



## “What you see is what you choose”

An Analysis of a Bottled Water's Design, Source and Brand and its Influence on Perceived Quality and Purchase Intention

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Submitted: November 2011

Number of Characters: 181,518

Number of Pages: 98

## Abstract

*“What you see is what you choose” (Clement, 2007)*

With the largest bottled water market, Europe, maturing and competition intensifying it becomes increasingly important for the actors to stand out to the consumer. In order to stand out and capture the consumers' attention the bottle design becomes an important mean of differentiation (Hoegg, et al., 2010). Especially because consumers' tend to scan shelves in order to find the product that pops (Clement, 2007; Reimann et al., 2010). Furthermore, when confronted with a bottle design the consumer will have a perception about its quality and an intention of purchase. The purpose of this thesis is thus to uncover the relationships between bottled water's design and the consumers' perception of the quality of the water contained in the bottle as well as consumers' purchase intention. Furthermore, this thesis also investigates how these initial decisions are affected through the introduction of additional information about the bottled water's country of origin followed the bottle's brand.

The research design was exploratory in nature with descriptive elements and mainly used a quantitative research method. Empirical data was gathered through an online based survey, where 635 participants responded worldwide.

The results show that there is a positive relationship between the visual attractiveness of a bottle and that of the perceived quality as well as intended purchase. The results also illustrate that a global trend prevails in determining the attractiveness of the bottles. Hence, there is seemingly no need for local adaptation of the water bottle's design. Furthermore, country of origin information showed no statistically significant strength to positively influence perceived quality or purchase intention for a visually unattractive rated bottle. The impact of brand information illustrated that a brand with significant international exposure and recognition can influence the consumers' perception of quality and purchase intentions.

## Acknowledgement

First and foremost, I would like to thank Judith Zaichkowsky for her guidance, insight and outmost encouragement and patience throughout the process of this research.

Second, I would like to thank everyone whom participated in my survey, especially those who helped me gain such a fantastic international sample in such a short amount of time.

Furthermore, a big thank you to: Anouk and Tor for their thoughts and honest feedback. To Jens for his tutoring, answers and humour. To my friends for their understanding and encouraging words.

Last but not least, thank you to my family who enthusiastically and generously let me discuss and test endless aspects of my thesis on them.

To Elina, for everything.

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# CHAPTER 1. Introduction



## 1.1 Introduction

Companies are increasingly recognising the importance of design as a tool in creating competitive position and differentiating themselves in crowded markets (Lorenz, 1986; Bloch, 1995; Cox and Cox, 2002; Zegler, 2006; Trendhunter.com, 2010). Aesthetic products are becoming more important in every product category and in all markets, so important, in fact, that even the discount retailers like K-mart and Target have started to implement more aesthetics in their products (Cox and Cox, 2002). Design has infiltrated commodity products such as bottled water (Zegler, 2006), which is the industry focus of this thesis, from big brands producing limited edition bottles like *Evian's* designer collaborations, to the emergence of new companies tapping on the latest ecological consumer trends (*This water*).

The bottled water market is crowded and it is difficult to penetrate the noise and visually appeal to the consumer from the store shelves (Clement, 2007). Marketing research thus continues to break down different elements of products, consumption, purchasing, and perception into more intricate and delicate information in order to propose profitable strategies. Deep dives into the consumer mind and psychology to determine *how* we choose and *why* we choose what we choose are popular topics of investigation (Kotler and Armstrong, 2010; Solomon et al. 2010). This product selection process has been investigated and found that product design. A product's shape, form and colour, are the first product attributes that the consumer notices (Clement, 2007). It is what breaks through the noise before the consumer picks up the product and assesses its other benefits. Country of origin (COO) and brand are examples of such additional benefits affecting the selection process and/or purchase intentions (Dodds et al. 1991; Sivakumar, 1995; Teas and Agarwal, 2000; Sullivan and Duncan, 2003; Hamlin and Leith, 2006; Essoussi and Merunka, 2007). COO might be particularly important for bottled water, as it is a product that is physically consumed. Bottled

water needs to fulfil a minimum purity requirement set by governments. As a result there is a minimum quality standard in the industry and the level of deviation from this standard may not be great. Marketing, hence, plays a crucial role in the success of the products and brands within the market. Perceived enlightened quality in the minds of the consumer is acknowledged to push have consumers to choose bottled water over their local tap water (Ferrier, 2001; BCG, 2008). In purchasing decision making processes, the product design, the country or origin, and the brand are recognized in literature as factors of perceived quality (Han, 1989; Johansson, 1989; Chao, 1993; Teas and Agarwal, 2000; and Dodds et al., 1991). Hence, the bottled water industry is particularly pertinent to investigate as it is, in addition, essentially selling a fundamental and basic commodity. Furthermore, little research has been conducted on the bottled water industry in general and none has been conducted in this particular manner or with this particular focus, which will be explained in more detail below.

This master thesis will investigated three product elements that are thought to have an influence on the consumers purchasing decision and perception of quality: *design*, *country of origin (COO)* and *brand*. More specifically, it will investigate product design as the potential initiator of quality perception in the minds of consumers. Secondly this study will attempt to comprehend the value of product design against other quality factors such as the products country of origin, the product's price and the product's brand perception. This is aligned with the product selection process that stresses the importance of a visually appealing product in order to stand out (Clement, 2007). Moreover, it becomes relevant to investigate the impact of information given to the consumer after a visual impact has been made. Hence, COO and brand information will be provided and investigated. The proceeding section will explain the underlying motivation for this thesis as well as illustrate the more practical dimensions and hence applicability of the research conducted.

### **1.1.1 Motivation**

The overall motivation for this thesis stems from the observed increase in attention with regard to bottled water. More specifically, it was inspired by the Norwegian bottled water VOSS. VOSS has received tremendous media attention for its bottle design, particularly in the US where it became a hot celebrity accessory in 2005. The iconic, streamlined bottle was designed by the former creative director for the luxury fashion label Calvin Klein, Neil Kraft (vosswater.com). It has been fascinating to witness how VOSS has received celebrity status based on its minimalist design and through claims of holding some of the purest water

in the world. After entering the limelight, the VOSS company has received a lot of controversial media attention, especially in Norway, based on company's purity claims. The media uncovered the source origin of the water, which was neither as glossy, nor pure as the company claimed in their clever marketing. As a result it may have become more difficult for the company to justify their premium pricing and luxury status in the market. The company is now attempting to reposition themselves by entering retail stores and lowering their price. Consequently curiosity was sparked concerning how a high-design<sup>1</sup> item like VOSS will perform relative to other mass-market bottles and what the implications of design might be. These thoughts furthermore inspired the research question. The case of VOSS will continue to be utilized throughout the investigation as a way of bridging theory and the empirical findings. The findings from the analysis will also be applied to VOSS to illustrate the research practical applicability and relevance.



Image 1. VOSS Source: [vosswater.com](http://vosswater.com)

### 1.1.2 Purpose

The purpose of this thesis is first and foremost to investigate, establish and shed light on the relationship between product design and the influence it has on the consumers perceived quality of bottled water. Bottled water is particularly pertinent to investigate, as it is essentially a free commodity, but selling and earning huge profits as a designer product and fashion accessory. Furthermore, increasing understanding of how product design can influence consumers perception of a product and perhaps purchasing behaviour can prove to be very useful for the marketing of fast moving consumer goods and commodities (Schoormans and Robben, 1996; Orth and Malkewitz, 2008). Establishing the influence of the bottled water source and how it may or may not contribute to the value perception of the product is also a highly relevant aspect of this thesis. Consequently, with use of extensive theoretical and literature reviews supplemented with quantitative empirical data and analysis of consumer responses, this study will lead to academic conclusions, industry recommendations and suggestions for further research.

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<sup>1</sup> The concept of high-design will be elaborated within the literature review section.

## 1.2 Problem formulation

### 1.2.1 Research Question

In order to fulfil the purpose of this master thesis, the study will be designed to answer the following research questions:

*What is the relationship between the attractiveness of a water bottle and the consumers' perception of content quality as well as their intended purchasing decision? Moreover, how do these decisions change, if at all, when the consumer is given new information (Country of origin and brand) in isolation?*

In order to successfully answer the above research question it is necessary to answer for the following sub questions. These questions will to a great extent guide the literature review and lead to the construction of relevant hypothesis that are to be tested.

- I. What implications do design have for the consumer in how do they perceive quality?*
- II. How does a product's country of origin (COO) shape the consumer's perception of a product?*
- III. Can a given brand significantly alter the consumer's perception after a decision is made due to both design and COO?*

### 1.2.2 Scope

This study starts by focusing on the design of bottles and continues by adding country of origin (COO) and brand perspectives. The study seeks to evaluate the extent to which each of these attributes will influence the consumers' perception of product quality. More specifically the research conducted seeks to uncover the relationship between product *aesthetics* and the consumers' *perception* of quality and whether this will influence the consumers' decision to buy. The thesis is not focused on the technical elements of the bottle such as protecting the content and the ease of storage and distribution. In respect to theory, only relevant literature for research context will be used.

### Definitions

**Aesthetics:** Some scholars have claimed that aesthetic is only applicable to true cultural or artistic products, others have acknowledged that any product may be enjoyed in an aesthetics sense (Holbrook, 1981). It is accepted that the concept involves the sensory response of feeling, unconscious or conscious, pleasure for an object based on their perception of the object (Veryzer, 1993). Hence, this thesis uses the terminology as a means to identify consumer's perception of water bottles attractiveness.

**Attractiveness:** In the context of this thesis the attractiveness is solely concerned with visual attractiveness and is used in reference to aesthetic appeal of the bottles design.

**Country of Origin:** This is a theoretical concept that will be applied to the bottled waters source, in other words, country of origin refers to where the water is tapped.

**Package and Product design** are used interchangeably in this thesis, as a bottle of water is both a product and a package. The definitions of the two are theoretically similar and build on the same concepts emphasising *holistic design: Package and Product design consists of the various elements chosen and blended into a holistic design to achieve a particular sensory effect* (Orth, U. R and Malkewitz, K., 2008).

**Product form:** embodies the hedonic component of design, considered in terms of pleasant or unpleasant sensation. And will be regarded as a holistic impression of: shape, proportion, symmetry and ornamentation (Bloch, 1995).

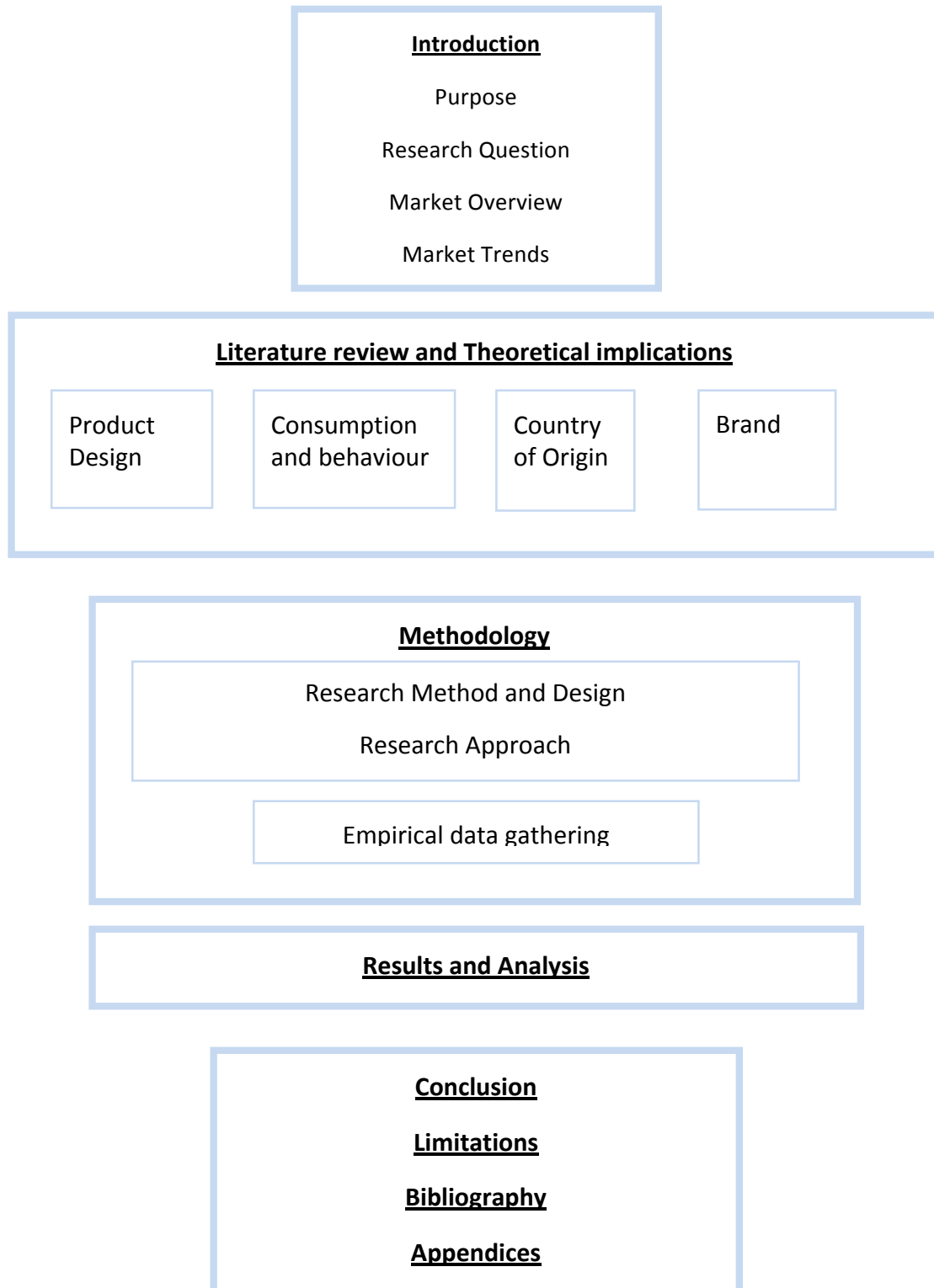
## 1.3 Methodology in brief

In order to best answer the research question, a combination of primary and secondary data has been collected. The thesis will take its point of departure in current and appropriate academic theory and conduct a thorough literature review. The following theoretical groupings will be investigated and lead to formulated hypothesis:

1. Design (product and package)
2. Country of Origin
3. Brand

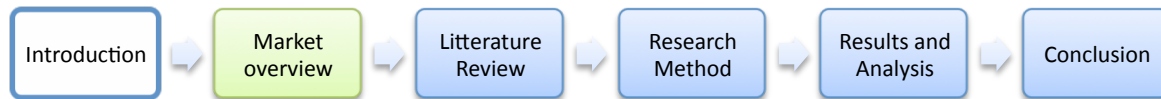
In order to collect sufficient empirical data an online survey was constructed and distributed. 639 international responses were collected and analysed through the use of SPSS.

## 1.4 Project structure





## CHAPTER 2. Market Overview



### 2.1 Bottled Water Industry: An Overview

The following section will provide some background knowledge on the bottled water market in terms of size, share, segmentation and competition, from a global perspective. This is important in order to better understand the scope of the project and the industry. It is worth noting that the global bottled water market is divided into three main geographical regions: Americas, Asia-Pacific, and Europe. Furthermore, it consists of four product categories: sparkling flavoured water, sparkling unflavoured water, still flavoured water and still unflavoured water (Datamonitor, 2010).

#### 2.1.1 Market Share by Value

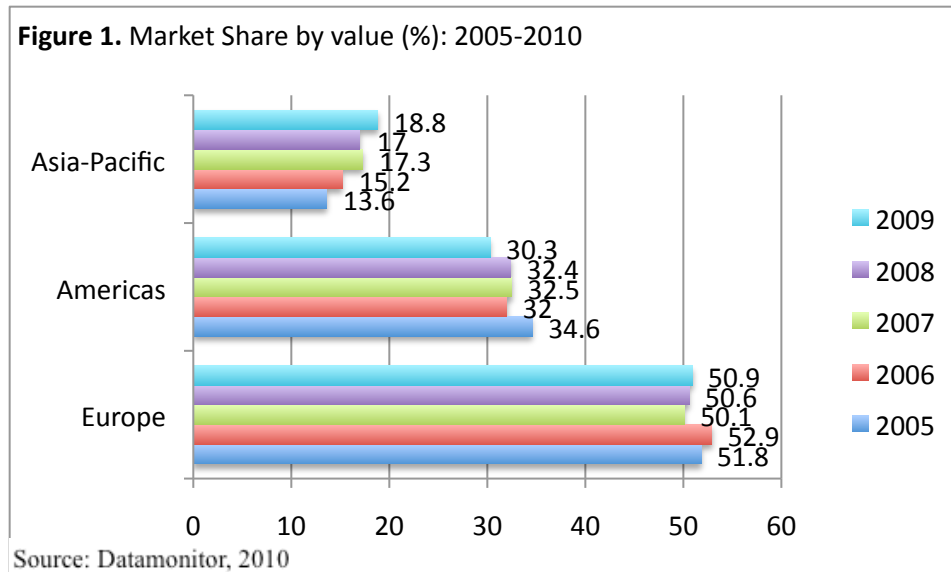
The largest market in the bottled water industry is that of the European market<sup>2</sup>, which in 2009 accounted for 50.9% of the global market value. Since 2005 the regions market share has declined 0.9% much as a result the increase of consumption in the Asia-Pacific region<sup>3</sup>. In the European market, Germany has consistently accounted for the greatest consumption since 2006. Furthermore, the Asia-Pacific region accounted for 18.8% of the global market in 2009, an increase of 5.2% and is consequently the fastest growing market in the industry. In this region, China is not surprisingly accounting for the majority of consumption. Most of the Asia-Pacific gains are at the expense of the Americas region<sup>4</sup> where the market share has declined by 4.3% (Datamonitor, 2010). *Figure 1* illustrates this information in a more comparable manner below.

