

UNIVERSITY OF KWAZULU-NATAL

A STUDY TO ASSESS THE ATTITUDES, PERCEPTIONS AND
CONSUMPTION HABITS OF CONSUMERS OF BOTTLED WATER
AND THE OPPORTUNITY OF LAUNCHING A BOTTLED WATER
RANGE IN CARTON PACKAGING FOR CONSUMERS IN THE
GERMISTON REGION OF GAUTENG

By

Vaneshree Naidu

971162539

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the requirements for the degree of

MASTERS IN BUSINESS ADMINISTRATION

In the Graduate School of Business

Supervisor: Mrs. S. Pramjeeth
Co-Supervisor: Prof. K. Bhowan

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DECLARATION

This research has not been previously accepted for any degree and is not being currently submitted for any other degree at any other university. I declare that this Dissertation contains my own work where specifically acknowledged.

Student Name and Number: Vaneshree Naidu – 971162539

Signed: *V Naidu*

Date: *6 June 2007*

The undersigned certify that they have read and recommend this dissertation to the University of KwaZulu-Natal.

Title of Dissertation: A study to assess the attitudes, perceptions and consumption habits of consumers of bottled water and the opportunity of launching a bottled water range in carton packaging for consumers in the Germiston region of Gauteng.

Supervisor's Name: Mrs. S. Pramjeeth

Signed:

Date: *T 080142*

Co-Supervisor's Name: Prof. K. Bhowan

Signed:

Date:

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ABSTRACT

A STUDY TO ASSESS THE ATTITUDES, PERCEPTIONS AND CONSUMPTION HABITS OF CONSUMERS OF BOTTLED WATER AND THE OPPORTUNITY OF LAUNCHING A BOTTLED WATER RANGE IN CARTON PACKAGING FOR CONSUMERS IN THE GERMISTON REGION OF GAUTENG

Abstract

The transition of the South African market into the global village has transformed the general South African consumer into a discerning, well-informed global one. This has been the result of many new brands, products and services entering this country. Despite the fact that the bottled water category is a relatively new category, it has experienced exponential growth over the past few years. The attractiveness of this category has lured many new players into this segment. This study has been conducted to do a reality check on what the perceptions, attitudes and consumption habits are, of the consumers of this category and investigates, on behalf of Tetra Pak, the opportunity of launching a new packaging type in the bottled water category.

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*This research is dedicated to my mother...without your love and guidance in
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*“Yours the words that shaped my voice,
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Yours the will that shaped my choice,
My fortune, and my sign.”*

By Turlough O'Carolan

TERMS AND ABBREVIATIONS

FDA – Food and Drug Administration

FMCG – Fast Moving Consumable Goods

PET – Polyethylene Terephthalate

PVC – Polymer of vinyl chloride

TDS – Total dissolved solids

EU – European Union

SANBWA – South African Bottled Water Association

NRF – National Research Foundation

WHO – World Health Organization

USA – United States of America

Chapter 1

STATEMENT OF PROBLEMS AND RESEARCH DESIGN

1.1 INTRODUCTION

South Africa's transition from an apartheid-led government to a democratically elected one has catapulted South African consumers into the global village. Over the past 11 years, South African consumers have been inundated with a plethora of new products and services. Re-entrance of multinational organisations into the South African Fast-Moving-Consumer-Goods (FMCG) landscape has been responsible for the ever-increasing number of new products and services.

One of the fastest growing FMCG product areas is the *non-alcoholic beverage market*, which comprises of a myriad of categories, ranging from 100 percent pure fruit juices to iced tea. Each category within the non-alcoholic beverage market contains several brands, each claiming its own uniqueness, value and positioning in the marketplace. One of the categories that stand out in this market is the bottled water category.

The South African bottled water market value in 2005 was estimated at R1.3 billion (BMI FoodPack, 2006:1). This relatively new category was introduced to South African consumers in 1998. Despite being in its infancy, local consumption growth for 2005 grew by 33 percent (BMI FoodPack, 2006:1).

The strong category growth has been driven by growing consumer focus on leading healthier lifestyles, coupled with the need to stay hydrated and the demand for a healthier non-alcoholic beverage (BMI FoodPack, 2006:4).

Based on the attractiveness of the bottled water category, this study will investigate the current consumer perception status and thereafter proceed to evaluate if there is indeed an opportunity of launching bottled water in carton packaging for consumers in the Germiston region of the Gauteng Province.

1.2 BACKGROUND OF THE STUDY

Tetra Pak is the world leader in aseptic liquid food packaging. “Tetra Pak works for and with its customers to provide preferred processing and packaging solutions for food. The company applies its commitment to innovation, its understanding of consumer needs and its relationships with suppliers to deliver these solutions, wherever and whenever food is consumed”. The vision adopted by Tetra Pak is “we commit to making food safe and available, everywhere”. (www.tetrapak.com)

Tetra Pak is represented in South Africa by its wholly owned subsidiary, Tetra Pak South Africa, which is represented in South Africa with a Head Office in Johannesburg, a converting factory in Durban and regional offices in Cape Town and Port Elizabeth. In South Africa, Tetra Pak’s customer base includes national and multinational food manufacturers (i.e. Clover Dairies, Ceres Fruit Juices, Nestlé, Unilever, and Parmalat). Tetra Pak South Africa is *the* leading supplier of aseptic fibre (carton) packaging in the long life White Milk and Fruit Juice categories. Tetra Pak is also represented in smaller categories such as Table Wine, Custard, and Flavoured Milk etc.

Tetra Pak differentiates itself through focusing on gaining an understanding on what its customers' value and would possibly value. According to Anderson & Narus (1999:5) *value* in a business-to-business environment can be explained as “the worth in monetary terms of the economic, technical, services and social benefits a customer firm receives in exchange for the price it pays for a market offering”. Tetra Pak’s business strategy is based on innovation for its customers and customer satisfaction.

Tetra Pak defines *innovation* as “the result of the total process of developing an idea into a product or a new way of working that adds value to the business” (www.tetrapak.com). Bottled water is an innovation for Tetra Pak.

Bottled water is currently sold in only two packaging formats, i.e. plastic bottles and glass bottles. Plastic bottles dominate the category as a result of first entrant advantage. As part of Tetra Pak’s innovation process does the bottled water category pose an opportunity for carton packaging to enter a category in which it is not represented? With this in mind the bottled water category has been identified as an area to explore, which is the focal point of this study.

In a recent study conducted by AC Nielsen (www.acnielsens.com/za), global figures indicate that the three greatest drivers behind any category growth are:

- Health,
- Convenience and
- Value for money

The above drivers have been identified as playing important roles in the Food, Beverage and Personal Care markets. History has shown that South African consumers follow these global trends.

The global movement towards *health* is characterized by three product categories:

- Diet related
- Health staples and
- Healthy alternatives

In terms of *convenience*, South African consumers mirror global consumers in their ever-increasing requirements for convenience. Longer working hours, lack of current efficient public transport, increase in the number of women entering the workforce has increased the demand for portable and prepared products. Furthermore South Africa’s buoyant economy in the recent times

has provided the perfect vehicle for consumers to indulge in categories that are new and offer novelty.

This study will assess the attitudes, perceptions and consumption habits of consumers of bottled water in terms of the above-mentioned global drivers.

According to BMI FoodPack (2006:23), the Gauteng Province accounts for the largest consumption of bottled water at a 51.9 percent share, followed by Kwa-Zulu Natal at 18.4 percent. The scope of this study is limited to consumers residing in the Germiston region of Gauteng. A possible area for further research would be the other provinces of South Africa and hence a national research study.

1.3 RATIONALE FOR THE RESEARCH

Tetra Pak's business strategy, which is oriented toward innovation, focuses strongly on offering its customers growth opportunities. In order to increase the company's penetration into the South African market, the bottled water category has been identified as a potential area for exploration and entrance. Tetra Pak's competitive advantage exists on the technology platform. Its aseptic technology allows liquid foods to be processed, packaged and distributed without the need for preservatives and refrigeration. To many South African consumers who do not have the luxury of owning refrigerators, the concept of having a healthy and convenient product, distributed under ambient conditions at an arm's reach, is very much consoling. Furthermore having an aspirational product, such as bottled water, in the right package will certainly be the formula for success to any manufacturer.

The results of the study will assist Tetra Pak in answering some key questions:

- What are the targeted consumer segment's attitudes, usage and perceptions of bottled water?

- What are the purchase drivers of the bottled water category?
- At what occasions are bottled water consumed?
- Is there an opportunity of launching a bottled water range in carton packaging for the targeted consumer segment in the Germiston region in Gauteng?
- Is carton packaging a suitable packaging format for a bottled water range? Or do they perceive other packaging formats such as plastic bottles, glass bottles, cans etc a more suitable medium?
- What is the targeted consumer segments availability to the concept of a carton packaged bottled water range?
- How to best enter the bottled water category if consumers are open to the concept of bottled water in carton packaging

In conclusion, the results of the study will assess the feasibility of launching a bottled water range in carton packaging for the targeted consumer segment in the Germiston region of Gauteng. The study will also offer guidelines as to how this opportunity, if indeed an opportunity, should be approached.

1.4 THE PROBLEM STATEMENT

The above background and rationale for the study leads to the formulation of the problem statement for this study as:

Assessing the attitudes, perceptions, and consumption habits of consumers of bottled water and the opportunity of launching a bottled water Range in carton packaging for consumers in the Germiston region of Gauteng.

1.5 THE OBJECTIVES OF THE RESEARCH

Objective 1

- To provide an understanding of the present bottled water category and establish what the motives, perceptions, preferences and consumption habits of its consumers.

Objective 2

- To define the current competitive bottled water category landscape in terms of brands that boasts the highest levels of saliency, preference, and loyalty.

Objective 3

- To establish the positioning of the various packaging formats (such as glass, plastic, cans etc) in the targeted consumers' mind.

Objective 4

- To determine the targeted consumer segment's acceptance of the concept of a carton packaged bottled water range.

1.6 PRODUCT CATEGORY

- There are many descriptors that are used to identify and define packaged water. Although technically each descriptors has a specific definition, for purposes of this research the following terms will be regarded synonymous:

- Mineral water
- Bottled water
- Natural water

- Spring water
- Bottled tap water
- Well water

For consistency, the term *bottled water* is used throughout the research.

- This research study has been limited to people residing and/or working in the Germiston region of Gauteng. Hence the results are applicable only to this defined population and not the general population.

1.7 LIMITATIONS OF THE RESEARCH STUDY

There are very limited surveys conducted on the bottled water category. Hence, there are a limited number of sources on which this study has made reference to.

The sample selected for this study is confined to a specific geographical region; therefore the results of the survey must be used with caution.

The data has been obtained from a convenience sample and it is for this reason that the reader must interpret the data with caution.

1.8 BRIEF OVERVIEW OF THE RESEARCH METHODOLOGY

The research strategy guiding this study is a combination of exploratory and descriptive strategies.

According to Saunders et al (2003:96) an *exploratory strategy* aims to “seek new insights, to ask questions and to assess phenomena in a new light”. In terms

of the exploratory strategy, a questionnaire comprising of several key open-ended questions were used to provide insights as to how the targeted consumer segment view a carton packaged bottled water range. This questionnaire was administered for a focus group interview. Two focus group sessions, each consisting between six to ten participants, were conducted.

The participants were probed to provide insights to the following questions:

- Do they consume any form of bottled water i.e. are they open to the category?
- Where do they spend their money? At which shop/retailer do they do their monthly shopping at?
- How do they perceive the bottled water category?
- On what occasions is bottled water consumed?
- What are the targeted consumer segment's attitude and perceptions of the bottled water category?
- What are their preferences for bottled water packaging?
- What is their perception of the various packaging formats such as glass, plastic, carton etc?

Thereafter, the participants were probed specifically in terms of assessing the acceptability of carton packaging. To effectively do this, mock-up samples of a generic bottled water brand in carton packaging were shown to the participants in the focus groups.

The purpose of adopting a *descriptive strategy* is to provide data about the target population that is being studied in terms of who, what, when, where and how bottled water is consumed. This strategy will help “portray an accurate profile of persons, events or situations” (Saunders et al; 2003:97).

In terms of the descriptive strategy, a survey instrument, in the form of a questionnaire, will be used. The questionnaire will consist of several closed-ended questions. Due to time and financial constraints as opposed to having

the entire Germiston population participate in this study, convenience sampling (n=100) was used for this study.

The questionnaires were self administered by the participants. The criterion that was used to recruit participants is that the potential participants would have had to have consumed bottled water in the last month and must not have participated in the exploratory part of this study. To cater for non-response an additional five questionnaires will be included, thus taking the total sample size up to one hundred. To test for bias, validity and reliability of the questionnaire, a test was conducted with a group of five participants before commencing with the actual study. These questionnaires however, will not be included in the actual study. Questions that were found likely to compromise the reliability and validity of the study were eliminated from the final questionnaire design.

The above methods of administration are favoured in order for the objectives of this study to be achieved. Both questionnaires included a filter mechanism to ensure that only people who are available to the bottled water category were included in this study.

The administration of the questionnaires was applied exclusively to the targeted consumer segment defined as follows:

- Consumers aged eighteen years and upwards
- Male and female
- Across all race groups
- Consumer who have purchased/ are purchasing bottled water, for in-home and/or out-of-home consumption and/or who would be available to the category
- People who work and/or reside in the Germiston region of Gauteng.

1.9 STRUCTURE OF THE RESEARCH STUDY

The structure and content of the various chapters is briefly outlined below:

- Chapter Two – Review of related Literature
 - The literature review will bring to light the following:
 - Definition of bottled water
 - The World bottled water market
 - Case studies of bottled water brands packaged in carton packaging from around the world
 - Historic performance of the bottled water category in South Africa with respect to consumption and production, key manufacturers, main packaging formats, distribution, pricing, promotion etc
 - Why consumers choose bottled water?
 - Environmental impact of the various packaging formats

- Chapter Three – The Research Design and Methodology
 - This chapter focuses on the rationale of the research design, the methodology adopted for this study and a detailed outline thereof.

- Chapter Four – Research Findings
 - Based on the administration of the research instruments, the findings were analysed using Survey System Version 9.

- Chapter Five – Discussion of Results
 - In this chapter the research findings outlined in chapter four are interpreted and crosschecked with the study's pre-defined objectives.

Chapter 2

LITERATURE SURVEY

2.1 INTRODUCTION

The first bottle of water commercially produced in South Africa can be traced back as far as the early 1800's at the Van Riebeeck plant in Cape Town. According to the South African Natural Bottled Water Association (SANBWA), the "water came from the Albion Springs, which is the strongest flowing of the springs at the base of Table Mountain. The plant was then purchased by South African Breweries and eventually became part of Cape Town's municipal water supply" (www.sanbwa.co.za).

Despite South Africa being classified as a developing country, its consumers are no different to those consumers in developed markets. The increasing consumer demand for a healthy non-alcoholic beverage, the need for access to safe water, obesity, the awareness of the need to stay hydrated etc have all added to the exacerbated growth of the bottled water category in South Africa (www.zenithinternational.com).

According to Euromonitor's Soft Drinks Report (2005:56), the bottled water category in South Africa is considered by many beverage manufacturers as "the golden sector" of the non-alcoholic beverages. However, despite this being the view, to package water is extremely challenging as its attributes are such that it cannot be preserved and is easily influenced by its surroundings in terms of colour, taste and clarity etc.

Kotler (2003:436) defines *packaging* as “all activities of designing and producing the container for a product”. The container, in essence, is the package. There are a number of factors that have led many marketers to use packaging as one of their tools. These factors include the increase in consumer self-service, consumer affluence, company/brand image and opportunity for innovation (Kotler, 2003:436).

Bottled water is the most dynamic sector in the food and beverage industry, with consumption increasing globally at an average of 7 percent per annum (Ferrier, 2001:6), despite the premium price it commands when compared to tap water. Irrespective of the country, most competitors in the bottled water industry are very profitable.

The research study will evaluate whether packaging can be used as a differentiating tool to enter a very attractive beverage category, bottled water.

2.2 HOW THE LITERATURE SURVEY WAS CONDUCTED

The approach adopted for the literature review is to convey what knowledge and ideas have already been established of the bottled water category. The literature review is further guided by the research objectives and the problem statement of this study.

The following sources have been consulted as part of the literature review:

- Electronic databases were accessed via the University of KwaZulu-Natal’s homepage (www.ukzn.ac.za) to identify relevant literature:
 - NEXUS – which is an electronic database maintained by the National Research Foundation (NRF) of completed scholarly research from various South African universities across various disciplines

- Search Engines – searches were conducted on the internet using the following search engines:
 - www.google.com
 - www.scholar.google.com
- Electronic theses websites was also reviewed:
 - www.dissertation.com
- Local newspapers and magazine publications were consulted
- The bottled water category reports were purchased from a Research House
- Tetra Pak's internet and intranet website was also consulted
 - www.tetrapak.com

2.3 THE HISTORY OF PACKAGING

The origins of packaging can be traced to the late eighteenth century, when the Industrial Revolution brought significant change to manufacturing. Where most processes had relied on intense manual labour, the introduction of large scale automation called for greater quantities of the product as well as its packaging (Tetra Pak, 2003:8). In 1795 Napoleon Bonaparte offered a reward to anyone who could come up with a way of preserving food for his armies (Tetra Pak, 2003:9). The outcome of this exercise was the development of metal packaging. With time, the use of this packaging format evolved to take many shapes and sizes and initiated the development of alternative packaging formats.

2.4 WHY BOTTLED WATER?

The human body requires the consumption of two litres of water per day and in order to meet this ideal, consumers are increasingly looking towards bottled

water as a means of fulfilling this ideal (www.wateryear2003.org). The general perception amongst consumers is that bottled water is safer and of a superior quality compared to tap water. The safer perception is fuelled by the occurrence of food scandals in industrialised countries and water borne diseases in developing countries (www.wateryear2003.org).

In addition, many manufacturers through persuasive and effective marketing, position their bottled water brands as being the healthier alternative to all other beverages.

2.5 BOTTLED WATER VERSUS TAP WATER

Many consumers believe that natural bottled water has medicinal properties and offers other health benefits (www.who.int/mediacentre/factsheet), with certain bottled water brands being able to provide certain micronutrients like calcium. However, the World Health Organization (WHO) has not received any convincing evidence to support the 'benefit' perception that bottled water has obtained (www.who.int/mediacentre/factsheet).

2.6 THE WORLD BOTTLED WATER MARKET

Sales of bottled water are booming around the globe. According to the World Wildlife Fund, it is the fastest-growing beverage sector in the world (www.cbc.ca). According to a research study conducted by Zenith International (www.beveragedaily.com), it indicates that the global per capita consumption of bottled water will overtake that of carbonated soft drinks within the next five years. "Across the world consumers are increasingly turning to bottled water as it becomes more accessible and as the health and hydration benefits become widely accepted," said Zenith Research Director Gary Ro-

ethenbaugh (www.beveragedaily.com). Multinational organisations that are likely to be leading the way are Nestlé, Danone and PepsiCo.

In 2004, the world bottled water market had an estimated volume of 154 billion litres (www.cbc.ca). This equates to 24.2 litres of bottled water consumed per person per annum globally (www.cbc.ca). In terms of individual countries, the United States of America leads in the consumption of bottled water (Table 2.1, page 44).

Although the United States of America (USA) and European markets are the markets with the highest consumption of bottled water, the markets with the most promising growth are China, India and Indonesia, all exhibiting a compound annual growth rate of over 15 percent (Table 2.1, page 44). The noted increase in the Asian region is attributed to the high population growth and water supply problems. Using India as an example, in 1999, the bottled water industry in this country had a turnover of approximately US\$70 million, with more than a hundred companies operating in this segment, each achieving an average growth rate of 50 percent every year (Ferrier, 2001:13).

The world consumption of bottled water has a compounded annual growth rate of 9.4 percent per annum (www.cbc.ca).

Table 2.1: World bottled water consumption in 2004

2004 RANKING	COUNTRIES	1999 (Million Litres)	2004 (Million Litres)	COMPOUND ANNUAL GROWTH RATES (1999/2004)
1	USA	17.3	25.8	8.2%
2	Mexico	11.6	17.7	8.8%
3	China	4.6	11.9	20.9%
4	Brazil	5.7	11.6	15.4%
5	Italy	8.9	10.7	3.6%
6	Germany	8.3	10.3	4.4%
7	France	6.9	8.5	4.2%
8	Indonesia	3.4	7.4	16.5%
9	Spain	4.1	5.5	6.2%
10	India	1.7	5.1	25%
	Top 10 Subtotal	72.5	114.4	9.5%
	All other countries	25.9	39.9	9%
	TOTAL	98.4	154.3	9.4%

Source: www.cbc.ca

Table 2:2: Per capita consumption by top bottled water consuming countries

2004 RANKING	COUNTRIES	LITRES PER CAPITA	
		1999	2004
1	Italy	154.82	183.6
2	Mexico	117	168.5
3	United Arab Emirates	109.7	163.5
4	Belgium-Luxembourg	121.9	148
5	France	117.3	141.6
6	Spain	101.8	136.6
7	Germany	100.7	124.9
8	Lebanon	67.7	101.4
9	Switzerland	90.1	99.56
10	Cyprus	67.4	91.9
11	USA	63.6	90.5
12	Saudi Arabia	75.3	87.8
13	Czech Republic	62.1	87.1
14	Austria	74.5	82.1
15	Portugal	70.4	80.3
	Global Average	16.27	24.2

Source: www.cbc.ca

The growth of bottled water has largely benefited companies like Danone and Nestlé, who have well-established brands such as Evian, Volvic and Vittel respectively, in this category.

Nestlé is the number one bottled water manufacturer with a turnover of US\$3.5 billion in 1999 and a world market share of 15.3 percent (Ferrier, 2001: 11). Danone follows suit, as the second largest player in this category with a world market share of 9 percent (Ferrier, 2001: 11).

Soft drinks giants PepsiCo and Coca Cola have also begun to enter into this category by taking advantage of its Bottler network. PepsiCo has performed well with its two brands, Aquafina and Propel, and hence promoting Pepsi

into the top ten bottled water brands (www.beveragedaily.com). In comparison, Coca Cola has only one brand present in the top ten list ranking, namely, Dasani.

Nonetheless, between Nestlé, Danone, Coca Cola and PepsiCo, they control 32 percent of the global bottled water market (www.beveragedaily.com).

These multinational companies opted for investing abroad through the creation of local bottling facilities to reduce transportation costs. With the upswing of the bottled water category globally, many of these companies will recover their investments and reap high profits in a very short period of time.

2.7 GLOBAL CASE STUDIES OF BOTTLED WATER IN CARTON PACKAGING

2.7.1 France



Figure 2.1: Teisseire bottled water in carton packaging

Teisseire is one of the oldest French companies in the food industry, dating back to 1720. The main activity of Teisseire has been the manufacturing of fruit syrups. In recent years however, the company has moved into the fruit juice category with value-added juice products like special breakfast juices and ethnic fruit juice products. This was the result of the company looking for new market opportunities due to the shrinking market for fruit syrups. One attractive market segment, which has shown exponential growth over the past

few years, has been the flavoured, bottled water category. With the great success that Nestlé France had in this segment with its “P’tit Vittel” brand targeting kids, this convinced Teisseire to enter into this target market segment. Furthermore, the entrance into the kids’ flavoured bottled water segment served as a natural line extension to Teisseire’s fruit syrups. The product was launched in three flavours, namely strawberry, grenadine and peach/raspberry. The product was targeted at mothers with kids aged between five and eight years old. The product was distributed through hypermarkets and supermarkets and merchandised in the flavoured water section of these stores. (Tetra Pak Product Review No.38, 2001:11)

2.7.2 Germany



Figure 2.2: Apollinaris bottled water in carton packaging

The market for *still* bottled water in Germany is relatively low i.e. 16 litres per capita in comparison with the rest of its counterparts in Europe (Tetra Pak Product Review No. 50; 2004:35). The bottled water market in Germany shows huge potential for growth due the increasing packaged water consumption. Since 2003, there has been a rapid increase for returnable bottles (com-

prising of plastic and glass) at the expense of non-returnable bottles due to the introduction of mandatory deposit/levy on non-returnable bottles by the German Government. As consumers were used to consuming water and disposing of the packaging, the popularity of non-returnable bottles dropped dramatically. However cartons, which is classified as a non-returnable package and which is not subject to the Mandatory deposit, gained in this situation.

