source: Ambler, et al., 2004

Appendix 8: Aided Brand Awareness for the Beer Category

When attempting to include appropriate variables for measuring the awareness of a brand, the maturity of the brand and its competitors must be taken into account. Aided brand awareness is often at a high and stabile level and often not sensitive to advertising (Franzen, 1999). This is also the case for the five largest beer brands in Denmark. As Table 25 shows, the aided brand awareness for the five brands ranges from 87% for Royal Beer to 97% for Grøn Tuborg and Carlsberg on a year-to-date (YTD) basis.

Table 25: Aided Brand Awareness for major Beer Brands

	Mar	Apr	May	Jun	Jul	Aug	Mov. 6m 2011	Mov. 6m 2012	Dev.	YTD 2011	YTD 2012	Dev.
Aided brand awareness												
Royal Beer	88%	85%	89%	86%	87%	87%	85%	87%	2	85%	87%	2
Heineken	95%	95%	94%	92%	94%	94%	92%	94%	2	93%	94%	1
Carlsberg	98%	96%	98%	96%	97%	97%	97%	97%	0	97%	97%	0
Grøn Tuborg	98%	96%	98%	96%	97%	97%	97%	97%	0	97%	97%	0
Tuborg Classic	96%	94%	98%	94%	95%	95%	95%	95%	0	95%	96%	1

Source: Mindshare Beer Tracking, August 2012

Appendix 9: Multiple Regression Analysis

The process of regression analysis is to weight each independent variable in order to ensure a maximal prediction from the set of independent variables. These are estimated using a mathematical procedure known as **least square**, so that the sum of squared errors (SS_E) of prediction is minimized (Hair, et al., 2010). These weights signifies the relative contribution of the independent variables to the overall prediction and facilitate interpretation of the influence of each variable in making a prediction, although the correlation among the independent variables cause difficulties in the interpretative process (Hair, et al., 2010). The set of weighted independent variables then form the *regression variate* (also called regression model or regression equation).

Establishing the significance level signifies the chance the researcher is willing to take of being wrong about when the estimated coefficient is different from zero. A value typically used is 0.05 (Hair, et al., 2010), and therefore, this significance level is utilized in this thesis. If the researcher wishes a smaller chance of being wrong and therefore sets the significance level smaller (e.g. 0.01), the statistical test becomes more demanding. In contrast, increasing the significance level to a higher value (e.g. 0.10) allows for a larger chance of being wrong, but also makes it easier to conclude that the coefficient is different from zero.

9.1. Selection of Variables

Ultimately, the success of multiple regression begins with the selection of the variables that should be used in the analysis. In doing this, the researcher should always consider the three following issues, which are discussed in regards to this thesis in the following:

Strong theory

The selection of both dependent and independent variables should be based on conceptual and theoretical arguments. Accordingly, the researcher must perform fundamental decisions of variable decision, although many options are available to assist in model estimation. If the researcher does not exercise judgments about the variable selection, the basic tenet of the model will be violated (Hair, et al., 2010). In this thesis, the presented hypotheses are all built on strong theoretical frameworks to ensure that the analytical section progresses satisfactorily.

Measurement Error

The selection of a dependent variable is most often dictated by the research problem, which is also the case in this thesis. In all cases, the researcher must always be aware of measurement error. This concept refers to the degree to which the variable is an accurate and consistent measure of the concept being studied. Keeping this in mind is important, as even the best independent variables may not be able to achieve acceptable levels of predictive accuracy (Hair, et al., 2010). Even though, measurement errors can come from multiple

sources, multiple regression has no direct means of correcting for detected levels of measurement error for both the dependent and the independent variable. (Hair, et al., 2010). Measurement error can for example be addressed by using the approach of *summated scales*, which indicates that we employ multiple variables to reduce the reliance on any single variable as the sole representative of a concept (Hair, et al., 2010). Although various studies that attempts to build or validate a brand equity measurement system often use more than one scale item to measure each construct (e.g. Martensen & Grønholdt (2004) and Aaker (1996)) this project only implements summated scales for the familiarity variables as the remaining analyzed variables are predetermined by Mindshare. A lower degree of measurement error might be obtained if more scale items were used to tap each construct.

Specification Error

Another issue in the selection of independent variables is specification error, which concerns the inclusion of irrelevant variables or the omission of relevant variables from the set of independent variables (Hair, et al., 2010). Both types of specification error can have substantial impacts on the regression analysis. Hence, the inclusion of irrelevant variables will affect the regression variate and may make the testing of the independent variables less precise and, by that, reduce the statistical and practical significance of the actual analysis (Hair, et al., 2010). In contrast, if the researcher excludes relevant variables, this can bias the result and affect any interpretation of them. The issues related to either the omission of relevant variables or the inclusion of irrelevant variables heightens the need for a strong theoretical foundation even further. In this thesis, both types of specification error have been considered extensively, with special consideration to the excluding of relevant variables. Various other independent variables could have been included to ensure a more accurate prediction of the dependent variable (e.g. distribution, weather etc.). However, due to the scope of the thesis, these were not included in the analysis, which might affect the results to some extent.

9.2. Interpretation of the Regression Model

With the intercept and regression coefficients estimated by the least squares procedure, the interpretation of these is as follows:

Regression coefficient (b_n): This is a numerical value of the parameter estimate directly associated with an independent variable, e.g. in the model $Y=b_0+b_1X_1$ the value b_1 is the regression coefficient for the variable X_1. The regression coefficient represents the amount of change in the dependent variable for a one-unit change in the independent variable. In the multiple regression model the regression coefficients are partial coefficients because each takes into account not only the relationships between Y and X_1 and Y and X_2, but also between X_1 and X_2. The coefficient is not limited in range, as it is based on both the degree of association and the scale units of the independent variables. Accordingly, two variables with the same

association to *Y* would have different coefficients if one independent variable was measured on a 7-point scale and another was based on a 100-point scale (Hair, et al., 2010).