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<sup>2</sup> Europe: *Belgium, Czech Republic, Denmark, France, Germany, Hungary, Italy, Netherlands, Norway, Poland, Romania, Russia, Spain, Sweden, The Ukraine and the UK.*

<sup>3</sup> Asia-Pacific: *Australia, China, Japan, India, Singapore, South Korea and Taiwan.*

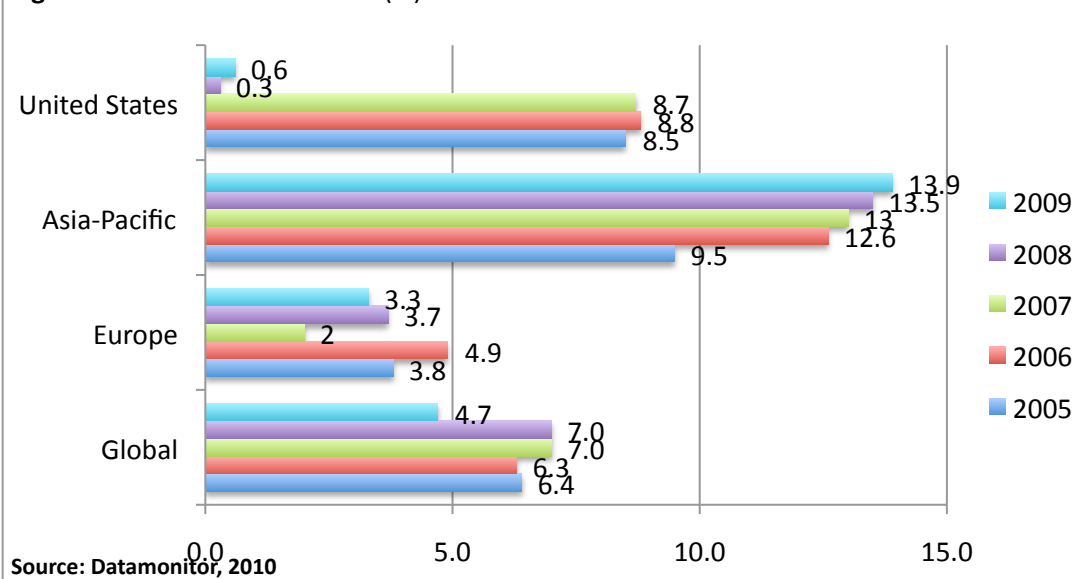
<sup>4</sup> Americas: *Argentina, Brazil, Canada, Chile, Colombia, Mexico, Venezuela, and the US.*



### 2.1.2 Market Growth

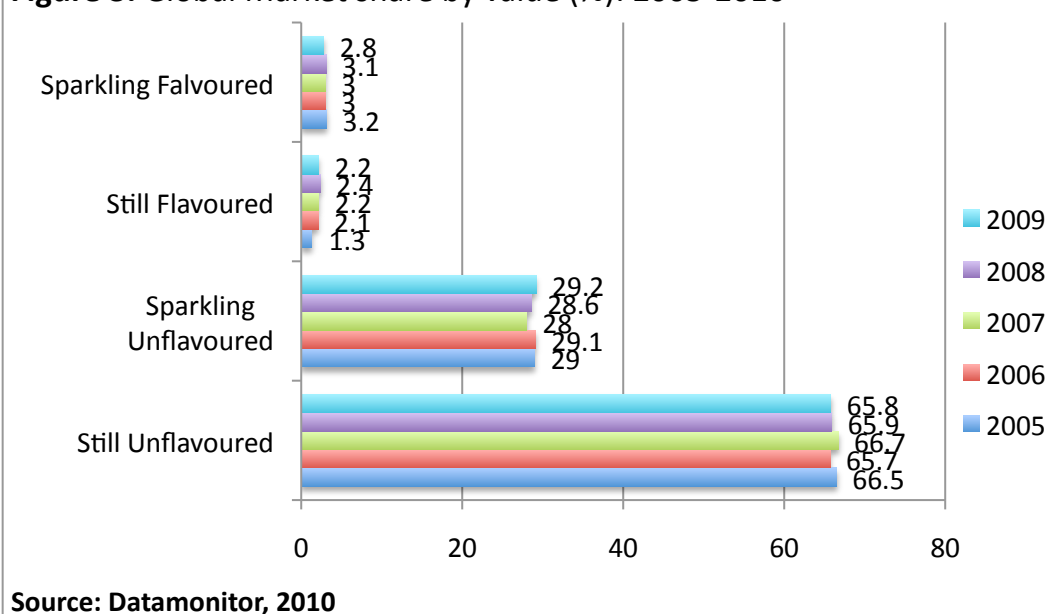
*Figure 2* illustrates the global market value growth<sup>5</sup> where the difference between the markets is emphasized. The overall market grew by 4.7% in 2009, 2.3% less than in 2008. This slow down, is largely due to the significantly low growth in the US market value, which fell from 8.7% in 2007 to 0.6% in 2009 (Datamonitor, 2010). Notably, this is the smallest growth seen in the US bottled water industry in over 10 years. According to Beverage World (2009) the market decline was a result of two main factors: First, it stemmed from the economic crisis and lead to consumers' lack of willingness to purchase bottled water. Second, the increased environmental awareness of the consumers is also claimed to have an affect though notably to a lesser extent. The latter is however predicted increasingly important for the future of the industry (Datamonitor, 2010). This *green* trend signifies a potential great challenge to the industry and will be discussed in further detail under market trends. Furthermore, *Figure 2* show how these factors also have affected the European market with its shy 3.3% growth in 2009. However, the European market is that of a mature one and has experienced steady growth for the last decade. This contrasts strongly to the Asia-Pacific region, which has experienced great growth rates with 9.5% in 2005 to 13.9% in 2009. This makes the region the fastest value growing out of the three, not surprisingly as this tends to be the trend across many different industries as a result of the increased purchasing power of the Chinese population.

<sup>5</sup> The market is valued according to retail selling price (RSP) and includes any applicable taxes (Datamonitor, 2010).

**Figure 2. Market Value Growth (%): 2005-2009**

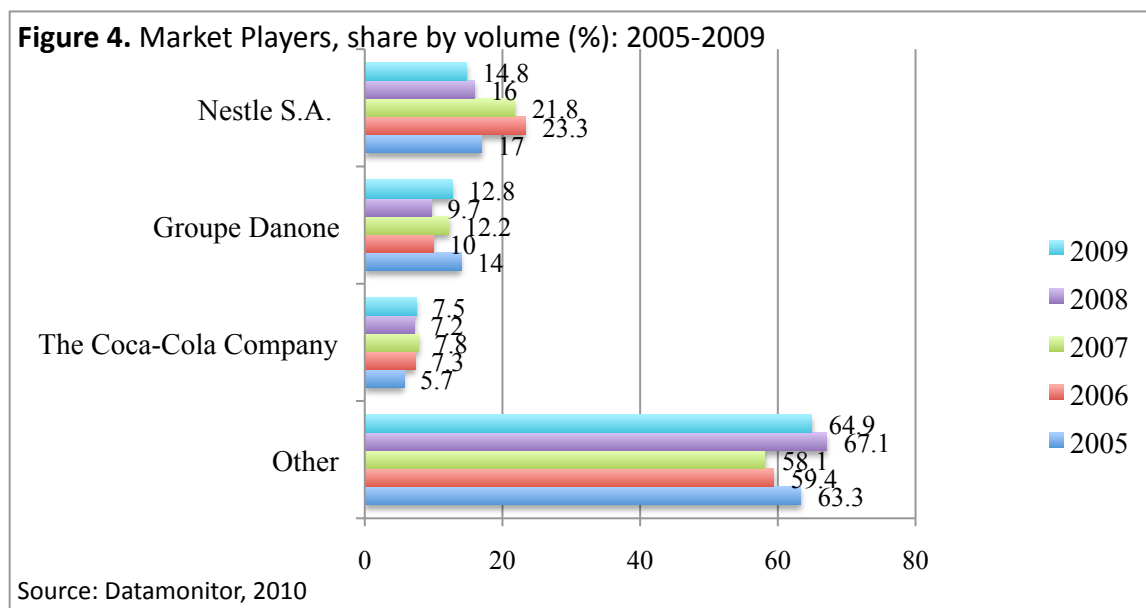
### 2.1.3 Market Share Product Category

Figure 3 illustrates the market share according to the four product categories in the industry as previously mentioned. Still Unflavoured water is by far the biggest segment of the market. Its share has largely remained unchanged over the years as it remains most popular and most consumed product. Similarly, unflavoured sparkling also remains largely unchanged. Evidently the categories remain stable in their market share and show very little evidence of any changing preferences.

**Figure 3. Global Market share by value (%): 2005-2010**

### 2.1.4 Market share

There are few major global players ruling the industry. Notably, the global actors shown in *Figure 4* are largely faced with fierce competition from local actors in each country. Evident from the figure below, Nestlé has lost considerable market share to Danone and Coca-Cola paired with an increased competition from the previously mentioned local actors (*other*). The strength of the international actors is particularly relevant to the scope of this thesis as it to some extent seeks to uncover how their market position can be challenged by other actors through bottle design.



### 2.1.5 Market rivalry

The switching cost in the industry is very low due to the fact that the product is essentially the same, water, which is also available from the tap. Hence, the competing brands have to pay careful attention as to how they are positioned and perceived in the market, as the consumer easily can switch between products. Due to this low switching cost and the strong presence of local competitors in the respective market, competition tends to be quite fierce (Datamonitor, 2010). Moreover, retailers purchasing decisions are strongly influenced by consumer demand, which often favours popular brands (Datamonitor, 2010). This adds additional pressure for bottled water companies to effectively differentiate in the sector. Design elements thus become particularly relevant when defining a product's positioning strategy and forecasting return on investments. Awareness towards consumer trends may be essential in this context. This will be further elaborated in the following section.

## 2.2 Market trends

The proceeding section will provide information on relevant current trends observed in the bottled water market. The *raison d'être* for this thesis largely stems from the observation of such trends and curiosity as to how it may impact the future of the industry. As this thesis is largely concerned with the design of bottled water it is only natural that the following section utilizes imagery. The imagery will provide a visible feel for different market trends and how design aspects are included or related to these trends. As will be evident, design plays a great role in all emerging market trends.

### 2.2.1 Health and Lifestyle Trend

Mintel's (2005) research reported a major trend shift to healthier beverages in the UK, which consequently led to the decrease in the market for carbonated drinks as consumers became more concerned with their well being. According to Mintel (2005) the water bottle packaging helped boost its popularity. The sports cap on the bottle has also been particularly successful as it complies with the trend of consumers' healthier way of life (Designweek, 2005). Ferrier (2001) similarly adds that the consumption of bottled water reflects a health conscious lifestyle, which has become increasingly popular *vis-à-vis* the increased health critique of soft drinks. Additionally, Ferrier states that the consumption has much to do with finding a better tasting alternative to tap water. Much of the tap water across the world has both a strong taste and odour of chlorine because of purification requirements. This is the case in North America, France, and UK among other countries. In addition, tap water might also differ in colour and might have traces of sand in it, as some places in Norway or California. This may understandably be unappetising for the consumer, despite that it may not have any correlation to the purity or safety of the water. Bottled water thus becomes the preferred alternative (Datamonitor, 2010; Ferrier, 2001).

In their study Geissler and Gamble (2002) reported that the bottle water industry has experienced explosive growth on a global scale but particularly in the US and Asia-Pacific region, much due to the consumers' perception that bottled water was purer and healthier than tap water; In 1999, 56% of the American households bought bottled water (Geissler and Gamble 2002). The claim that bottled water is healthier and purer than tap water was a perception largely created through advertising from the beverage companies that wanted to expand their profit margins (Natural Resource Defence Council (NRDC) 1999; Ferrier 2001).

Hence, bottled water is selling on the assumption that it is healthier for the consumer (Olson, 1999; Ferrier, 2001). However, since then, various stories in the media has emerged as major bottled water producers have been accused of selling water of equal quality to tap water or worse (NRDC, 1999). This might have contributed to the industry seemingly shift in marketing focus, as pure water is not sufficiently of a selling point to satisfy consumer needs. Over the past few years numerous water-based products have emerged and enjoyed sharp increase in popularity. Products include water with extra additions of such as vitamins or real fruit extracts. Such as Glacéaus *vitamin water* and the British *this water* respectively provide pertinent examples.



Image 2. This water. Source: [thiswater.com](http://thiswater.com)

### 2.2.2 More than just water

The global water bottle product has visibly evolved into an industry of great product differentiation; water in designer bottles, water with tastes, water with vitamins, water with appetite suppressants, water with electrolytes, water with fruit, water from coconuts and not to mention the numerous charities and donations consumers can now make through the purchase of water bottles (Zegler, 2006). The main global market players such as Nestlé, Danone and The Coca-Cola Company are expanding their bottled water through the type of diversification mentioned above. Nestlé introduced *Nestlé Wellness*, which consists of spring water and 5% juice content and *Water Line* for anyone who is watching their weight (Nestlé-waters.com). Group Danone has continuously expanded the flavours of its *volvic* water and have added the popular sports cap to their bottles (volvic.co.uk). Danone's Evian has also integrated the sports cap to their bottles in a variety of designs. Evian is also known for its special edition designer bottles such as the current elegant design by Issy Miyake. The Coca-Cola Company, on their end, introduced *smartwater* infused with natural electrolytes, *vitaminwater* as

mentioned above and its sugar free cousin *vitaminwaterzero* extending their existing product line (glaceau.com).

Starbucks's *Ethos* is a good example of a charitable and ethical attempt to differentiate by contributing to aid the world water crisis. A clever move in terms of dealing the Corporate Social Responsibility (CSR) card and also profiting from the rising ethical consumerism movement and the increasingly healthy consumer habits (Datamonitor, 2005). Notably, these trends have been most evident in the US but the Starbucks initiative is global and *Ethos* is available in Starbucks cafés around the world (Starbucks.com).

The flavouring and charitable trends are not exclusively held by the big global actors. Similar products are also available in local markets by local competitors. First out in the Scandinavian market may have been the Swedish *Ramlösa* and the Norwegian *Farris*, which both added citrus flavours to their sparkling waters in the first half of the 2000s (ramlosa.se, farris.no). In Denmark *Kildevæld* has in the last few years launched numerous flavoured water combinations both sparkling and still. In addition, *Kildevæld* is collaborating with *Lifestraw* in aiding people in Africa to clean, drinkable water (3literrentvand.dk).

### 2.2.3 The *Green* Trend

Simultaneously to the health fix trend another trend is emerging fast to challenge the industry: environmentalism. The increasing environmentally aware consumer is raging towards the industry with good reason. The Natural Resources Defence Council estimated in 2007 that 4000 tons of CO<sub>2</sub> is generated each year through the imports of bottled water from Fiji, France and Italy to the US (Beverages Market Research



Image 3. Source: Bubble water

Handbook 2008). As a result new more environmentally sustainable products have emerged (Thomas, 2009). The *bottle* water bottle, for example, was created to meet consumers' demand for an inexpensive, healthy, convenient and environmentally sustainable alternative to that of the retailed bottled water product without compromising on design. Hence, these bottles are installed with multicoloured carbon

based filters that remove organic contaminants from regular tap water which results on both taste and odour reduction (waterbottle.com).

An additional example is the *360 paper bottle* (right) created by Brand Image in order to address the 60 million plastic bottles that are thrown away on a daily basis in the US also in response to the consumers' environmental concerns. The bottle is made from renewable resources, is fully recyclable and still has a distinct and innovative design (Brand-image.com). Bottled water is replacing the plastic bag in the media as the new faux pas for consumers. This trend is fast rising and, supported and fronted by some of the popular limelight celebrities/models, which is perceived to be an efficient way of promoting causes these days. Notably, these sustainable alternatives are also gaining momentum with environmentally conscious consumer (Trend Hunter, 2010; Ferrier, 2001).



Image 4. 360 paper bottle by Brand image

#### 2.2.4 Fashion water

The world's popular and profiled designers are gaining important ground in a wide variety of industries (Trend Hunter, 2008; Trendhunter, 2010; The Coca-Cola Company, 2011; Zegler, 2006). Various brands across multiple industries have thrown themselves at the *guest designer* trend. The result has perhaps been most evident in the fashion industry with major clothing companies such as H&M launching collections with the use of guest designers such as Manolo Blahnik, Marc Jacobs and Karl Lagerfeld to name a few. H&M has stated that it is a good way to answer the consumers' desire for higher-end products, without having to spend a fortune. Furthermore, the limited availability of the products made them more desirable to the consumer. Ensuing from this major success the trend has spread to the fast moving consumer goods (FMCG) industry and the beverage industry. Special and limited edition designer bottles have been designed, produced and have yielded success. Coca-Cola has had great success with their Karl Lagerfeld designer limited edition bottles appearing for the first time in 2010 and returned in 2011 based on popular demand. The collaboration is now referred to by the same seasonality as a normal fashion collection (The Coca-Cola Company, 2011). Furthermore, Paul Joe designed a variety of fashion water cans for Perrier



in 2008 (Trendhunter 2008). Missoni designed for San Pellegrino in 2010 and Issey Miyake and Evian collaborate to create a *haut* water bottle in 2010. Evian probably has the longest history out of the bottled water actors with this trend and had previous collaboration with the famous shoe designer Christian Lacroix in 2007 and designer Paul Smith in 2009 (Trendhunter, 2010). The latter will also be used as an example of this trend in the empirical research conducted in this project.



Image 5. Evian limited edition designer bottles 2007-2010. Source: bevwire.wordpress.com

The prestigious fashion houses and their creative directors have gained celebrity status in the media and are followed by those interested in the field of fashion. Luxury fashion has been made more approachable through collaborations with cheap high-street brands such as H&M. Moreover, with speedy growth of the blogosphere and numerous fashion blogs much more information about the fashion world is easily available. This might have had an educational effect on the consumers and resulted in other wise unknown fashion designers becoming household names. Consumers want a piece of luxury and a piece of the prestige that follows ownership of such a product. However, they are not willing or able to pay the sky-high amounts for the real couture, for instance, instead they settle for the more commercial and approachable products like a limited edition Evian bottle for example (Trendhunter 2008).

Conclusively, it may seem as if the designer names are selling more than the product it self or perhaps rather upgrading the product to a new level of desire and need for the consumer. This raises query about the success potential of a more design-focused products. It

is evident that consumers do care about the design of products and that perhaps they are more willing to trade up on these limited edition or designer items in order to get a piece of the a certain image (Ko and Sung, 2007). These hypothetical theories will be discussed in further detail in the consumption section.

### 2.2.5 Premiumisation

Another, related market trend is that of product premiumisation <sup>6</sup>, which has affected many product categories including bottled water (Beverage world, 2007). Premiumisation has essentially emerged vis-à-vis to increased consumer sophistication (Ko and Sung, 2007). Consumers have more product knowledge than ever before as a result of technology and the internet as well as they are, more often than not, exposed to a great variety of product choices in each product category (Boston Consulting Group (BCG), 2008). Ko and Sung (2007) proclaim that consumption behaviour has polarised as purchases are frequently made depending on the consumers' subjective, emotional values rather than on the more tangible product attributes. Hence, consumers want either low-cost products or more high-ended products (Silverstein and Fiske, 2003). As a result, the premium water category is expanding the parameters of the bottled water industry (Zegler, 2006).



Image 6. iluliaq. source: finewaters.com

Premiumisation in the bottled water industry is evident through the emergence of the designer and fashion category in the industry, and even the super-premium category. An example of such a super-premium bottled water is *Icelandic Glacial*. Additionally, exclusive luxury bottled waters producers have also emerges such as *iluliaq* bottled at its source in Greenland, however, this bottled water is only available by request (iluliaq.com). The expansion of the super-premium and luxury bottled water category has also been evident with the advent of the *bling H2O* diamond covered bottles (below right). Notably, these super-premium and luxury waters products mainly earn their respective status on the basis of the products exclusive design.

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<sup>6</sup> Concept of premiumisation: <http://trendwatching.com/trends/8trends2008.htm>

Additionally, products like Fiji and VOSS are two examples of premiumisation or *upgrades* of the more approachable retail-products in the bottled water industry. Customers are willing to pay the higher price, *trade up*, in order to get the added benefits of their *taste*, *purity* and/or *design* that these products offer. Fiji water has been on the retail market for quite some time in the US and other countries but the company is being impacted negatively by the *green* trends mentioned above. Whereas VOSS has until recently only been available in suitable exclusive and fine-dining restaurants. These products differentiate on their aesthetically pleasing design and their premium price.

Furthermore, the observations done by trendwatching.com (2008), *upgraded* bottled water such as Fiji, VOSS with the addition of San Pellegrino and Perrier, are losing their previous premium positions with the emergence of ultra-premium players such as *bling h<sub>2</sub>O* and *Tasmanian Rain*. What used to be regarded as premium bottled water, especially pointing at San Pellegrino and Perrier, have now to some extent become too mainstream for the premium obsessed consumers (Fuller, 1998-2011). Yet, this makes more premium products available for the masses through retail, which may turn out to be profitable. Moreover, it enforces the polarisation of the retail market and pressures the current actors to choose an end; high or low. The presence of more high-end retail brands will increase competition and hence increase the importance of elements such as design in order to portray a desired image of the brand.