The success story of this brand begun with a failure: on a vineyard where the vines would not grow. The vintner who had purchased the vineyard at an auction, decided to investigate why this was the case. Upon investigation it was revealed that the soil contained exceptionally high concentrations of carbon dioxide. The vintner began to dig and discovered a spring. The spring was named 'Apollinaris' after the sacred Saint Apollinaris statue, which stood at the bottom of the vineyard. Today, this brand is the best-known and most renowned bottled water brand in Germany, commanding a 90 percent brand awareness level and being exported to more than 60 countries worldwide (Tetra Pak Product Review No.50, 2004:36).

Apollinaris is the leader in the carbonated segment of the bottled water category, which is the preferred segment of German consumers with a per capita consumption of 117 litres for this segment. However, in the rapidly growing *still* bottled water segment, this brand ran the risk of losing appeal to a younger consumer base, which generally preferred *still* water. The impact of this was further exacerbated due to the import of strong French bottled water brands. The introduction of the mandatory deposit however, aided Apollinaris' venture into the carton package.

In a market research study carried out by Apollinaris, some of the findings were (Tetra Pak Product Review No.50; 2004:36):

- "The Tetra Prisma Aseptic® is an appealing package aimed especially at a younger target audience, a consumer group which Apollinaris would like to gain and grow"

- “Even though German consumers prefer pure, unspoiled and original bottled water with its ‘pureness’ ideally visible through a transparent bottle, Apollinaris, in a silver metallic Tetra Prisma package scored very high as consumers considered Apollinaris a brand to trust”

In March 2004, Apollinaris launched a *still* bottled water in Tetra Prisma Aseptic® 500ml Square and Tetra Prisma Aseptic® 1000ml Square packages, both with StreamCap® closures. In addition to the natural bottled water, three flavoured variants were launched, namely, orange, pear/apple and lime. The product range in this new packaging was positioned as:

- “High quality appeal”
- “Ideal impulse article”
- “For consumption on-the-go”
- “No deposit, the right solution”
- “Modern offer for the mobile generation”
- “Ideal for cinemas, swimming baths, bowling centres, fitness studios, canteens, coffee shops etc”

Market acceptance has been very positive (Tetra Pak Product Review No.50, 2004:36).

2.7.3 Germany



Figure 2.3: Christinen bottled water in carton packaging

The 'Christinen' bottled water brand is especially popular in the on-the-go segment of bottled water and still drinks. In addition to its existing range, in March 2004, Gehring-Bunte Getränke-Industrie introduced a new range of bottled water and bottled water-based beverages under its Christinen brand in a deposit-free package, namely, Tetra Prisma Aseptic® package. Three variants were introduced (Tetra Pak Product Review No.50, 2004:38):

- “Carat – which is low sodium bottled water with iron salts removed”
- “Sport Apfel and Sport Lemon – which is calorie reduced still drinks with apple/lemon flavours with fructose, sweeteners and six vitamins”

The new range was marketed using the slogans, “The way out for one way” and “Mineral water without deposit” (Tetra Pak Product Review No.50, 2004:38).

2.7.4 France and Germany



Figure 2.4: Evian bottled water in carton packaging

During 2004, two major local German brands, Apollinaris and Christinen launched *still* bottled water versions in deposit-free Tetra Prisma Aseptic® packages. In light of this, Danone Waters with their Evian brand decided to

follow suit. “Evian is one of the strongest and best-perceived bottled water brands worldwide and in the German market is placed fourth in terms of volume” (Tetra Pak Product Review No.52, 2004:25).

The key sales argument for this product was (Tetra Pak Product Review No.52, 2004:26):

- “Premium offer”
- “Attractive new shape: modern and innovative”
- “Convenient package for on-the-go consumption: easy to open, light and easy to handle”
- “Deposit-free”

2.8 SURVEY OF LITERATURE THAT RELATES TO THE THEORETICAL FRAMEWORK OF THE RESEARCH STUDY IN A SOUTH AFRICAN CONTEXT

2.8.1 Defining the bottled water category

In order to understand the different types of water available on the South African market, one needs to understand what differentiates one type of water from another.

Water gets its character from the rocks that it flows through which implies that the type of water is dependant on the geology of the area that it is sourced (www.vitalfoods.co.za).

As defined by BMI FoodPack (2006:7), the bottled water category is made up of the following types of water:

- Bottled water/drinking water – “water that meets all the applicable government standards, sealed in a sanitary container and sold for human consumption. Bottled water may not contain sweeteners or chemical additives (other than flavours, extracts or essences). Flavours derived

from spices or fruits may be added to bottled water, but these additions must comprise of less than one percent by weight of the final product. Beverages containing more than one percent by weight of flavour limit are classified as a soft drink. Bottled water may be sodium free or contain very low amounts of sodium and can contain natural or added carbonation". Bottled water can either be water that is packaged from the tap or mineral water, which is sourced from a spring.

- Mineral water – “true mineral waters are obtained from a natural or drilled spring. The mineral salts content gives it specific properties that may be beneficial to health, containing not less than two hundred and fifty parts per million total dissolved solids. These waters can have a salty, soapy or earthy taste depending on its mineral content. They are distinguished from other types of bottled water by its constant level and relative proportions of mineral and trace elements at the point of emergence from source. No minerals can be added to this product”.
- Natural water – “regarded as spring, mineral artesian or well water is derived from an underground formation and not from a municipal system or public water supply”.
- Artesian water – “bottled water from a well that taps a confined aquifer in which the water level stands at some height above the top of the aquifer”.
- Spring water – “natural water derived from underground formations from which the water flows naturally to the earths’ surface. Spring water generally has a lower mineral content and a purer taste. Spring water that is collected with the use of an external force must be from the same underground stratum as the spring and must have all the physical properties before treatment and be of the same composition and quality as the water that flows naturally to the earths’ surface”.
- Well water – “bottled water from a hole, bored, drilled or otherwise constructed in the ground, which taps the water of an aquifer”.
- Purified water – “water that has been produced by distillation, deionisation, reverse osmosis or other suitable processes and that meets

the definition of purified water. Also called distilled water, deionised water, reverse osmosis water according to the process used”.

As previously mentioned in chapter one, although these various types of water exist by definition, for the purpose of this research the term bottled water is used generically and will encompass all the above types of water that is packaged.

2.8.2 Still versus sparkling bottled water

According to BMI FoodPack (2006:7), *sparkling* bottled water is defined as “natural water containing natural or added carbonation”. The definition for *still* water is the converse. During 2005, *still* bottled water dominated, with a market share of 65.4 percent (BMI FoodPack, 2006:35). During 2005 the *sparkling* bottled water segment market share increased to 34.6 percent (BMI FoodPack, 2006:35). This was an increase of 10 percent. The growth was primarily fuelled by the introduction of flavours in this segment.

2.8.3 Flavoured versus unflavoured bottled water

The high growth experienced by the *flavoured* bottled water segment can be attributed to consumers considering the product as a healthier alternative to carbonated soft drinks. This rests directly on the positioning of this segment. According to BMI FoodPack (2005:32) this segment is communicated to consumers as:

- “Enhancing vitality and health”
- “Eliminating cause of throat burn that sports people often experience after they consume sports drinks”
- “Low in carbohydrates”
- “Encourages weight loss”
- “Has an energy promoting effect”

During 2005, the split between *flavoured* and *unflavoured* bottled water was 31.6 percent and 68.4 percent respectively (BMI FoodPack, 2006:38).

2.9 KEY MANUFACTURERS OF BOTTLED WATER IN SOUTH AFRICA

The bottled water industry is partially governed by the South African Natural Bottled Water Association (SANBWA). The main aim of this Association is to offer longevity to the industry by ensuring long-term sustainability through the protection of consumers. This is achieved through all SANBWA members being compliant with the regulations set out by the Department of Health. Manufacturers belonging to this Association have to ascribe to certain pre-defined standards in terms of safety, excellence, quality etc. It must be noted however, that SANBWA represents only the Bottlers of natural water and not Bottlers that use tap/municipal water as a source (www.sanbwa.co.za). This research covers both SANBWA members and non-members.

The major bottled water manufacturers together with their brands are listed below:

Table 2.3: Major bottled water manufacturers 2005/2006

MANUFACTURERS	BRANDS
Algin Juices	Water + Defence Water + Endurance Water + Energy Water + Slimming** Water + Strength
Alternative Beverage Company	Crystal Clear
Aqua d'or	Aqua d'or
Aqua Tiqua	Aqua Tiqua
aQuellé	aQuellé
Beau d'Eau	H ₂ Olive
The Bené Water Company	Bené
Blue Mineral Water Company	Blue Mineral Water
The Blue Stream Water Company	Blue Stream
Breakfree	Breakfree Spring Water
Bromor Foods	Energade Ice Sports Water**
Caledon Natural Spring Water	Caledon Natural Spring Water
Ceres Spring Water	Ceres Spring Water
Chantilly Waters	H ₂ O to Go Life
Clearly Cape	Clearly Cape
C'est La Vie	C'est La Vie
Clover	Aqua Quartz** Evian*
Coca-Cola Company (The)	Bon Aqua Valpré
Drakenstein Mineral Water	Drakenstein Mineral Water
Elandsfontein Beverages	Elfonte
Fontenel Spring Water	Fontenel
Franschhoek Water Company	L'Aubade

Table 2.3: Continued...

MANUFACTURERS	BRANDS
Fruitime	Aquatime Fruitime
Herb Aqua	Herb Aqua Bliss Herb Aqua Immune Herb Aqua Lift Herb Aqua Slim**
Hex Valley Spring Water	Cape Dew Hex Valley Spring Water
Inhle Beverages	Aqua Azzurra
Just Water	Just Water
Karoo	Karoo
La Vie de Luc	La Vie de Luc
Metcash Trading Ltd	Family Favourite
Mount Anderson Spring Water	Mount Anderson Spring Water
Mountain Falls Estate	Mountain Falls
Nestfield Investments	Cantina
Nestlé SA	Nestlé Pure Life Schoonspruit
Natural Beverage Company (The)	Aqua Naturelle** Niche Naturelle**
NVigour8	NVigour8
Pureau Fresh Water Company	Pureau
Reeks Creek Mineral Water	Get Oxygenated (GO)
Speedo International	Speedo*
USN	Lite EnerG**
Vijoen Beverages	Waterberg Spring Water
Waterval Minerale	Naturale Minerale
Zambesi Beverages	Ice Age Seltzer

*Imported

** Introduced during 2005 and 2006

Source: BMI FoodPack, 2006:9

2.10 CONSUMPTION OF BOTTLED WATER IN SOUTH AFRICA

The import and export trends of bottled water in South Africa will be appraised first as they impact on local consumption. Thereafter the total production and consumption of bottled water will be examined.

2.10.1 Import trends

According to BMI FoodPack (2006:13), during 2005, a total of 2.2 million litres of bottled water was imported into South Africa. The top three countries from which bottled water was imported during 2005 were Italy, France and the United States of America (Table 2.4). In comparison with 2004, there was a shift in the top three countries, where in 2004 the top three countries were Italy, Malaysia and France (Table 2.5). Nonetheless, from 2004 to 2005, water sourced from Italy remained the preferred choice. This preference could be attributed to the fact that globally Italy accounts for the largest per capita consumption of bottled water hence an abundance of well-established manufacturers and brands looking for new markets abroad to venture into.

Table 2.4: Imports of bottled water into South Africa during 2005

COUNTRY OF ORIGIN	LITRES	% OF TOTAL
Italy	1 182 279	52.8%
France	619 141	27.7%
United States of America	121 183	5.4%
Saudi Arabia	89 848	4.0%
China	57 2425	2.6%
United Arab Emirates	54 591	2.4%
All other countries	114 844	5.1%
GRAND TOTAL	2 239 128	100%

Source: BMI FoodPack, 2006:15

Table 2.5: Imports of bottled water into South Africa during 2004

COUNTRY	LITRES	% OF TOTAL
Italy	776 068	44.2%
Malaysia	443 190	25.3%
France	268 179	15.3%
Sri Lanka	39 335	2.2%
Portugal	33 130	1.9%
Mozambique	23 709	1.4%
All other countries	171 551	9.8%
GRAND TOTAL	1 775 162	100%

Source: BMI FoodPack, 2006:14

2.10.2 Export trends

During 2005, the exporting of bottled water increased by 28 percent according to BMI FoodPack (2006:16). The top three destinations were Mozambique, Angola and Sri Lanka.

Table 2.6: Exports of bottled water from South Africa during 2005

COUNTRY	LITRES	% OF TOTAL
Mozambique	1 856 947	30.9%
Angola	1 062 555	17.7%
Sri Lanka	1 000 225	16.6%
United Kingdom	650 185	10.8%
Mauritius	148 723	2.5%
Zambia	123 478	2.1%
All other countries	1 172 004	19.5%
GRAND TOTAL	6 014 117	100%

Source: BMI FoodPack, 2006:16

2.10.3 Total local consumption of bottled water (including imports)

BMI FoodPack (2006:18), states that the total consumption of bottled water in South Africa during 2005 was 198.6 million litres. The bottled water category showed a healthy growth with an increase of 33 percent from the previous year. Since its introduction to the South African market, the bottled water category has shown an encouraging compounded growth tabulated below.

Table 2.7: Total consumption of bottled water (including imports)

YEAR	MILLION LITRES	% CHANGE PER ANNUM
1998	41.1	64.6%
1999	51.4	25.0%
2000	57.7	12.3%
2001	73.4	27.1%
2002	90.1	22.8%
2003	117.1	30.0%
2004	149.3	27.5%
2005	198.6	33.0%

Source: BMI FoodPack, 2006:18

In the bottled water Report 2005, BMI FoodPack (2005:28) stated that the following factors contributed to the high growth of the bottled water category in the local market:

- “Consumers are fast becoming aware of the bottled water category and the health benefits associated with bottled water”
- “The category is supported by good promotional activity and effective distribution”
- “Favourable weather conditions”
- “Increased disposable income”

In addition to these factors, in the bottled water Report 2006, BMI FoodPack (2006:4) added that two more factors could be identified which contributed to the good performance of the bottled water category in 2005, namely:

- “Tourists perceive bottled water as safer than tap water”
- “It is also more convenient for people on the go”

The per capita consumption of bottled water is captured in the table below. On average, every person in South Africa consumed on average 4.2 litres of bottled water during 2005.

Table 2.8: Historical per capita consumption in South Africa

YEAR	MILLION LITRES	LITRES PER CAPITA	POPULATION
2002	90.1	2.0	45.8
2003	117.1	2.5	46.2
2004	149.3	3.2	46.6
2005	198.6	4.2	46.8

Source: BMI FoodPack, 2006:29

2.10.4 Total production of bottled water (including exports)

Similar to local consumption, the total production of bottled water also experienced double digit growth compounded year on year (Table 2.9). The growth is attributed to the increase in local market demand for bottled water and exports.

Table 2.9: Total production of bottled water in South Africa (including exports)

YEAR	MILLION LITRES	% CHANGE PER ANNUM
1998	41.1	59.3%
1999	51.4	25.1%
2000	62.2	21.0%
2001	73.3	17.9%
2002	94.9	29.3%
2003	118.7	25.1%
2004	152.3	28.3%
2005	202.4	32.9%

Source: BMI FoodPack, 2006:19

2.11 DISTRIBUTION OF BOTTLED WATER IN SOUTH AFRICA

2.11.1 The retail landscape in South Africa

The consumer landscape in South Africa is constantly evolving. In the twelve years, since South Africa's entrance into the global arena, many things have occurred – the demand for housing has experienced a phenomenal growth of 27 percent due to various factors; the growth of an emerging black middle class and low interest rates in the recent past (www.fmcg.co.za). Greater than the housing growth has been the increase in the number of retailers.

Between 1994 and 2004, over 547 new stores have opened within the *formal* trade grocery sector; equating to a growth rate of 46 percent over the period (www.fmcg.co.za). According to AC Nielsen South Africa, these new stores have been almost evenly split between major retailing giants like Shoprite, Pick ‘n Pay and franchise groups, such as Spar, Pick ‘n Pay Family and U-Save (www.fmcg.co.za). This growth however, excludes service stations/garage forecourt stores, which over the same period increased by 1420 stores (www.fmcg.co.za).

The overall retail spend is highly skewed towards the Gauteng Province and Western Cape, despite these two provinces containing only 30 percent of South Africa’s population (www.fmcg.co.za). On the other hand, regions like Limpopo and KwaZulu-Natal retail spend remains far below its population density (www.fmcg.co.za).

Another anomaly that exists in South Africa’s retail landscape is store concentration. The formal trade grocery sector comprises of a mere 5 percent of stores but accounts for 70 percent of the country’s grocery turnover (www.fmcg.co.za). On the other end of the continuum, smaller counter and self-service or traditional stores account for much less than their numbers warrant.

In comparison to retailing globally, it is important to note that local retailers such as Pick ‘n Pay and Shoprite groups respectively, have a turnover of 4 billion US dollars annually, placing them around the 70th position internationally in this sector (www.fmcg.co.za).

2.11.2 Distribution channel of bottled water

In terms of the bottled water category the distribution channel can be broken down into five key route-to-market channels, namely:

- Top-end Retail – Hypermarkets and Supermarkets

- Bottom-end Retail – “bottom-end outlets such as convenience stores, general dealers, liquor stores” (BMI FoodPack, 2006:5)
- Wholesalers – wholesale chains such as Makro and Independent Wholesalers
- On-Consumption – “restaurants, hospitality and pubs, at work, recreational” (BMI FoodPack, 2006:5)
- Garage Forecourts – garage shops including outlets that are linked to garages e.g. Woolworths forecourts

Each of these route-to-market channels is discussed briefly below.

2.11.3 Top-end and bottom-end retailers

The top-end retail channel in South Africa is dominated by 3 retailers, namely; Pick ‘n Pay, Spar and Shoprite.

According to BMI FoodPack (2006:20), top-end retailers accounted for the distribution of 65.5 million litres of bottled water, whilst the bottom-end retailers, 36.1 million litres during 2005.

2.11.4 Wholesalers

The Wholesalers channel is represented by various Independent Wholesalers and Massmart Holdings through its Makro subsidiary. During 2005, wholesalers accounted for the distribution of 23.8 million litres of bottled water (BMI FoodPack, 2006:20).

2.11.5 On-consumption

The On-Consumption channel is defined as the place where purchase and consumption occurs simultaneously. An example of such is dinner at a restaurant. Food is purchased and consumed at the same place. This channel includes restaurants, hospitality and pubs, at work and recreational outlets. Dur-

ing 2005, the On-Consumption channel constituted 36.3 million litres of bottled water (BMI FoodPack, 2006:20).

2.11.6 Forecourts

Forecourts can be defined as any outlet linked to a garage. During 2005, Forecourts distribution comprised of 36.7 million litres of bottled water (BMI FoodPack, 2006:20).

2.12 GEOGRAPHICAL DISTRIBUTION OF BOTTLED WATER IN SOUTH AFRICA

South Africa has nine provinces, namely:

- Gauteng
- KwaZulu-Natal
- Western Cape
- Eastern Cape
- North West Province
- Mpumalanga
- Limpopo
- Northern Cape
- Free State

Each of these provinces has very distinct characteristics, especially in terms of what they contribute to South Africa as a whole. Each of the provinces varies in population size and wealth.

Gauteng, which is the smallest province, boasts the second largest population and generates nearly one third of South Africa's total Gross Domestic Product (SA at a Glance, 2005/2006:78). According to SA at a Glance

(2005/2006:78) Gauteng is regarded as the financial and industrial heartland of the country. In terms of bottled water consumption, this province is where the bulk of consumption occurs. BMI FoodPack (2006:23) states that during 2005 approximately 103.1 million litres was consumed within the Gauteng province.

KwaZulu-Natal is South Africa's most populated province. After Gauteng it has the largest economy, which is based on agriculture and tourism. According to BMI FoodPack (2006:23), this province accounted for 37.9 million litres of bottled water consumed in 2005.

Tourism, textiles, viticulture and agriculture are the economic mainstays of the Western Cape Province (SA at a Glance, 2005/2006:82). This province holds the third highest consumption of bottled water during 2005 of 28.4 million litres (BMI FoodPack, 2006:23).

The Eastern Cape is the second poorest province in South Africa. In terms of bottled water consumption, during 2005, this province consumed 15.9 million litres (BMI FoodPack, 2006:23).

According to BMI FoodPack (2006:23), the North West, Mpumalanga and Limpopo provinces accounted for 7.1 million litres, collectively, of bottled water consumption during 2005.

The Free State and Northern Cape provinces shared a consumption figure for 2005 of 6.2 million litres of bottled water (BMI FoodPack, 2006:23).

From the above overview, it can be clearly noted that Gauteng accounts for more than 50 percent of total local bottled water consumption during 2005. It is for this reason, as well as time and financial constraints that this study has been limited to the Gauteng province.

2.13 PRICING OF BOTTLED WATER IN SOUTH AFRICA

The pricing of bottled water worldwide is extremely high in comparison to that of tap water. The majority of the price of bottled water (about 90 percent) that a consumer pays for is for the products' transportation costs; packaging costs, marketing costs and profits for the retailer (Ferrier, 2001:19).

The bottled water category in South Africa is a highly competitive market. During 2005, prices on average increased by 5.5 percent (BMI FoodPack, 2006:32). Compared to previous years, this price increase was relatively high (Table 2.10). Nonetheless, this increase did not impact on demand, the local demand was the highest ever during this period.

Table 2.10: Average historical bottled water retail selling price

YEAR	RETAIL SELLING PRICE (RAND/LITRE)	% INCREASE
1999	5.0	-
2000	5.4	8.0%
2001	5.5	1.9%
2002	5.8	5.5%
2003	6.0	3.4%
2004	6.4	6.7%
2005	6.8	5.5%

Source: BMI FoodPack, 2006:32

2.14 PROMOTION OF BOTTLED WATER IN SOUTH AFRICA

Being a highly competitive and extremely attractive category, existing manufacturers in the bottled water category turn to innovation that will help them stay ahead of the game. Many local manufacturers exhibited this in the manner in which they promoted their bottled water brands. Examples of such are:

- Sponsorships of various sports – Nestlé has been active in sponsoring various sport teams and activities
- Product differentiation through new and innovative packaging – during the first half of 2004, aQuellé launched a new shape bottle and a new logo for its bottled water range. (BMI FoodPack, 2005:29)
- Introduction of flavoured bottled water - during 2004, several brands introduced a flavoured version to its existing range. Bon Aqua by Coca Cola Ltd was one such brand where five flavours were launched. Aquatime was another brand that launched its flavoured bottled water range with a differentiated bottle cap (BMI FoodPack, 2005:30).