Intercept (b$_0$): Value on the Y axis (dependent variable axis), where the line defined by the regression equation crosses the axis.

Coefficient of determination (R^2): R^2 is a measure of the proportion of the variance of the dependent variable about its mean that is explained by the independent variables. The coefficient can vary between 0 and 1. If the regression analysis is properly applied and estimated, the researcher can assume that the higher value of R^2, the greater the explanatory power of the regression equation, and therefore the better the prediction of the dependent variable (Hair, et al., 2010).

Standard error: Expected distribution of an estimated regression coefficient. The standard error is similar to the standard deviation of any set of data values, but instead denotes the expected range of the coefficient across multiple samples of the data. It is useful in statistical tests of significance that test to see whether the coefficient is significantly different from zero. The *t* value of a regression coefficient is the coefficient divided by its standard error.

Partial t value: The *t* values of the variables in the equation measures the significance of the partial correlation of the variables reflected in the regression coefficient. As such, it signifies whether a researcher can confidently say that, with a stated level of error, that the coefficient is not equal to zero (Hair, et al., 2010).

Correlation Coefficient (r): The correlation coefficient indicates the strength of the association between any two metric variables. The sign (- or +) indicates the specific direction of the relationship. The value can range from +1 to -1, with +1 indicating a perfect positive relationship, 0 indicating no relationship and, and -1 indicating a perfect negative or reverse relationship (as one variable grown larger, the other variables grows smaller) (Newbold, et al., 2007).

Appendix 10: Calculating Adstock for fixed λ

To illustrate how adstock can be calculated, the TRP levels and the corresponding adstock values are illustrated in the below table for fixed levels of λ.

Table 26: Calculating Adstock levels

		λ = 0,6			**λ = 0,8**	
Year	Week	TV ADSTOCK ROYAL	TV TRP ROYAL		TV ADSTOCK COMPETITORS	TV TRP COMPETITORS
2010	1	0	0		0	0
2010	2	0	0		0	0
2010	3	0	0		0	0
2010	4	0	0		111,7	111,7
2010	5	0	0		**192,46**	103,1
2010	6	0	0		285,768	131,8
2010	7	0	0		228,8144	0,2
2010	8	0	0		183,05152	0
2010	9	0	0		257,441216	111
2010	10	0	0		303,7529728	97,8
2010	11	0	0		243,2023782	0,2
2010	12	0	0		194,5619026	0
2010	13	0	0		155,6495221	0
2010	14	0	0		124,5196177	0
2010	15	0	0		511,0156941	411,4
2010	16	0	0		905,1125553	496,3
2010	17	0	0		1163,890044	439,8
2010	18	0	0		1169,312035	238,2
2010	19	0	0		1239,849628	304,4
2010	20	0	0		1228,979703	237,1
2010	21	0	0		986,3837621	3,2
2010	22	0	0		907,7070097	118,6
2010	23	0	0		1009,965608	283,8
2010	24	314,6	314,6		1056,972486	249
2010	25	399,66	210,9		1271,777989	426,2
2010	26	551,396	311,6		1524,922391	507,5
2010	27	658,0376	327,2		2067,737913	847,8
2010	28	700,02256	305,2		1901,49033	247,3
2010	29	420,513536	0,5		1890,292264	369,1
2010	30	252,3081216	0		1845,733811	333,5
2010	31	411,584873	260,2		1654,087049	177,5
2010	32	260,9509238	14		1510,969639	187,7
2010	33	417,9705543	261,4		1361,675711	152,9
2010	34	260,5823326	9,8		1192,040569	102,7
2010	35	349,2493995	192,9		1086,832455	133,2
2010	36	209,7496397	0,2		1133,565964	264,1
2010	37	334,0497838	208,2		1349,552771	442,7

Source: AdvantEdge (TRP's) and own calculations

The adstocks for Royal Beer and competing brands were calculated accorded to the following general formula:

$$Adstock_i = TRP_i + \alpha \times Adstock_{i-1}$$

To demonstrate the formula, λ can be fixed at e.g. 0.6 for Royal Beer and 0.8 for competitive brands. Accordingly, by using the equation, the Adstock level in week 5, 2010 is:

$$Adstock = 103,1 + 0,8 \times 111,17 \approx 192$$

This calculated value is highlighted in the table above and the adstock level for Royal Beer can be calculated similarly, but by incorporating $\lambda = 0,6$ instead.

It must be emphasized that this is simply a demonstration of the formula. The actual value of λ depends on the data, and the optimal value will vary according to this.

Appendix 11: Four types of loyalty status

Various authors agree that consumer can have varying degree of loyalty. Kotler (2003) divided buyers into four groups according to their loyalty status.

The *hard-core loyals* are consumers who buy one brand all the time – and only this brand.

The *split loyals* are consumers who are loyal to two or three brands.

The *shifting loyals* are consumers who shift from one brand to another.

The *switchers* are consumers who show absolutely no loyalty to any brand.

Each market will consist of different numbers of the four types of buyers. A brand-loyal market is one with a high percentage of hard-core brand-loyal consumers. According to Kotler (2003) the beer market is actually classified as a relatively high brand-loyal market. This may explain why smaller beer companies may have a hard time gaining market share and companies that enter the market may have a hard time getting in.