Image 7. Bling h<sub>2</sub>O,  
Diamond covered



Image 8. Fiji water.  
Source: fijiwater.com

### 2.2.6 Mass Market

This short section will illustrate the significant difference between the bottled water companies whom have embraced the above trends and consequently have included elements of design and those whom have not. The mass retail market has by far the greatest market share and typically does not involve bottles with significant design elements as illustrated below (*Image 9*).



Image 9. Nestlé PureLife, Summit Spring, Himalayan, Desani. Source: respective websites.

However, in some regions, like Scandinavia, there has been a visible change in the mass-market through the actors upping their design and *upgrading* their bottles. In Norway, both *Imsdal* (Image10) and *Olden* (Image 11) have undergone such change. Assessing the shape of their new bottles it is likely inspired by the popular VOSS design.



Image 10. Imsdal design change.  
Source: Imsdal.no



Image 11. Olden design change.  
Source: Olden.no

The next section will introduce the theoretical aspects related to the current market trends and practices. It is important to have an understanding of the market trends in order to relate the theory in practical applicable manner but also lead in order to make relevant and accurate conclusion. Hence, the following section will set out to develop more specific hypothesis based on these two elements, theory and practice.

### 2.2.7 Trading-up, trading-down

*Trading up* and *trading down* are the phenomenon that describe consumers' willingness make trade-offs in their purchasing decisions (Ko and Sung, 2007). Consumers are conscious when making tradeoffs in their choice of product and equally in their evaluation of product value in order to maximize the benefit they receive from the respective products by all means (BCG, 2008). The trading up or down has reshaped and destabilised the competitive market and altered the consumers shopping behaviours (BCG, 2008). Consumers have grown increasingly sophisticated, demanding and more refined in their tastes (Ko and Sung, 2007). The reason for this can be seen as a result of evolvement of social and economic trends such as: consumers having higher education and higher disposable income (Silverstein and Fiske, 2003). Additionally, Silverstein and Fiske (2003) found that consumers restless search for a better life and their greater emotional awareness. Emphasising the importance self-fulfilment, self-acceptance and self-esteem has had significant impact on acquiring products that will trade up wellbeing (BCG, 2008), as later will be illustrated in the flipped Maslow pyramid.

This trend is evident on a global scale with differences between the mature and the emerging markets. In mature markets like Europe trading up has become more selective and is more focused on a few categories that are particularly important to the consumer (BCG, 2008). In emerging markets like China, consumers are just starting to be able to afford better brands and products, hence their appetite is increasing for trading up products to well known brands. This could stimulate the market opportunities for premium products in these markets. As the Asia-Pacific market is also the fastest growing bottled water market this presents great opportunity for brand establishment with particular regard to the high-design bottles such as VOSS, Evian and Fiji. However, according to the BCG 2008 report, the Europe and US American consumers are not as impressed with brand name and status their counterparts in emerging markets. Thus the market is tougher for big brands, largely due to the local competition. In addition, consumers in mature markets spend more on products that make their homes comfortable and attractive where as in emerging markets the emphasis is much more on the consumers themselves and on their personal appearance (BCG, 2008). The latter could stimulate the desire for design bottles as the accessory witnessed in USA.

## CHAPTER 3. Literature Review



### 3.1 Theoretical Implications

The following section will provide the research with necessary theoretical background and discussion in order to develop valid and accurate hypothesis that will be tested. The theory provided essentially the backbone in this thesis as it breaks down the intricate issues raised in the research question. Furthermore, it provides a wholesome understanding of the many factors that can influence the outcome of this research. The section starts by covering the main issue of design and moves on to uncover relevant topics in regards to country of origin. A shorter section on brand is introduced at the end of this section.

### 3.2 Design implications

Thirty years ago, and likely more true today, it was suggested that design is the most important determinant in new product performance (Bloch, 1995). Hence, product aesthetics is important regardless of its function. Bloch (1995) further states: *“When given a choice between two products, equal in price, and function target consumer will buy the more attractive”*. This statement largely shapes the hypothesis developed in the following sections.

Product design is increasingly recognized as an important part of the company’s strategy to create competitive advantage; a well-designed product sells more and gains wider distribution (Hutchinson 2008; Lorenz, 1986; Cox and Cox, 2002). Packaging appearance and product design is not only important in creating a point of contact or first impression to the consumer, which will be elaborated on below, it is also a great medium for communicating with consumer (Schoormans and Robben, 1996; Underwood and Ozanne, 1998; Clement, 2007). *This water* is an example of a company that does this by fronting its *green* and *natural* values. Other companies have recognized the importance of design as well and are

consequently largely investing in their products appearance as a distinguished marketing effort (Dickson, 1994). This is evident in the market place as illustrated in the previous section on market trends and made visible through the examples *Olden* and *Imsdal*.

Product appearance is becoming increasingly important at the point of purchase in store as more than 70% of consumers make their choice of daily commodities in-store (Clement, 2007). Additionally, 85% of shoppers purchase one product without picking up and evaluating a different one, hence selecting it solely on its appearance. Furthermore, 90% of consumers make a purchasing decision after only examining the front of the packaging and without physically picking up the product (Clement, 2007). As bottled water is a commodity, it is difficult to differentiate on other basis than its source and design. Hence, Clements (2007) metaphor “*what you see is what you choose*” is highly appropriate and relevant for the bottled water segment. Furthermore, it suggests that consumers would choose to purchase a bottle of water on the basis of the appearance of the bottle, which in turn emphasises the importance of visual stimuli at the point of sale. Furthermore, when consumers have difficulty differentiating quality among different brands they tend to choose products that are most aesthetically pleasing and thus able to break through the competitive clutter (Underwood and Ozanne, 1998; Clement, 2007; Reimann et al., 2010).

Clement (2007) as well as Reimann et al. (2010) importantly raise awareness to the fact that current marketing theory does not sufficiently cover the importance of packaging designs influence on purchasing decision. Packaging design has a great impact on the visual purchasing behaviour of the consumer and thus it is a particularly relevant topic to investigate in more detail with regards to a commodity product like bottled water. In addition, Kumar (2010) states that the product design is directly associated with the desirability of the product and will therefore also influence consumers’ satisfaction with the product as well as affect the perception of the entire brand. This may be a factor influencing likelihood of repurchase and brand loyalty (Jennings and Wood, 2007). Furthermore, the product design will shape the product appearance to the consumer and thus have an impact on the consumers’ first point of contact with the product (Kumar, 2010). Consequently, the product appearance may be regarded as a great part of the foundation in establishing a consumer-product relationship and may dictate the pleasure of the product for the consumer (Hollins and Pugh, 1990 in Kumar 2010). Hence, the aesthetics pleasure of the product design will also play a great role in the consumers’ first holistic impression of the product. In addition, Eckman and Wagner (1994) also state that the aesthetic attributes of products will influence the consumers’ choice of



product. Reimann et al. (2010) highlight that the aesthetics of product design is increasingly important in markets where consumer's needs are already satisfied, which is highly relevant to the mature and fiercely competitive European bottled water market.

Package design consist of a number of essential technical functions such as protecting the content and facilitating distribution but it also serves as a means to communicate with consumers (Underwood and Ozanne, 1998; Schoormans and Robben, 1996). The packaging is where the consumer finds information about the content, ingredients, use and even the brand (Schoormans and Robben, 1996). More relevant for this research is that this is where the consumer finds information about the origin, the source and type of the water contained in the bottle. However, the effectiveness of package design may be challenged. Previous studies have suggested that consumers' attention to nondurable goods is limited (Schoormans and Robben, 1996). This implies that consumers will not spend time studying the bottle in detail but rather judge it on its holistic appearance. Research on price and promotion has shown that product and package appearance will influence the decision process when buying FMCG such as bottled water (Schoormans and Robben, 1996). However, the level of detail that is studied in making such a decision is not accounted for and will probably vary a great deal between product categories.

### **3.2.1 Product Form**

The product form can be especially effective in a crowded market place where the shape of the product can easily get noticed, especially if shape norms are broken. This has been seen in the case VOSS with its cylinder and industrial bottle shape. Furthermore, the exterior appearance also largely contribute to creating a first impression of the brand in the minds of consumers, which leads consumers to position it relative to other brands in its category (Bloch, 1995). This is why design is a great tool in differentiating a product (Clement, 2007; Reimann et al., 2010). Moreover, the products aesthetic appearance also has a larger impact on the consumer's sensory pleasure and stimulation (Bloch, 1995), which becomes an important part of the consumers' attachment and experience with the chose products. Evoking positive emotions or sensory pleasure by drinking or holding a certain bottle will likely lead to a brand preference (Bloch, 1995).



### 3.2.2 Consumer Response to Design

The following section will provide understanding of the fundamental elements in how design triggers different consumer responses. All of which are important for this research.

#### *Cognitive responses<sup>7</sup>*

There are two main schools of thought in the area of cognitive response. First, a product's design is perceived as a holistic entity and not as a collection of individual design elements (Ellis, 1950). Second, Durgee (1988) suggests that the product form is perceived as individual elements, each of which will attract different individuals. This research combines the two methods of perception in assuming that the consumer first will acknowledge the product as a holistic design (Bloch, 1995). The consumer will proceed to seek individual design elements in order to gain more detailed information or when intrigued of its initial holistic design. In other words, when scanning for products the consumer will view all product designs as holistic and when proceeding to select between products their focus will become more detailed focused. The ideal form of a product will be determined through the consumers positive beliefs, positive emotions and be able to advocate, appropriate responses from its desired target market (Bloch, 1995). In other words, the attractiveness of a product will be determined by the positive or negative response from the consumer.

#### *Emotional response<sup>8</sup>*

Noble and Kumar (2010) stresses the connection between product design and emotion value. Along with Norman (2004), they underline that aesthetically pleasing products evoke positive emotions, which relax the mind and make people curious and more open to novelty. This could for instance be an especially important factor in forecasting the potential success of new products. Furthermore, aesthetic product attributes may lead to higher product involvement from the consumer (Reimann et al. 2010) possibly leading to purchase and perhaps increase product and brand loyalty (Jennings and Wood, 2007).

#### *Affective product response<sup>9</sup>*

The perception of a product's form can lead the consumer to have positive or negative mood responses. Positive responses are triggered by aesthetically pleasing products and may result in the consumers' liking the product or the product making them feel happy (Bloch

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<sup>7</sup> Cognitive: relating to the mental process of perception, memory, judgement and reasoning contrasting to emotional processes.

<sup>8</sup> Emotional: natural, instinctive response.

<sup>9</sup> Affective: relating to mood, feelings and attitudes

1995). Hence, the design has the power to directly affect the consumer's mood by triggering happy feelings. Aesthetic responses are formed on the basis of basic elements of stimulus and thus have strong influence on product attention and involvement (Bloch, 1995).

### *Behavioural response*

Consumers' behavioural response to products can largely be categorized in two main ways: approach and avoidance (Bloch, 1995). Approach refers to the consumer's appeal to a particular design and their willingness to seek more information about the product, visit retailers and eventually purchase, whereas avoidance refers to the opposite where the consumers seek to distance themselves from the product (Bloch, 1995). However, response to product aesthetics may also be negative. Some consumers may regard a particular design as bad-taste (Bloch, 1995) or they might not identify with the design as suiting their personality or image. Consequently, they lose interest in the product. Hence, a potential relationship between the aesthetics of the product and a consumer's willingness to buy should be evident whether the relationship is positive or negative.

Conclusively, based on the above theories regarding cognitive, emotional, affective and behavioural responses: a product that evokes positive response from the consumer will lead to higher probability of purchase. In other words, when consumers like a product or the product makes them feel something positive, they become more inclined to buy than when the product does not appeal to them (Churchill and Iacobucci, 2005).

### **3.2.3 High-design**

High-design is defined as a product with dominant emphasis on aesthetic and form elements as well as a strong overall sense of style in (Noble and Kumar, 2010). Trends linked to *fashion* and *premium* waters, as stated in the previous chapter are examples of high-design products.

High-design products are seemingly increasing in popularity if judging from the market trends and the introduction of exclusive and special edition bottles. High-design products may imply potential sacrifice of the products functionality in favour of its aesthetically pleasing appearance (Noble and Kumar, 2010). In regards to bottled water this may imply making sacrifices in terms of the how comfortable the bottle is to drink from, to hold and how easy/difficult it is to store, which is the case of the VOSS bottle. High-design

also implies that the consumer is willing to pay more to obtain a product. This results in increased profit margins for the companies. Reimann et al. (2010) emphasized this connection by stating that aesthetic packaging is likely to result in consumers' willingness to pay more, even if the consumer is not familiar with the brand. Although, high-design may yield competitive or profitable advantage in some cases Batra (2009) raises the issue of a products becoming too visually attractive and consequently scaring off its desired consumers. Consequently, it may intimidate the consumer as they don't feel good enough for the product or it is one they do not wish to be associated with. This could potentially be reality when translating a high-design product to a new market, especially if that market is culturally different. For instance, the *bling H2O* bottle might be successful in a individualistic culture like in the US, where individual success is celebrated and admired. However, it would probably not do well in Scandinavia where the culture is strongly influenced by the *Jante law*, where individual success is criticised and frowned upon.

In conclusion, the high-design is expected to be preferred to low-design products. Hence, the empirical evidence should show high-design bottles rated more attractive and thus appealing to more consumers.

### 3.2.4 Competitive design and bottled water

Due to the low switching cost and the price sensitivity of the bottled water market it is absolutely necessary for the actors to differentiate themselves whether it be based on product attributes, product design, brand image and so forth. According to the Datamonitor (2010) report branding is likely to be the most influential factor. This has also been a common conclusion in previous research, and hence, explains why *brand* theory is also included in this literature review. However, other research has demonstrated that it much depends on the consumer's knowledge of the product (Maheswaran, 1994). Bunner, Emery and Hall (2009) in Reimann et al. (2010) emphasize that firms are increasingly shifting their differentiation strategies from product characteristics towards the less tangible features of product aesthetics. Aesthetic and design is said to be great sources of differentiation (Kotler and Rath, 1984; Zaichkowsky, 2011; Zolli, 2004; Creusen and Schoormans, 2005; Hoegg, et al., 2010). Design also plays a great role in influencing the consumers' purchasing decision as the consumer is forced to actively scan packages in their decision making process (Orth and

Malkewitz, 2008). This is especially relevant in order to stand out in the competitive bottled water market.

Bottle packaging is thus increasingly important in regards to differentiation (Creusen and Schoormans, 2005; Hoegg, et al., 2010) and as a means to gain competitive advantage. However, the industry faces a few challenges in relation to their packaging. First, due to the environmentally unsustainable packaging, which is wasting material and causing pollution particularly as some bottles are not recyclable. Second, some plastic types used in the bottles have shown to release unhealthy chemicals into the water when the bottle is exposed to UV light (natural sun light). Recent tests in both Norway and Denmark have shown that bottled water actually contains more bacteria than that of the tap water (B.T, 2008; Politiken, 2011). In the US test show that bacteria adds up in reused water bottles (FOX12 2008), which eventually becomes counterproductive to the consumers who want to take care of the environment and themselves.

Ergo, the market trends cumulatively presents challenges to the bottle industry and their means of competition. Consumers no longer want to be *just* healthy but also environmentally and ethically cautious (Trend Hunter, 2010; Olson, 1999; Ferrier, 2001). Although, this does not necessarily mean that all consumers share a combination of the three or that it will directly impact their purchasing decisions. It does imply that the industry is still faced with great questions of how to alter their products, packages or methods of competing when differentiation on design and flavours may no longer be enough. Although this may immediately be considered a threat and a challenge there is also tremendous opportunity and innovation, which could lead to large market gains (Dodds et al. 1991; Jennings and Wood, 2007). Parts of the industry have responded well to the demand for more sustainable and recyclable packaging and new players have arrived especially in the production of reusable water bottles. The reusable bottle segment has been forecasted to gain significant market share over the next few years (Ferrier, 2001; Datamonitor, 2010). However, design is still highly applicable and will continue to be so in this new market segment as a core mean of communication, differentiation and creating value for consumers.

### **3.2.5 Design as an indicator of Quality**

This section will narrow the scope of the above theory by focusing on how product design can be used as a measure of product quality. The appearance can provide the consumer with a

significant quality impression, which is part of the products functional value (Creusen and Schoormans, 2005; Bloch, 1995; Veryzer and Hutchinson, 1998). In their study, Creusen and Schoormans (2005) conclude that there are two main ways, in which product appearance influence perception of quality, which is mainly that of the *aesthetic* and *symbolic* role of the product. Furthermore, Creusen and Schoormans (2005) study emphasise the use of colour, shape and size of products and their consequent influence the consumer's perception. For instance, bright colours might be aesthetically pleasing, however, it may diminish the impression of quality. Neutral colours and pastels have shown to be less intrusive and hence contribute to a higher perception of quality. Moreover, colours are subjective to the product that is selling and should be coherent with the product values. Hence, the common use of blue, white and silver is consistent with the actual look of an iceberg and thus frequently used in relation to glacial water. As blue is also commonly associate with water is may aid the portrait of a natural source, which may be favoured (Smith, 2011).

Although certain colour schemes may be associated with implied quality a cultural setting will also challenge these conclusions. In Norway it may be more important for the consumer that the water comes from a natural source and hence would be more comfortable with choosing a bottle that plays on the associated colours. However, in Russia the consumer may be more concerned with the bottles projection of monetary quality or value. As a result the colour scheme would be very different and probably include colours like red (Smith, 2011) and gold, which are not associated with the purity quality that is desired in Norway.

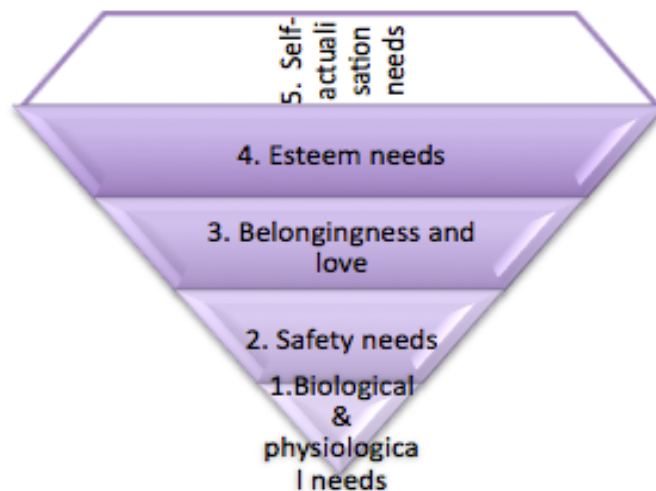
### 3.3 Consumer Implications

#### 3.3.1 Consumer Behaviour

Consumer behaviour and consumption have changed over the past decade and consequently the competition for the consumer's attention is growing more intricate and complex (Ko et al. 2002; Parker, 2005; Solomon et al. 2010). Consumption has largely moved beyond focusing on the first two stages of *Maslow's hierarchy of needs*. They are no longer motivated by *biological*, *physiological* and *safety* needs (Kim et al., 2002). In other words, the consumer will not by just *any* type of food because of hunger. Rather they will purchase something that is enjoyable or perhaps provides them with certain nutritional benefits if they have the choice. Moreover, a thirsty consumer would buy a bottle of water fundamentally based on level one. However, and more importantly, given the choice between different water

bottles the consumers will select the one that is most perceived appealing. The appeal might for instance be in terms of price, flavour, function, brand, country of origin, or bottle design. Hence, consumers are perhaps more focused on belonging and esteem needs through than biological and safety. The pyramid of needs, thus, seems flipped as illustrated below:

**Figure 5. Maslow's pyramid applied to new observed needs**



The bottled water industry is an example of an industry fundamentally fulfilling a basic level 1 need yet it appeals and sells a different level of need. Bottled water producers are not selling a solution to satisfy consumer thirst. Rather, they are selling, among other things, the idea of a healthier lifestyle or a healthier life *choice* in contrast to their soft drinker counterparts. Although these potential selling points might have been successful in the past it is fading and may no longer be enough in the current market place. As a result bottled water companies are now, among others, selling *youth* (Evian), *beauty* (Beauty water), *weight-loss* (Contrex), *ethical consciousness* (Ethos), *vacation* (Vita Coco), and *social status* (bling H2O).