2.15 PACKAGING OF BOTTLED WATER IN SOUTH AFRICA

Packaging of bottled water is an important factor on which the marketing success of the product rests. The local bottled water category's landscape is painted with a myriad of bottles, in different shapes and colours, each trying to attract the eye of the consumer. Functionality varies with each brand and in some instances stretches the imagination of the average consumer. An international example of this is the 330ml Evian bottled water brand, which can be adapted to a teat, to turn into a baby's bottle (Ferrier, 2001:15).

In South Africa, there are two main formats of packaging currently present in the bottled water category namely, glass bottles and plastic bottles. Sizes vary across these two formats as tabulated below.

Table 2.11: Historical demand for bottled water packaging (includes exports and excludes imports)

Pack Format & Size	2003 (Million Litres)	2004 (Million Litres)	2005 (Million Litres)
Glass Bottle 200ml/250ml	1.4	1.5	1.7
Glass Bottle 750ml	0.4	0.4	0.4
Total Glass	1.8	1.9	2.1
Plastic Bottle 250-350ml	4.6	4.5	4.8
Plastic Bottle 500ml	46.7	73.5	107.6
Plastic Bottle 750ml	1.7	1.9	2.2
Plastic Bottle 1000ml	9.0	13.8	16.1
Plastic Bottle 1500ml	36.1	39.7	51.1
Plastic Bottle 2-5 litre	18.8	16.9	18.5
Total Plastic Bottle	116.9	150.3	200.3
GRAND TOTAL	118.7	152.3	202.4

Source: BMI FoodPack, 2006:43

In 2005, the dominant packaging format for bottled water was the plastic bottle, holding a volume market share of 99 percent of the total category (BMI FoodPack, 2006:43). The Plastic Bottle packaging format experienced high growth rates averaging on 30 percent since 2002 (BMI FoodPack, 2006:43). The demand for glass packaging has been fairly constant since 2002. BMI FoodPack (2005:38) states that one of the key drivers for the high growth of the plastic packaging format is consumer preference for the convenience and safety offered by this packaging format.

In terms of size popularity, the most popular size is the 500ml plastic bottle followed by the 1.5 litre plastic bottle (Table 2.11). In 2005, the demand for both package sizes increased by 46 percent and 29 percent respectively (BMI

FoodPack, 2006:43). The 500ml and 1.5 litres together make up more than 75 percent of the bottled water primary packaging format.

2.16 ENVIRONMENTAL REVIEW OF BOTTLED WATER PACKAGING

Like any other industrial activity, the manufacturing of bottled water has an impact on the natural environment, from its source to the packaging material that is used in its production. The manufacturing of bottled water, transportation thereof and the recycling of the packaging material used imply the need for energy in order for any of these activities to take place.

2.16.1 Water quality

“The 1980 European Directive on natural mineral water sets very strict standards for the water, its bottling and transport conditions; the equipment for exploiting the water must be so installed as to avoid any possibility of contamination and to preserve the properties which the water possesses at source” (Ferrier, 2001:20). The European Directive is not only applicable to natural mineral water, but covers other drinking water types such as, bottled spring or purified water and tap water. Quality checks are put in place for the ongoing appraisal of bottled water quality.

In the USA, bottled water is classified as a food product hence it is governed by the Food and Drug Administration (FDA) regulations in terms of packaging and quality (Ferrier, 2001:20).

In emerging countries the regulation is not as clear-cut. As an example, India “lacks standards on bottled water, hygiene requirements for the containers and a mandatory system for testing and monitoring bottled water quality and safety” (Ferrier, 2001: 21). The result of such a situation is the exploitation of

various sources, poor quality standards and pollution due to poorly managed manufacturing entities.

South Africa is not that far off. The bottled water industry in South Africa is presently not well controlled. It lacks strict specifications relating to “water quality, health standards, testing and monitoring” (www.randwater.co.za).

2.16.2 Plastic bottles

Plastic is made from oil and natural gases, both of which are non-renewable resources (www.wateryear2003.org). In the manufacturing of bottled water, more than 1.5 million tons of plastic is used. Polyethylene Terephthalate (PET), which is the substance that water bottles are made of, requires less energy to recycle than glass, for example and releases fewer emissions into the atmosphere (www.wateryear2003.org). The processes however used to manufacture the plastic bottles can cause serious pollution, thus impacting both on the environment and human health if left unregulated (www.wateryear2003.org).

Currently the majority of plastic bottled water bottles is not being recycled and eventually ends up in landfills. Since the degradation of plastic occurs at a very slow rate, these bottles will remain in these landfills for a significantly long time (www.wateryear2003.org).

More than a quarter of the total annual production of bottled water worldwide is consumed outside its country of origin. The impact of this is the emissions of the green house gas carbon dioxide, which is produced during the transportation process.

2.16.3 Aluminium

One of the advantages aluminium offers is that no matter how many times the product is recycled; aluminium does not lose its properties. It is more ef-

fective to recycle aluminium and use it again than source new aluminium, primarily because of the level of energy consumption required (Ferrier, 2001: 22). In terms of recycling, about 25 percent of aluminium that is produced globally is recycled (Ferrier, 2001: 22).

2.16.4 Glass

Similar to aluminium, glass also does not lose its properties when recycled. Ferrier (2001:22) reports “Glass bottles can be washed and re-filled about 80 times”. The use of ‘used’ glass in a manufacturing environment reduces energy consumption by approximately 25 percent (Ferrier, 2001: 22).

2.16.5 Multiple packaging

Various shapes and colours of packaging are used to package bottled water. According to Ferrier (2001: 9) for a long period bottled water was only available in glass packaging. It was only at the end of the 1960’s did manufacturers start to venture out of glass packaging and experiment with a polymer of vinyl chloride (PVC) plastic. When PET was later introduced, the experimentation extended to this packaging format as well.

PET is gradually replacing PVC because of the many advantages it has to offer, such as (Ferrier, 2001: 21):

- “It is brighter than PVC, very transparent and almost looks like glass”
- “Is shatter-resistant and easy to work on”
- “Its light-weight (20 percent lighter than PVC) enables to reduce plastic quantities needed to make a bottle”
- “It is compressible, so volumes of was are smaller”
- “It is easy to recycle” with various outputs such as polyester carpets, fabrics and fibres for the textile and clothing industry and new PET bottles etc.

- “When burnt is doesn’t release chlorine into the atmosphere, which is contrary to PVC”

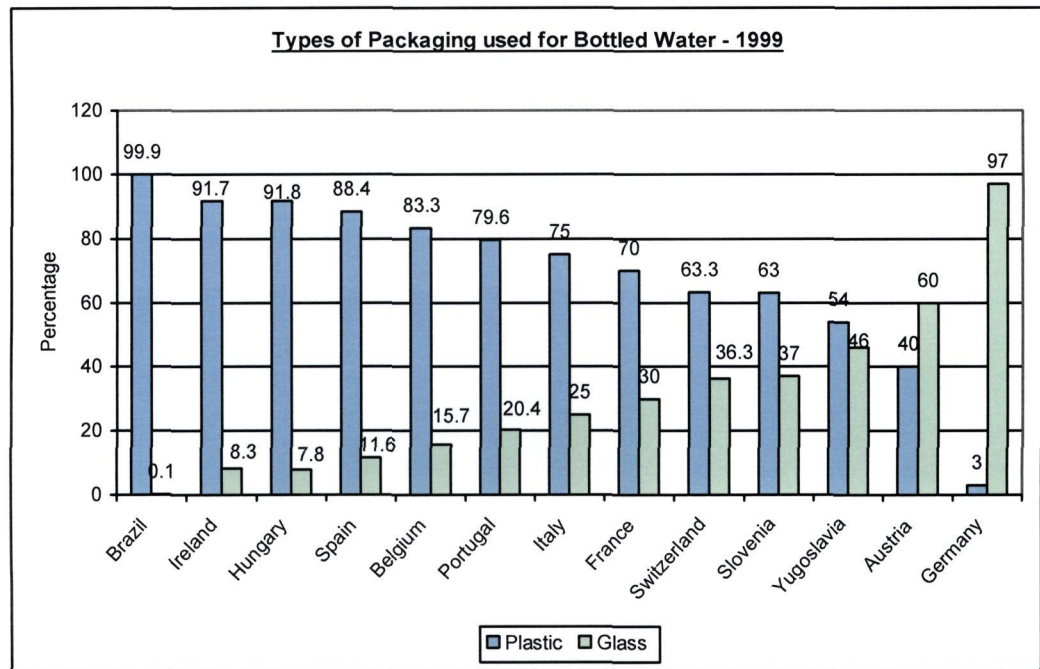


Figure 2.5: Types of packaging used for bottled water, in percentage, in 1999 (Source: Ferrier, 2001:9)

According to Ferrier (2001:10) roughly 1.5 million tons of plastic is used globally in the manufacturing of bottles for bottled water. The cost of the plastic is greater than the liquid it carries as the price of plastic is linked to the global market’s oil prices. Germany is the anomaly, where consumers prefer bottled water in returnable glass packaging.

Packaging is an essential part of bottled water marketing strategies. It is possible to identify a brand of bottled water through the shape and colour of its packaging. Perrier bottled water has become synonymous with the green coloured bottle that it comes in (www.bottledwaterweb.com). It sometimes serves as *the* key to the identification of a particular brand. An example of

such is Coca Cola and the contour bottle that consumers instantaneously link to the Coca Cola brand.



Figure 2.6: Perrier green bottle bottled water (Source: www.aqua-store.com)



Figure 2.7: The Coca Cola contour bottle (Source: www.antiquebottles.com)

2.17 WHY CONSUMERS CHOOSE BOTTLED WATER?

The understanding of *consumer behaviour* is fundamental to the success of any business. Companies are constantly looking at consumer behavioural patterns to predict future trends. Why? Marketing may promote a given product/service but unless the target audience perceives the product/service to be relevant to their needs, they will never consume it.

According to Sheth & Mittal (2004:129) *consumer behaviour* is defined as “mental and physical activities undertaken by consumers that result in decisions and actions to pay for, buy and use products and services”.

The importance of consumer behaviour recognition unfolds in the stage of strategic planning of the company. The adoption of a customer orientation strategy provides a business with competitive advantages that leads to a highly sustainable, profitable company. The creation of such a strategy is based on a sound understanding and evaluation of a customer’s needs and wants. Sheth & Mittal (2004:18) state that *consumer needs* are “determined by the traits of the individual and of the environment” and *consumer wants* are “determined by the individual context and environment context”.

All consumer behaviour is driven by needs and wants, whose satisfaction consumers seek and value. According to Maslow's hierarchy of needs as depicted below, high-level needs become important only when the low-level needs are satisfied (Sheth & Mittal, 2004:164):

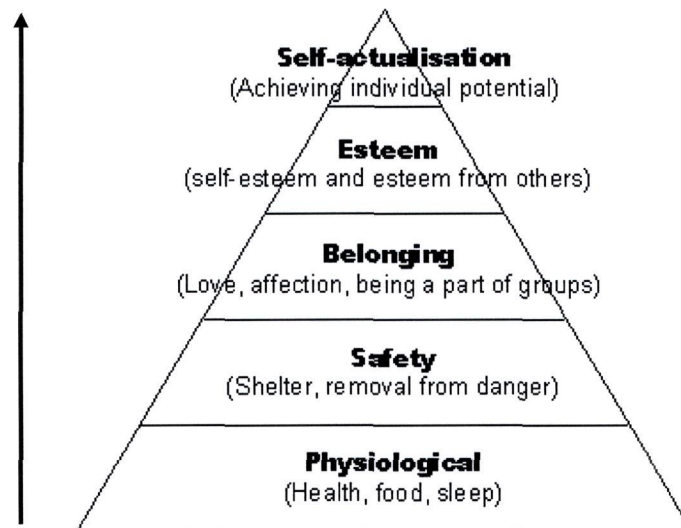


Figure 2.8: Maslow’s hierarchy of needs (Source: www.changingminds.org)

With reference to the bottled water category, water safety will only become an issue when a physiological need such as thirst, is fulfilled.

In France, 39 percent of consumers, predominantly female and elderly people, choose to consume only bottled water (Ferrier, 2001: 16). The critical and fundamental question is WHY?

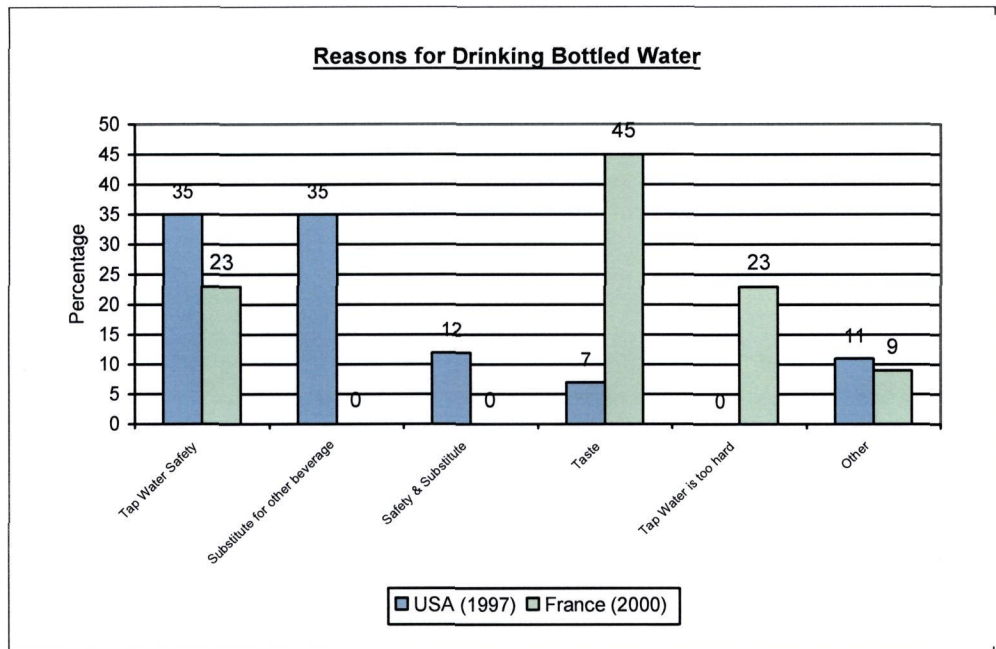


Figure 2.9: Reasons for drinking bottled water (USA 1997, France 2000)

(Source: Ferrier, 2001:16)

Several reasons can be identified as the motives for this choice (Ferrier, 2001: 16):

- “consumers object to the taste of chemicals (i.e. Chlorine) that is used to purify tap water”
- “consumers look for security and often mistrust tap water because of previous bacterial contamination and hence perceive bottled water as being safer”
- “general and seasonal shortages of tap water lead people to turn to bottled water”
- “consumers also drink bottled water because they care for their health” etc

2.17.1 Influencing buyer behaviour

Consumer belief and acceptance in the positioning of bottled water as a healthier beverage can be explained using Kotler's Stimulus-Response Model (2003:183).

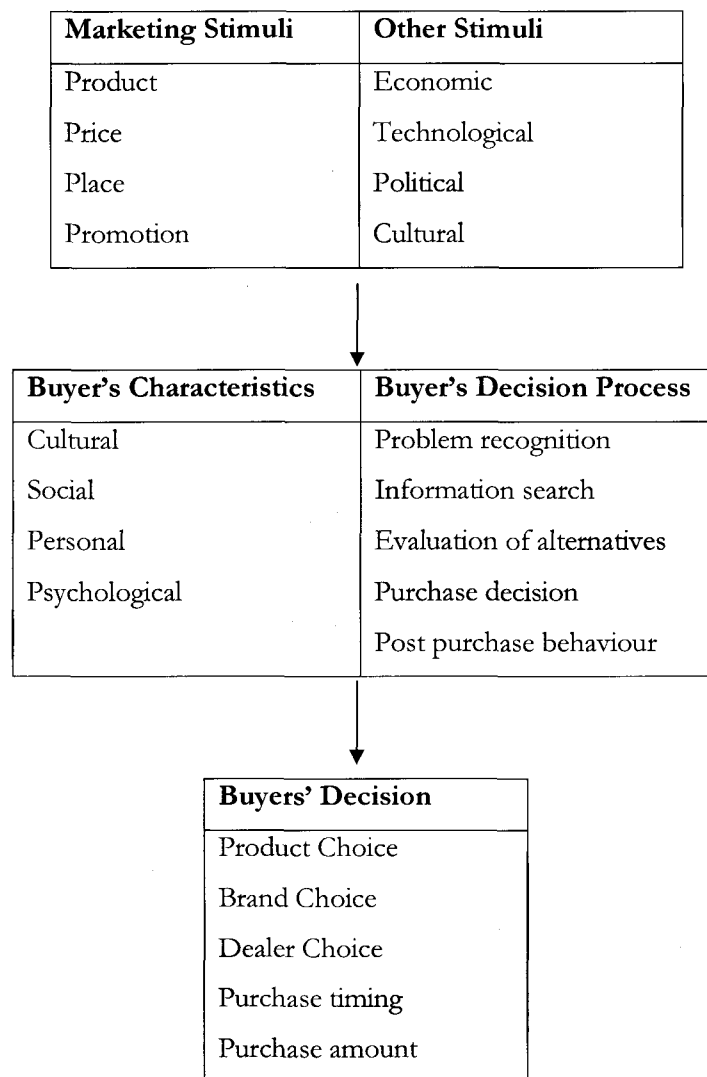


Figure 2.10: Model of buyer behaviour (Source: Kotler, 2003: 184)

An in-depth understanding of Buyer's characteristics, in terms of what drives people to purchase bottled water, enables bottled water Manufacturers to reach and serve consumers that are open to this category. It also enables mar-

keting campaigns to be precisely targeted towards these consumers. Each of the Buyer Characteristics will be discussed in detail below, with reference to the bottled water category.

2.17.2 Buyer characteristics

2.17.2.1 Cultural factors

According to Kotler (2003:183) culture, subculture and social class is the common thread that dictates an individual's wants and behaviour. These factors often serve as the guide to an individuals' brand and product preferences. An examples quoted by Kotler (2003:184) is media preferences, where the upper-class consumers prefer consumer magazines and books whilst the low-class consumers prefer radio.

In the bottled water market segment, the cultural factors play a critical role in defining what is 'socially' acceptable by consumers.

2.17.2.2 Social factors

In addition to the Cultural factors mentioned above, there are key social factors which influence consumer behaviour, namely reference groups, family, and social roles and statuses (Kotler, 2003:184). Consumers are driven by an individual need for membership and through their actions (by way of consumption of a particular product/service), enables them to obtain this membership. These social factors influence individual behaviour as they serve as points of reference and a source of norm, value and conduct (Sheth & Mittal, 2004:63).

In high-value purchase decisions, the use of interpersonal influence becomes more apparent and influences a consumer's behaviour to a far greater level.

With application of Maslow's hierarchy of needs, this study aims to refute or validate this hypothesis - the consumption of bottled water by a younger age

group of consumers is driven by a need for social group acceptance and status.

2.17.2.3 Personal factors

Kotler (2003:190) states that a buyer's decision is also influenced by his/her age, occupation, economic circumstances, lifestyle, personality and self-concept. Some of factors will be used to evaluate the consumers of the bottled water category.

2.17.2.4 Psychological factors

There are four major psychological factors that a person's buying choices are influenced by, namely, perception, learning, motivation, and beliefs and attitudes.

2.17.2.4.1 Perception

There are three factors that shape consumer *perception* of a product/brand (Sheth & Mittal, 2004:130):

- “stimulus characteristics – which is the nature of information from the environment” namely, sensory and information content
- “context characteristics – the setting in which the information is received”
- “consumer characteristics – personal knowledge and experiences”

Perception is important as individuals selectively perceive what they want, which in turn affects how they see risks in the purchase of a particular product/service.

With regards to the bottled water category there exists a myriad of brands in different packaging shapes and sizes. Each bottled water brand claims a

unique and distinctive positioning in this category, which is communicated through its advertising. Advertising is used as the stimulus to trigger sensory and information content about a particular product. For example, the imagery used in the advertising of Valpré bottled water of a snow-capped mountain, a pristine flowing river and a bottle of Valpré, are all used to stimulate the senses of the consumer and draw him/her to the product.

Perceptions of the taste of a product are influenced by the context the brand name provides (Sheth & Mittal, 2004:131). Brands, like Ceres and LiquiFruit fruit juices, are packaged in carton packaging and are perceived to be high quality products by its consumers. This study will test to see if the perception of carton packaging in relation to these brands can be carried over to a bottled water range packaged in carton packaging and is launched under one of these brands. Brands in plastic bottle and glass packaging will also be tested.

Finally, perception is also driven by what the consumer already knows about the product. An example of such is, when a consumer purchases a bottle of Valpré water they expect the product to be consistent and deliver what it promises i.e. taste like water and deliver on the any claims that it makes.

However, as a result of the vast amounts of marketing information that consumers of today receive, consumers have become selective in their reception of these factors and hence bias their perceptions.

2.17.2.4.2 Learning

According to Sheth & Mittal (2004:138) there are four different mechanisms of *learning*, namely:

- “cognitive learning – acquiring new information from written or oral communication”
- “classical conditioning- learn an association between two stimuli due to their constant appearance as a pair ”

- “instrumental conditioning – learning to respond in particular way because it is rewarding”
- “modelling – learn by observing others”

In relation to cognitive learning, consumers ascribe the bottled water category with their need to lead a 'healthy' lifestyle. This inference is due to the manner in which brands within the bottled water category is advertised, both in print and through oral communication.

The constant imagery used in the advertising of bottled water has also influenced consumers in their perception of this category. In terms of packaging type one can hypothesis that consumers are 'classically conditioned' in purchasing bottled water in plastic bottles as this is the main packaging type that bottled water is sold in. This study will investigate this and either validate or refute this hypothesis.

Furthermore consumers have experience with carton packaging as a wide range of fruit juices and milk products are available in this packaging format. One can hypothesis that because of this, consumers may readily accept a carton range of bottled water offered under the same brand. This will be evaluated in this study.

Bottled water is not a cheap beverage option. The out-of-home consumption of bottled water by many consumers can be related to the status obtained when consuming this beverage option. One can hypothesis that the consumption of bottled water entails a certain aspirational element. This study will try to delve into this and validate this.

2.17.2.4.3 Motivation

In a broad sense motivation pertains to the reason from acting/responding. There are several theories that have been developed to understand human motivation. The three best know theories are Freud's Theory, Maslow's Hierarchy of Needs and Hertzberg's Model.

With reference to Maslow's theory, certain needs can be classified as 'biogenic' and others, as 'psychogenic'. A need transforms itself into a motive when the level of intensity increases to a sufficient level. The need then transforms into a *motive*. "A *motive* is a need that is sufficiently pressing to drive the person to act" (Kotler, 2003:195).

This study will aim to uncover what are the motivating factors that make consumers consume bottled water.

2.17.2.4.4 Beliefs and attitudes

Individuals acquire and develop beliefs and attitudes over a period of time. Attitudes and beliefs are a generalization and therefore an individual doesn't go through the process of evaluation for each and every object (www.fao.org). An example of such is the country-of-origin effect (Kotler, 2003:198). Marketers may strongly promote a brand based on its locally production.

This research study will attempt to unpack what the current attitudes are of consumer of the bottled water category.