These needs are not only satisfied through advertising and clever slogans, the bottle's design is also of great significance when differentiating and gaining importance with the consumers (Clement, 2007; Reimann et al., 2010). The latter are more materialistic and increasingly shop for products that provide self-fulfilment and that help contribute or signal their personal image (Solomon, 1983; Kim et al, 2002; Ferrier, 2001). Increasingly, as seen in the media over the past five years, bottled water has become a fashion accessory and personal statement (i.e. Forsyth, 2010; Ferrier, 2001). This has been especially evident in the US, particularly with the Norwegian artesian water bottle VOSS, which became world famous for its design after having been carried around by Hollywood's celebrities. Hence, the bottled

water companies have realised that the personal fulfilment consumers seek can be attained and served in the bottles' designs. The water bottle becomes the consumer experience and consequently, successfully differentiates the product and satisfies the consumers' needs. Additionally, this has led to a polarisation of the product category: low-end versus high-end bottled water, often categorized by price and also by design. Consequently this has led to an infiltration of designer and premium water bottles on the market.

However, as consumers are better educated and have more information about any product readily available at their fingertips through the Internet. They are more aware and concerned with issues of environmental and ethical impact as well as company transparency and trustworthiness of the actual product (Ferrier, 2001). Consequently, the bottled water industry has had and will continue to have their water sources checked by stakeholders, which in turn means that companies increasingly have to keep their information transparent to the consumers (Ferrier, 2001). As a result there should be less room for extravagant and colourful descriptions of the source and the quality of the water as it could potentially damage to companies reputation on a product, brand and market level if statements and product quality fall short of truthful reality.

### 3.3.2 Consumption

As mentioned above, the consumers' purchasing decisions are largely tied to the consumers' involvement in the product, the consumers' reason for purchase and the consumers' own values. Sheth, Newman and Gross (1991) present a comprehensive description of five values influencing consumption: Functional value, social value, emotional value, epistemic value, and conditional value. Each contributes to a greater or lesser extent to the purchasing decision depending on the product category. In short, *functional value* is associated with the mere functionality of the products and is associated with attributes such as reliability, durability and price (Sheth, Newman and Gross, 1991). Traditionally, this was the main driver of consumer choice. In regard to the bottle water industry these are the values that would result in the consumers' trading down as there would be no point in paying more than lowest price for a product that essentially has the same functionality, namely that of hydrating the body.

*Social value* is associated with products of high visibility such as clothing and accessorises and products that will be shared with others (Sheth, Newman and Gross, 1991).



This is where package design and premiumisation of the water bottle becomes exceptionally pertinent as it may be carried as an accessory to signal a certain type of lifestyle or a desire from the consumer to be regarded in a certain manner. Likewise it is served in social gatherings in order to project a certain desired image (Solomon, 1983; Ko and Sung, 2007).

*Emotional value* is as mentioned related to the emotional response to a product such as having a “love affair” with your car (Sheth, Newman and Gross, 1991). This can be tied to the source of the water if that was to have a particular emotional value to the consumer or it may be created through the use of imagery. However, it is worth noting that emotional and also aesthetic value is highly subjective and personal (Creusen and Schoormans, 2005). Consequently, it is very difficult to measure. Moreover, it may not be possible or even desirable to make any general conclusion on the matter.

*Epistemic value* is associated with product novelty and consumer curiosity or results in changing products when the consumer is satisfied or bored with the previous one (Sheth, Newman and Gross, 1991). Hence, it can work to the benefit of water bottle companies when introducing new bottle designs and explaining the increased popularity of producing limited edition and fashion bottles to keep the consumers intrigued.

*Conditional value* is the perceived utility acquired of the products as a result of a specific situation or set of circumstances, like seasonal products or products suitable special events (Sheth, Newman and Gross, 1991). For instance, a certain bottle of water may only be desirable in a certain situation like hosting a special dinner or when celebrating an event.

### 3.3.3 Consumer taste

There is little conventional marketing theory that covers the issue of consumer taste and its ability to influence purchasing behaviour. However, the Gestalt theorists have drawn significant conclusions in this area, which has proved highly relevant for this thesis. According to their school of thought consumers find great delight in order and consequently prefer objects that have symmetry, harmony and unity. Furthermore, by Gestalt's law, repeating elements are “pleasing to look and preferable to the consumer” (Veryzer, 1993). Furthermore, they also argue that proportions are also particularly important in design. In contrast to Veryzer (1993) research, Berlyne (1974) claims that order will bore the consumer and not intrigue their attention. Moreover, Berlyne stresses that novelty, complexity and



variety arouses the consumer's interest and liking to a product. Product that follows Gestalts' law too closely will fail to arouse consumers. However, as consumers prefer a moderate, it is suggested that disorder in the design will be preferred in tact (Bloch, 1995). As previously noted, it may be challenging to draw general conclusions in regards to consumer taste as it is a highly subjective and it may be highly connected to personality.

### 3.3.4 Consumer personality, Life style and Attitude

Personality refers to typical patterns of behaviour of an individual that distinguish them from another (Creusen and Schoormans, 2005). Its validity as a measure in marketing research is recognised and often used to group people with the same characteristics. More relevant, it is recognised as affecting consumers' choices of products, and their receptiveness to in-store and point-of-purchase ads or displays (Creusen and Schoormans, 2005).

Consumers' attitudes, however, are highly relevant for this thesis. Attitude refers to an individual's preference, inclination or feeling towards some phenomenon and is generally though to be linked to behaviour (Creusen and Schoormans, 2005). In other words, when consumers like a product they are more inclined to buy it (Creusen and Schoormans, 2005). Consequently, it may be regarded as a behaviour indicator or predictor. This thesis aims to uncover consumer behaviour as an effect or a result of particular consumers' preference. Thus, it is highly relevant to expose relevant and research issue related consumer attitudes through an empirical study.

## 3.4 Derived Design and Consumption Hypothesis

Based on the above theory concerned with both design and consumption the following hypotheses are derived for investigation in the analysis:

H<sub>1</sub>: *There is a positive relationship between attractiveness of the bottle and the consumers' purchasing intentions.*

H<sub>2</sub>: *There is a positive relationship between attractiveness of the bottle and the consumer's perceived quality of the water.*

### 3.5 Cultural Implications

It is known that cultural aspects do influence consumers' decisions and their judgment of product attractiveness (Eckman and Wagner, 1994; Teas and Agarwal, 2000; Salmi and Sharafutdinova, 2008). In order to understand the consumers' perception of a products quality it becomes important to understand the cultural aspects that may influences the consumers' purchasing decision as well as their perception of products aesthetics and again, quality.

#### 3.5.1 Country of origin

Research on Country of origin (COO) is an important part of understanding consumers' behaviour and understand what influences their purchasing decisions. Although there has been a significant amount of research conducted in this area, some debate still persists on how exactly COO influences the consumer's decision-making process. It is a complex issue and any research results will be influences by the product category investigated as well as the country and culture in which it is assessed. Hence, COO will be more important in certain product categories and markets and to certain consumers (Teas and Agarwal, 2000). As water is a natural resource its natural quality is largely influenced by its source, hence, the country of origin. Hence, this brings forth the relevance of investigating COO as a cue or predictor of perceived quality. There are of course variation in quality within a country as well, however, that level is too intricate for the scope of this research.

The studies from Han (1989), Johansson (1989), Chao (1993), Teas and Agarwal (2000), and Dodds et al. (1991) all suggest that COO influences product quality perception. This is complimented through other studies that have demonstrated that consumers use COO as a product attribute (Hong and Wyrer 1989, 1990; Maheswaran, 1994). Maheswaran's (1994) research is especially relevant within the context of this project as he investigates COO as a stereotype and how it affects the consumers' behaviour.

Other consumer characteristics such as age and education can also influence the way in which COO is used in decision-making processes. Chowdhury and Biswas (2011) state that COO effects are particularly strong with elderly, less educated and politically conservative groups of people. They also emphasize the importance of research in the developing world, which is notably different to that of the developed world. Developed countries may to a large extent prefer domestically produced products to that of imports. Developing countries however largely view imported goods as more attractive. This is important to keep in mind for

both current and future research as it implies that any generalization of results should be handled with great care and may not be applicable to all countries or cultures.

### 3.5.2 Culture and the individual

In addition to COO, the influence of cultural aspect on consumers' perceptions, their product evaluations and purchase decisions is pertinent. Bloch (1995) in Noble and Kumar (2010) emphasises the importance of the individuals tastes and preferences, which are factors of personality, personal experiences as well as the broader cultural and social context in which the individual lives and/or has been raised. The researchers stress that individuals can react differently to design aspects and values. Moreover, it seems widely agreed that there are difference in individual consumer's concern for product appearance and design (Bloch, 1995; Bloch, Brunel and Arnold, 2003).

Bloch (1995) stresses that *social context* also can have an effect on the consumers' response to a product. In one setting, for instance by consuming the product alone, the consumer might prefer a bottle's form to another's. For instance, certain consumers may prefer bottle C when consuming alone but when in a social setting will choose to consume bottle B. This is due to the transferability of image values through the product's form and brand that the consumer seeks at that particular moment (Solomon, 1983). Solomon (1983) further describes that a person's self-concept is largely a result of how one appears to others. Furthermore, Solomon (1983) argues that a person's role is dependent on the quality and appropriateness of symbols, in this case, the products.

Preference of product form is also influenced by culture. The approval of a certain design or elements of a design may be subjective to cultural values, heritage and preferences (Bloch, 1995). This is evident through established fashion and style for instance. Companies expect consumers to prefer the designs that appeal to the values held within their social or cultural setting (Bloch, 1995). Naturally, companies wish to communicate with their consumers in a tone that they can relate to or that they value in order to trigger purchase. This raises a pertinent thought in that those consumers who have been raised or significantly subjected to international, multi-country and multi-cultural environments may share a more common and broader perception and appreciation of aesthetics and appreciation for design.

### 3.5.3 Culture, design and bottled water

In regards to the bottle water market, COO theory will be applied in two main ways. First, the water bottles' country-of-source and its influence on the consumers' perception of the quality and hence their willingness to buy the bottled water is important to understand.

Second, understanding how a COO affects the consumers' perception of a product is important in determining how its design aspects will be received in new cultural settings and how far a successful design may be translated into a new market. In relation to FMCG's little research has been conducted as to how far the design of a given product will be received in a new cultural context. Take the Norwegian artesian water VOSS for example, its design is award winning, does that mean that it will be viewed as aesthetically pleasing across all cultures? Will it fit into the lifestyle of the consumers in other cultures? Most likely neither will be true, as preferences are to a large extent shaped by cultural heritage. Depending on the culture it may be applauded and embraced as a status symbol or it will be avoided, as they do not wish to be associated with the values it projects. It is also important to note that groups of consumers may share similar cultural values in different countries that differ from the prominent cultural norm in that country. Hence, it is important for this thesis to have a good representation of a wide range of nationalities in order to make any general conclusions.

In practical terms, for companies, in order to overcome issues of translating design successfully from one culture to the next scholars have suggested collaborating with local designers (Salmi and Sharafutdinova, 2008). Local designers have knowledge of culture, trends and additionally the ability to influence consumers. In the case of VOSS this could mean developing a bottle with a red top and gold writing for the Russian market to emphasise its high-design elements and exclusivity. In the Scandinavian or American market a light blue top could emphasise the purity elements of the bottle. Each case reflects quality in a different way.

In conclusion to the above country of origin theory, the following hypothesis are derived for further investigation in order to answer the overall research question:

H<sub>3</sub>: *COO can positively contribute to improve the perceived quality of an unattractive bottle.*

H<sub>4</sub>: *There is a significant relationship between the attractiveness of the bottle and the consumer's nationality supporting the need for local adaption in design.*

### 3.6 Brand and its influence

The strength of the brand is known both within academics and in the “real world”, as touched up on in the market overview. Consequently it is worth noting that this section will not hold an extensive literature review as the previous sections have done. The purpose of including the brand as a factor in this research is to test the strength of the other variables, design and COO, relative to the brand. The main reason for this is the knowledge of its influence and the desire to test its endurance as predictor in the bottle water industry based on Teas and Agarwal (2000) findings that the brands strength is dependent on the product category. Moreover, it is a great opportunity to challenge brand as an indicator of quality and predictor of purchase in comparison to design and COO.

Extensive research has been conducted to uncover the power that a well-managed brand can have over the consumer (Dodds et al. 1991; Sivakumar, 1995; Teas and Agarwal, 2000; Essoussi and Merunka, 2007; Gabrielsen, et al. 2008). There are yearly rankings of the world’s best brands, most recognized brands, most powerful and most innovative brands (FT, 2010; Interbrand, 2011; Businessweek, 2011). The information is available to the general public and as a result it is general knowledge that Coca-Cola is the worlds most recognized brand (Businessweek, 2011) and that the Apple brand has the most loyal computer customers (FT, 2010). The goal with creating a strong brand is to be the consumer’s top-of-mind product. In other words, to be their first choice in any given product category, their go-to-brand. Brand familiarity provides the consumer with a sense of security especially in a situation where there are many brands present; it is a good way of narrowing down the options (Wright, 1975).

Furthermore, research has indicated that brand is in fact the strongest cue of influencing consumers’ perception of quality, even more so than COO (Dodds et al. 1991; Gabrielsen, et al. 2008). Yet, it is also known that the extent of a brand’s strength in inducing the consumer will to a large extent vary with product category (Dodds et al. 1991). Thus, depending on the market and the product category COO might play an equal or more importance role in purchasing decisions than brand (Darling and Danny, 1988). This is also part of the argumentation for including brand as part of this research. It is highly relevant to explore how it will influence the consumers’ perception of quality and their purchasing intention after having investigated the extent of influence of design and COO.

Introducing brand, as a variable into this research will enable the research to make a comparative analysis to investigate which factor may be seen as the strongest influencer. This is particularly appropriate, as it has never been done before for this product category or in this particular research design.

Based on the above brand discussion, the nature of the product category and the market dominance of local products, the following hypothesis is derived:

H<sub>5</sub>: *Brand will only have a significant impact on the perceived quality of the bottled water if the brand has significant international exposure.*

H<sub>6</sub>: *Brand will only have a significant impact on the intended purchase of the bottled water if the brand has significant international exposure.*

*Significant international exposure* refers to the brands presence and visibility on the global market. More specifically, it is here defined as a particular brand being present in more than ten of the countries that are also included in this research. Furthermore, it here implies that the brand has advertising and brand promotion in ten or more of the countries used in this research.

## CHAPTER 4. Methodology



### 4.1 Methodology

#### 4.1.2 Research Method

The thesis is based on both primary and secondary data gatherings. The latter has been conducted and collected through an extensive and critical literature review as well as the critical assessment of multiple industry report, which then have been analysed respective to their use. The primary data gathered for this thesis is mainly quantitative. However, qualitative measures such as casual, informal discussions with consumers have taken place in order to reflect on different views of the topic. Further details about the approach and strategy to successfully gather this data will be described in the following sections.

#### 4.1.3 Research approach

This research mainly follows the *deductive* approach as the research strategy is designed to answer theoretical hypothesis (Saunders, Lewis and Thornhill, 2003). This type of research is categorized as scientific because it involves this development and subsequently cautious testing of hypothesis. The test will yield results that will fundamentally accept or reject the hypothesis. The *deductive* approach allows for the establishment of cause-effect between chosen variables, which is essentially the aim of this research (Saunders, Lewis and Thornhill, 2003). Due to the nature of the *deductive* approach a highly structured research methodology is required and will be outlined below.

#### 4.1.4 Research design

This research largely takes its point of departure in an *exploratory* design with its main focus on the discovery of new insight and ideas (Churchill and Iacobucci, 2005). However, it is difficult to isolate one particular design throughout the entire research. Due to the nature of *exploratory* research it merely serves the purpose of gaining understanding and providing a general picture. As a result, elements from *descriptive* and *casual* research will be found subsequently though the research. More specifically, the predicted hypothetical relationship between bottled water attractiveness and quality will be investigated, as well as the possible link between attractiveness and willingness to buy. Hence, this thesis is therefore, at times, also concerned with determining the *relationship* between variables and the *characteristics* of certain groups (*descriptive*), as well as, determining the *cause-and-effect* relationships between variables (*casual*) (Churchill and Iacobucci, 2005). The design sequence may better be described as follows:



This approach was chosen in order to best exploit the potential of the primary data gathered, as each approach alone does not provide sufficient understanding of how the variables in question are connected. Nor would either approach alone provide satisfactory understanding of the consumers (Churchill and Iacobucci, 2005).

#### 4.1.5 Research Strategy

The first step in the research strategy was to undertake an in-depth secondary literature and theory review from a wide variety of sources. These provided the needed foundation of reasoning and helped to elaborate the research question and derive the hypotheses. Moreover, literature, served as the building block for further focusing, defining and preparing the primary data collection. The theoretical underpinnings also provided a firm foundation for the empirical analysis and discussion (Creswell and Clark, 2010). By combining extensive industry reports from both global, continental and national perspectives it was possible to successfully develop a comprehensive overview of the bottled water industry and the trends that has affected it over the past decade.

A small-scale mixed method approach was chosen to collect the primary data, including both qualitative and quantitative data, with notably more weight on the latter.



Qualitative research has, in marketing, been dominantly perceived as the main paradigm (Koller, 2008). However, the use of a mixed method approach is on the rise much due to its complimentary features (Koller, 2008). Qualitative data was gathered as a means to gain understanding of the consumers' thoughts in relation to the topic in question. A handful of casual conversations, informal and unstructured discussions were conducted in order to aid focus of the following quantitative research. The subjects of this small-scale qualitative research were mainly family and peers in Norway, Denmark and Switzerland. These qualitative discussions enabled to confront a certain amount of subjective realities providing further practical insights, which complemented the information gathered through literature. It is worth noting that the qualitative data gathered was not used in the analysis. It could have been valuable in order to gain more psychological insight into the consumers' behaviour. However, this fell outside the scope of this thesis both in terms of focus and costs (financial and time). In addition, due to its subjective nature it was not prioritised in securing the validity of the conclusions drawn from the analysis (Creswell and Clark, 2010).

The more significant quantitative data was collected in order to analyse the potential relationship between the variables in question. Quantitative data was necessary in order to bring objectivity to the study (Creswell and Clark, 2010). The data was gathered through the distribution of a survey, and served as the fundamental basis for the analysis conducted. The underlying reasoning for the choice of conducting a survey was based on the interest in- and the need for- the consumer's *state of mind* (Jarboe, 1991) on an international scale with a significant reach. The type of survey used in this research is that of an online questionnaire.

In brief summary, this thesis is based on the exploratory design with descriptive measures in order to describe and analyse the extent to which specific variables will influence consumer perception. It includes an extensive literature review, idea generating unstructured conversations and an online survey with great international participation.

#### **4.1.6 Conducting the study**

##### *Data collection*

The complete set of qualitative data was collected during the course of 10 days after finalising the survey template (26<sup>th</sup> of August to 4<sup>th</sup> of September). A variety of channels were

used for distribution to gain access to a wide range of participants. The below section will elaborate on the reasoning behind the sample selection.

### *Sampling*

An Internet based survey was chosen because it facilitated reach to international populations. The sampling frame was easily developed through mailing list and selection of networks, and secured wide distribution (Churchill and Iacobucci, 2005). However, there are some drawbacks such as sample control: difficulty securing a specific individual and in regards to information control: researcher cannot control the pace of the survey nor explain ambiguous questions. In order to minimize the possible affect this could have on the research the following precautions were taken. The questions went through several “tests” with different individuals to ensure clarity and eliminate any ambiguity in the formulation. Page breakers were also used to separate the different sections of the survey this helps control the information and prevents the participants viewing the entire survey. Hence, each section is treated individually from the participants view. Furthermore, there was no need to record the pace of the survey, as it would not have an affect on the participants’ answers.

With securing specific individuals for the research, there was no search for an ideal type. The only true demographic sample need was to have sufficient international participation. However, it was of course desirable to have a wide variation in age, gender, education and profession in order to secure the validity of the thesis. Much marketing research that has been undertaken has used student samples for its convenience, which decreases the validity, reliability and applicability of the research significantly. Over-representation of a group or several groups of participants is a known factor of sample biases (Malhotra, 2005). This sample had a particular higher response rate from Norway (112), Denmark (126) and the USA (86). However, due to the large sample the issue related to over-representation was largely avoided. Hence, this thesis aimed to- and achieved getting a representative and applicable sample demographic.

Survey participants were mainly reached though social media channels such as Facebook, Linked in and Google+. In order to secure a representative international demographic, respondents were asked to redistribute the survey within their networks. The use of social network made it difficult to control the exposure of the survey and thus also to record an accurate response rate.

### *The survey*<sup>10</sup>

Three small-scale pilot tests each followed by critical review and dialog with the participants were conducted during the process of formulating and designing the questionnaire to ensure breadth of participation and quality of the responses. There were between 3-10 participants in each pilot study. The number of participants increased progressively as the survey was finalized. The results and feedback was considered carefully considered in reference to secondary literature. Image representation of the bottles was changed, questions altered and the structure tailored before the survey was finalised for optimal data gathering in respect to satisfying the research question.

The online portal *Q-Set.de* was used to create the survey. This was the only portal discovered that allowed the construction of a free survey that could break pages, upload pictures and that enabled data to be exported in a SPSS readable file. Although this meant compromising on the attractiveness of the layout it was necessary in order to secure functionality. The survey was designed to take no more than seven minutes, as concise, short surveys are acknowledged to help keep participants interested and avoid incompleteness and bias answers. The linear structure of the survey consisted of the following six sections:

1. Introduction
  2. Behavioural questions
  3. Blurred bottles
  4. COO bottles
  5. Branded bottles
  6. Demographic questions
- } Bottle section: little of no difference in proposed questions.

**Figure 6.** Bottle sections in Survey, linear illustration



Research has shown that a product that may be positively received in isolation may be disliked in a setting with other products (Bloch, 1995). The participants in this research have not viewed the bottles individually, only as a collective group of bottles. Hence, it is worth

<sup>10</sup> Appendix 1: Survey

noting that this might have influenced the perceived attractiveness of one bottle in comparison to another. However, the decision to include all bottles collectively was a conscious one as a bottle of water rarely is sold to the consumer in isolation from other beverages. Moreover, investigating the bottles individually would require a great deal more time from the participants increasing the probability of faulty answers as the participants lost interests.

### *Survey questions*

The questions chosen for this survey were all close-ended which facilitated the collection and analysis of information from a larger number of participants. In addition, this eliminated ambiguity and ensured better quality data. However, the downside of collecting data through a fixed set of answer alternatives is that the questions have to be very well crafted to ensure the data reflected concrete consumer insight rather than biased answers. Precautions were taken to minimize this risk. Notably several pilot tests were conducted as mentioned previously and the survey was derived from reputable literature.

The questions were constructed to answer specific behaviour or attitudes:

- *Attitudinal*: what people feel
- *Beliefs*: what people think is true
- *Behavioural*: what people think they do

It was important to uncover consumer attitude as it is commonly seen as the underlying trigger of behaviour (Churchill and Iacobucci, 2005). A positive attitude towards a product is more likely to lead to a purchase than a negative attitude, as explained in the literature review above. In other words, consumers are more inclined to buy a product that triggers positive response (Churchill and Iacobucci, 2005). As this thesis is also concerned with cues that trigger purchase, these types of uncovering questions were essential. Likewise questions uncovering consumer motivation were necessary in order to better understand behaviour better and in as a result discover how to better influence consumers in the future (Churchill and Iacobucci, 2005).

Questions concerned with the consumers' intention and planned behaviour, were standardized in each bottle section in order to ensure data consistency and analytical validity. Behavioural questions were asked in the first section in order to discover *how* consumers purchase, *where* they do so and to a somewhat lesser extent *why*. In addition, questions aiming to uncover more of the consumers' opinion were disregarded in the survey, due to the

scope of the thesis and the difficulty of classifying and standardising “open answers”. Furthermore, five specific questions were constructed to map out the demographic and to investigate whether or not there are any significant differences between these demographic variables. The questions revealed the following: gender, age, nationality, level of education and profession, which was illustrated in the previous section.

#### 4.1.6 Measures

A Likert scale was used to allow participants to express intensity of feeling i.e. how far they agree with a statement or not (Creusen and Schoormans, 2005). Each scale had five levels, for example; much worse, worse, neither better or worse, better, much better. Each level was assigned a numerical value from 1 to 5, one assigned to the most negative attitude. The following Likert 5-point scales were used in this research:

- i. Strongly disagree to strongly agree
- ii. Much worse to much better
- iii. Very unimportant to very important

Most of the questions used in the survey were favourable in order to gain consistency in the data gathered and avoid elaborate recoding of the data afterwards. However, the importance judgement (iii) used in this research has been disputed due to some scholars claim that it will provoke more positive attitudes in general (“*everything is important*”) (Creusen and Schoormans, 2005). Hence, unfavourable statements were included to keep participants on their toes and avoid automatic bias from loss of focus due to the redundancy of the 5-point scale. Furthermore, in an ideal situation the difference in attitude scores would reflect a difference in attitude and only that. However, in reality it will also reflect other factors (Creusen and Schoormans, 2005) such as:

- i. *Characteristics of individuals*: their degree of honesty in expressing their true preferences.
- ii. *Fixed sample*: altering the formulation or wording of the questions could alter the score
- iii. *Lack of clarity*: different interpretation of ambiguous questions
- iv. *Mechanical factors*: bugs in the online survey
- v. *International respondents*: translation issues, or difference in use of survey scales

Precautions and adjustments to diminish the negative bias effect on the data gathered were considered from the survey pilot.

### The bottles

Six bottles were chosen for the research and kept consistent. The bottles were carefully selected to reflect the theoretical and practical market aspects introduced earlier in the research. It was made certain that each of the bottles characteristics, combined with the questions asked in the survey, brought forward evidence of consumers' preference and perceptions. This provided insight on the influence between the dependent and the independent variables. The selection of each bottle is justified in more detail below:

- A.* Bottle A was selected because of its particular design and its COO, Italy.
- B.* Bottle B was selected based on its award winning design and the controversy of its source. Additionally, it was selected based on being trendy and media hyped.
- C.* Bottle C was selected for its global, mass-market retail reach and its low-cost price tag. Moreover it was chosen for as a low-design bottle.
- D.* Bottle D was selected on the basis of its commercial retail reach, its recognized design appeal and its higher price tag than bottle C.
- E.* Bottle E was selected due to its design and its COO, Serbia.
- F.* Bottle F was selected on because that it is a limited edition and a designer collaboration. It may also be the most recognized brand out of the lot.



The choice of this particular mix of bottles was based on the characteristics mentioned above as these support the literature findings and thus are perceived by the researcher to best represent bottled water industry within the scope of this thesis. This further ensured some

transferability of results across the entire bottled water market. A number of the bottles are classified as fine waters in accordance with their content, flavour and label by the reputable and trusted finewaters.com. This site operates a comprehensive database of premium waters from around the globe. Bottles A, D and E were selected from this site as they all bear a minimum standard of quality and are recognised for their design features. *Table 1* shows a summary of all information for each bottle.

**Table 1. Bottle Overview**

Bottle	Design	Country of Origin (COO)	Brand
A	Design Awarded	Italy	BOLLE
B	Trendy Designer	Norway	VOSS
C	Mass-market low	USA	PureLife
D	Mass-market high	UK	Ty Nant
E	Design Awarded	SERBIA	VODA 0,5
F	Limited Edition	FRANCE	EVIAN

#### 4.1.7 Analytical Methodology and Strategy

The quantitative analytical methodology and strategy was developed in three steps following 3 major statistical tests to identify influential factors (i.e. Design, COO, Brand) on consumers' perception and intention.

The first step in the analysis was to make the data more comprehensible by recoding it through a factor analysis, which tests the interrelationship between variables (Creusen and Schoormans, 2005). The factor loading, the results of the factor analysis indicate the correlation between a variable and a factor (Creusen and Schoormans, 2005). Hence, based on the factor analysis variables were grouped together based on their interrelated correlation. For example, with regard to *attributes most likely to influence purchase*, the interrelated correlation between taste, COO and source of water proved to be statistically significant. As a result these three attributes were regrouped and recoded under the new variable *influence.purc.internal* i.e. internal attributes that influence purchase of a particular bottle of water. The analysis proceeded by using the new recoded variables.<sup>11</sup>

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<sup>11</sup> Appendix 2: Factor analyse

The second step of the analysis was to uncover relationships between the variables through a crosstab analysis and a correlation analysis. This will provide the basis for the conclusions made later in the thesis. The correlation analysis is used to measure the closeness of relationship between two or more interval scaled variables (Creusen and Schoormans, 2005). Hence, before proceeding with the correlation analysis the variables were assigned an interval scale that allowed comparison of the size of the differences among and between members (Creusen and Schoormans, 2005). However, it is worth noting that the correlation analysis cannot be used as the sole base of establishing causality, the cause-effect relationship. In fact, no mathematical procedure can be used to ascertain causality (Creusen and Schoormans, 2005). However, the empirical data was subjected to tests of *mean differences* and *analysis of variance* (ANOVA), which were regarded as resources for establishing casualty.

The third step was to perform a conjoint analysis by undertaking regression analysis. The regression analysis is continuously the best-performing conjoint analysis tool (Churchill and Iacobucci, 2005) and consequently one of the reasons for selecting this approach. This type of analysis is necessary in order to determine if one variable can predict another. More specifically, the participants have selected a certain bottle that they would purchase and the goal is to determine which attributes design, COO or brand mostly influence their decision. Additionally, the regression analysis greatly aids in determining how far bottle design can predict intended purchase or perception of quality of the water.

*Ordinal regression* is used with ordinal dependent variables such as rating the quality of bottled water versus that of participant's tap water on a Likert scale. The ordinal regression assumes that the effect of the independent variable is the same for each level of the dependent variable (Garson, 2011). SPSS Ordinal regression procedure (PLUM) is an extension of the general linear model to ordinal categorical data will be used. This particular test makes it possible to handle models with more than one predictor, which is necessary for this analysis (Garson, 2011). Nevertheless, statements of causality must be based on underlying knowledge and theories about the phenomena investigated, not only statistical significant results (Creusen and Schoormans, 2005). Hence, the great weight and importance given to design COO and brand theory in order to effectively analyse, discuss and conclude on empirical findings.



## 4.2 Research Quality

### 4.2.1 Internal and External Validity

Bryman and Bell (2007) state that internal validity concerns the degree to which the researchers observations correspond to the theoretical ideas subsequently developed as a result. Hence, the internal validity will be high if the results of the research correspond to reality. Precautions theoretical, statistical and sample measures were taken to achieve high internal validity: *Concurrent* validity was established through the assessment of the correlating relationship between measure and variable i.e. if the correlation is high the validity of the prediction is high (Creusen and Schoormans, 2005). *Discriminate* validity was secured by ensuring measures that should not correlate did not do so e.g. the attractiveness of bottle C and the perceived quality of bottle D (Creusen and Schoormans, 2005). Furthermore, the content has been validated through the subsequent steps (Creusen and Schoormans, 2005):

1. Specify domain through definitions of design and quality elements.
2. Generate items that capture domain through literature review and survey.
3. Collect data from target population.
4. Eliminate items from the collected data that are not highly correlated.
5. Verify predictive validity by assessing concurrent and discriminate validity.

External validity concerns the extent to which the results generated by a research study can be generalised across social settings (Bryman and Bell, 2007). Consequently, the number of participants, their international range together with the wide demographic contributes positively towards high relevancy of this thesis. Furthermore, the research strong and appropriate theoretical foundation ensures results largely adaptable to other product categories with similar characteristics. Ergo, the external validity of this research is regarded as high.

### 4.2.2 Reliability

Reliability measures the degree to which the study can be replicated and arrive at the same results (Saunders, Lewis and Thornhill, 2003). Reliability of the study is necessary to ensure the validity (Creusen and Schoormans, 2005) and refers to an index of consistency where a correlation between two measures of the same concept is evident when we use the same measure. The very solid structure, the detailed methodology and standardised questions used in the survey, makes this research easy to replicate. Hence, the research is reliable.

## CHAPTER 5. Results and Analysis



### 5.1 Analysis Part I: Initial findings

This section is structured in accordance with the analytical methodology and strategy section (4.1.7) in the previous chapter. Hence, it starts by introducing the results of the first level analysis and ends with the most in-depth ordinal regression analyses. As a consequence, the hypotheses are *not* answered chronologically. The first section of this chapter focuses on survey sections 6 (demographic questions) and 2 (behavioural questions) and will continue with the initial statistical analysis.

#### *Demographic and Descriptive statistics*

The survey was undertaken with a total of 635 participants worldwide. 48.5% were male, and 51.5% were female. 25.5% of the participants were students, 47.2% were working professional in non-managerial roles, 20.6% were in managerial roles, 6.6% of the participants were unemployed. This is a good representation of the total population in comparison to many previous studies that only use students. 54.8% of the participants were aged between 20 and 29. 21.3% of the participants were between 30-39 years old, 13.2% were between 40-49 and 10.7% were aged above 50. The educational level of the participants was particularly high and illustrated that 52.8% of the participants had obtained a masters degree. The collective majority of the participants were based Denmark (20%), Norway (17.6), and Sweden (4.7%). It is worth noting that country of residence represents the country of origin for the participants tap water, it does not indicate their nationality e.g. 19 out of the 35 participants living in Australia are of Norwegian nationality. In addition, country of residence is used for the country comparison in the analysis, unless otherwise indicated.

To make the data comprehensible the countries of residence were regrouped into 12 regions with minimum 26 participants respectively to achieve relevant samples. Countries with initially more than 30 representatives were not added to a group. *Table 2* illustrates these groupings according to nationality and country of residence:

**Table 2: Survey participants Nationality and Residence Data<sup>12</sup>**

Regions Countries	Countries represented	Nationalities	Residences
Australia	Australia	14	34
	New Zealand	2	2
Asia	Burma	1	
	China & Hong Kong		2
	India	9	8
	Indonesia		1
	Iran	1	1
	Japan		1
	Pakistan	1	1
	Saudi Arabia	6	3
	Singapore		1
	South Korea	1	1
	Syria	1	
	Thailand	3	4
	Turkey		1
	United Arab Emirates	3	2
	Uzbekistan	1	
Canada	Canada	34	26
Denmark	Denmark	113	126
	Faeroe Island		1
Europe	Belgium	1	2
	Bulgaria	1	
	Croatia	1	
	France	16	17
	Greece	4	4
	Hungary	2	1
	Italy	2	4
	Monaco		1
	Netherlands	3	2
	Poland		1
	Portugal	1	2
	Romania	1	
	Slovenia	1	1
	Spain	5	8
	Ukraine	1	1
Germany	Germany	42	44
Norway	Iceland		1
	Norway	139	112
Sweden	Finland	2	1
	Sweden	43	29
Switzerland	Austria	1	2
	Switzerland	45	53
UK/Ireland	UK/Ireland	39	34
USA	USA	86	97

<sup>12</sup> Appendix 3: Country category *other*

### *Frequency and point of purchase*

Table 3 presents purchasing frequency (percentage %) and an estimated marginal mean in order to validate the comparison. The results are mainly used as a benchmark in relation to the external market data gathered. More specifically, by checking that the data obtained in the research corresponds to that of the market data available externally validity of the research can be increased. The purpose of the data is thus to validate the research and obtain more knowledge about the market not available prior to the research start.

The frequency of purchase together with the majority of purchased taking place in low-end supermarkets indicates that bottled water, in general, is a product that is most commonly traded down by the consumer (BCG, 2008). Consumers seek low-cost environments for deals on commodities and in order to score good deals on products (BCG, 2008). Traditionally low-cost products are not products with high-design quality. However, the fact is that design bottles do appear in this low-cost category for example VOSS is available at the low-cost chain NETTO in Denmark. The results below illustrate that the most common purchasing point for bottled water is low-end supermarkets. Hence, this could be a great opportunity for a bottle like VOSS to really stand out from the low-cost crowd. However, according to brand image theory, it may also compromise the brand image and end up being counterproductive in gaining a competitive advantage (Dodds, 1991).

**Table 3. Frequency and point of purchase**

Data	Key findings	Highest Percentage of participants
Frequency of purchase	1-3 bottles per month	36.9% of all
Frequency of purchase	1+ bottle per day	42.3% live in Asia
Point of purchase	Low-end supermarkets and kiosks	61.5% of sample (Denmark, Norway, UK/Ireland)
Point of purchase	High-end supermarket	17.2% (Germany, Canada, UK/Ireland, USA)

### **5.1.2 Attributes indicating quality**

#### *Brand as an indicator*

There is great variance between countries when it comes to judging brand, as a good indicator of the attributes: natural source, good taste, safety, quality, and that brand is not an irrelevant attribute. Participants from Germany and to a lesser extent from Australia and Asia agree that brand is a good indicator of these attributes. Participants from UK/Ireland and

Switzerland do are in least agreement with brand as a good indicator of the attributes in question.

### *Country of Origin as an indicator*

Participants were also asked how far they agreed with COO as a good indicator of the attributes; natural source, good taste, safety, quality, and that COO is not an irrelevant attribute. The results were similar to that of the previous illustrated results for the bottle's attractiveness as an indicator. Participants from Australia, Germany, Norway, Sweden and Asia are most in agreement with COO as a good indicator of the above attributes. UK/Ireland, USA, Europe are in the least agreement with COO being a good indicator of any of the above.

### *Attractiveness as an indicator*

The results, when comparing means, for all evaluated attributes (trustworthy source, good taste, safety, quality, and that attractiveness is relevant<sup>13</sup>) were rated similarly across all countries. Participants based in Sweden have indicated that attractiveness is a good indicator of all of the attributes mentioned. 73.4% of the participants based in Sweden agreed or strongly agreed with the statement that attractiveness is a good indicator of a trustworthy source. In general participants from Australia, Germany, Norway, Sweden and Asia agree to a greater extent with the statement that the attractiveness of a bottle is a good indicator of the assessed attributes than their counterparts in Denmark, UK/Ireland, Switzerland, USA, Canada and Europe.