2.17.3 Innovation adoption

According to Sheth & Mittal (2004:144), *innovation* can be defined as “a product, service, or an idea that a customer perceives new”. Newness has two dimensions to it, namely (Sheth & Mittal, 2004:144):

- Uniqueness - “how different it is from existing products”
- Age - “how long it has existed in the marketplace”

Consumer reception of an innovation varies and can be explained using the *diffusion process* as illustrated below (Sheth & Mittal, 2004:144):

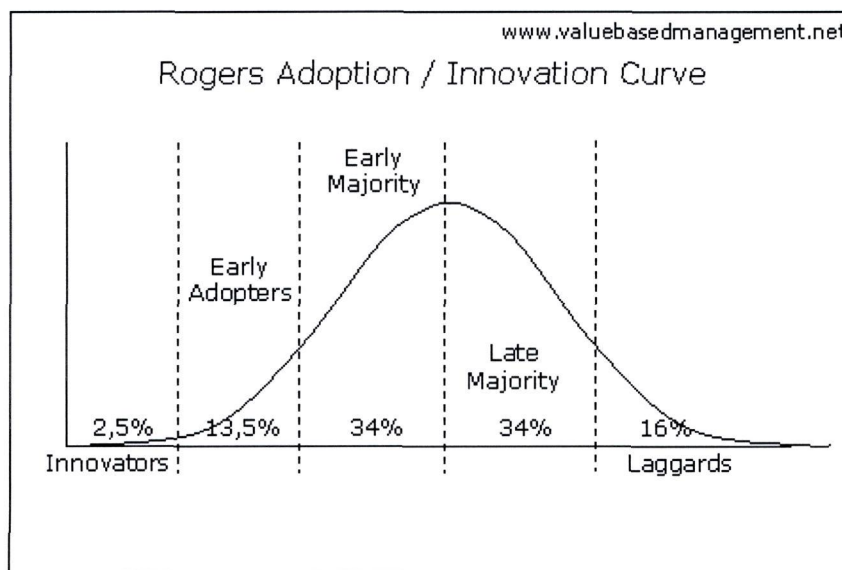


Figure 2.11: The Roger’s adoption/Innovation Curve (Source: www.12manage.com)

The Innovation Adoption Curve classifies adopters of innovation into various categories (www.12manage.com):

- “Innovators – brave people, pulling the change”. These individuals serve as an important communication mechanism for the innovation
- “Early Adopters – Respectable people, opinion leaders, that will try out new ideas but in a careful manner”

- “Early Majority – Thoughtful, careful people that will accept change more quickly than average people do”
- “Late Majority – Skeptic individuals that will use new ideas/products only when the majority is using it”
- “Laggards – Traditional people who love to stick to the ‘old ways’. They are critical about new ideas/products and will only accept it if becomes mainstream”

The Innovation Adoption Curve is based on the idea that certain individuals are more receptive and open for adaptation of new ideas/products than others. This model proposes that for a new idea/product to be accepted, one should commence with targeting the innovators and early adopters first. Thereafter, the other categories can be approached. The percentages in the model can be used as “a first draft to estimate target groups for the communication process” (www.valuebasedmanagement.net). In terms of carton packaging, participants will be evaluated and categorized using the above model.

According to Sheth & Mittal (2004:200) *attitudes* are “learned predispositions to respond to an object or class of objects in a consistently favourable or unfavourable way”. Hence attitudes can be used to predict consumer behaviour. This implies that if consumers view a new product concept in a favourable light, then when the new product becomes available these consumers are likely to purchase it. This study will assess consumer attitudes with regards to carton packaging. The assessment will indicate as to whether there is indeed an opportunity for launching a range of bottled water in carton packaging.

2.17.4 Changes in consumers’ lifestyle

The increase in urbanisation can also attribute to the bottled water phenomenon. In 1971, bottled water consumption in France was at an average of 52 litres per inhabitant, compared to 85 litres per inhabitant in Paris and its sur-

rounding areas (Ferrier, 2001:18). Increase in urbanisation also impacts negatively on the quality of tap water.

Improvement in the standard of living amongst many consumers and the greater use of cars allow for consumers to purchase bottled water with much difficulty. The changes in the working habits of people as they become more office bound create a tendency for them to have a bottle of water within arms reach.

The success of bottled water is also attributed to the highly effective and appealing marketing behind the various brands. According to Ferrier (2001:18), marketing and advertising is fundamental to brands that are selling such a similar product, which is colourless, odourless and tasteless. The aspirational element of all bottled water advertising has been the engine of growth for this category.

2.17.5 The negatives of this booming category

Legislation requires that bottled water declares its composition and origin of water, though this may vary from country to country. According to Ferrier (2001:19), the European Union (EU) requires “natural mineral water’s labels to state the waters’ analytical composition, giving its characteristic constituents and the specific water source and name, and information on certain treatments used.” It further prohibits bottled water brands from making claims about the “prevention, treatment or cure of human illness” (Ferrier, 2001:19).

In South Africa, “...most consumers of bottled water are clueless about what the terms on the labels really say about the clear stuff they are drinking” (The Star Newspaper, Consumer Watch, 28 August 2006, page 7). In the absence of proper legislation, many bottled water manufacturers have been given Carte Blanche with the marketing and labelling of their bottled water brands.

However, this is about to change as the legislation for bottled water becomes more stringent. The Department of Health has just published its “Regulations relating to all bottled water” (The Star Newspaper, Consumer Watch, 28 August 2006, page 7). The impact of this is the revision of label information of many well-known and established brands.

2.17.6 Influence of packaging on a purchase decision

A study conducted in the USA by The Consumer Network (www.fdp.com), was undertaken to view the degree of influence of packaging on purchase decisions in relation to price, brand, freshness and specific item preferences.

The survey was prompted as a result of non-delivery by many brands and the explosion of brand offerings currently available in the marketplace. The survey asked participants to consider packaging in every category and to consider brands in two ways:

- “The influence of specific items they liked or were in the habit of buying, such as Diet Coke “ and
- “The influence of the brand itself, such as Coca Cola”.

The study sample covered a wide age group, ranging 20-34, 35-49, 50-74 and 75+ years old.

Table 2.12: How packaging ranks in 25 product categories

CATEGORY	PACKAGING	PRICE	BRAND	PRODUCT	FRESHNESS
Cleaning	22.3%	25.2%	22.4%	19.8%	10.4%
First aid	20.9%	24.3%	21.0%	19.1%	14.7%
Cut fruit	20.5%	20.9%	14.8%	17.9%	25.9%
Ketchup	19.4%	21.8%	20.1%	20.6%	18.2%
Pills/Tablets	19.4%	23.0%	19.0%	18.8%	19.8%
Cut veggies	19.3%	23.8%	14.7%	17.1%	25.1%
Cheese	19.2%	21.8%	19.4%	17.7%	22.1%
Frozen entrees	18.6%	23.1%	20.8%	18.1%	19.4%
Soup	18.1%	19.0%	22.6%	19.4%	18.1%
Cat food	18.0%	23.2%	19.3%	21.1%	18.3%
Crackers	17.7%	21.5%	21.0%	19.0%	20.9%
Ice cream	17.7%	23.3%	21.0%	18.2%	19.8%
Sauce	17.7%	23.0%	20.8%	19.4%	19.1%
Dog food	17.6%	23.4%	23.4%	19.3%	17.7%
Soft drinks	17.5%	22.6%	22.4%	19.7%	17.8%
Cereal	17.5%	22.7%	21.6%	20.7%	19.9%
Cookies	17.5%	21.5%	19.6%	17.9%	23.6%
Juice	17.4%	23.2%	19.7%	18.1%	21.6%
Mayonnaise	17.1%	21.7%	23.0%	18.9%	19.3%
Chips	16.9%	22.2%	20.0%	18.7%	22.1%
Milk	16.7%	22.9%	18.9%	18.0%	23.6%
Meat	16.1%	24.1%	16.8%	18.5%	24.6%
Candy	16.0%	21.7%	20.6%	20.5%	21.2%
Whole veggies	15.7%	25.5%	14.0%	18.5%	26.4%
Whole fruit	11.7%	25.2%	11.5%	19.1%	25.1%

Source: www.fdp.com

The results of the study showed that participants acknowledged the influence of packaging on their purchases overall. The three categories where the influence of packaging overtook the brand name were:

- Pills/tablets
- Whole veggies
- Cut fruit

When compared to the other attributes that were rated, packaging was rated as more influential than specific product reference in seven categories. Brands led in only three of the categories.

The study also revealed that a younger age group of participants rated the influence of packaging greater than the older age group. This is an interesting finding as one would have assumed that the older participants would have rated packaging more influential due to trouble of opening and closing packaging. This is a critical observation for this study and will be carefully explored with consumers in the bottled water category.

Further findings in the study revealed that brand marketers need to look for more opportunities to use packaging as a brand-building tool.

2.18 BRANDING OF BOTTLED WATER

Branding is the art and cornerstone of marketing. According to the American Marketing Association, a brand can be defined as a “name, term, sign, symbol, or design, or a combination of them, intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competition” (Keller, 2003:3).

Brands differentiate themselves from products by adding other unique dimensions that allows it to differentiate in some way from other products which satisfy the same need.

Some brands attain a competitive advantage through product and/or non-product performance. In the bottled water category, several brands exist, each claiming a unique selling point. For example, the brand called Water + Slimming, claims that water contains added ingredients, which aids in weight-loss.

Brand proliferation remains one of the key opportunities that many brands face today. An example of such is Coca-Cola, which now comes in many versions – namely Classic Coke, Diet, With Lemon etc. This study will test to see if established brands in the non-alcoholic beverage category will be able to enter the bottled water category with an offering.

2.18.1 Brands and packaging innovation

Keller (2003:210) states that there are a number of objectives which packaging must achieve, namely –:

- “Brand identity”
- “Convey descriptive and persuasive information”
- “Facilitate product transportation and protection”
- “Assist at-home storage”
- “Aid product consumption”

Packaging innovation has allowed brands to distinguish from each other; to such an extent that certain brands have managed to achieve a leadership position in the marketplace through successful packaging innovation. An example of successful packaging innovation is Heineken - if the average consumer was asked what came to mind when they thought of Heineken beer, the common response would be the ‘green bottle’ (Keller; 2003:212). This illustrates the interdependent relationship that packaging has with a brand, where it can eas-

ily become an integral part of brand recognition and impact sales almost instantaneously. This study will assess if certain brands, which are currently present in Tetra Pak packages, are more easily accepted as brands in the bottled water category or not.

Keller (2003:212) states that structural packaging innovations can be undertaken to create a point of difference, which can command a premium price in the marketplace. New packages can be used to expand and capture new markets. This study will assess consumer acceptance of existing packages (Tetra Brik Aseptic ®), as well as new packages (Tetra Prisma Aseptic ®) from Tetra Pak, for the bottled water category.

The manner in which a brand name is displayed on a package is critical in terms of the visual impact the brand has on shelf. The colours used on a package can affect consumers' perception of the product itself. For example, a lighter coloured orange displayed on a fruit juice package could be perceived by consumers as the product content not being sweet, when compared to a darker coloured orange.

The display area on Tetra Pak packages exceeds all other packaging formats. This allows for more graphics to be displayed and hence assist in the sale of the product.

In conclusion, packaging is a critical interdependent variable that add to a brands' success or failure. It is for this reason that careful consideration must be given on the package selection for the bottled water category.

Chapter 3

RESEARCH DESIGN & METHODOLOGY

3.1 INTRODUCTION

The research strategy adopted for this study is a combination of descriptive and exploratory strategies.

3.2 RESEARCH DESIGN

3.2.1 Descriptive strategy review

The purpose of adopting a descriptive strategy for this study was to provide data about the target population that is being studied in terms of who, what, when, where and how bottled water is consumed. The adoption of this strategy aims to “portray an accurate profile of persons, events or situations” (Saunders et al; 2003:97).

In terms of the descriptive strategy, a self-administered survey tool, in the form of a questionnaire, was used. The questionnaire consisted of several closed-ended questions. According to Cooper & Schindler (2003:179) there are many compelling reasons for sampling versus a census study, namely:

- “Lower cost”
- “Greater accuracy of results”
- “Greater speed of data collection”
- “Availability of population elements”

A *census* study is only appropriate when the following conditions exist (Cooper & Schindler, 2003:181):

- Population is small
- Variability within the population is high

With the Germiston population total estimated to be 171 541 in 1991 (www.encyclopedia.com) and for the above mentioned reasons on sampling, coupled together with time and financial constraints, instead of having the entire population of the Germiston region surveyed, a *non-probability sample* was adopted for this study.

Non-probability sampling uses human intervention and is subjective, allowing the researcher to choose sample elements “at random” (Cooper & Schindler, 2003:184). There are many advantages associated with non-probability sampling, namely (www.tardis.ed.ac.uk):

- It is cheaper
- It is useful when the entire sampling frame is not available
- Is appropriate and useful when the population is widely dispersed that any form of probability sampling will not be efficient etc.

Disadvantages relating to non-probability sampling are (www.musc.edu):

- The subjectivity associated with this type of sampling prevents making inferences to the entire population
- The validity and credibility becomes questionable because of the selection process
- The reliability is also questionable due to the lack of confidence in the interpretation of the research findings etc.

There are several techniques of non-probability sampling that can be adopted, namely quota sampling, purposive sampling, snowball, self-selection and convenience sampling. Based on the external factors influencing a study, each of these techniques offers unique advantages. For example quota sampling is more appropriate when there is a high likelihood of the sample being represented, where data is need quickly and costs are constrained and there is a

high control over the sample contents. Convenience sampling on the other hand is more suited when there is a low likelihood of the sample being representative, where there is very little variation in the population and there are low costs and control over the sample (Saunders et al, 2003:172).

In summary, non-probability sampling techniques are useful when there are limited resources as in the case of this research study.

The type of non-probability sampling chosen for this study is *convenience sampling*. According to Joppe (www.ryerson.ca/~mjoppe/index.htm) in convenience sampling “the selection of units from the population is based on easy availability and/or accessibility”. Whilst convenience sampling offers the researcher the ease of accessing participants, this type of sampling entails no randomness and the likelihood of bias can be high.

As defined by Joppe (www.ryerson.ca/~mjoppe/index.htm) “any survey technique that requires the participant to complete the questionnaire himself/herself is referred to as a self-administered survey”. Dissemination of surveys of this nature takes various forms such as fax, email, post, Internet posting and even in person etc. For this study the researcher disseminated the descriptive questionnaires.

There are many advantages that follow a self-administered survey questionnaire, namely (www.ryerson.ca/~mjoppe/index.htm):

- The anonymity of the participant which can positively impact the validity in which the questionnaire is answered i.e., more truthful responses can be anticipated
- The questionnaire can be completed at the participants’ convenience
- With the lack of an interviewer there is no bias or interviewer error
- The ability of covering a geographically spread sample is attainable.

There are also disadvantages that are associated with the adoption of a self-administered survey questionnaire in any research study, namely (www.ryerson.ca/~mjoppe/index.htm):

- The lack of control in terms of who actually completes the questionnaire
- The risk of the participant reading part or all of the questionnaire prior to completion, hence biasing his/her responses
- The low response rate

In order to overcome the low response rate usually associated with self-administered questionnaires, Joppe (www.ryerson.ca/~mjoppe/index.htm) suggests that the following be done:

- “A well written covering letter of appeal, personalised to the extent possible, that stresses why the study is important and why the particular participant should fill in the questionnaire”
- “Ensuring confidentiality and/or anonymity, and providing the name and contact number of the lead researcher and/or research sponsor should the participant wish to verify the legitimacy or have any specific questions”
- Providing a due date that is reasonable but not too far off and sending or phoning at least one reminder”
- “A well designed, visually appealing questionnaire”

Prior to disseminating the descriptive questionnaires, the researcher ensured that all of the above points were met in order to be able to obtain as high a response rate as possible.

A convenience sample size of one hundred participants was used for the administration of the descriptive strategy questionnaire. This included an additional five questionnaires to cater for non-responses. The criteria for obtaining the sample were that all participants had to meet the following criteria:

- Work and/or Reside in Germiston

- Be employed
- Be eighteen years or older

To ensure that the above criteria were met, the questionnaires were administered to individuals that were employed in the Germiston region only.

- **Descriptive questionnaire design strategy**

After establishing the objectives of this research study and conducting the literature review, the researcher then appraised the sampling technique most suitable and various methods that could be adopted to collect the replies for this study was chosen. Thereafter the design of the questionnaire was undertaken.

The design of the questionnaire was split into three steps, namely (Burgess, 2001:1-15):

- Determining the questions that needed to be asked – this step provided a key link between the objectives of this study and the individual questions. This was done by identifying the key issues and formulating appropriate questions. The key issues were outlined as follows:
 - Current bottled water purchasing patterns
 - Key need-states explaining non-drinking of bottled water
 - Competitive Landscape
 - Key brand drivers
 - Relevant brand features/benefits
 - Package type preferences

The discussion guide for the focus groups was also constructed using these keys issues.

- Selecting the question type for each question and specifying the wording – different types of questions were used, ranging from close-ended questions to ranking. The researcher opted not to include any open-ended questions in order to promote the ease of filling in the

questionnaire by the participants. The wording of the questions was checked for conciseness, ambiguity, negativity, a double-barrel nature and leading. This checked was conducted through the piloting of five questionnaires that were not included in the sample for this study.

- Designing the overall question sequence and overall questionnaire layout - the layout of the survey questionnaire included a covering letter explaining the purpose of the study; an indemnity section in which the participant acknowledged his/her voluntary participation in the study, granting permission of his/her input to be used in this study; and an instruction page outlining how the questionnaire should be filled in.

3.2.2 Exploratory strategy review

According to Saunders et al (2003:96) an *exploratory strategy* aims to “seek new insights, to ask questions and to assess phenomena in a new light”. Adopting an exploratory strategy for this study assisted in probing the target market as to whether there is indeed an opportunity of launching a bottled water range in carton packaging for a pre-defined target market.

As defined by Cooper & Schindler (2003:155), a *focus group* is “a panel of people, led by a trained moderator, who meet for ninety minutes to two hours.” The aim of a focus group is for individuals to share their ideas, feelings and experiences on a specific topic, under the guidance of a facilitator (Cooper & Schindler, 2003:155).

As with any research strategy, adopting a particular method of data collection has advantages and disadvantages.

Assessing the advantages offered by focus groups, the following can be listed (Cooper & Schindler, 2003:155):

- “Quickly and inexpensively grasp the core issues of a topic”
- “Provides the researcher the opportunity to observe reactions to their research questions in an open-ended group setting”

- “Participant respond in their own words, rather than being force-fit into a formalised method”
- Focus groups offer flexibility. “Agendas can be modified as the research team moves from one group to another”

The disadvantages associated with focus groups are (www.ag.arizona.edu):

- Poor control over the group and the information that will come out
- Its method produces data in a chaotic manner, making data analysis more difficult
- The size of the groups and use of convenience sampling limits the ability to generalize the results to the greater population
- The results may be biased based on the presence of an individual who may dominate the discussion and/or individuals whom remain reserved throughout the group discussion

With all this noted, because focus groups are a method of obtaining qualitative data, which offers limited sampling accuracy, the results from such, needs to be assessed with caution. In this study, to compensate for this risk, key questions have been repeated in both questionnaires and will be cross-checked.

To effectively carry through this strategy the reviewing of secondary data and the administering of a second questionnaire in a focus group environment was adopted. The questionnaire comprising of several key open-ended questions was used to provide insights as to how the targeted consumer segment would view a carton packaged bottled water range. Two focus group sessions, each consisting of between six to ten participants was conducted.

The participants were probed to provide insights to the following questions:

- Do they consume any form of bottled water i.e. are they open to the category?

- Where do they spend their money? At which shop/retailer do they do their monthly shopping at?
- How do they perceive the bottled water category?
- At what occasions is bottled water consumed?
- What are the targeted consumer segment's attitude, usage and perceptions of the bottled water category? etc

Thereafter the participants were probed in terms of assessing the acceptability of carton packaging. To effectively do so, mock-up samples of a generic bottled water Brand in carton packaging was shown to the participants in the focus groups.

3.3 DATA COLLECTION PROCEDURE

3.3.1 Descriptive questionnaire data collection procedure

For the administration of the descriptive questionnaire, the personnel of PG Bison Ltd, where the researcher is presently employed, were approached to participate in this study. The company is based in the Germiston region of Gauteng.

The administration of the survey questionnaires were managed through the following process:

- Participants were identified and a spreadsheet was used to track the status of completion the questionnaires
- Each questionnaire was numbered before dissemination
- The researcher personally disseminated the questionnaires and collected them

A total of one hundred questionnaires were given to people agreeing to participate in this study. A period of two weeks was given to all participants be-

fore collecting the questionnaires. Three days before the due date of the questionnaires, the researcher sent out an email reminder to all participants.

To test for bias and the reliability of the questionnaire, a test of this questionnaire was conducted with a group of five participants before commencing with the actual study. In the analysis of the data for this study, the test questionnaires were not included. To accommodate for non-response, an additional five questionnaires were included in the study, taking the total sample size up to one hundred.

3.3.2 Exploratory questionnaire data collection procedure

- **Selection criteria for the focus groups**

The personnel of the company (which is based in the Germiston region) at which the researcher is employed was approached to participate in the focus groups. An email was sent out to selected individuals from the company's email address book inviting people to participate in the study and explaining the purpose of the study. In order to encourage participation, a two hundred rand Woolworth's gift voucher was used as the incentive and individuals who volunteered to be part of the focus Groups stood a chance of winning the voucher. The lucky participant was drawn after the two focus groups were conducted.

Part of the prerequisite for participation was:

- Candidates had to have consumed bottled water in the last month and,
- Must not have filled out the descriptive survey questionnaire.

The above conditions were set to reduce the bias of this study.

Interested individuals had to reply to the researcher, and thereafter calendar appointments were sent out to the individuals confirming the venue details of the focus Group sessions.

3.4 RELIABILITY AND VALIDITY OF THE RESEARCH INSTRUMENTS

3.4.1 Reliability

Joppe (www.ryerson.ca/~mjoppe/index.htm) defines *reliability* as “the extent to which results are consistent over time and an accurate representation of the total population under study“. Simply stated reliability indicates the “degree to which a research instrument measures the same way each time it is used under the same condition with the same subjects: (www.socialresearchmethods.net). Reliability of an instrument is estimated and not measured.

There are two ways in which reliability can be estimated, namely:

- Test/Re-test - The ideology behind Test/Re-test is that one should get the same score on test one and test two. This method is the more conservative option used to estimate reliability.
- Internal Consistency – this method estimates reliability by “grouping questions in a questionnaire that measure the same concept” (www.socialresearchmethods.net).

For this research study reliability has been estimated using *internal consistency*. The statistical technique used is Cronbach’s Alpha test, which determines how reliable a multi-item scale may be for a given population. Interpretation of the results from this test indicates that the closer the Cronbach alpha is to one, the higher the reliability estimate of the research instrument is. (www.socialresearchmethods.net).

3.4.2 Validity

According to Cooper & Schindler (2003:231) *validity* refers to the “extent to which a test measures what we actually wish to measure”. Within validity itself there are two types, namely, external validity and internal validity.

In terms of this research study *external validity* cannot be evaluated, as non-probability convenience sampling was the method adopted.

Internal validity encompasses the “ability of a research instrument to measure what it is purported to measure” (Cooper & Schindler, 2003:231). For this research study internal validity was endorsed through the pre-testing of the descriptive survey questionnaire.

3.4.3 Bias

To avoid bias in this study the following mechanisms have been put in place:

- Filter questions have been incorporated in the questionnaire design

The focus groups were conducted under the guidance of a trained moderator.