### *Best indicators of quality*

In measuring attributes that are most likely to influence the consumers' perception of content quality the data was, through a factor analysis, collapsed into four significant categories of attributes: 1) Price, 2) Brand, 3) COO (taste, source, COO)<sup>14</sup>, 4) Design (attractiveness, novelty, glass and plastic packaging)<sup>15</sup>. A one-way ANOVA was conducted and the most important significant findings are summarised in *Table 4* below. The post hoc tests (LDS) also show that there is a significant difference between the countries that rate the variables most important and least important at 95% confidence level.

The data shows that the COO attributes overall are the most important indicator of quality followed by brand, price and lastly external attributes. Australia, Asia and Sweden

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<sup>13</sup> Unfavourable statement made favourable for analysis.

<sup>14</sup> Called *internal* attributes in the data file

<sup>15</sup> Called *external* attributes in the data file

interchangeably perceive all categories to be better indicators of quality than that of their counterparts in other countries. Participants in Canada seemingly indicate that most categories as very poor indicators of quality. These results may indicate how the bottled water market operated in their respective countries and the experience the consumer has with bottled water in their countries. For instance, brand names might be trusted more to deliver quality in Sweden than in Canada. Or brands in the Swedish market may be more established and have a more top-of-mind status. However, it can also mean that brands have created a perception of higher quality through advertising. In Australia there could be great price differences in the market, which to the consumer is synonymous with quality level. Australia, Asia and Sweden may have a more holistic approach to determining the quality of the water by indicating that all these attributes, collectively, are important.

**Table 4. Best indicator of quality (mean values)<sup>16</sup>**

Data	Most important in:	Least important in:
Price	Australia (3.37) Asia (3.35) Sweden (3.27)	Canada (2.62) Norway (2.76) Switzerland (2.91)
Brand	Sweden (3.70) Asia (3.69) Australia (3.49)	Canada (3.08) Denmark (3.18) UK/Ireland (3.21)
Country of Origin	Switzerland (3.84) Asia (3.81) Australia (3.73)	UK/Ireland (3.15) USA (3.32) Denmark (3.33)
Design	Sweden (2.95) Australia (2.91) Asia (2.77)	Canada (2.25) UK/Ireland (2.56) USA (2.60)

### 5.1.3 Attributes influencing purchase

The same groupings of attributes were again tested for significance and subjected to a one-way ANOVA to investigate how the attributes influence intended purchase (*Table 5*). The difference between countries rating most importance and least importance is significant at 95% confidence level e.g. for *price* Canada is significantly different from Norway.

When comparing the means for each country for each category it is evident that differences in perception do exist, but a general trend is also apparent. Price has the highest overall value indicating it is the most important factor in influencing the purchase. Congruent with previous marketing research, the results are similar (Dodds et al., 1991; Zeithaml, 1988;

<sup>16</sup> Mean difference significant at 0.05 level

Teas and Agarwal, 2000). Brand follows as the second most important indicator judging by the means, in tact with the predictions made in the literature review. However, the mean values are more spread out indicating that there is some difference depending on the country of residence. COO attributes closely follow brand and are also highly rated by the participants where as design attributes have the least influenced on intended purchase. This indicates that generally the survey participants do not perceive design to be as influential as COO and the bottled water brand in their purchasing decision. These results should to some extent predict the results for the more in-depth relationship analysis.

**Table 5. Attributes influencing purchase (mean values)<sup>17</sup>**

Attribute	Most important in:	Least important in:
Price	Canada (4.50) Australia (4.37) Denmark (4.32)	Norway (3.71) Germany (3.72) Switzerland (3.74)
Brand	Sweden (3.57) Asia (3.54) Germany (3.51)	Denmark (2.67) UK/Ireland (2.71) Switzerland (3.17)
Country of Origin	Europe (3.49) Switzerland (4.41) Canada (3.40)	UK/Ireland (2.67) Denmark (2.72) Australia (3.00)
Design	Sweden (2.65) Australia (2.63) Norway (2.42)	Canada (1.90) USA (2.19) Europe (2.20)

### *Most important attributes*

By comparing the total values for each attribute from the ANOVA analysis it is possible to gain more insights into how the attributes differ in influencing perceived quality versus intended purchase for the total population. In regards to attributes indicating quality, these values indicate that COO is the strongest indicator of quality followed by brand. The participants are not particularly convinced that price indicates quality and even less that design has any predicting ability of the content quality.

The values indicating intended purchase are not consistent with that of the mentioned quality indicators. The values indicate clearly that price is the most important attribute influencing intended purchase. It is likely this is due to the fact that water is a commodity and consumers are not willing to pay premium price for a product that is essentially free.

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<sup>17</sup> Appendix 4: ANOVA

Furthermore, brand is the second strongest influencer of purchase followed by internal attributes (COO) and lastly external attributes (design). This indicates like above, that COO and Design should have the least influence on consumer purchase intentions. Furthermore, the values for design indicate that it is a better predictor of quality than it is on influencing purchasing intentions.

**Table 6. Attributes influencing perceived quality and intended purchase**  
(total mean values)<sup>18</sup>

Attribute	Perceived quality	Intended purchase
Price	3.02	4.02
Brand	3.36	3.16
Country of Origin	3.50	3.13
Design	2.70	2.30

#### 5.1.4 Attribute Conclusions

The above analysis has uncovered that certain variables are more likely to influence the consumers' perception of quality than others. The design attributes are not proving to be very influential in this initial analysis. In addition, although COO is rated as an important quality indicator it does not influence purchase intention more than Price and brand. Furthermore, it is highly relevant to uncover how countries differ in judging which attributes they regard as good indicators. Sweden's fondness of brand and external attributed as indicators of quality is pertinent as it could indicate great market potential for high-design bottles. Moreover, it is pertinent to observe the differences between countries and their indicated preferences as this largely confirms how culture fragments the market. Thus, a high-design bottle is not suitable for all markets (Salmi and Sharafutdinova, 2008).

The above analysis has been concerned with gaining a general overview of the participants' attitudes and beliefs in relation to the different factors of influence. The next sections will be concerned with a more in-depth analysis of the behavioural questions from sections 3, 4 and 5 in the survey. Consequently, it will test the extent to which the results achieved here can be used as significant indicators and predictors for the proceeding behavioural results.

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<sup>18</sup> Total mean values, significant at .05.



## 5.2 Analysis Part II

### 5.2.1 Most attractive bottle

Rating the bottles attractiveness of blurred unbranded bottles was the first question asked to participants, unaffected by COO and brand. This was done in order to isolate the effect of the bottles design on perceived quality as well as for further comparison to investigate any possible relationship and/or changes as more information is given to the participants. The following *Table 7* summarised the overall attractiveness rating for each bottle, values are given as the total mean for each bottle. Bottle B is clearly rated the most attractive by all participants followed by F and E. Bottle A was rated least attractive. Based on the above, the discussion will continue with a particular focus on bottles B and F. The next section will provide a more detailed analysis of the ratings according to country of residence and test for any bias between preference and residences.

**Table 7. Most attractive bottle** (Total mean values)<sup>19</sup>

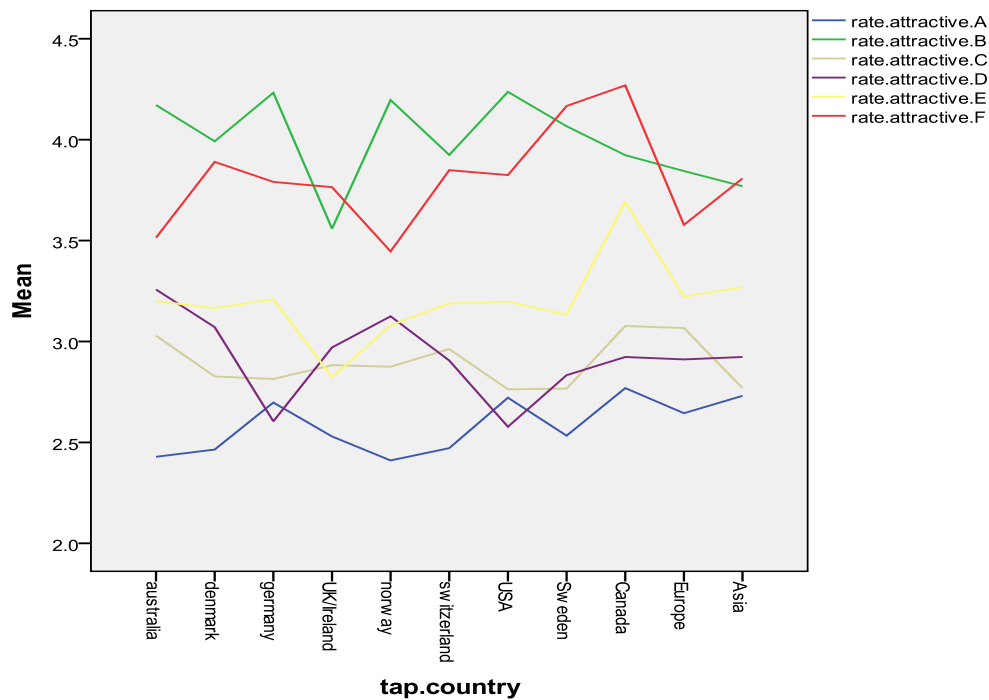
Bottle	Total mean value
A	2.55
B	4.04
C	2.88
D	2.92
E	3.17
F	3.77

### 5.2.2 Blurred Bottle preference by country

The following results were subjected to validity tests of how far participants were biased towards bottles from their respective countries. This was especially critical due to the large Norwegian population in the participant sample. The results illustrated no statistical significance between neither participants' residence nor nationality and their preferred bottle.

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<sup>19</sup> Total mean values, significant at .05.

**Figure 7. Bottled water attractiveness by country**<sup>20</sup>

### 5.2.3 Attractiveness Conclusions

The above analysis shows that there are differences between countries in bottle preferences: however, the differences are too small to have statistical validity. Consequently the remaining part of the analysis will not analyse the individual country impact on variables. Moreover, a general trend may be drawn from the results as illustrated in *Table 7*. This trend shows that there is a clear preference among all participants for bottle B and F, regardless of nationality. Hence, the general trend prevails and as a result the following hypothesis is *rejected*:

H<sub>4</sub>: *There is a significant relationship between the attractiveness of the bottle and the consumer's nationality supporting the need for local adaption in design.*

### 5.2.4 Perceived quality of bottled water

Each bottle was rated according to its perceived attractiveness in comparison to the participants' domestic tap water. This aimed to uncover the perceived quality of the bottled water solely based on design. According to the previous analysis conducted where design turned out to be the least valuable attribute in predicting quality and purchase it should be

<sup>20</sup> Appendix 5: Crosstab analysis

expected that this attitude would remain. However, based on the theoretical implications of design and consumer behaviour the design the results from section 3 in the survey should not change significantly from the results in section 5, where brand is introduced. *Table 9* shows the percentage of all participants and their quality rating (worse, same, better) of each bottle in each bottle section in the survey (blurred, COO and brand).

It is evident that concentration of participants (%) changes when the COO information is given. Bottle E is particularly pertinent as it ranks third best in perceived quality in the blurred bottle section. However, when participants discover that the bottle originates from Serbia it receives the worst perceived quality ratings. Hence, the initial perception of quality based only on the bottle's design (36.5%) was negatively affected by the indication of the COO in the minds of participants and consequently fell to 16.9%. Serbia as COO evidently had a negative influence on participants' perception of quality. Similarly, the mention of the bottles' COO also had a negative impact on the indicated perception of bottle A, C, D and F. Hence, Italy, USA, UK and France, as countries of origin, have seemingly no favourable impact on the perceived quality. Bottle B from Norway was the only bottle that received an increased cluster of participants perceiving the bottle as better than tap water. However, the bottle does lose some ground (.3% points) when brand is introduced, this also makes bottle B the only bottle which does not experience a positive increase in perceived quality when brand is introduced. It is noteworthy that all bottles, except B, experience an increase in percentage points from COO to Brand. This is especially evident when looking at bottle F. When participants find out that F is *Evian* its perceived quality increases with 11.8% points. Hence, the results indicate the positive impact brand has on consumer's perception of quality in line the theory introduced (Dodds et al. 1991; Gabrielsen, et al. 2008).

**Table 9. Perceived quality of bottles** (marginal percentage of total participants)

Bottle	Blurred			Country of Origin			Brand		
	WORSE	SAME	BETTER	WORSE	SAME	BETTER	WORSE	SAME	BETTER
A	20.9%	48.7%	30.4%	34.3%	40.0%	25.7%	22.8%	45.5%	31.7%
B	10.1%	37.8%	52.1%	6.5%	36.2%	57.3%	7.2%	35.7%	57.0%
C	14.8%	57.3%	27.9%	34.5%	45.8%	19.7%	24.9%	50.6%	24.2%
D	18.1%	49.9%	32.0%	35.6%	46.3%	18.1%	24.3%	50.6%	25.2%
E	14.5%	49.0%	36.5%	48.0%	35.1%	16.9%	25.2%	46.8%	28.0%
F	12.0%	40.3%	47.7%	17.8%	41.9%	40.3%	13.7%	34.2%	52.1%

The information in *Table 9* was further processed through a crosstab analysis to gain a more detailed overview. It is especially relevant to look at this according to bottles B and F. The crosstab analysis shows that Norway, Canada, Switzerland and Denmark have the highest consistent concentration of participants rating each bottle as the same quality as their tap water. This may indicate that participants from these countries regard their domestic tap water as good quality. This previous statement is further justified when taking into account their purchasing behaviour, where Norway, Canada and Denmark had the lowest mean values when looking at frequency of purchasing.

In addition, a 2-tailed bivariate correlation was conducted in order to identify the relationship between the rated attractiveness and the perceived quality of the water. *Table 10* below show these results, which were statistically significant at .05. *Table 10* illustrates that there is a positive relationship between the attractiveness of the bottles and how they compare to the respective countries tap water. The same relationship was evident after conducting the ordinal regression analysis.<sup>21</sup> Hence, the following hypothesis is *accepted*:

H<sub>2</sub>: *There is a positive relationship between attractiveness of the bottle and the consumer's perceived quality of the water.*

Furthermore, the correlation is higher in the cases for bottles B and F, which were rated most attractive indicating that the more attractive the bottle the higher the perceived quality of the content would be. After viewing the results from the first part of the analysis illustrated in *Table 6* where external attributes were not rated particularly high as an indicator of quality. The following tests results are worth noting as they show a different trend. It is possible that participants do not think that external attributes indicate quality, however, when they are forced to choose a bottle that indicates the highest quality in comparison to their tap water they pick the most attractive bottles. Furthermore, this supports the theories put forth that product aesthetics may act as a predictor of quality to the consumer, be it a conscious or a sub-conscious. It is worth noting that this builds support for H<sub>1</sub> (*There is a positive relationship between attractiveness of the bottle and the consumers' purchasing intentions*), which will be subjected to further analysis.

Moreover, when assessing whether or not the brand would influence and alter the perceived quality after design and COO another ordinal regression was conducted. Again,

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<sup>21</sup> Appendix 6: Ordinal Regression

bottles B and F are still the only ones with a positive relationship. After COO information was given B had the strongest relationship at -.952, compared to F, .83. When brand was introduced the values shifted: F: .89 and B fell to -.89, hence it had a small impact. When studying the percentages of participants the change is more evident. On both grounds the following hypothesis is *accepted*:

H<sub>5</sub>: *Brand will only have a significant impact on the perceived quality of the bottled water if the brand it has significant international exposure.*

**Table 10. Bottle attractiveness correlation (Pearson Correlation)<sup>2223</sup>**

Rated Attractiveness							
Blurred bottles vs. tap water  COO bottle vs. tap water  Brand bottle vs. tap water		A	B	C	D	E	F
	A	.36 .19 .23					
	B		.39 .32 .29				
	C			.20 .10 .14			
	D				.38 .15 .15		
	E					.38 .14 .20	
	F						.37 .24 .24

### 5.2.5 Purchase intention

The purchase intention is essentially regarded as a practical measure. If the participants think a bottle is more attractive than another and perceive it to be of better quality that will then lead to a purchase, as hypothesised. The below *Table 11* summarises the change in percentage of participants rating perceived quality of the bottled water compared to their domestic tap water.

<sup>22</sup> Correltaion significant at .000.

<sup>23</sup> Appendix 7: Correlation

**Table 11. Purchase intentions** (marginal percentage of total participants)

Bottle	Blurred	Country of Origin	Brand
A	3.3%	3.5%	3.8%
B	38.4%	59.4%	44.6%
C	20.5%	10.4%	13.5%
D	10.1%	5.5%	4.4%
E	7.7%	1.4%	1.7%
F	20.0%	19.8%	32.0%

It is pertinent to note the initial changes that occur when COO information is given to the consumers. In regards to Bottle A, which had the lowest attractive ratings it looks as though the additional COO information could not alter the purchase intentions. There is little change for A throughout the research, indicating that the participants who liked it stuck with it and were not impressed by either COO nor brand. As it was the bottle with the lowest attractiveness rating became the subject for testing hypothesis H<sub>3</sub>. Although it could be expected that Italy had positive associations with consumers due to its Alps, which is imagery often associated with purity in relation to bottled water, it did not have a significant affect. Nor did test for correlation provide any statistically significant results supporting the hypothesis. Hence, the following hypothesis is *rejected*:

H<sub>3</sub>: *COO can positively contribute to improve the perceived quality of an unattractive bottle.*

Continuing to build on the analysis it is noted that bottle C is the third most desirable bottle for purchase. However, when COO information is given there is an evident loss of interest. This may imply that USA as a COO is not particularly desirable for the consumers. Furthermore, bottles B and F make relevant cases as well. B is the most desired bottle by a large extent until the brand is introduced. B's COO Norway appears to have a very positive influence on the purchasing intention of the bottle. Participants clearly have a positive association with the country and this reflects in the brand. Notably, this is of course in comparison to the other countries that were used in the survey. Other countries, not included

in this research, may have altered the outcome. Additionally, the other countries may have evoked more negative association and caused participants to shift their preference based on negative association with other countries rather than a particular positive association with Norway. Either way the COO information made bottle B the most desirable out of the bottles.

Furthermore, the data clearly shows the influence of both COO and brand, in accordance with marketing theory explained in the literature review. It could be claimed that USA, UK and Serbia clearly do not have a positive impact on consumers' purchasing intention, neither does Italy or France. Norway, however, seems to have great positive influence on the purchase intentions. This may be influenced by the fact that the sample has a significant Scandinavian population. Or perhaps it could be shaped by the fact that Norway is known to have a small population with little pollution and industry. Moreover the country is largely characterized externally by its fjords, mountains and natural habitat, which may hold a particular high value to participants who associate this with the quality of the water.

However, when the brand is introduced B loses significant support, which again may either be caused by negative brand association towards VOSS or a positive brand association with F (Evian). Both are plausible in this case. However, judging by the difference in scale and market coverage between the two it is most likely that Evian has a better reputation in the industry. As explained earlier in this paper VOSS has been under criticism for their lack of clarity in communicating the source of the water and ambivalent projection of the company as *shady* by the media (DN.no, 2010; Tv2.no, 2010). However, as this negative publicity mainly has occurred in Norway it is unlikely to have great effect on the evident overall shift. Rather it is likely that Evian with its more established and widely recognized brand on a global scale "steals" participants from VOSS on the grounds of its positive brand association. As a result the following hypothesis may be *accepted*:

H<sub>6</sub>: *Brand will only have a significant impact on the intended purchase of the bottled water if the brand has significant international exposure.*

Furthermore, the correlation analysis conducted yielded only a significant estimate for the bottles B and F. These were the only bottles that had positive correlation between the consumers' rating of attractiveness as well as their purchase intentions on all three levels (blurred, COO and brand). This statistically supports the earlier analysis illustrated in *Table 11* (Purchase intentions).