Chapter 4

DATA ANALYSIS & RESULTS

4.1 ANALYSIS OF THE DATA

4.1.1 Descriptive survey analysis

The data obtained from the administration of the descriptive research instruments were analysed using Survey System Version 9 for Windows. This software is designed to help the user create questionnaires and enter, edit, process and present research results. The Survey System produces a number of different kinds of tables, graphs, charts and verbatim reports that can be used in research reports and presentations. Data can be entered in two ways into this software, namely, Keypunch style (enter answers as a row of numbers) or interview style (the question and answer choices appear on the screen). For this study the data was captured using interview style.

For the descriptive survey questionnaire, only ninety-four individuals responded to the study, despite a sample of one hundred. Survey system allowed the researcher to weight the ninety-four participants up to a sample size of one hundred. This was done to meet the study's predefined sample size of one hundred respondents.

The findings from the analysis are presented in this chapter.

4.1.2 Exploratory analysis

- **Administration of the focus groups**

The researcher of this study conducted the focus group sessions. The moderator in the steering of the focus group sessions used a discussion guide. The guide was used to ensure that the participants in the focus groups considered all relevant information for this study. Due to financial constraints, no special facilities were used to conduct the focus group sessions. In order to capture the discussion of each focus group, the researcher employed an individual to capture the discussion in writing. This individual was not allowed to participate in the group discussions. Each focus group session lasted approximately one hour.

The focus group participants are profiled as follows:

Focus Group A

Name	Age	Gender	Occupation
Mala Shunmoogam	40	Female	IT Administrator
Boipelo Mooketsi	37	Female	Office Administrator
Chantell Wilken	33	Female	Personal Assistant
Judy Moodley	34	Female	Pricing Administrator
Isabel Barbosa	40	Female	Personal Assistant
Justin Berry	34	Male	Group Brand Manager
Collin Willoughby	38	Male	Customer Appreciation Manager

Focus Group B

Name	Age	Gender	Occupation
Rejoice Kachipande	27	Female	Performance Management Consultant
Linda Bowden	42	Female	CSI Officer
Tyron Myburgh	40	Male	New Store Development Manager
Mandy Tsatsoulis	38	Female	IT Officer
Modiegi Kgokane	36	Female	Training and Development Consultant
Thabo Mfomme	38	Male	Recruitment Consultant

The data obtained from the focus groups will be examined and cross-checked with the descriptive survey results.

4.1.3. Reliability of the Research Instruments

Question 7.4 was used as the scale question to administer Cronbach's Alpha Test. It is estimated that the reliability of this study rests at a 0.5. This implies that the reliability of this study is average.

Table 4.1: Cronbach's alpha test

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q7.4 Please rank the following packages, with 1 being LEAST environmentally friendly and 5 being MOST environmentally? PLASTIC BOTTLE	13.62	16.454	.101	.528
Q7.4 Please rank the following packages, with 1 being LEAST environmentally friendly and 5 being MOST environmentally? GLASS BOTTLE	13.37	17.441	.101	.511
Q7.4 Please rank the following packages, with 1 being LEAST environmentally friendly and 5 being MOST environmentally? CARTON	12.71	16.702	.198	.447

4.2 RESULTS OF THE DATA

4.2.1 How to interpret the descriptive survey tables

The tables generated by Surveys System Version 9 are grouped under three main banner columns, namely, Gender, Age Group and User type. These main banner columns are further divided into sub-banner columns. Each sub-banner column compares the answers given by the people in that column to the answers given by everybody else. It indicates which of their answers (if any) are more different from everybody else's answers than could be expected due to chance, given the sample sizes involved. If an answer is significantly different, it is marked by one or more plus signs or minus signs at the bottom of the data cell. Plus signs are used if the group picks that answer more often than everyone else. Minus signs are used if it picks that answer less often

than everyone else. The number of plus or minus signs indicates the level of statistical significance. One sign (+) indicates the 0.10 level, two (++) the 0.05 level, and three (+++) the 0.01 level. For example, two plus signs means that you can be 95 percent sure that the people represented by that group really would pick that answer more often than the people represented by the rest of your sample.

Reading the rows from left to right, the top set of numbers is the actual number in terms of the participants, whilst the bottom set is the percentage thereof.

Due to only ninety-four questionnaires being answered the data was weighted accordingly to bring the total sample size up to one hundred. The *weighted base* row is the indicative of the number of participants.

4.2.2 Descriptive survey results

4.2.2.1 Demographics

Table 4.2: Gender of participants

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	100	50	50	36	38	11	14	1
Male	50 50.0	50 100.0 +++	0 0.0	21 57.9	16 41.2	4 32.6	10 72.1	0 0.0
Female	50 50.0	0 0.0	50 100.0 +++	15 42.1	23 58.8	8 67.4	4 27.9	1 100.0

An equal number of male and female participants participated in this survey.

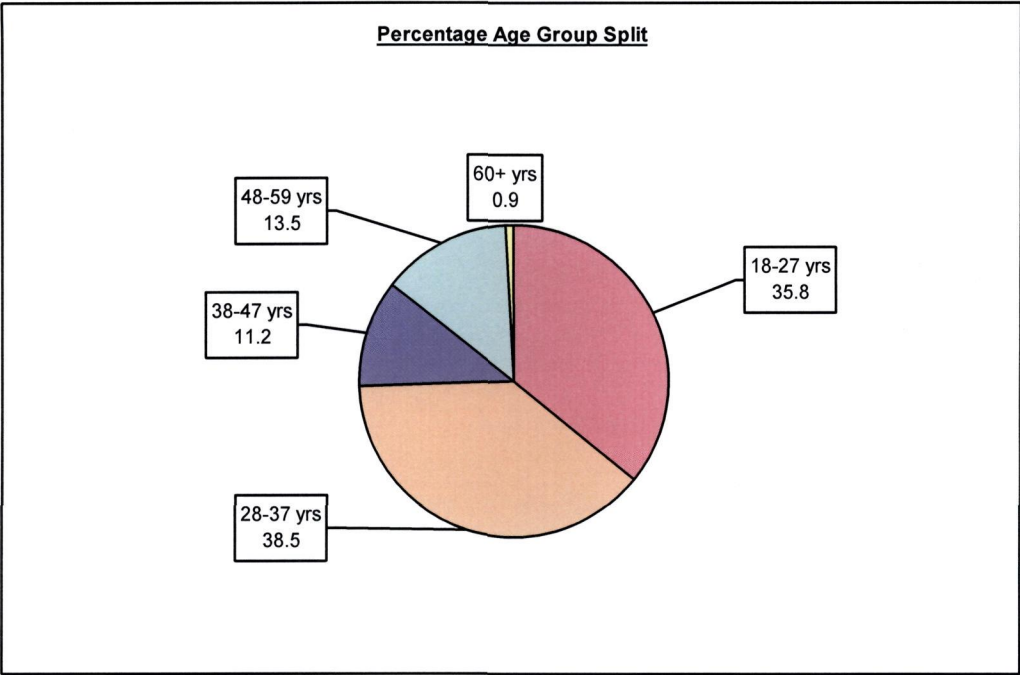


Figure 4.1: Age group profile of participants

A younger age group of participants participated in this study.

4.2.2.2 Perception of bottled water

Table 4.3: Key factors that make bottled water different from other beverage options like fruit juices, carbonated soft drinks, iced tea etc.

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	100	50	50	36	38	11	14	1
It is a healthier option	63 62.8	32 63.4	31 62.3	24 66.4	27 70.9	6 55.4	6 41.0	0 0.0
It is natural as it has no preservatives, added sugar etc	24 24.1	15 29.3	9 18.9	12 32.5	5 13.0	4 33.7	4 27.0	0 0.0
It satisfies my thirst	38 38.3	11 22.0	27 54.7 +++	13 36.5	15 38.9	7 61.4	2 18.0	1 100.0
It leaves no after- taste	8 7.8	1 2.4	7 13.2 +	1 2.6	1 3.2	5 42.1	1 7.0	0 0.0
Suitable for children	6 6.5	4 7.3	3 5.7	3 9.4	1 3.2	2 16.8	0 0.0	0 0.0
Suitable for people who are dieting	15 15.3	5 9.8	10 20.8	9 25.2 ++	1 3.2 ---	4 33.7	1 9.0	0 0.0
It hydrates me better	30 30.0	16 31.7	14 28.3	14 38.5	10 25.9	5 44.6	1 9.0	0 0.0
Nothing	1 0.9	0 0.0	1 1.9	0 0.0	0 0.0	0 0.0	1 7.0	0 0.0
Other unspecified	1 1.2	1 2.4	0 0.0	0 0.0	0 0.0	1 10.9	0 0.0	0 0.0

**More than one option could be selected*

A large proportion of the participants (62.8 percent) agree that bottled water is a 'healthy option' as this statement received the most mention. Other options receiving high mention were:

- "It satisfies my thirst" – 38 percent
- "It hydrates me better" – 30 percent
- "Its natural as it has no preservatives, added sugar etc" – 24 percent

The younger age groups (18-27 years old) are more in agreement with the statement that bottled water is suitable for people who are dieting, which is reflected by the 25.2 percent.

4.2.2.3 Current bottled water purchasing patterns

Table 4.4: Purchase of bottled water according to gender and age groups

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	100	50	50	36	38	11	14	1
Yes	88 88.4	40 80.5	48 96.2	29 80.3	38 100.0	11 100.0	9 66.0	1 100.0
		--	++	-	+++			
No	12 11.6	10 19.5	2 3.8	7 19.7	0 0.0	0 0.0	5 34.0	0 0.0
		++	--	+				

Out of the entire sample, 88.4 percent of participants purchase and consume bottled water and 70.9 percent (see Table 4.4 below) of those who do not currently purchase bottled water would consider purchasing it in the future. This indicates that a large number of participants are open to the bottled water category and the 71 percent requires motivating reasons to enter the category.

In terms of gender, females are more likely to purchase bottled water, which is indicated by 96.2 percent (Table 4.3). Compared to female participants, male participants seem to be less likely to purchase bottled water as indicated by the 19.5 percent negative response.

Appraising the data on age, one could hypothesize that the younger age group participants consume bottled water on a key driver being image, whilst the middle age groups purchase bottled water more on the basis of the products' health connotation. This hypothesis will be validated or refuted.

Table 4.5: Participants' currently not purchasing bottled water, but would consider purchasing it in the future

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	12	10	2	7	0	0	5	0
Yes	8 70.9	7	1	5	0	0	4	0
		75.0	50.0	65.4	0.0	0.0	79.5	0.0
No	3 29.1	2	1	2	0	0	1	0
		25.0	50.0	34.6	0.0	0.0	20.5	0.0

Of the total sample of participants only a small number, 12 percent, are currently not purchasing bottled water. However even though these individuals are not active in the bottled water category, 70.9 percent are open to the category.

Table 4.6: Participants' current status of bottled water purchases

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	100	50	50	36	38	11	14	1
I have never bought bottled water, but may consider buying it	6 5.8	5 9.8	1 1.9	3 9.4	0 0.0	0 0.0	2 18.0	0 0.0
I have bought bottled water in the past but currently am not purchasing it. I may consider buying it in the near future	7 7.0	6 12.2	1 1.9	6 16.2	0 0.0	0 0.0	1 9.0	0 0.0
I buy bottled water from time to time	38 37.7	12 24.4	25 50.9	12 32.4	12 31.6	7 63.9	6 43.0	1 100.0
I buy bottled water regularly, but not all the time	25 25.1	11 22.0	14 28.3	5 12.8	17 45.2	1 8.4	2 16.0	0 0.0
I buy bottled water all the time	23 23.4	16 31.7	8 15.1	10 29.1	9 23.2	3 27.7	1 7.0	0 0.0
Not answered	1 0.9	0 0.0	1 1.9	0 0.0	0 0.0	0 0.0	1 7.0	0 0.0

Of the total users of bottled water close to 50 percent purchase bottled water from time to time i.e. 4 in 10 people buy it from time to time (which is represented by the 37.7 percent). Three in ten people purchase bottled water regularly (which is represented by the 25.1 percent) but not all the time and 2 in 10 people purchase bottled water all the time (which is reflected by the 23.4 percent).

Although male participants don't purchase bottled water, when they do they are more likely to buy it all the time as reflected by the 31.7 percent. Male participants may be smaller in usage but are significant in volume when compared to their counterparts.

The younger age groups (18-27 year old) are open to the bottled water category but are currently not regular purchasers. As per the hypothesis stated in the discussion under Table 4.2, it is refuted, as these consumers should be

regular purchasers of bottled water if the image/status supposedly offered by bottled water was important.

Table 4.7: Occasions when bottled water is purchased

	Gender			Age group				
	Total	Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	86	39	47	27	38	11	9	1
When I am out shopping	52 60.5	22 56.3	30 64.0	20 75.6	25 64.6	5 44.6	2 24.2	0 0.0
When I do my monthly grocery shopping	11 12.2	5 12.5	6 12.0	2 8.1	4 11.2	2 16.8	1 13.7	1 100.0
When it is payday	2 2.2	0 0.0	2 4.0	0 0.0	0 0.0	2 16.8	0 0.0	0 0.0
Only when I have extra money	6 6.9	1 3.1	5 10.0	1 3.5	1 2.5	3 25.3	1 13.7	0 0.0
I purchase bottled water on a weekly basis	10 11.6	2 6.3	8 16.0	3 10.6	3 8.8	3 25.3	1 10.6	0 0.0
Only when I am at a restaurant	7 8.0	1 3.1	6 12.0	1 3.5	3 8.1	3 25.3	0 0.0	0 0.0
When I am socialising	13 15.4	9 21.9	5 10.0	3 12.7	3 8.8	4 36.1	2 27.3	0 0.0
When I'm on my way to work	6 6.6	0 0.0	6 12.0 ++	0 0.0	6 14.7 +++	0 0.0	0 0.0	0 0.0
On holiday	2 2.5	1 3.1	1 2.0	0 0.0	2 5.6	0 0.0	0 0.0	0 0.0
When travelling/ driving	10 11.5	6 15.6	4 8.0	1 4.6	6 14.4	1 8.4	2 24.2	0 0.0
No particular reason	1 1.4	1 3.1	0 0.0	0 0.0	0 0.0	1 10.9	0 0.0	0 0.0
When I'm thirsty / dehydrated	2 2.2	0 0.0	2 4.0	0 0.0	1 2.5	1 8.4	0 0.0	0 0.0
I purchase it mainly for the use of the bottle	1 1.1	0 0.0	1 2.0	0 0.0	1 2.5	0 0.0	0 0.0	0 0.0
When there's no access to filtered water	1 1.1	0 0.0	1 2.0	0 0.0	1 2.5	0 0.0	0 0.0	0 0.0
At the gym	2 2.5	1 3.1	1 2.0	1 4.6	1 2.5	0 0.0	0 0.0	0 0.0
Raving parties	1 1.4	1 3.1	0 0.0	1 4.6	0 0.0	0 0.0	0 0.0	0 0.0

**More than one option could be selected*

Each of the statements can be classified into broad categories as follows:

- When I am out shopping = ROUTINE
- When I do my monthly shopping = ROUTINE
- When it is payday = AFFORDABILITY
- Only when I have extra money = AFFORDABILITY
- I purchase bottled water on a weekly basis = PLANNED
- Only when I am at a restaurant = CONVENIENCE/STATUS
- When I am socialising = CONVENIENCE/STATUS
- When I am on my way to work = PLANNED
- On holiday = CONVENIENCE/STATUS
- When travelling/driving = PLANNED
- No particular reason = NONE
- When I'm thirsty/dehydrated = NEED
- I purchase it mainly for the use of the bottle = NEED
- When there's no access to filtered water = NEED
- At the gym = CONVENIENCE/STATUS
- Raving parties = CONVENIENCE/STATUS

Using the above classification, the following results can be categorised:

CATEGORY GROUP	PERCENT
ROUTINE	72.2
AFFORDABILITY	9.1
PLANNED	29.7
CONVENIENCE/STATUS	29.8
NEED	4.4

More than two thirds (72.2 percent) of the participants purchase bottled water as a routine purchase. Participants who fall within the PLANNED category could be considered as loyal users of bottled water.

Table 4.8: Outlets at which bottled water is purchased

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	86	39	47	27	38	11	9	1
Shoprite	4 4.4	0 0.0	4 8.0	1 3.5	2 4.9	1 8.4	0 0.0	0 0.0
Pick 'n Pay	39 45.2	10 25.0	29 62.0	9 35.4	19 49.4	4 36.1	6 62.1	1 100.0
Woolworths	21 24.9	7 18.8	14 30.0	4 15.2	10 25.9	3 25.3	5 51.5	0 0.0
Spar	23 26.8	6 15.6	17 36.0	2 7.1	12 31.6	6 53.0	2 24.2	1 100.0
Local Garage forecourt	44 51.5	17 43.8	27 58.0	13 49.2	22 57.9	6 50.5	3 37.9	0 0.0
At a restaurant	20 23.2	5 12.5	15 32.0	2 8.1	11 28.4	4 33.7	3 34.8	0 0.0
Makro	3 3.6	1 3.1	2 4.0	1 3.5	1 3.2	1 8.4	0 0.0	0 0.0
School Tuck-shop	1 1.4	1 3.1	0 0.0	0 0.0	1 3.2	0 0.0	0 0.0	0 0.0
Canteen	5 5.8	1 3.1	4 8.0	1 3.5	4 10.5	0 0.0	0 0.0	0 0.0
Depends on availability	10 12.1	9 21.9	2 4.0	7 27.5	2 4.9	0 0.0	1 13.7	0 0.0
Wherever I am	2 2.5	1 3.1	1 2.0	0 0.0	1 3.2	1 8.4	0 0.0	0 0.0
Local supermarket	1 1.4	1 3.1	0 0.0	0 0.0	1 3.2	0 0.0	0 0.0	0 0.0
Other unspecified	1 1.4	1 3.1	0 0.0	0 0.0	0 0.0	1 10.9	0 0.0	0 0.0
Off-sales	1 1.1	0 0.0	1 2.0	0 0.0	1 2.5	0 0.0	0 0.0	0 0.0
Wholesales	1 1.1	0 0.0	1 2.0	0 0.0	1 2.5	0 0.0	0 0.0	0 0.0
Gym	1 1.1	0 0.0	1 2.0	0 0.0	1 2.5	0 0.0	0 0.0	0 0.0

**More than one option could be selected*

The places at which most of bottled water purchases occur are at the local garage forecourt shops and Pick ‘n Pay. These two points of purchase are not where bottled water is priced the cheapest. Hence, one can assume that consumers of bottled water are not particularly price sensitive. Other places of purchase include Woolworths, Spar and at a restaurant.

In terms of gender, females are skewed more towards Pick 'n Pay than their male counterparts. Males on the other hand are more driven by the product availability rather than a specific outlet.

Table 4.9: Purchase intention of bottled water

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	86	39	47	27	38	11	9	1
Planned	2	0	2	0	1	0	1	0
	2.2	0.0	4.0	0.0	2.5	0.0	10.6	0.0
On impulse	37	13	24	12	15	5	3	1
	42.9	34.4	50.0	46.7	38.9	47.0	37.9	100.0
A combination of planned and impulse	37	21	16	13	16	4	4	0
	42.7	53.1	34.0	49.8	41.1	36.1	41.0	0.0
		+	-					
Routine	11	5	6	1	7	2	1	0
	12.2	12.5	12.0	3.5	17.6	16.8	10.6	0.0

Approximately 85 percent (impulse and a combination of planned & impulse) of the sample admits to buying on impulse; compared to 14.4 percent who either plan their purchases or buy routinely. Hence, point of sale is vital. Sales could be driven by on-shelf appearance, price, packaging, perceived quality and offering, emotional benefits, and the like. Exploratory research could be undertaken to derive an understanding on the targeted participants in terms of what drives them.

4.2.2.4 Consumption habits of bottled water

Table 4.10: Occasions when bottled water is *most often* consumed

	Gender		Age group					
	Total	Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	86	39	47	27	38	11	9	1
When I feel thirsty	62 72.3	29 75.0	33 70.0	17 65.0	29 74.1	9 80.7	6 72.7	1 100.0
Anytime I like	21 24.6	6 15.6	15 32.0	6 22.3	8 21.0	5 44.6	1 13.7	1 100.0
When I am socialising	13 14.7	6 15.6	7 14.0	3 12.7	2 5.6	4 33.7	3 37.9	0 0.0
On a hot day	32 37.3	9 21.9	24 50.0	7 25.8	16 41.4	4 33.7	6 62.1	0 0.0
When I am having a meal	31 36.2	9 21.9	23 48.0	12 44.2	11 27.7	6 53.0	2 21.1	1 100.0
When I want a change from soft drinks	30 34.8	7 18.8	23 48.0	10 36.5	15 39.6	4 33.7	1 13.7	0 0.0
At the gym/sports events	13 15.1	7 18.8	6 12.0	2 8.1	8 21.8	1 10.9	1 13.7	0 0.0
When I feel tired and stressed	2 2.5	1 3.1	1 2.0	0 0.0	1 3.2	0 0.0	0 0.0	1 100.0
When I am shopping	24 28.3	4 9.4	21 44.0	9 32.9	14 35.7	2 16.8	0 0.0	0 0.0
When I am on holiday	22 26.0	7 18.8	15 32.0	3 12.7	12 30.8	5 42.1	2 27.3	0 0.0
I only drink water, bottled or tap, occasionally I will drink a soft drink/juice	1 1.1	0 0.0	1 2.0	0 0.0	1 2.5	0 0.0	0 0.0	0 0.0
Other unspecified	1 1.4	1 3.1	0 0.0	0 0.0	0 0.0	1 10.9	0 0.0	0 0.0

**More than one option could be selected*

Bottled water is mainly consumed on the following occasions:

- When I feel thirsty
- On a hot day
- When I am having a meal

The above occasions can be used as the basis of all marketing communication for carton packaging, should this packaging format prove favourable.

For female participants, the occasions when bottled water is most often consumed is skewed more towards when they require a change from soft drinks and when they are out shopping.

Table 4.11: Places of consumption of bottled water

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	86	39	47	27	38	11	9	1
When I am at home	25 29.3	16 40.6	9 20.0	9 34.6	10 25.6	4 36.1	2 24.2	0 0.0
		++	--					
When I am out of home	28 32.6	7 18.8	21 44.0	7 24.8	13 33.3	4 33.7	5 54.6	0 0.0
		--	++					
When I am shopping	8 8.8	0 0.0	8 16.0	4 14.2	3 7.4	1 8.4	0 0.0	0 0.0
			++					
When I am out socialising with friends	8 9.3	6 15.6	2 4.0	3 12.7	2 6.3	1 10.9	1 10.6	0 0.0
		+	-					
When I am at the gym	5 5.7	5 12.5	0 0.0	2 9.2	2 6.3	0 0.0	0 0.0	0 0.0
		++						
When I am on holiday	5 5.8	1 3.1	4 8.0	0 0.0	4 10.5	0 0.0	1 10.6	0 0.0
When I am at work	4 4.7	1 3.1	3 6.0	0 0.0	3 8.1	0 0.0	0 0.0	1 100.0
Not answered	3 3.9	2 6.3	1 2.0	1 4.6	1 2.5	1 10.9	0 0.0	0 0.0

There is an almost equal split of in-home consumption (29.3 percent) and out-of-home consumption (32.6 percent) of bottled water. Female consumers tend to consume bottled water more when they are out of home and shopping than their counterparts. Bulk consumption for male consumers occurs at the gym and at home.