Moreover, based on the ordinal regression conducted it is also evident that there is a positive relationship between the bottles attractiveness and the consumers' purchasing intention. Again, the results from the regression demonstrate consistency in the significance of this relationship for only bottles B and F. The same positive relationship is evident when assessing the link between perceived quality and purchase intention. Naturally, still only for bottles B and F, which were rated most attractive. Consequently, the following hypothesis is *accepted*:

*H<sub>1</sub>: There is a positive relationship between attractiveness of the bottle and the consumers' purchasing intentions.*



## CHAPTER 6. Concluding Remarks



### 6.1 Limitations

*Overall:* The thesis has been carried out within seven months with no previous knowledge of the bottled water industry. Only public available information on the industry and its players was consulted. Furthermore, no financial means were granted for the purpose of this research, which significantly restricted any access to: costly data, a superior survey platform, as well as analytical tools in SPSS.

*Survey:* The people that participated in the research were not tested on their prior awareness for- or knowledge of- design. Retrieving such information might have made it possible to test whether or not this would significantly effect that particular group's evaluation of product attractiveness. Moreover it would have made it possible to distinguish, isolate and compare the groups of high-design knowledge to that of a low-design knowledge group and conclude on differences and/or similarities between the groups.

Similarly, the participants were not asked about their prior awareness of- and ability to identify COO and brand information prior to being given the information in the survey. Including this in the survey would have made it possible to test how far prior knowledge of these variables affected the initial perceived attractiveness as well as the participants perception of quality and purchase intention. However, these aspects were not included, as this thesis does not seek to uncover whether prior exposure to brands would influence their preference as previous research has demonstrated (Clement, 2002). Moreover, the results obtained in this research do demonstrate the impact of COO and brand information to a certain extent. Hence, through the analysis it is possible to actually see how COO and brand changes consumers' perceptions.

## 6.2 Conclusion

### 6.2.1 Main Findings

To answer the research questions this thesis has demonstrated that bottle design has significant influence on the consumers' perceived quality of any water bottle's content. The more aesthetically pleasing or visually attractive the bottle, the higher the perceived quality of the bottled water and the more likely the consumer is to purchase the bottle. Hence, it is possible to draw the conclusion that there is a significant positive relationship between the three elements: visual attractiveness, perceived quality and purchase intention. Furthermore, the thesis has also demonstrated evidence that the consumer's perceptions and purchase intentions, to some extent, are also influenced by the additional information about the bottles' country of origin and brand. COO evidently has great impact if there is a negative association with the country, underlined by the Serbian example in the analysis. Furthermore, in regards to brand the analyses demonstrates its impact on perceived quality and purchase intention particularly through the results of Evian bottle. Evian has a substantial global coverage in distribution and in advertising, which clearly generated preconceived perceptions about its quality. Yet, it became clear that the changes in participant perceptions observed between the answers pertaining to the blurred bottles and the branded bottles were not extravagant.

The VOSS and Evian bottles consistently remained the most popular choices in both perceived quality and purchase intention throughout the entire research. VOSS consistently remained the participants preferred choice over Evian (second most preferred bottle) as the results illustrated in *Table 11*. Hence, VOSS' country of origin and brand has not impacted its position as most preferred bottle among the participants. This further supports the conclusion that design significantly influences consumers' perception and quality, although the participants do not consciously recognize this as a significantly important factor.

In relation to the over all industry, the research results illustrate that there are great opportunities in creating a competitive advantage through design, which is also in accordance with previous research conducted and particularly that of Clement (2007) and Reimann et al. (2010).

### 6.2.3 Research implications for VOSS

Based on the analysis conducted it is possible to draw the conclusion that VOSS has a great competitive tool rooted in their design, which could provide competitive advantage if marketed and communicated correctly. The attitudes detected concerning the bottles design are proven not to be significantly location dependent, rather the participants liking to the bottle's design is more universal. More specifically, the VOSS design is versatile and consequently carries high potential of being easily translatable across countries and markets, indicating a great international market opportunity. Currently, VOSS do not have the same competitive scope as Evian, however, as the results show it's design proved to be more favourable than that of Evian hence an opportunity to create competitive advantage is vacant. Based on the information provided about the growth potential of the bottled market in emerging markets supplemented with the knowledge of the evident trends in these regions, VOSS should pay particular attention these markets. The demand for high-end products, contributing to consumers' social image, is developing rapidly in emerging markets like China and Russia (BCG, 2008; Datamonitor, 2010). Ergo, this is a great market opportunity for VOSS to establish their brand and exploit the market potential, moreover, it could potentially provide a higher profit margin, as the market may allow a higher price tag. Hence, it may be better for their competitive status in the Asia-Pacific markets to stay away from the low-end supermarkets and rather focus on the higher-end, where the bottle will be associated with higher quality.

In contrast to the emerging market opportunities, the European market will first of all require a significant marketing efforts in order to establish or re-establish positive and credible brand image and reputation. Secondly, the European market requires a more home-focused marketing approach, where the emphasis is on how VOSS suits the dinner table and not the consumer's public appearance, as explained in the market overview section. In addition, a local approach to choice of colour schemes used in the design could prove to be particularly successful as it allows for category expansion and can attract larger parts of the population.

### 6.2.4 Applicability

This thesis and its results can to some extent be applied to other product categories such as the wine industry and perhaps the cosmetics industry. These markets share similar characteristics of maturity and competition concentration to that of the bottled water industry.

In addition, the selection process in these categories is comparable as the content quality is largely judged by the external attributes on the package (Jennings and Wood, 2007). Discovering the significant importance of design in bottled water, which is a low involvement product, could emphasise the increased importance of design in high involvement products (Reimann et al. 2010). Hence, this research can contribute to emphasise the competitive value of design.

Furthermore, this thesis has contributed to a better understanding of how design is applied to a global product category, and has demonstrated the importance of design elements in low involvement and commodity products, which has not previously been done. Moreover, it not only supports findings from prior research it also adds to the marketing knowledge by undertaking aspects that have, to a larger or lesser extent, been requested for future research (Solomon; 1983; Darling and Danny, 1988; Dodds et al., 1991; Eckman and Wagner, 1994; Bloch, 1995; Creusen and Schoormans, 2005; Chua, 2006; Clement, 2007; Jennings and Wood, 2007; Reimann et al. 2010; Hoegg, et al., 2010).

### **6.3 Further research**

The data set collected for the thesis was exceedingly extensive and finally held too much information in terms of affecting the ease and time taken to conduct the research and the analysis. As a result some data was disregarded in the analysis, however, by no means does this imply that this additional information is irrelevant to the topic. The extra data collected provides a solid base for further investigation and may uncover other valid, more detailed, aspect and factors of influence. Hence, the research may initiate a more extensive, detailed study, perhaps in the form of a PhD.

This research has also paved the way for more detailed studies on the same topic investigated relationship between the respective variables. It would be particularly relevant to conduct a more prolonged, in-depth and complex statistical analysis that would account for the ordinal data to a much more detailed extent. One way to proceed with this would be to, first of all, gain sufficient financial sponsorship and acquire new more complex statistical tools. These additional tests would contribute to a greater weight of validity to the topic.

This thesis provides great and relevant insight to the question of consumers' purchase intention. However, as the consumers actual purchase may differ from their stated intention it

is highly relevant to supplement the results from this thesis with an observational study that investigated the actual behaviour of consumers. It would be valuable for current marketing theory to gain conclusions on actual behaviour in the context of this topic as no research has retrieved such conclusions yet.

Furthermore, due to the broad theoretical nature of the variables researched in this thesis there are infinite possibilities to include additional theories that can have a significant impact on the results. For example, personality and personal experiences may influence the consumers' attraction to bottle design (Bloch, 1995). Similarly, specific shades of colour as well as different shape and forms may impact consumers' attractiveness rating and their subsequent perception and intention. Both examples are very subjective in nature and will not only vary to a great extent nationality and culture level, but it will also be unique at an individual level. An in-depth investigation determining how these variables are tied to nationality and culture in the scope of this research would be particularly relevant. It could establish the common national and cultural cues that impact the perception of quality and purchase intention. In practice such knowledge could aid the uncovering of market opportunities and improve product strategies and concept at a local level.

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## WEB sites

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Brand image: <http://www.brand-image.com/en/>

Evian: <http://www.evian.com/>

Experiential Marketing Forum: <http://www.experientialforum.com/>

Farris: <http://www.farris.no/>

Finewaters: <http://www.finewaters.com/>

Glaceau: <http://Glaceau.com>

Global Package Gallery:

<http://www.globalpackagegallery.com/main.php/v/bev/bottled+water/>

Group Danone Brands: <http://www.danone.com/en/brands/brand-stories.html>

Iluliaq: <http://www.iluliaq.com/>

International Bottled Water Association <http://www.bottledwater.org/>

Kildevæld: <http://www.3literrentvand.dk/Kildevaeld.aspx>

London on tap: <http://www.londonontap.org/>

Minton spring water: <http://www.mintonspringwater.co.uk/>

Nestlé' Water Brands: <http://www.Nestlé-waters.com/brands/brands.html>

Ramlösa: <http://www.ramlosa.se/>

The Coca Cola Company, water brands:

<http://www.thecocacolacompany.com/brands/water.html>

SIGG: <http://mysigg.com/>

Skinny Water: <http://www.skinnywater.com/>

This water: <http://www.thiswater.co.uk/>

Vita coco: <http://vitacoco.com/>

Vitamin water: <http://www.vitaminwater.com>

Volvic: <http://www.volvic.co.uk/>

Watergeeks: <http://www.thewatergeeks.com/>

## Appendix 1. Survey and Results



**Thank you for helping me out!!**

My name is Anette and I am writing my master thesis in marketing and management, on the bottled water industry. As part of my thesis I need to gather some data on consumers purchasing behaviour. I would greatly appreciate if you take the time to answer a few questions. It will take about 5-7 minutes.

It would also be immensely helpful if you could pass the survey on to others by posting it on their Facebook wall, send it in a FB-message, tweet, or email the link around to your friends, family and colleagues!

Thank you so much for helping me out!

### Page 2, Question 1: From which country do you get your tap water? (Compulsory question)

639 Participant

Australia	34	
Denmark	126	
Germany	44	
UK/ Ireland	33	
Norway	112	
Switzerland	53	
USA	97	
If other please specify	139	<input type="checkbox"/> Sweden (28 x) <input type="checkbox"/> Canada (26 x) <input type="checkbox"/> France (16 x) <input type="checkbox"/> Spain (8 x) <input type="checkbox"/> India (7 x) <input type="checkbox"/> Italy (4 x) <input type="checkbox"/> Thailand (4 x) <input type="checkbox"/> Greece (4 x) <input type="checkbox"/> New Zealand (2 x) <input type="checkbox"/> Belgium (2 x) <input type="checkbox"/> Austria (2 x) <input type="checkbox"/> Netherlands (2 x) <input type="checkbox"/> Saudi Arabia (2 x) <input type="checkbox"/> Brazil (2 x) <input type="checkbox"/> Ireland <input type="checkbox"/> Honduras <input type="checkbox"/> Hungary <input type="checkbox"/> UAE <input type="checkbox"/> Faroe Islands <input type="checkbox"/> Ukraine <input type="checkbox"/> Indonesia <input type="checkbox"/> Poland <input type="checkbox"/> Argentina <input type="checkbox"/> United Arab Emirates <input type="checkbox"/> Turkey <input type="checkbox"/> Guatemala <input type="checkbox"/> Nestle - Pakistan

	<input type="checkbox"/> panama <input type="checkbox"/> Mexico <input type="checkbox"/> South Korea <input type="checkbox"/> China <input type="checkbox"/> Im from india so tap water is generally not used for drinking <input type="checkbox"/> Saudia Arabia <input type="checkbox"/> Portugal, Spain, France <input type="checkbox"/> Iceland <input type="checkbox"/> Japan <input type="checkbox"/> Monaco <input type="checkbox"/> Iran <input type="checkbox"/> Slovenia <input type="checkbox"/> hong kong (live here) <input type="checkbox"/> Sverige <input type="checkbox"/> Portugal <input type="checkbox"/> Singapore <input type="checkbox"/> Finland
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**Page 2, Question 2: How often do you buy bottled water? (Compulsory question)**

639 Participant

1 or more bottles per day	52
4-6 bottles per week	85
1-3 bottles per week	108
1-3 bottles per Month	233
Hardly ever	161

**Page 2, Question 3: Where do you purchase your bottled water most frequently? (Compulsory question)**

639 Participant

Vending machine	23
Cafeteria	47
Corner store or Kiosk	222
Low-end supermarkets	171
High-end supermarkets	109
Restaurants and Cafees	55
Gym	12

**Page 2, Question 4: Which attributes are most likely to influence your purchase of a particular bottle of water? (Compulsory question)**

639 Participant

	very unlikely	unlikely	neither likely nor unlikely	likely	very likely
Taste	90	53	82	214	200
Country of origin	169	110	147	138	75
Source (natural or spring)	124	98	150	167	100
Price	23	43	74	260	239
Grip or sports cap	182	159	146	121	31
Attractiveness	135	125	176	177	26

Novelty	194	165	205	67	8
Limited edition	350	143	112	26	8
Brand	112	76	132	229	86

**Page 2, Question 5: To what extent do you agree that the following attributes indicate quality? (Compulsory question)**

639 Participant

	strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
Source (glacial, artesian, filtered)	32	41	163	282	121
Country of origin	49	87	187	244	72
Brand	55	87	154	260	83
Taste	31	35	134	265	174
Price	61	140	217	166	55
Novelty	126	177	266	54	16
Attractiveness	110	147	213	148	21
Glass packaging	90	131	175	177	66
Plastic packaging	102	173	259	80	25

**Page 2, Question 6: How do you ensure that the bottled water you choose is of good quality? (Compulsory question)**

639 Participant

	strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
I try different kinds until I find the best one	73	97	161	229	79
Look at the type of water (eg. spring or filtered)	81	130	154	215	59
Look at the country of origin	88	144	177	184	46
Look for a familiar brand	49	62	126	293	109
Look for the most attractive bottle	125	177	181	138	18
The quality doesn't matter to me	227	187	115	67	43

**Page 2, Question 7: In which situations would you be willing to pay more than average or less than average for a bottle of water? (Compulsory question)**

639 Participant

	Less than average	More than average
When hosting a formal event eg meeting	189	447
When hosting a special event eg wedding	123	513
When hosting an informal event eg dinner with friends	352	283
When traveling	415	220
When consuming alone	536	101
At the gym	527	108



**Page 3, Question 8: Please rate each bottle according to the attractiveness of the bottle design (Compulsory question)**

639 Participant

	very unattractive	unattractive	neither attractive nor unattractive	attractive	very attractive
A	98	221	194	114	12
B	10	29	104	279	217
C	48	127	331	117	16
D	58	156	222	180	23
E	25	131	225	227	31
F	35	69	111	219	205

**Page 3, Question 9: How do you expect these bottled waters compare to your domestic tap water? (Compulsory question)**

639 Participant

	much worse	worse	same	better	much better
A	28	105	309	173	24
B	8	56	241	226	108
C	17	77	366	154	25
D	15	101	317	172	34
E	15	78	312	204	30
F	14	63	257	207	98

**Page 3, Question 10: To what extent is the following important to you in the bottle design? (Compulsory question)**

639 Participant

	very unimportant	unimportant	neither important nor unimportant	important	very important
Novelty	104	169	249	102	15
Attractiveness	51	104	169	256	59
Functionality	25	27	84	346	157
Recognisable by my self	40	70	186	281	62
Recognisable by others	114	168	253	87	17
Reflects its country of origin	92	181	244	104	18
Fits my personality	108	144	227	120	40

**Page 3, Question 11: Assuming that the price of all bottles were identical, please select ONE bottle you would most likely purchase (Compulsory question)**

639 Participant

A	21
---	----



B	245
C	131
D	64
E	50
F	128

**Page 3, Question 12: To what extent do you agree with the following statements:  
"An attractive bottle is a good indicator..." (Compulsory question)**

639 Participant

	strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
...of a trustworthy source	70	149	201	196	22
...of good tasting water	63	145	197	203	31
...of whether the water is safe or not	77	156	211	160	35
...of good quality	58	126	174	233	48
nothing, the design is irrelevant	61	152	162	132	132



**Page 4, Question 13: Please rate your perceived quality of the above bottled waters in comparison to your domestic tap water (Compulsory question)**

639 Participant

	much worse	worse	same	better	much better
A	30	188	254	140	27
B	6	35	231	230	137
C	31	188	294	106	20
D	31	196	296	104	12
E	58	248	224	91	18
F	20	94	267	188	70

**Page 4, Question 14: To what extent do you agree with the following statements:  
"The bottle's COUNTRY OF ORIGIN tells me..." (Compulsory question)**

635 Participant

	strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
...whether the source is natural or not	58	148	186	218	25
...whether the water tastes good or not	52	139	214	199	31
...whether the water is safe or not	52	103	186	235	59
...whether the water is of good quality or not	45	102	184	261	43
nothing, the country of origin is irrelevant	69	218	182	95	71

**Page 4, Question 15: Now that you are aware of the COUNTRY OF ORIGIN of each bottle, which would you most likely purchase (Compulsory question)**

639 Participant

A	22
B	379
C	66
D	37
E	9
F	126



**Page 5, Question 16: Please rate your perceived quality of the above bottled waters in comparison to your domestic tap water (Compulsory question)**

635 Participant

	<b>much worse</b>	<b>worse</b>	<b>same</b>	<b>better</b>	<b>much better</b>
A	16	129	289	166	35
B	6	40	227	232	130
C	24	134	321	137	19
D	17	137	321	145	15
E	18	142	297	153	25
F	21	66	217	218	113

**Page 5, Question 17: To what extent do you agree with the following statements: "The BRAND tells me..." (Compulsory question)**

635 Participant

	<b>strongly disagree</b>	<b>disagree</b>	<b>neither agree nor disagree</b>	<b>agree</b>	<b>strongly agree</b>
...whether the source is natural or not	52	141	214	200	28
...whether the water tastes good or not	48	91	181	268	47
...whether the water is safe or not	51	114	194	225	51
...whether the water is of good quality or not	47	89	165	278	56
nothing, the brand is irrelevant	77	216	189	99	54

**Page 5, Question 18: Now that you are aware of the BRAND of each bottle, which would you most likely purchase (Compulsory question)**

635 Participant

A	24
B	283

C	86
D	28
E	11
F	203

**Page 6, Question 19: I am (Compulsory question)**

635 Participant

Male	308
Female	327

**Page 6, Question 20: Age (Compulsory question)**

635 Participant

<19	10
20-29	338
30-39	135
40-49	84
50+	68

**Page 6, Question 21: Nationality (Compulsory question)**

635 Participant

Australia	14	
Denmark	113	
Germany	32	
UK/ Ireland	38	
Norway	139	
Germany	10	
Switzerland	43	
USA	86	
If other please specify	160	<input type="checkbox"/> Sweden (29 x) <input type="checkbox"/> Canada (21 x) <input type="checkbox"/> Swedish (14 x) <input type="checkbox"/> Canadian (13 x) <input type="checkbox"/> FRANCE (10 x) <input type="checkbox"/> French (6 x) <input type="checkbox"/> Saudi (6 x) <input type="checkbox"/> indian (5 x) <input type="checkbox"/> Spanish (4 x) <input type="checkbox"/> India (4 x) <input type="checkbox"/> Greek (4 x) <input type="checkbox"/> Thai (3 x) <input type="checkbox"/> Brazil (3 x) <input type="checkbox"/> Finnish (2 x) <input type="checkbox"/> New Zealand (2 x) <input type="checkbox"/> Dutch (2 x) <input type="checkbox"/> Saudi Arabia (2 x) <input type="checkbox"/> Finland

	<input type="checkbox"/> living in switzerland, comparing with tapwater there <input type="checkbox"/> arabic <input type="checkbox"/> Hungary <input type="checkbox"/> Italy <input type="checkbox"/> hungarian <input type="checkbox"/> belgium <input type="checkbox"/> Austria <input type="checkbox"/> Swiss-American (dual citizen) <input type="checkbox"/> bulgarian <input type="checkbox"/> Ukraine <input type="checkbox"/> Netherlands <input type="checkbox"/> Romanian <input type="checkbox"/> UK/Canadian joint nationality <input type="checkbox"/> Guatemalan <input type="checkbox"/> Pakistan <input type="checkbox"/> Panamenian <input type="checkbox"/> Syrian <input type="checkbox"/> Mexico <input type="checkbox"/> Cuban <input type="checkbox"/> Croatian <input type="checkbox"/> Republic of Korea <input type="checkbox"/> Spain <input type="checkbox"/> Myanmar <input type="checkbox"/> Zambian <input type="checkbox"/> Iranian <input type="checkbox"/> Slovenian <input type="checkbox"/> Portugal <input type="checkbox"/> italian <input type="checkbox"/> Uzbekistan
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**Page 6, Question 22: Highest level of education obtained (Compulsory question)**

635 Participant

High school	50
Bachelor	224
Master / MBA	335
PHD	24
Elementary school	2

**Page 6, Question 23: Profession (Compulsory question)**

635 Participant

Student	162
Professional	300
Managerial	131
Unemployed	32
Retired	10

Thank you so much for taking the time to answer my survey and helping me out with my research, I genuinely appreciate it!!