Table 4.12: Consumption of flavoured bottled water

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	86	39	47	27	38	11	9	1
Yes	50	13	37	13	24	7	6	0
	58.2	34.4	78.0	47.1	62.4	63.9	72.7	0.0
		---	+++					
No	36	26	10	14	14	4	2	1
	41.8	65.6	22.0	52.9	37.6	36.1	27.3	100.0
		+++	---					

Of the total sample, 58.2 percent consume flavoured bottled water. Consumption of flavoured bottled water is driven by a significantly higher proportion of female consumers (78 percent). A significant proportion of male participants do not consume flavoured bottled water (65.6 percent).

In terms of age group, there is no specific trend that implies a preference towards flavoured bottled water.

Table 4.13: Preferred flavours of bottled water

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	50	13	37	13	24	7	6	0
Honey Melon	2	0	2	0	2	0	0	0
	3.8	0.0	5.1	0.0	7.9	0.0	0.0	0.0
Litchi	17	7	9	4	6	2	4	0
	33.4	54.5	25.6	32.3	25.9	30.2	66.7	0.0
Marula	15	2	12	8	5	0	1	0
	29.3	18.2	33.3	67.7	20.8	0.0	18.8	0.0
Naartjie	14	6	8	3	4	2	4	0
	27.2	45.5	20.5	24.8	18.0	26.4	66.7	0.0
Peach	4	2	2	1	1	0	2	0
	8.6	18.2	5.1	7.5	5.1	0.0	33.3	0.0
Youngberry	1	0	1	0	0	1	0	0
	1.9	0.0	2.6	0.0	0.0	13.2	0.0	0.0
Apple and Mint	6	1	5	1	3	2	0	0
	11.8	9.1	12.8	7.5	11.8	30.2	0.0	0.0
Lemon and Lime	17	6	11	3	11	3	0	0
	34.7	45.5	30.8	24.8	45.5	47.3	0.0	0.0
Strawberry	13	0	13	7	4	3	0	0
	26.3	0.0	35.9	52.7	15.7	39.5	0.0	0.0
Exotic Fruit	1	0	1	0	1	0	0	0
	1.9	0.0	2.6	0.0	3.9	0.0	0.0	0.0
Blackberry	3	1	2	0	2	0	1	0
	6.2	9.1	5.1	0.0	9.0	0.0	14.5	0.0
Blackcurrant	3	1	2	1	0	0	2	0
	6.2	9.1	5.1	7.5	0.0	0.0	33.3	0.0
Ice	1	0	1	1	0	0	0	0
	1.9	0.0	2.6	7.5	0.0	0.0	0.0	0.0
Three Berries	2	1	1	0	2	0	0	0
	4.3	9.1	2.6	0.0	9.0	0.0	0.0	0.0
Peach and Pear	7	0	7	6	0	1	0	0
	13.2	0.0	17.9	45.1	0.0	13.2	0.0	0.0
Cranberry	10	0	10	6	4	0	1	0
	20.7	0.0	28.2	45.1	15.7	0.0	14.5	0.0

Table 4.13: Continued...

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	50	13	37	13	24	7	6	0
Can't remember	1	0	1	0	1	0	0	0
	1.9	0.0	2.6	0.0	3.9	0.0	0.0	0.0
Raspberry	1	0	1	0	1	0	0	0
	1.9	0.0	2.6	0.0	3.9	0.0	0.0	0.0

**More than one option could be selected*

Of those that consume flavoured bottled water, the *most* preferred flavours are:

- Litchi,
- Lemon and Lime,
- Strawberry,
- Marula,
- Cranberry

The *least* preferred flavours are:

- Honey Melon,
- Youngberry,
- Ice,
- Raspberry,
- Exotic Fruit.

4.2.2.5 Key needs states explaining non-drinking of bottled water

Table 4.14: Reasons why bottled water is currently not being purchased

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	13	11	2	9	0	0	4	0
It is too expensive/overpriced	3 26.3	2 22.2	1 50.0	3 36.7	0 0.0	0 0.0	0 0.0	0 0.0
I see no difference between tap water and bottled water	6 45.3	5 44.4	1 50.0	3 36.7	0 0.0	0 0.0	2 66.7	0 0.0
It doesn't suit my lifestyle	2 19.0	2 22.2	0 0.0	2 26.5	0 0.0	0 0.0	0 0.0	0 0.0
I see no value in buying bottled water	1 9.5	1 11.1	0 0.0	0 0.0	0 0.0	0 0.0	1 33.3	0 0.0
I do not have a lot of money to spend	1 7.3	0 0.0	1 50.0	1 10.2	0 0.0	0 0.0	0 0.0	0 0.0

Slightly less than half of the participants, who do not consume bottled water, see no difference in it compared to tap water. One can deduce that in their mind there is no *need* for bottled water. This is a point that should be taken into consideration in the marketing communication in the launching of a carton packaging range. The message must be modelled around a need for the product.

The lack of a need is also reflected in the statement, 'I see no value in buying bottled water', with nearly 10 percent of non-consumers agreeing with this statement.

In terms of gender, there is more male participants not currently purchasing bottled water than their counterparts.

From an age group perspective, it is the younger age group (18-27 years old) that is currently no purchasing bottled water.

Table 4.15: Drivers promoting the purchasing of bottled water amongst non-purchasers

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	13	11	2	9	0	0	4	0
If tap water became unsafe to consume	9 73.7	9 77.8	1 50.0	7 76.5	0 0.0	0 0.0	2 66.7	0 0.0
If the price on bottled water was a lot lower	2 16.8	1 11.1	1 50.0	1 10.2	0 0.0	0 0.0	1 33.3	0 0.0
If I had extra money to spare	2 16.8	1 11.1	1 50.0	2 23.5	0 0.0	0 0.0	0 0.0	0 0.0

The key reason that would motivate non-consumers of bottled water to change is if tap water became unsafe to consume. This reflected by more than 70 percent of the non-consumers. Further investigation is required to try and determine what other reasons would motivate these people to purchase bottled water.

4.2.2.6 Competitive landscape

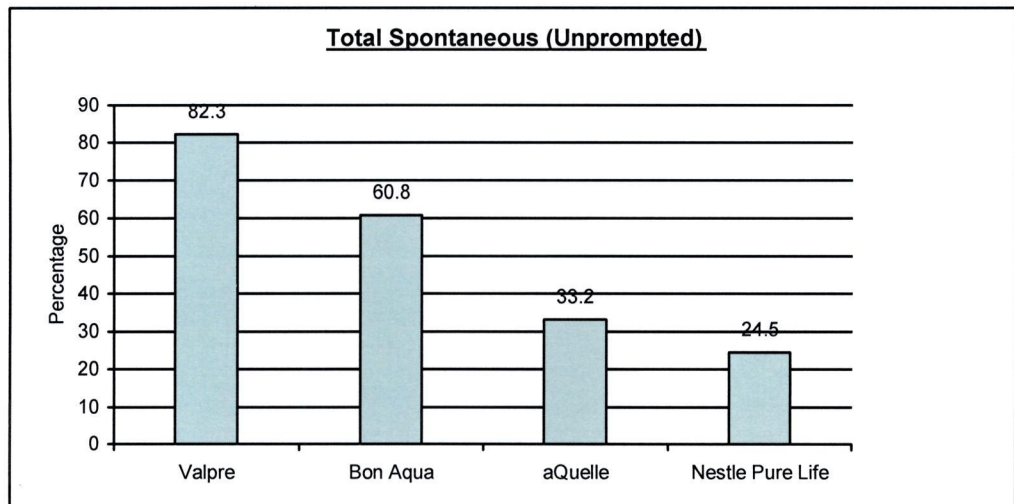
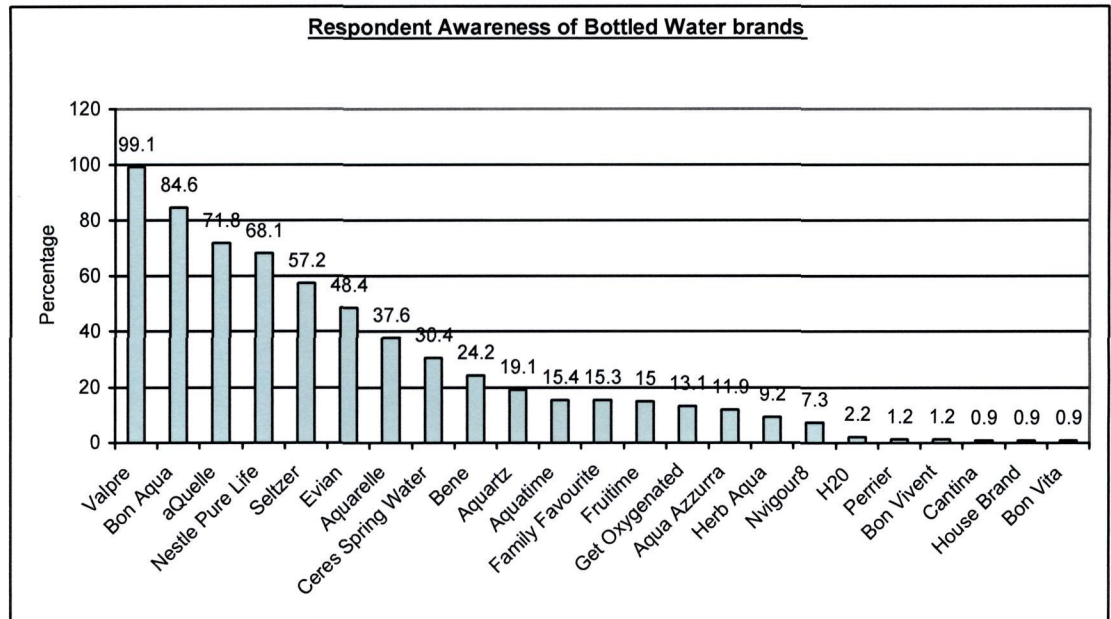


Figure 4.2: Unprompted top-of-mind awareness of bottled water brands

In terms of unprompted brand awareness, Valpré is the number one brand, with a brand awareness of approximately 83 percent. Bon Aqua and aQuellé follow second and third respectively.



**More than one option could be selected*

Figure 4.3: Prompted awareness of existing bottled water brands

There are 4 brands that share a high awareness level of greater than 65 percent. These brands are:

- Valpré – 99.1 percent
- Bon Aqua – 84.6 percent
- aQuellé – 71.8 percent
- Nestlé Pure Life – 68.1 percent

What is interesting to note is that the same manufacturer, Coca Cola, owns the first two brands.

Aquarelle, which is the house brand of Woolworths, enjoys a high level of awareness (37.6 percent) despite being a house brand. A comparable brand is Evian, which is an international bottled water brand, and yet holds a mere 48.4 percent awareness – which is marginally higher than Aquarelle.

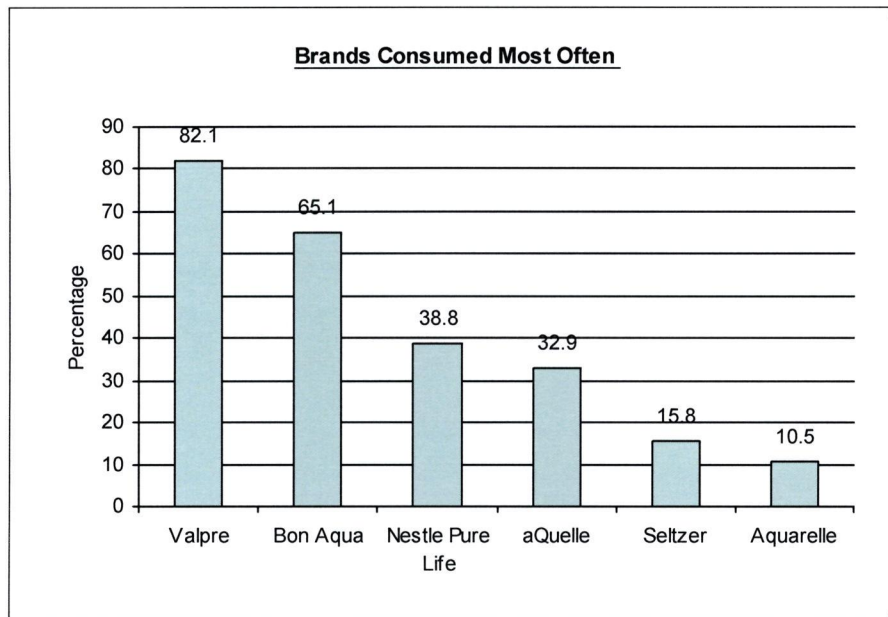


Figure 4.4: Bottled water brands that are most often consumed

Valpré is the brand that has highest awareness and is consumed the most often.

Comparing the *most often* consumed top six brands with its respective awareness level as indicated in Q4.2, the following could be said about each brand:

Table 4.15: Consumption versus awareness of top six brands

Brand	Most Often Consumed (Q4.3)	Awareness (Q4.2)	Total %
Valpre	82	99	82.8
Bon Aqua	65	85	76.5
Nestle Pure Life	39	68	57.4
aQuelle	33	72	45.8
Seltzer	16	57	28.1
Aquarelle	11	38	28.9

- Valpré – 82.8 percent of participants that are aware of Valpré, use it *most often*

- Bon Aqua – 76.5 percent of participants that are aware of Bon Aqua, use it *most often*
- Nestlé Pure Life – 57.4 percent of participants that are aware of Nestlé Pure Life, use it *most often*
- aQuellé – 45.8 percent of participants that are aware of aQuellé, use it *most often*
- Seltzer – 28.1 percent of participants that are aware of Seltzer, use it *most often*
- Aquarelle – 28.9 percent of participants that are aware of Aquarelle, use it *most often*

Table 4.17: Reasons given for unprompted top-of-mind awareness of bottled water brands

	aQuellé	Aquarelle	Bon Aqua	Valpré	Seltzer
It is easily available in most shops	41.8%	61%	56.3%	51.1%	66.7%
Its packaging is attractive	12.7%	n/a	7%	6.6%	33.3%
It is a well advertised brand	12.7%	17%	n/a	45.1%	n/a
It tastes good	41.8%	44%	18.6%	15.3%	100%
It's the one I trust	16.4%	22%	21.6%	10.7%	n/a
It is the best brand	n/a	n/a	8%	20.5%	33.3%

For the brands that were mentioned first by participants in Q4.1, the Grid above summarizes the key reasons given. Only brands that had high mention as Brand 1 have been included in the table above.

In terms of product availability and appealing packaging, Seltzer is the brand that had the highest mention. Participants share the view that Aquarelle, which is the Woolworths house brand bottled water, is easily accessible. What is interesting to note here is that the values shared by the positioning of the Woolworths brand has been transferred onto its bottled water brand. This

is indicative of the high mention received on the trust and taste statements. Participants view Valpré as a well-advertised product.

Table 4.17: Reasons given by participants as to why they identify with their choice of bottled water brand

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	86	39	47	27	38	11	9	1
It is the leading brand in the South African market	10 11.1	5 12.5	5 10.0	1 4.6	7 19.3 ++	1 8.4	0 0.0	0 0.0
I trust the brand	20 22.7	7 18.8	12 26.0	6 22.3	9 22.5	4 36.1	1 10.6	0 0.0
Reasonable/affordable price	22 25.5	10 25.0	12 26.0	7 27.9	12 32.3	2 19.3	0 0.0	0 0.0
Always/Easily available	60 70.1	29 75.0	31 66.0	19 73.1	26 67.0	8 74.7	6 65.2	1 100.0
The package type suits my consumption	12 14.1	4 9.4	8 18.0	0 0.0	10 26.7 +++	1 8.4	1 10.6	0 0.0
I like the packaging	14 16.3	4 9.4	10 22.0	4 16.2	9 22.8	1 8.4	0 0.0	0 0.0
I like the closure that is on the packaging	2 2.5	1 3.1	1 2.0	1 4.6	1 2.5	0 0.0	0 0.0	0 0.0
The size of this brand suits my consumption needs	22 25.4	13 34.4 +	8 18.0 -	12 43.7	7 19.3	2 16.8	1 10.6	0 0.0
No specific reason	1 1.1	0 0.0	1 2.0	0 0.0	0 0.0	0 0.0	1 10.6	0 0.0
Like the taste	3 3.3	0 0.0	3 6.0	1 3.5	1 2.5	1 8.4	0 0.0	0 0.0
Not answered	1 1.1	0 0.0	1 2.0	0 0.0	1 2.5	0 0.0	0 0.0	0 0.0
Lower TDS	1 1.4	1 3.1	0 0.0	0 0.0	0 0.0	0 0.0	1 13.7	0 0.0

**More than one option could be selected*

The above statements can be considered as triggers for the marketing of a

bottled water brand.

Availability, affordability and size respectively, are by far the most important attributes that a bottled water brand needs to have. One can conclude that the success of any bottled water brand rests primarily on the distribution infrastructure of the manufacturer of the brand.

For the middle age group (28-37 years old), the type of packaging that their preferred bottled water brand comes in is more significant to this group. *Market leadership of their chosen brand follows this.*

Using correspondence analysis, the results from Q5.1 and the top brands mentioned in Q4.1 is plotted together in a correspondence map. Correspondence analysis is a widely used market research method, which factors categorical variables and displays them in a property space, which maps their association in two or more dimensions. The use of correspondence analysis comes into play when the tabular approach becomes unmanageable due to a large number of rows and/or columns (www.statisticssolutions.com).

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For the correspondence map below only brands and statements that had significance were included.

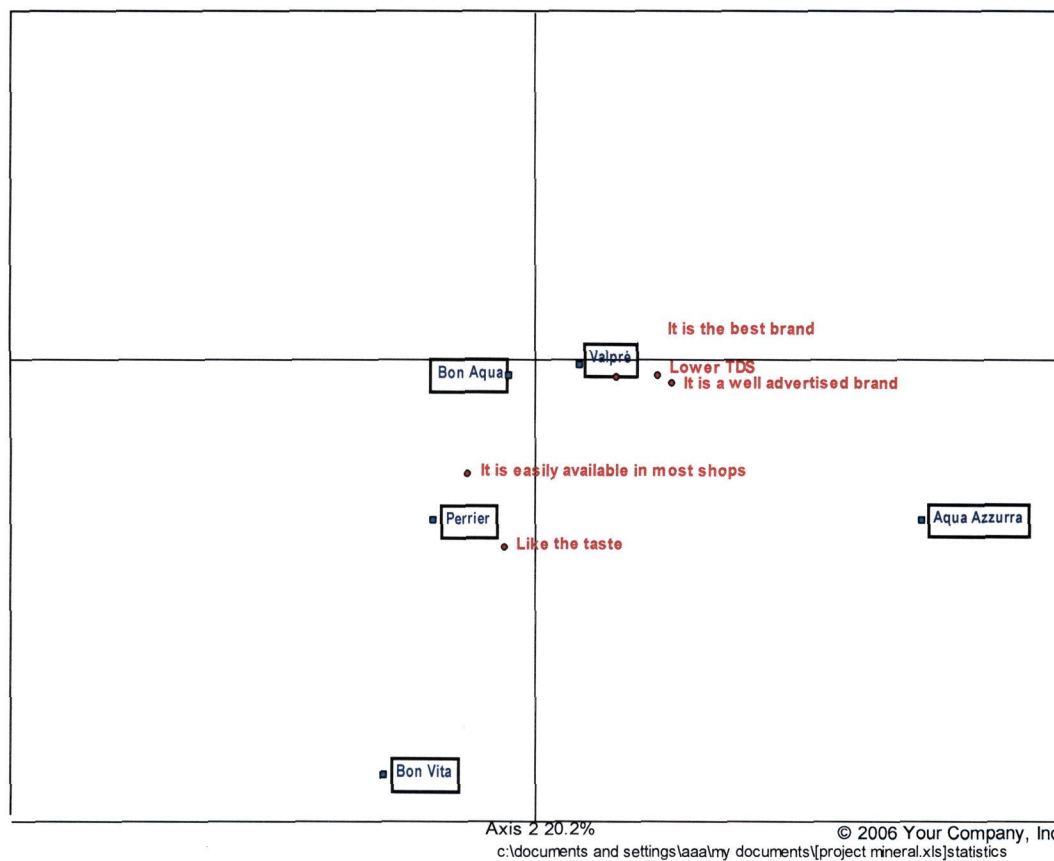


Figure 4.5: Correspondence map – Brand positioning in the participants' mind

Valpré is that brand that is associated with being the best brand that is well advertised and has a lower Total Dissolved Solids, implying better quality bottled water. These statement attributes can be used for future marketing and communication campaigns of Valpré. Perrier bottled water is that brand that holds the favourable taste statement attribute. Bon Vita, Bon Aqua and Aqua Azzurra are brands that do not have any unique selling point attribute associated with them. For these brands marketing and communication campaigns will need to be modelled around a particular attribute.



4.2.2.7 Relevant brand features/attributes

Table 4.19: Existing attributes/features offered by the different brands of bottled water that influence purchase

	Gender			Age group				
	Total	Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	100	50	50	36	38	11	14	1
Natural Ingredients	64	32	32	28	20	9	7	0
	63.8	63.4	64.2	77.7 ++	51.6 -	83.2	50.0	0.0
Preservative Free	31	20	11	13	11	3	5	0
	30.8	39.0 +	22.6 -	35.9	27.4	25.3	34.0	0.0
Caffeine Free	23	15	8	11	8	3	1	0
	23.1	29.3	17.0	29.9	21.8	27.7	7.0	0.0
No Sugar	30	15	15	13	12	3	1	1
	29.7	29.3	30.2	35.1	32.3	25.3	7.0	100.0
No colourants	17	9	8	4	8	3	1	1
	17.0	17.1	17.0	10.2	21.0	27.7	9.0	100.0
Flavoured	33	11	22	15	13	1	2	1
	32.7	22.0 --	43.4 ++	42.6	34.7	8.4	16.0	100.0
Should just be plain water	6	0	6	0	6	0	0	0
	5.7	0.0	11.3 ++	0.0	14.7 +++	0.0	0.0	0.0
Quench my thirst	2	1	1	0	1	0	1	0
	2.2	2.4	1.9	0.0	3.2	0.0	7.0	0.0
Unspecified	1	1	0	0	0	0	1	0
	1.2	2.4	0.0	0.0	0.0	0.0	9.0	0.0
Not answered	2	1	1	0	0	0	2	0
	2.2	2.4	1.9	0.0	0.0	0.0	16.0	0.0
Calcium, magnesium, potassium	1	1	0	0	1	0	0	0
	1.2	2.4	0.0	0.0	3.2	0.0	0.0	0.0
Availability	1	1	0	0	1	0	0	0
	1.2	2.4	0.0	0.0	3.2	0.0	0.0	0.0

**More than one option could be selected*

Each of the statements is *drivers* and can be classified into broad categories as follows:

- Natural Ingredients = PRODUCT FEATURE
- Preservative free = PRODUCT FEATURE
- Caffeine free = PRODUCT FEATURE
- No Sugar = PRODUCT FEATURE
- No Colourants = PRODUCT FEATURE
- Flavoured = TASTE
- Should just be plain water = TASTE
- Quench my thirst = NEED
- Have calcium, potassium, magnesium = PRODUCT FEATURE
- Availability = CONVENIENCE

The main driver that influences purchase is the *product feature*. One can conclude that consumers of bottled water in this targeted region are far more concerned with “what the product can do for me?”

4.2.2.8 Package type preference

Depicted below is the summation of the *Most Often* and *Often* consumption of the different packaging types and sizes:

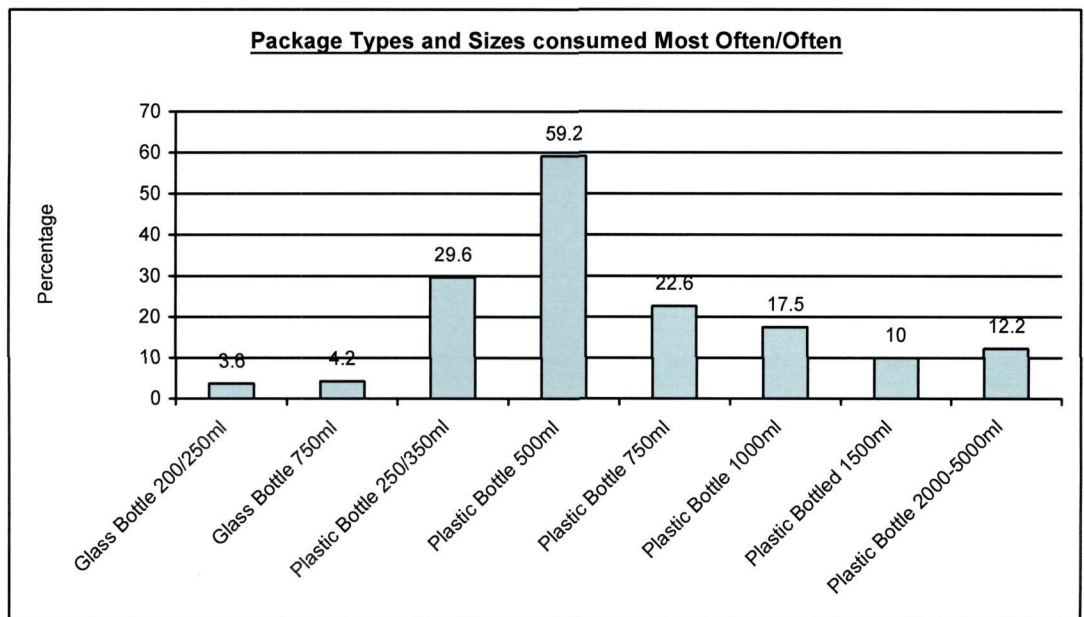


Figure 4.6: Package types and size consumed most often/often

The most preferred package type is the plastic bottle 500ml. If the plastic bottle 500ml is not available, people will either trade up or down or purchase the plastic bottle 750ml or 250/350ml. Glass bottle has a cumulative preference of less than 10 percent.

4.2.2.9 Learning

Table 4.20: The influence of the package type when deciding what brand of bottled water to purchase

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	100	50	50	36	38	11	14	1
Yes	66 65.5	27 53.7	39 77.4	29 81.1	27 71.2	4 36.1	4 29.9	1 100.0
No	34 34.5	23 46.3	11 22.6	7 18.9	11 28.8	7 63.9	9 70.1	0 0.0
		-- ++	++ --	++ --				

Approximately 66 percent of the participants claim that packaging is important when buying bottled water. In the younger age groups, (18-27 year olds, 28-37 year olds) one can hypothesize that it is perhaps a status issue. However this study does not refute or validate this hypothesis and this could be another area for a future study.

In terms of gender, the selection of bottled water and the packaging that it comes in is more important to female consumers (77.4 percent) than male consumers.

Table 4.21: Preferred existing packaging type

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	66	27	39	29	27	4	4	1
Plastic	59	27	32	23	27	4	3	1
	89.9	100.0	82.9	80.5	100.0	100.0	76.7	100.0
Glass	7	0	7	6	0	0	1	0
	10.1	0.0	17.1	19.5	0.0	0.0	23.3	0.0

Approximately 90 percent of the participants stated that plastic is the most preferred packaging format for bottled water. This view was shared across both gender groups. Glass packaging is preferred by a small number of consumers that fall within the 48-59 years old age group.

Table 4.22: Ideal packaging format for bottled water

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	100	50	50	36	38	11	14	1
Plastic bottle	89	46	42	30	37	9	11	1
	88.8	92.7	84.9	84.2	96.8	80.7	84.0	100.0
Glass bottle	9	2	7	6	1	1	1	0
	9.0	4.9	13.2	15.8	3.2	10.9	7.0	0.0
Anything	2	1	1	0	0	1	1	0
	2.2	2.4	1.9	0.0	0.0	8.4	9.0	0.0

The ideal packaging format for majority of the participants is the *plastic bottle*. This view was shared across both genders. Although carton, plastic pouch, and metal cans were on the ideal list, participants did not select any of these options.

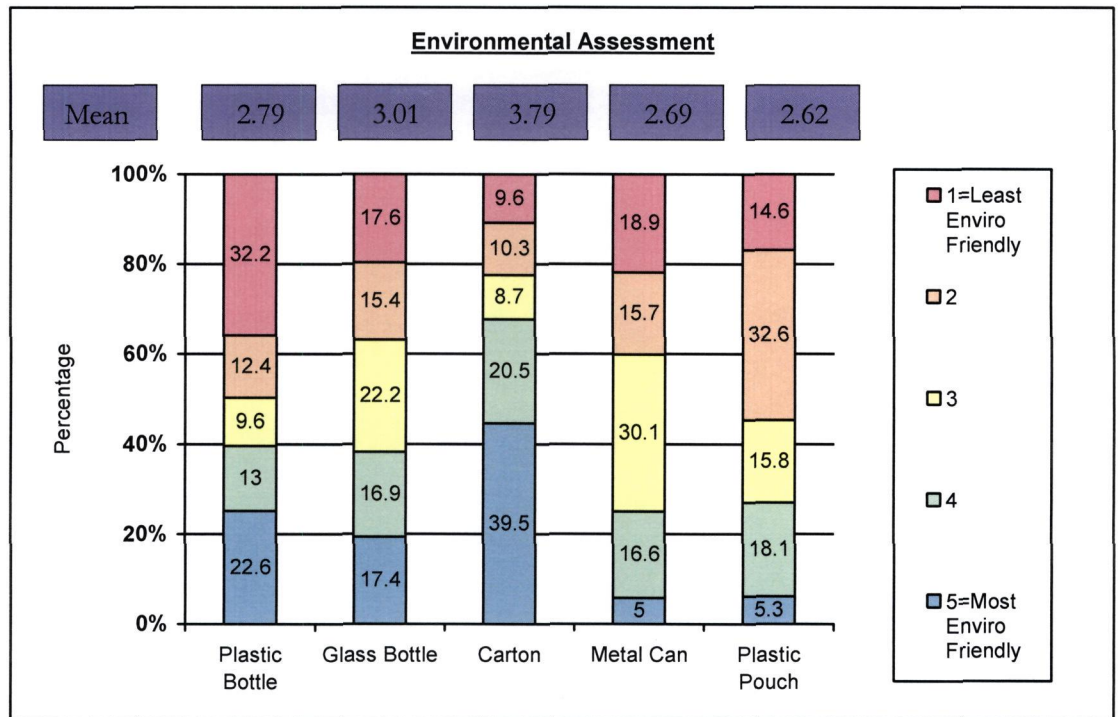


Figure 4.7: Environmental assessment of each packaging format

The most environmental friendly packaging format as perceived by these participants is carton, followed by glass bottles. Six in ten people consider carton packaging environmental friendly, compared to four in ten people for Plastic Bottle packaging. Three in ten people regard Plastic Bottle as being not environmental friendly at all.

According to Saunders et al (2003:481) *mean* can be defined as “the average value calculated by adding up the values of each case for a variable and dividing by the total number of cases”. The mean scores reflected in the above figure are out of a total of five. Interpreting the mean scores it can be noted that carton packaging has approximately 76 percent participants view it as the more environmentally friendly packaging format. Plastic pouch is viewed as the packaging format that is least environmentally friendly.

4.2.2.10 Innovation adoption

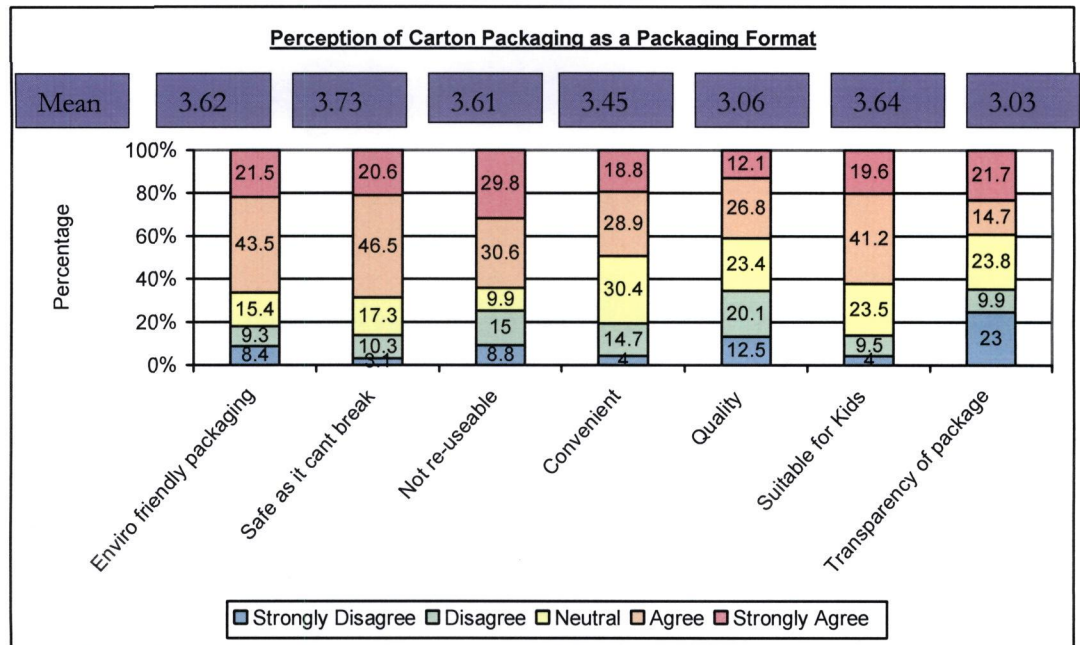


Figure 4.8: Perceptions of carton packaging

In terms of carton packaging, the *positive* perceptions of this packaging format are:

- It is an environmentally friendly packaging (65 percent of the participants agreed with this)
- It is a safe packaging format as it cannot break (67.1 percent of the participants agreed with this)
- It is suitable for kids (60.8 percent of the participants agreed with this)

Areas for concern when it comes to carton packaging are its re-usability, transparency and quality perception.

Table 4.23: Establishing brand influence on a carton packaged range of bottled water

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	100	50	50	36	38	11	14	1
Yes	38 38.0	22 43.9	16 32.1	16 45.7	11 27.4	5 47.0	6 43.0	0 0.0
No	62 62.0	28 56.1	34 67.9	19 54.3	28 72.6	6 53.0	8 57.0	1 100.0
					+			

The majority view (62 percent) of the participants has indicated that they would not be interested in purchasing a carton packaged bottled water brand. This is indicative of this market being resistant to change based on their preference of the plastic bottle. However, there are certain benefits of carton packaging that are attractive. The key is to understand the motives and need states of this market so that one can educate this market of newer alternatives in which bottled water can be packaged.

Cluster Analysis can be defined as a “multivariate analysis technique that seeks to organize information about variables so that relatively homogeneous groups, or "clusters," can be formed” (www.socialresearchmethods.net). The clusters formed are usually highly internally homogenous (where its members are similar to one another) and highly externally heterogeneous (where its members are not like members of any other clusters).

There are 3 general categories of cluster analysis methods, namely:

- Tree Clustering – this type of clustering aims to join together objects into successively larger clusters, through the use of similarity or distance
- Block Clustering - this type of clustering allows both objects and variables to be grouped together into meaningful clusters
- K-Means Clustering – this method of clustering aims to product “exactly k different clusters of greatest possible distinction” (www.socialresearchmethods.net).

Using Q1.1, Q1.2, Q7.1, Q7.2, Q7.3, Q7.4, Q7.5 and Q7.6, cluster analysis using the k-means methods was conducted. The objective of this analysis is to define the segments and understand how big the potential market for carton packaged bottled water is. By defining the segments and interpreting the results one could tailor marketing strategies for each. Cluster analysis was adopted to segment the participants into three broad categories, namely:

- Cluster One - are consumers that are not that fussy about the packaging that their bottled water comes in
- Cluster Two – are consumers that are entrenched into their specific bottled water packaging and will not change to an alternative format
- Cluster Three – are consumers that can see the value of carton packaging more than anybody else but require serious convincing to change to this packaging type

Table 4.24: Gender of participants (Cluster analysis)

	Total	CLUSTER		
		1	2	3
Sample Base (unweighted)	94	37 (A)	38 (B)	19 (C)
Male	41 43.6	19 51.4	17 44.7	5 26.3
Female	53 56.4	18 48.6	21 55.3	14 73.7

Cluster one has a marginally higher proportion of male participants than female participants. The opposite is applicable for cluster two. Cluster three however is significantly skewed towards females.

Table 4.25: Age group profile of participants (Cluster analysis)

	Total	CLUSTER		
		1	2	3
Sample Base (unweighted)	94	37 (A)	38 (B)	19 (C)
18-27 years old	33 35.1	15 40.5	17 44.7	1 5.3
28-37 years old	37 39.4	11 29.7	14 36.8	12 63.2
38-47 years old	11 11.7	3 8.1	3 7.9	5 26.3
48-59 years old	12 12.8	8 21.6	3 7.9	1 5.3
60+ years old	1 1.1	0 0.0	1 2.6	0 0.0

In terms of age group distribution amongst the three clusters, in cluster one comprises of a mix of the different age groups. Cluster two is dominated by the under 38 year olds and cluster three, the 28 to 47 year olds.

Table 4.26: Influence of the packaging type when deciding on what brand of bottled water to purchase (Cluster analysis)

	Total	CLUSTER		
		1	2	3
Sample Base (unweighted)	94	37 (A)	38 (B)	19 (C)
Yes	63 67.0	23 62.2	30 78.9	10 52.6
No	31 33.0	14 37.8	8 21.1	9 47.4

Cluster two participants can be considered as the consumers that are loyal to their chosen bottled water packaging type. It is these consumers that pose a challenge to convert to another packaging format of bottled water.

Table 4.27: Preference of package type when purchasing bottled water (Cluster analysis)

	Total	CLUSTER		
		1	2	3
Sample Base (unweighted)	63	23 (A)	30 (B)	10 (C)
Plastic	56 88.9	16 69.6	30 100.0	10 100.0
Glass	7 11.1	7 30.4	0 0.0	0 0.0

Across all three clusters, plastic bottle is that packaging format that is preferred.

Table 4.28: The *ideal* packaging format for bottled water (Cluster analysis)

	Total	CLUSTER		
		1	2	3
Sample Base (unweighted)	94	37 (A)	38 (B)	19 (C)
Plastic bottle	83 88.3	26 70.3	38 100.0	19 100.0
Glass bottle	9 9.6	9 24.3	0 0.0	0 0.0
Anything	2 2.1	2 5.4	0 0.0	0 0.0

Across all three clusters the packaging format that is considered as the *ideal* is the plastic bottle.

Only the most environmentally scores are captured in the figure below:

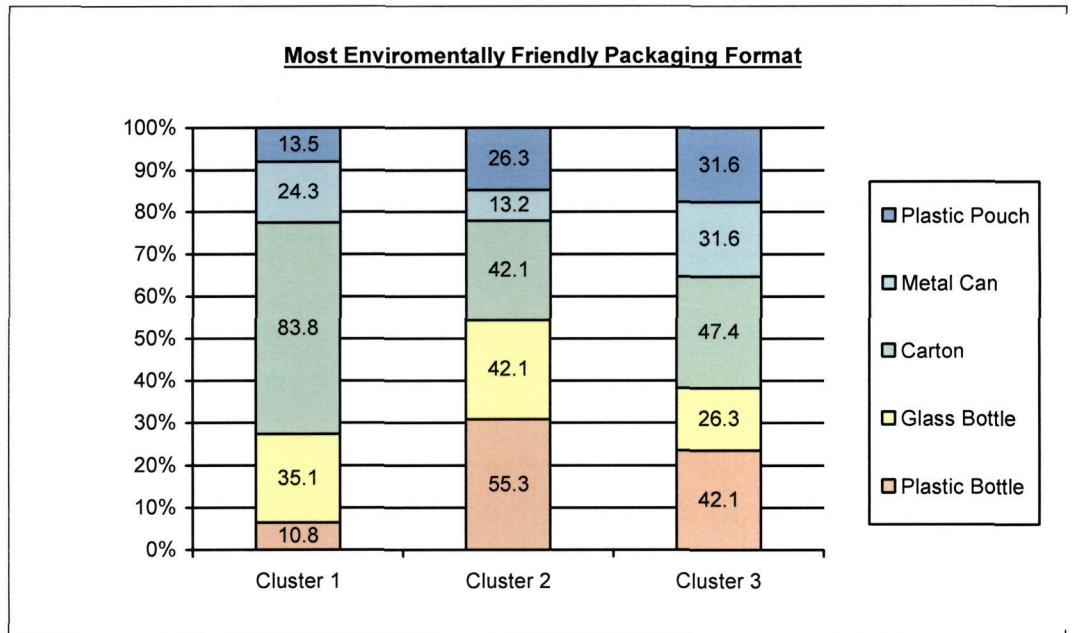


Figure 4.9: Environmental assessment of each packaging format (Cluster analysis)

Across all clusters, carton was perceived to be the most environmentally friendly packaging format.

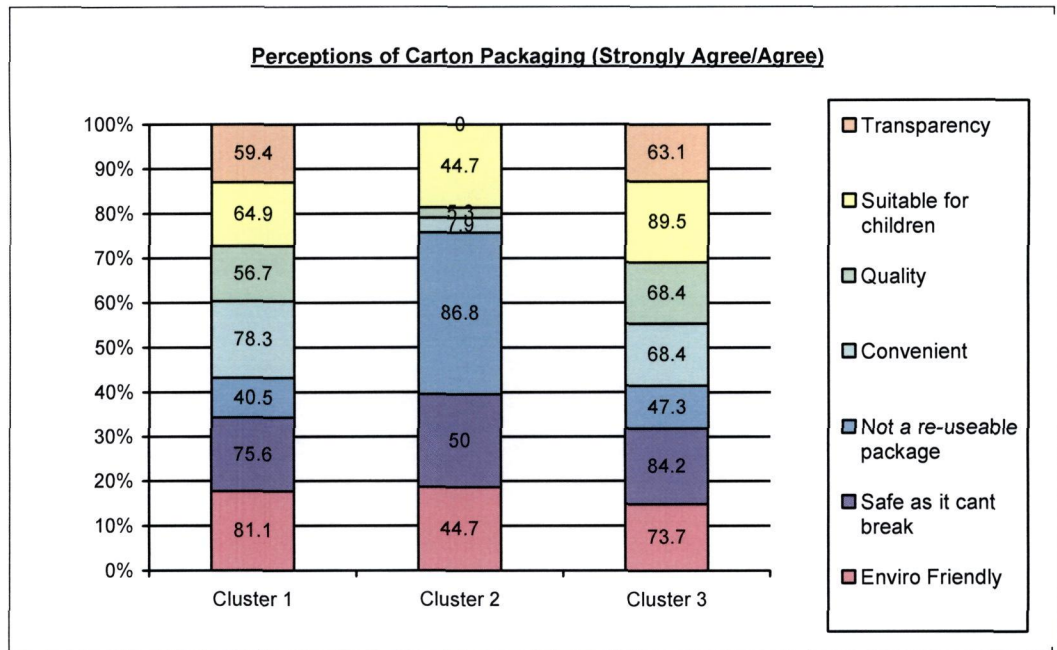


Figure 4.10: Perceptions of carton packaging (Cluster analysis)

On the pre-listed statements, the following can be said:

- Environmentally friendly – cluster one strongly believes that carton packaging earns this statement
- Safe as it cant break – cluster three agrees that there is a safety element to carton packaging
- Not a re-usable package – cluster two strongly agrees with the statement
- Convenient and Quality – across cluster one and three there is agreement that carton packaging offers an element of convenience and quality. However cluster two does not share this view.
- Suitable for children – across all clusters there is agreement that this packaging format type is suitable for children
- Transparency – cluster one and three agree that carton packaging does not offer this attribute. Cluster two however does not share this view. It could be that this attribute to this cluster is not important

Table 4.29: Establishing brand influence on a carton packaged range of bottled water (Cluster analysis)

	Total	CLUSTER		
		1	2	3
Sample Base (unweighted)	94	37 (A)	38 (B)	19 (C)
Yes	35 37.2	24 64.9	6 15.8	5 26.3
No	59 62.8	13 35.1	32 84.2	14 73.7

From all three clusters, cluster one is the only one that would be open to purchasing bottled water packaged in carton packaging. Cluster two is highly loyal to what they currently purchase and can be considered as not being open to this opportunity. Cluster three are similar to cluster two, but to a marginally lesser degree.

4.2.3 Exploratory focus group results

4.2.3.1 Perceptions of health

- *Definition of a 'healthy' lifestyle*

In both the focus groups, eating healthily, exercise and drinking plenty of water was mentioned as items that contributed to a healthy lifestyle. Other mentions included were:

- *"Doing everything in moderation"*
- *"Meditation and yoga"*
- *"Holidays"*
- *"At least 4 litres of water a day"*
- *"No soft drinks like Coke"*

- ***Products/ items that are associated with leading a healthy lifestyle***

Products that were mentioned by both focus groups were:

- *“Fruit and vegetables – five servings a day”*
- *“Water”*

Other mentions were:

- *“A prayer to start your day – this is for my spiritual wellbeing”*
- *“Red wine, but only a glass a day only”*
- *“Taking vitamins and supplements”*
- *“Having dairy like milk, yoghurt”*
- *“Having cereal in the morning”*
- *“Rest”*

- ***Exploring the popularity of bottled water***

A number of participants said that bottled water has a perception of being healthy compared to other beverage options. *“It’s a drink that is guilt-free”*; *“It’s a way of losing weight”*; *“It is perceived to be healthy”*

They also shared the view that drinking bottled water had an element of status attached to it. *“When I take my kids out to sports events or whatever, I feel guilty to give them tap water in public. I feel that I am being a bad mommy”*

Some participants expressed that *“tap water is dreadful; it has too much lime and impurities”* and *“you can get bottled water anywhere”* contributed to the popularity of bottled water.

- ***Key factors that make bottled water different from other beverage options like fruit juices, carbonated soft drinks, iced tea etc.***

Participants in both focus groups shared the view that the health connotation associated with bottled water was the primary distinguishing factor: *‘It is healthy because it has no added sugar like fruit juices and iced tea’*; *‘It is non-fattening. Why? Because that is the way it is perceived’*.

Another factor is that bottled water is thirst quenching: *‘It satisfies me when I am thirsty. Iced Tea or Coke can’t do that’*; *‘You can drink a bottle of water without having your throat burning, like when you drink Coke’*.

One participant mentioned that the versatility bottled water has to offer is what makes it different from other beverage options: *‘You can wash your kids face in an emergency with bottled water. You can’t do the same with sodas or iced tea for that matter’*.

4.2.3.2 Current bottled water purchasing patterns

- ***Occasions when bottled water is purchased***

In both focus groups conducted, the shared purchase occasions were:

- *‘When I am travelling far like to the bush’*
- *‘When I am on the road’*
- *‘When I do my weekly shopping’*

In addition, some participants stated that their purchase of bottled water happens when they are thirsty.

- ***Outlets at which bottled water is purchased***

The common places of purchase for both focus groups were *‘at any garage shop’* and *‘Woolworths’*. *‘Pick ‘n Pay, traditional food retailers, local supermarket’* were amongst the other options named by the participants of the focus groups.