Please pass this survey to your friends and relatives!

<http://en.q-set.eu/q-set.php?sCode=JKMEBWPGCBZH>

It would also be immensely helpful!!

Post is on Facebook, sending it in a message og emailing the link around to your friends, family and colleagues.

THANK YOU!

## Appendix 2. Factor analyse

From page 50

### Factor Analysis

[DataSet1] \\sp-data\users\$\anve05ad\Desktop\anette survey data1.sav

Communalities

	Initial	Extraction
Attract.indicate.trust. source	1.000	.802
Attract.indicate.taste	1.000	.837
Attract.indicate.safe	1.000	.763
Attract.indicate.qual	1.000	.833
attract.indicate.something	1.000	.998

Extraction Method: Principal Component  
Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total
1	3.590	71.810	71.810	3.590
2	.642	12.846	84.656	.642
3	.323	6.469	91.125	
4	.270	5.409	96.534	
5	.173	3.466	100.000	

Total Variance Explained

Component	Extraction Sums of Squared Loadings		Rotation Sums of Squared Loadings		
	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	71.810	71.810	3.045	60.892	60.892
2	12.846	84.656	1.188	23.764	84.656
3					
4					
5					

Extraction Method: Principal Component Analysis.

**Component Matrix<sup>a</sup>**

	Component	
	1	2
Attract.indicate.trust. source	.881	-.161
Attract.indicate.taste	.906	-.128
Attract.indicate.safe	.854	-.182
Attract.indicate.qual	.908	-.090
attract.indicate.something	.663	.747

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

**Rotated Component Matrix<sup>a</sup>**

	Component	
	1	2
Attract.indicate.trust. source	.865	.234
Attract.indicate.taste	.873	.274
Attract.indicate.safe	.850	.203
Attract.indicate.qual	.859	.310
attract.indicate.something	.276	.960

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

**Component Transformation Matrix**

Component	1	2
1	.903	.430
2	-.430	.903

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

### Appendix 3.

From page 54

**Tabel 2 continued**

Regions Countries	Countries represented	Nationalities	Residences
Other	Argentina		1
	Brazil	3	2
	Cuba	1	
	Guatemala	1	1
	Honduras		1
	Mexico	1	1
	Panama	1	1
	Zambia	1	

### Appendix 4. ANOVA

From page 58

#### **Oneway**

[DataSet1] \\sp-data\users\$\anve05ad\Desktop\anette survey data2.sav

#### **ANOVA**

		Sum of Squares	df	Mean Square	F	Sig.
att.price	Between Groups	43.337	11	3.940	3.821	.000
	Within Groups	642.355	623	1.031		
	Total	685.691	634			
att.brand	Between Groups	59.458	11	5.405	3.297	.000
	Within Groups	1021.478	623	1.640		
	Total	1080.935	634			

```
ONEWAY att.price att.brand BY tap.country
/POLYNOMIAL=1
/STATISTICS DESCRIPTIVES
/MISSING ANALYSIS
/POSTHOC=LSD ALPHA(0.05).
```

**Descriptives**

		N	Mean	Std. Deviation	Std. Error
att.price	australia	35	4.37	.808	.136
	denmark	127	4.32	.786	.070
	germany	43	3.72	1.098	.167
	UK/Ireland	34	4.18	1.193	.205
	norway	112	3.71	1.096	.104
	switzerland	53	3.74	1.077	.148
	USA	97	4.06	1.144	.116
	Sweden	30	4.03	.809	.148
	Canada	26	4.50	1.030	.202
	Europe	45	3.96	1.127	.168
	Asia	26	3.85	.784	.154
	Other	7	3.86	1.215	.459
	Total	635	4.02	1.040	.041
att.brand	australia	35	3.23	1.060	.179
	denmark	127	2.67	1.273	.113
	germany	43	3.51	1.142	.174
	UK/Ireland	34	2.71	1.404	.241
	norway	112	3.20	1.293	.122
	switzerland	53	3.17	1.424	.196
	USA	97	3.29	1.274	.129
	Sweden	30	3.57	1.194	.218
	Canada	26	3.31	1.225	.240
	Europe	45	3.49	1.359	.203
	Asia	26	3.54	1.303	.256
	Other	7	3.43	1.272	.481
	Total	635	3.16	1.306	.052

**Descriptives**

		95% Confidence Interval for Mean		Minimum	Maximum
		Lower Bound	Upper Bound		
att.price	australia	4.09	4.65	2	5
	denmark	4.18	4.46	1	5
	germany	3.38	4.06	1	5
	UK/Ireland	3.76	4.59	1	5
	norway	3.50	3.91	1	5
	switzerland	3.44	4.03	1	5
	USA	3.83	4.29	1	5
	Sweden	3.73	4.34	2	5
	Canada	4.08	4.92	1	5
	Europe	3.62	4.29	1	5
	Asia	3.53	4.16	2	5
	Other	2.73	4.98	2	5
	Total	3.94	4.10	1	5
att.brand	australia	2.86	3.59	1	5
	denmark	2.45	2.89	1	5
	germany	3.16	3.86	1	5
	UK/Ireland	2.22	3.20	1	5
	norway	2.95	3.44	1	5
	switzerland	2.78	3.56	1	5
	USA	3.03	3.55	1	5
	Sweden	3.12	4.01	1	5
	Canada	2.81	3.80	1	5
	Europe	3.08	3.90	1	5
	Asia	3.01	4.06	1	5
	Other	2.25	4.61	1	5
	Total	3.06	3.26	1	5



## Oneway

[DataSet1] \\sp-data\users\$\anve05ad\Desktop\anette survey data2.sav

Descriptives

		N	Mean	Std. Deviation	Std. Error
ind.qual.internal	australia	35	3.7286	.71066	.12012
	denmark	127	3.3307	.85035	.07546
	germany	43	3.3372	1.02772	.15673
	UK/Ireland	34	3.1471	.94972	.16287
	norway	112	3.6473	.82374	.07784
	switzerland	53	3.8396	.69180	.09503
	USA	97	3.3247	1.04343	.10594
	Sweden	30	3.4833	.88555	.16168
	Canada	26	3.4423	1.05192	.20630
	Europe	45	3.6111	.99937	.14898
	Asia	26	3.8077	.81335	.15951
	Other	7	3.3571	.89974	.34007
	Total	635	3.4921	.91298	.03623
ind.qual.external	australia	35	2.9071	.70211	.11868
	denmark	127	2.7638	.76331	.06773
	germany	43	2.7209	.83490	.12732
	UK/Ireland	34	2.5662	1.02119	.17513
	norway	112	2.7589	.76665	.07244
	switzerland	53	2.6321	.67154	.09224
	USA	97	2.5954	.93503	.09494
	Sweden	30	2.9500	.87445	.15965
	Canada	26	2.2596	.93936	.18422
	Europe	45	2.6111	.81282	.12117
	Asia	26	2.7692	.75141	.14736
	Other	7	2.7857	.61962	.23419
	Total	635	2.6984	.82163	.03261

Descriptives

		95% Confidence Interval for Mean		Minimum	Maximum
		Lower Bound	Upper Bound		
ind.qual.internal	australia	3.4845	3.9727	2.00	5.00
	denmark	3.1814	3.4800	1.00	5.00
	germany	3.0209	3.6535	1.00	5.00
	UK/Ireland	2.8157	3.4784	1.00	5.00
	norway	3.4931	3.8016	1.00	5.00
	switzerland	3.6489	4.0303	2.00	5.00
	USA	3.1144	3.5350	1.00	5.00
	Sweden	3.1527	3.8140	1.50	5.00
	Canada	3.0174	3.8672	1.00	5.00
	Europe	3.3109	3.9114	1.00	5.00
	Asia	3.4792	4.1362	2.00	5.00
	Other	2.5250	4.1893	2.00	5.00
	Total	3.4210	3.5633	1.00	5.00
ind.qual.external	australia	2.6660	3.1483	1.00	4.00
	denmark	2.6297	2.8978	1.00	4.50
	germany	2.4640	2.9779	1.00	5.00
	UK/Ireland	2.2099	2.9225	1.00	4.75
	norway	2.6154	2.9025	1.00	4.75
	switzerland	2.4470	2.8172	1.00	4.00
	USA	2.4069	2.7838	1.00	4.50
	Sweden	2.6235	3.2765	1.00	5.00
	Canada	1.8802	2.6390	1.00	4.00
	Europe	2.3669	2.8553	1.00	4.00
	Asia	2.4657	3.0727	1.00	4.00
	Other	2.2127	3.3588	2.00	3.50
	Total	2.6344	2.7625	1.00	5.00

## Appendix 5. Crosstab analysis

From page 61

### Crosstabs

[DataSet1] \\sp-data\users\$\anve05ad\Desktop\anette survey data2.sav

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
tap.country * rate. attractive.A	628	100.0%	0	.0%	628	100.0%
tap.country * rate. attractive.B	628	100.0%	0	.0%	628	100.0%
tap.country * rate. attractive.C	628	100.0%	0	.0%	628	100.0%
tap.country * rate. attractive.D	628	100.0%	0	.0%	628	100.0%
tap.country * rate. attractive.E	628	100.0%	0	.0%	628	100.0%
tap.country * rate. attractive.F	628	100.0%	0	.0%	628	100.0%

Crosstab

			rate.attractive.A					Total
			very unattractive	unattractive	neither attractive nor unattractive	attractive	very attractive	
tap.country	australia	Count	3	19	8	5	0	35
		% within tap.country	8.6%	54.3%	22.9%	14.3%	.0%	100.0%
		% within rate.attractive.	3.2%	8.6%	4.2%	4.5%	.0%	5.6%
denmark	A	Count	20	49	37	21	0	127
		% within tap.country	15.7%	38.6%	29.1%	16.5%	.0%	100.0%
		% within rate.attractive.	21.1%	22.2%	19.3%	19.1%	.0%	20.2%
germany	A	Count	2	18	15	7	1	43
		% within tap.country	4.7%	41.9%	34.9%	16.3%	2.3%	100.0%
		% within rate.attractive.	2.1%	8.1%	7.8%	6.4%	10.0%	6.8%
UK/Ireland	A	Count	7	11	7	9	0	34
		% within tap.country	20.6%	32.4%	20.6%	26.5%	.0%	100.0%
		% within rate.attractive.	7.4%	5.0%	3.6%	8.2%	.0%	5.4%
norway	A	Count	22	41	33	13	3	112
		% within tap.country	19.6%	36.6%	29.5%	11.6%	2.7%	100.0%
		% within rate.attractive.	23.2%	18.6%	17.2%	11.8%	30.0%	17.8%
switzerland	A	Count	9	20	16	6	2	53
		% within tap.country	17.0%	37.7%	30.2%	11.3%	3.8%	100.0%
		% within rate.attractive.	9.5%	9.0%	8.3%	5.5%	20.0%	8.4%
USA	A	Count	12	30	29	25	1	97
		% within tap.country	12.4%	30.9%	29.9%	25.8%	1.0%	100.0%
		% within rate.attractive.	12.6%	13.6%	15.1%	22.7%	10.0%	15.4%
Sweden	A	Count	5	10	10	4	1	30
		% within tap.country	16.7%	33.3%	33.3%	13.3%	3.3%	100.0%
		% within rate.attractive.	5.3%	4.5%	5.2%	3.6%	10.0%	4.8%
Canada	A	Count	4	5	11	5	1	26
		% within tap.country	15.4%	19.2%	42.3%	19.2%	3.8%	100.0%
		% within rate.attractive.	4.2%	2.3%	5.7%	4.5%	10.0%	4.1%
Europe	A	Count	6	13	17	9	0	45

Crosstab

			rate.attractive.A					Total
			very unattractive	unattractive	neither attractive nor unattractive	attractive	very attractive	
tap.country	Europe	% within tap.country	13.3%	28.9%	37.8%	20.0%	.0%	100.0%
		% within rate.attractive.A	6.3%	5.9%	8.9%	8.2%	.0%	7.2%
	Asia	Count	5	5	9	6	1	26
		% within tap.country	19.2%	19.2%	34.6%	23.1%	3.8%	100.0%
Total		% within rate.attractive.A	5.3%	2.3%	4.7%	5.5%	10.0%	4.1%
		Count	95	221	192	110	10	628
		% within tap.country	15.1%	35.2%	30.6%	17.5%	1.6%	100.0%
		% within rate.attractive.A	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	40.163 <sup>a</sup>	40	.463
Likelihood Ratio	43.996	40	.306
Linear-by-Linear Association	3.730	1	.053
N of Valid Cases	628		

a. 16 cells (29.1%) have expected count less than 5. The minimum expected count is .41.

## Appendix 6: Ordinal regression

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**Case Processing Summary**

	N	Marginal Percentage
buy.bottle a	21	3.3%
b	244	38.4%
c	130	20.5%
d	64	10.1%
e	49	7.7%
f	127	20.0%
Valid	635	100.0%
Missing	0	
Total	635	

**Model Fitting Information**

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	1015.828			
Final	931.980	83.849	6	.000

Link function: Logit.

**Goodness-of-Fit**

	Chi-Square	df	Sig.
Pearson	1383.675	1204	.000
Deviance	789.844	1204	1.000

Link function: Logit.

**Pseudo R-Square**

Cox and Snell	.124
Nagelkerke	.129
McFadden	.042

Link function: Logit.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.
Threshold	[buy.bottle = 1]	-3.623	.423	73.321	1	.000
	[buy.bottle = 2]	-.316	.363	.758	1	.384
	[buy.bottle = 3]	.603	.363	2.756	1	.097
	[buy.bottle = 4]	1.098	.365	9.036	1	.003
	[buy.bottle = 5]	1.557	.368	17.886	1	.000
Location	blurr.bott.vs.tap.A	.008	.116	.005	1	.943
	blurr.bott.vs.tap.B	-.901	.123	53.282	1	.000
	blurr.bott.vs.tap.C	.164	.129	1.608	1	.205
	blurr.bott.vs.tap.D	.046	.126	.135	1	.713
	blurr.bott.vs.tap.E	-.108	.155	.489	1	.485
	blurr.bott.vs.tap.F	.843	.121	48.679	1	.000

Parameter Estimates

		95% Confidence Interval	
		Lower Bound	Upper Bound
Threshold	[buy.bottle = 1]	-4.452	-2.794
	[buy.bottle = 2]	-1.027	.395
	[buy.bottle = 3]	-.109	1.315
	[buy.bottle = 4]	.382	1.813
	[buy.bottle = 5]	.835	2.278
Location	blurr.bott.vs.tap.A	-.219	.235
	blurr.bott.vs.tap.B	-1.143	-.659
	blurr.bott.vs.tap.C	-.090	.418
	blurr.bott.vs.tap.D	-.201	.293
	blurr.bott.vs.tap.E	-.412	.195
	blurr.bott.vs.tap.F	.606	1.080

Link function: Logit.

## Appendix 7. Correlation

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### Correlations

[DataSet1] C:\Documents and Settings\TEMP\Local Settings\Temporary Internet Files\Content.IE5\GYQDISNV\anette%20survey%20data[1].sav

**Descriptive Statistics**

	Mean	Std. Deviation	N
rate.attractive.A	2.56	1.012	639
blurr.bott.vs.tap.A	3.09	.868	639
Coo.bott.vs.tap.A	2.92	.930	639
brand.bott.vs.tap.A	3.12	.879	635

**Correlations**

		rate.attractive. A	blurr.bott.vs. tap.A	Coo.bott.vs. tap.A
rate.attractive.A	Pearson Correlation	1	.356	.186
	Sig. (2-tailed)		.000	.000
	N	639	639	639
blurr.bott.vs.tap.A	Pearson Correlation	.356	1	.558
	Sig. (2-tailed)	.000		.000
	N	639	639	639
Coo.bott.vs.tap.A	Pearson Correlation	.186	.558	1
	Sig. (2-tailed)	.000	.000	
	N	639	639	639
brand.bott.vs.tap.A	Pearson Correlation	.234	.571	.722
	Sig. (2-tailed)	.000	.000	.000
	N	635	635	635

**Correlations**

		rate.attractive. B	blurr.bott.vs. tap.B	Coo.bott.vs. tap.B
rate.attractive.B	Pearson Correlation	1	.390	.321
	Sig. (2-tailed)		.000	.000
	N	639	639	639
blurr.bott.vs.tap.B	Pearson Correlation	.390	1	.667
	Sig. (2-tailed)	.000		.000
	N	639	639	639
Coo.bott.vs.tap.B	Pearson Correlation	.321	.667	1
	Sig. (2-tailed)	.000	.000	
	N	639	639	639
brand.bott.vs.tap.B	Pearson Correlation	.287	.689	.770
	Sig. (2-tailed)	.000	.000	.000
	N	635	635	635

**Correlations**

		rate.attractive. F	blurr.bott.vs. tap.F	Coo.bott.vs. tap.F
rate.attractive.F	Pearson Correlation	1	.370	.237
	Sig. (2-tailed)		.000	.000
	N	639	639	639
blurr.bott.vs.tap.F	Pearson Correlation	.370	1	.591
	Sig. (2-tailed)	.000		.000
	N	639	639	639
Coo.bott.vs.tap.F	Pearson Correlation	.237	.591	1
	Sig. (2-tailed)	.000	.000	
	N	639	639	639
brand.bott.vs.tap.F	Pearson Correlation	.240	.593	.650
	Sig. (2-tailed)	.000	.000	.000
	N	635	635	635