4.2.3.3 Consumption habits of bottled water

- ***Occasion at which bottled water is consumed***

The occasions for consumption of bottled water varied in the two focus groups. The occasions listed were:

- *“When I am eating”*
- *“Throughout the day”*
- *“During work meetings”*
- *“Where the water is not so good”*
- *“When I am travelling”*
- *“When I am thirsty”*
- *“After 3 glasses of wine”*

4.2.3.4 Competitive landscape

- ***Unprompted top-of-mind awareness of bottled water brands***

In Focus Group A, the top three brands in order of mention were:

- *Bon Aqua*
- *Valpré*
- *Woolworths*

All participants in this group shared this listing of the above brands.

In Focus Group B, the top three brands in order of mention were:

- *Valpré*
- *Nestlé Pure Life*
- *Seltzer/Aquartz/H2O*

The participants in Focus Group B shared the first and second listing of the brands. However when it came to the third brand, there was a split view and no consensus was reached. Between both focus groups, the most common brand mentioned was Valpré.

- ***Reasons given for unprompted top-of-mind awareness of bottled water brands***

In Focus Group A, Bon Aqua which was mentioned first, was done so based on the products' packaging: *"I like the bottle – it has a big mouth spout"*.

In Focus Group B where Valpré was mentioned as the first brand, the following reasons were given to support this first mention:

- *"It is a well advertised and marketed brand"*
- *"I have seen it being advertised on Top Billing"*
- *"It is everywhere...in offices, magazines"*
- *It is preferred by all"*
- *"Its packaging is nice. It has a small mouth so it doesn't spill"*
- *"Its got a cool colour bottle"*

- ***Reasons given by participants as to why they identify with their choice of bottled water brand***

A variety of reasons were given as to why participants identified with their preferred brand of bottled water. Packaging, price, perceptions of pureness and quality, and the fact that the brand was the market leader were the range of reasons given.

4.2.3.5 Relevant brand features/attributes

- ***Existing attributes/features offered by different bottled water brands which influence purchase***

In both focus groups, participants concluded that micro and macro nutrient contents on bottled water were the main benefit that appealed to them and hence drove purchase of the product: *"Calcium enriched"*; *"Sodium and Potassium enriched is important to me"*.

For some participants the packaging is what drove them to purchase a particular brand of bottled water: *“The packaging-how the bottle fits into the cup holder when I am driving”*; *“the shape of the bottle is what I like”*.

- ***The influence of the package type when deciding what brand of bottled water to purchase***

Participants in both focus groups expressed that the packaging of bottled water they purchased, influenced their purchase decision. When probed why this was the case, the shared reasons given were:

- *“The water must look cool and thirst-quenching”*
- *“The shape of the bottled must be easy to hold”*
- *“It must be easy to hold – easy to show-off with”*

A few participants stated that although the packaging of bottled water influenced their purchase, the taste of the product was another major factor.

- ***Ideal packaging format for bottled water***

The shared ideal packaging format was plastic bottle. A variety of reasons were given as to why plastic bottle was perceived this way:

- *“Because the contents can be seen”*
- *“Carton makes you slurp”*
- *“Glass is dangerous and affects the taste of the product”*

Some recommendations were made as to how to improve the current plastic bottle offering: *“for me a plastic bottled with a cap like the Energade Bottled would be really perfect”*.

4.2.3.6 Perceptions of packaging

- *Perceptions of carton packaging*

Participants in both focus groups expressed positive and negative perceptions of carton packaging.

The positive perceptions stated were:

- *"Its is environmentally friendly"*
- *"It packs nicely - space saving"*
- *"I like the six pack which the milk comes in"*
- *"The new re-sealable caps are really nice"*
- *"The branding space is good – I like it – the manufacturer can use the entire box to communicate on"*
- *"It works okay"*
- *"It is recyclable"*

The negative perceptions expressed were:

- *"The product gets the packaging taste – there is infiltration"*
- *"It's boring, cheap and squashes easily. You know when its been around"*
- *"I cant see what's inside"*
- *"It splutters when you open it and makes a mess"*
- *"Its not very practical"*

When the participants were probed as to why they had these perceptions of carton packaging, the consensus view was that carton has *"been around forever"*; *"we know it"*.

4.2.3.7 Innovation adoption

- *First impression of the mock-up samples of a bottled water range in carton packaging*



Figure 4.11: Mock-up samples of a carton range of bottled water

Overall the shared views in both focus groups when shown the mock-up samples were very negative. Participants could not transfer the relationship of carton and milk to carton and water: *“I think its milk”*; *“Carton and water just doesn’t go. I am afraid that the carton is going to be soggy”*.

Participants also wanted to see the water inside the carton and hence didn’t find the product offering *“refreshing”*; *“I can’t see what’s inside”*.

Some participants liked the imagery on the carton and commented that it would look nice for a plastic bottle label.

- ***Level of interest in the mock-up samples of a bottled water range in carton packaging***

Participants in both focus groups rated their level of interest in the carton packaged bottled water range as being a 1 = not interested at all.

- ***Reasons given for the rated level of interest for the mock-up samples***

Focus Group A participants stated that they would not be interested in the carton range of bottled water because they would want to see the water inside. Focus Group B expressed the reason for their level of disinterest was based on the fact that they found the offering not appealing at all.

When probed further as to what were the advantages and disadvantages participants saw about this packaging format, a variety of reasons were given:

- Advantages – *“re-sealable”; “has an easy grip to hold”; “can control how much is being drunk”.*
- Disadvantages – *“expensive-it costs more than plastic bottle”; “water and carton just doesn’t go – it’s a mindset/perception”; “its old fashion. It’s not versatile or practical”.*

- ***Occasions for consumption of the carton range of bottled water***

The participants shared views were that consumption of bottled water out of the carton range, if it were to happen, would only occur at home and/or when travelling.

Another shared view was that consumption of bottled water out of the carton packaging range would only be done as a last resort and/or *“in an emergency”*: *“I wouldn’t want to be seen with it when I am shopping or socialising with friends”*

Clearly this indicates that carton packaging lacks the ability to command status appeal to this consumer base.

- *Mock-up sample ranking*

The order of preference in terms of package type and size expressed by both focus groups is tabulated below:

Table 4.30: Mock-up sample preference by both focus groups

Package	Focus Group A	Focus Group B
2.8.1 Option S (TBA 250ml S PullTab)	6	6
2.8.2 Option R (TPA 250ml Sq PullTab)	3	5
2.8.3 Option V (TPA 330ml Sq ScrewCap)	1	4
2.8.4 Option T (TPA 500ml Sq ScrewCap)	2	1
2.8.5 Option D (TPA 750ml Sq ScrewCap)	4	2
2.8.6 Option C (TPA 1000ml Sq ScrewCap)	5	3
2.8.7 Option B (TBA 1000ml S SlimCap)	5	7
2.8.8 Option A (TBA 1500ml S SlimCap)	7	8

All participants shared the view that the Tetra Prisma Aseptic® range was a better looking package range than the Tetra Brik Aseptic® range, which is the range that is widely available in the South African market. This preference is reflected by both groups opting for the Tetra Prisma Aseptic range® as their top three choices. In terms of size preference, between 330ml and 500ml is the preferred size.

- *Preference of manufacturers/brands in a bottled water carton range*

Tabulated below is the level of interest in purchasing a bottled water range packaged in cartons from various manufacturers from the participants.

Table 4.31: Manufacturer preference for both focus groups

Manufacturer	Focus Group A	Focus Group B
2.9.1 Lipton bottled water	No	Yes
2.9.2 Red Bull bottled water	No	No
2.9.3 LiquiFruit bottled water	Yes	Yes
2.9.4 Ceres bottled water	Yes	Yes
2.9.5 Pepsi bottled water	No	No
2.9.6 Parmalat bottled water	No	Yes

Comparing the responses from both focus groups, only two manufacturers have unanimous consensus, namely, Ceres and LiquiFruit.

- ***Reasons given for manufacturers/brands that received a positive response***

Probing further as to which participants would be interested in purchasing a Ceres and/or LiquiFruit bottled water range in carton packaging, the reasons given were:

- *“Because their brands are already in carton. You would expect it”*
- *I know LiquiFruit and Ceres are good quality fruit juice products so I would assume that the water would be the same:*
- *“these brands have always used cartons”*

- ***Reasons given for manufacturers/brands that received a negative response***

Participants expressed that for the brands they have indicated in Q2.9 that they would not be interested in, the underlying reason is that *“there is no link between the existing products and bottled water. I can’t imagine drinking Pepsi water!”*; *“because these brands are not supposed to do water”*.

CONCLUSIONS & RECOMMENDATIONS

5.1 INTRODUCTION

This chapter aims to answer the objectives and critical questions of this study outlined in Chapter One.

5.2 LIMITATIONS

There are very limited surveys conducted on the bottled water category. Hence, there are a limited number of sources on which this study has made reference to.

The results from this study are confined to a specific geographical region, namely the Germiston region of Gauteng. This stated, the results of the survey must be used with caution.

Based on the findings from the analysis conducted in chapter four, conclusions and recommendations are discussed below. It is important to note that the data has been obtained from a convenience sample and it is for this reason that the reader must interpret the conclusions and recommendations with caution.

5.3 ANSWERS TO CRITICAL QUESTIONS & RECOMMENDATIONS

The pre-defined objectives and the findings from this study are discussed below.

Objective 1

- To provide an understanding of the present bottled water category and establish what are the motives, perceptions, preferences and consumption habits of its consumers.

Findings:

In both focus group sessions conducted, the participants viewed the consumption of *water* as being an integral part of leading a healthy lifestyle.

Bottled water is a beverage that crosses the age divide and appeals to all. This is reflected by the wide dispersion, in terms of age, by the participants that consume bottled water (Table 4.4, page 80). From the total sample of this study, only 12 percent (Table 4.4, page 80) of the participants are currently *not* purchasing bottled water.

Consumer behaviour theory outlined in Chapter 2 stated that all consumers are driven by particular needs and wants. Maslow's hierarchy of needs revealed the ranking of these needs. Thirst and satiety of it, is a need that is classified as a physiological need. When participants in this study were probed as to when bottled water is most often consumed, the statement, 'When I feel thirsty', was ranked the highest. Overall there is no skew towards in-home consumption versus out-of-home consumption of bottled water (Table 4.11, page 89). This was verified by focus group interviews, where bottled water was purchased when travelling (out-of-home) and when eating (in-home). However, in terms of gender, there is a skew towards out-of home consumption for female consumers.

Buyer characteristics, such as cultural, social personal and psychological factors all influence the purchasing of products/services. All these factors impact on the consumption of bottled water in either a negative or positive manner. Bottled water purchases are driven by a key needs state of *convenience/status* (Table 4.7, page 84). The implication of such is that the pricing of bottled water holds a higher price elasticity level. This is further verified through the type of outlets at which bottled water is predominantly purchased, namely, Garage forecourts and Pick 'n Pay (Table 4.8, page 86). These two points of purchase are not where bottled water is priced the lowest. This finding was further ratified by the focus group interviews, where the common place of purchase was “at any garage shop” and “Woolworths”. With reference to Maslow’s hierarchy of needs outlined in Chapter 2 (page 46), one can conclude that the purchasing bottled water is fulfilling the ‘belonging’ need of many consumers. Its place of purchase is irrelevant, as long as the ‘belonging’ need is satisfied. However, the need of ‘belonging’ only becomes elevated and important when the physiological need (i.e. thirst) is satisfied.

The perception theory outlined in Chapter 2 (page 51), illustrated the selective nature in which consumers perceive a product, which in turn affects how the risk in the purchase transaction is evaluated. Bottled water holds the perception of being a ‘healthy option’ when compared to other beverages options (Table 4.3, page 79). This view is further validated with the focus groups, where a number of participants stated that bottled water had a perception of being healthy in comparison to other beverages. This is the primary distinguishing factor in the participants’ mind that allows bottled water to differentiate itself. One can derive from this, that the marketing and advertising communication plan for a carton range of bottled water leverages the positive associations that are linked and associated to bottled water.

In terms of gender, female consumers are more likely to purchase bottled water than their male counterparts (Table 4.4, page 80). However male consumers, who do purchase bottled water, can be considered as being highly loyal patrons to this category, which is reflected by the 31.7 percent (Table 4.6,

page 82) that purchase bottled water all the time. Male consumers are smaller in usage but are significant consumers in volume terms, when compared to female consumers. This finding indicates as to who the target market of the carton range of bottled water should be.

Bottled water is an impulse purchase with approximately 43 percent of purchases falling within this segment (Table 4.9, page 87). This implies that the top-of-mind awareness of a brand is important and that the advertising and marketing of it, is imperative for the success of a carton range of bottled water. Tetra Pak can achieve a successful launch in its packaging offering by approaching strong brand owners to undertake the launch of a carton range of bottled water. With reference to the global case studies outlined in Chapter 2 (page 18-22), brands that are well established like Apollinaris and Christinen, allow the association of a product line extension to capitalise on the master-brand's reputation. The perception of a good experience is passed onto the product line extension brand. Both brands were well established in the non-alcoholic beverage category and the extension of the brands into the bottled water segment was well received by both consumer markets.

Consumption of flavoured bottled water is driven by a significantly higher proportion of female participants in this study. Of the flavoured bottled water that is consumed, the flavour preferences that ranked high are Litchi, Lemon & Lime, Strawberry, Marula and Cranberry (Table 4.13, page 91). A large proportion of male consumers do not consume flavoured bottled water (Table 4.11, page 90). This is important to note as it will influence the product content offering.

For consumers who are not currently consuming bottled water, the primary reason for non-consumption is that these consumers do not see any derived value from bottled water against tap water (Table 4.14, page 93). This point is critical to note and needs to be taken into account in the marketing communication of the launch of a carton range of bottled water. Whilst these consumers agreed that the main motivating factor which would result in them

purchasing bottled water is if tap water became unsafe. Further investigation is required to determine what other factors would motivate these consumers to switch to bottled water.

Objective 2

- To define the current competitive bottled water category landscape in terms of brands that boasts the highest levels of saliency, preference, and loyalty.

Findings

Valpré is the brand that holds the number one position in terms of unprompted top-of-mind awareness (Figure 4.2, page 95). In terms of the focus group interviews, Valpré and Bon Aqua were mentioned in the top three Brand ranking (unprompted). When probed in terms of why the participants mentioned these brands first, they shared the view that Valpré was a “well advertised and marketed brand”. Bon Aqua was mentioned because of the appealing packaging that it comes in. With reference to the importance of packaging covered in Chapter 2 (page 39), product packaging plays a critical and vital role in the total offering to the end consumer. It has the ability to command status and elevate brand image. This is clearly reflected in the Valpré and Bon Aqua brands. For a carton range of bottled water, it is imperative that the status of the carton be elevated and this packaging format made aspirational. This can be achieved by a well articulated and executive advertising campaign and is hence recommended as a key step in the launch of a carton range of bottled water.

With aided awareness, these three brands maintained their ranking. In terms of consumption, Valpré, which has the highest awareness, is also most often consumed (Figure 4.4, page 97).

For the brands that were mentioned (unprompted), Valpré was mentioned primarily because it is a ‘well advertised’ brand Seltzer, for its availability and appealing packaging; Aquarelle, for its availability and taste attributes (Table 4.17, page 98). Availability, affordability and size are by far the most important attributes that bottled water needs to have.

The main driver that influences purchase is the product feature (Table 4.18, page 102). This implies that the marketing communication on the carton range of bottled water needs to be centred on “what the product can do for me”. This is verified by the focus group interviews when participants were probed as to why they identified with their preferred brand of bottled water, a variety of reasons were given – namely, packaging, price, perceptions of quality and purity.

Objective 3

- To establish the positioning of the various packaging formats (such as glass, plastic, cans etc.) in the targeted consumers’ mind.

Findings:

Packaging plays a critical role in product launches. Marketers use it as a tool in which to increase consumer affluence, brand image and an opportunity for innovation (page 57/60).

In the study conducted in the USA by The Consumer Network (page 57), it clearly revealed that packaging was rated as a more influential attribute when compared to others.

In the bottled water category, packaging is certainly an important driver when it comes to the purchasing of this product. In the focus group interviews, when participants were asked what the benefits are that appeal to them to

purchase a particular brand of bottled water, packaging was listed as being one of the key elements.

Approximately 66 percent of the participants in this study claimed that packaging is important to them when buying bottled water (Table 4.20, page 105). In the focus group interviews, participants expressed that the packaging of bottled water they purchased influenced their purchase decision. In terms of gender, this skewed more towards the female consumers than male consumers.

With reference to the two existing packaging types that bottled water is made available in, the most preferred packaging type was Plastic, which had an 89.9 percent preference (Table 4.21, page 106). This view was shared across both gender groups. This packaging type was also considered as the *ideal*, despite other options being available for the participants to choose from (Table 4.22, page 106). Participants in the focus group interviews also shared the view that the *ideal* packaging was the plastic bottle (page 116).

In validating hypothesis stated in Chapter 2 (page 51), one can conclude that consumers are 'classically conditioned' (page 51) to only accept bottled water in the current packaging formats that it is available in. This raises the need for an aptly designed advertising campaign to aid in the successful launch of a carton range of bottled water and is hence recommended.

The most preferred packaging format and size for bottled water is the 500ml Plastic Bottle (Figure 4.6, page 104). Should this not be available consumers will either trade up or down in size, but will remain within the Plastic Bottle offering.

When probed on the 'environmentally-friendly' nature of the various types of packaging, the participants ranked *carton* as the most environmentally-friendly packaging (Figure 4.7, page 107). This matched against preference, clearly indicates that the participants are not environmentally conscious consumers.

In the focus group interviews, participants had positive and negative perceptions of carton packaging. Whilst the positive perceptions were similar to those obtained in the descriptive survey, it is important to note the negative perceptions, namely, product tastes like the packaging, lacks transparency, it splutters when opened and its boring and cheap.

The positive attributes associated with carton packaging are environmentally friendly, safe, and suitable for kids (Figure 4.8, page 104). Areas of concern were re-usability, lack of transparency and quality perceptions that are associated with carton packaging.

According to the focus group participants, consumption of bottled water from a carton package would happen at home and/or when travelling. Consumption would not happen when participants are socialising. This indicates carton-packaging inability to command status appeal. This validates the hypothesis stated in Chapter 2 (page 51) regarding the aspirational element associated with bottled water. This is an important driver and marketing communication around the launch of a carton packaging range of bottled water needs to be modelled to help elevate the status appeal of carton packaging.

Objective 4

- To determine the targeted consumer segment's acceptance of the concept of a carton packaged bottled water range.

Findings:

In this study, 62 percent of the participants indicated that they would not be interested in purchasing a carton packaged bottled water brand (Table 4.23, page 109). This is indicative of this market being resistant to change based on their preference for plastic packaging. The key is to understand the motives and need states of this market and market the positive attributes of carton packaging to educate this segment.

With reference to the Cluster Analysis (Page 110-116) conducted; the Clusters can be profiled as follows:

Cluster one – has marginally higher proportion of male participants than female participants. In terms of age group this cluster has a mix. Participants within this cluster would be open to purchasing bottled water packaging in carton packaging, if a well-established brand was launched in it.

Cluster two – has a marginally higher proportion of female participants than male participants. In terms of age group, participants under the age of 38 dominate this cluster. Participants within this cluster can be considered as consumers that are *loyal* to their chosen bottled water packaging type and can be regarded as the ‘unconvertible’.

Cluster three – is skewed more towards female participants. In terms of age group, consumers aged between 28-47 years dominate this cluster. Consumers within this cluster are similar to cluster two but to a marginally lesser degree.

With reference to the Innovation Adoption curve (page 55), cluster one could be considered as the ‘early adopters’ of the carton range of bottled water; in the event of this range being launched.

The shared view by participants in the focus group interviews when shown the mock-up samples of the carton bottled water range was very negative. Participants could not transfer the relationship of carton and milk to carton and water. According to Learning theory covered under Chapter 2 (page 53), the participants in this study are ‘classically conditioned’ to only relate two types of product content (namely, milk and fruit juice) to carton packaging. This being the case, a strong communication strategy would have to accompany the launch of a carton range of bottled water in order to command a shift from this. The overall ranking (out of five) for level of interest was a one.

What is interesting to note is that the participants in the descriptive study and focus groups, are both skewed in terms of gender to the female sex and are very negative towards the suggested product offering. This clearly indicates

that should a carton range of bottled water be pursued, it needs to be developed to be more suitable and relevant to the male consumer (i.e. cluster one). When probed why they would not be interested in purchasing a bottled water range in this packaging format the expressed view was that the visual appeal was lacking since the product content could not be seen, together with the fact that the total offering was unappealing.

The implication of this is that the total offering of the carton range of bottled water needs to precisely match its target market and have a defined positioning in the marketplace.

The preferred options from the carton range were the Tetra Prisma Aseptic® 330ml Square and 500ml Square packages (page 123). The Tetra Prisma Aseptic® package range was considered a better looking package than the Tetra Brik Aseptic® packages.

When participants were probed in terms of manufacturers that could be interested in launching a bottled water range in carton packaging, the brands that were unanimously accepted was Ceres and LiquiFruit. Participants shared the view that should these brands extend into the bottled water category with carton, they would find it acceptable based on the fact that these brands have always been in carton packaging. This indicates that packaging has become an integral part of the brand recognition for Ceres and LiquiFruit.

The hypothesis stated in Chapter 2 (page 51) regarding consumers' acceptance of a carton range of bottled water under the same brand, the above-mentioned findings validates this hypothesis.

This is a critical conclusion as it influences the choice of brand under which a carton packaging range of bottled water should be launched and the success thereof.

In conclusion, based on the descriptive and exploratory findings of this study, the launching of a bottled water range in carton packaging has proven to be not feasible.

5.4 AREAS FOR FUTURE RESEARCH

Due to the limited nature of this study and the sampling techniques adopted, it is recommended that a more probable study be conducted, under more rigorous sampling techniques.

From this study the following recommendations/conclusions can be drawn on, when conducting the national research:

- The sample selected includes participants that meet the profile as per Cluster one,
- Explore the launch of a bottled water range in carton packaging under a brand that is already in carton packaging,
- Explore the importance of the 'status/convenience' purchasing driver,
- Explore what factors would motivate non-users of bottled water to switch,
- Explore factors that can be adopted to help elevate the status of carton packaging,
- Explore suitable positioning statements that the bottled water range in carton packaging can own.

5.5 CONCLUSION

Based on the findings of this research study, the launching of a carton range of bottled water to the targeted consumer segment proves itself not to be feasible. However, this must be interpreted with caution as this study and the sampling techniques adopted were limited. It is highly recommended that a more probable study be conducted to further evaluate the bottled water cate-

gory, in which the results can be extrapolated to the general population of South Africa. This study can be used as the basis.

ADDENDA

ADDENDUM 1: ETHICAL CLEARANCE



RESEARCH OFFICE (GOVAN MBEKI CENTRE)
WESTVILLE CAMPUS
TELEPHONE NO.: 031 - 2603587
EMAIL : ximbap@ukzn.ac.za

6 NOVEMBER 2006

MRS. V NAIDOO (971162539)
GRADUATE SCHOOL OF BUSINESS

Dear Mrs. Naidoo

ETHICAL CLEARANCE APPROVAL NUMBER: HSS/06622A

I wish to confirm that ethical clearance has been granted for the following project:

"A study to assess the attitudes, perceptions and consumption habits of consumers of Bottled Water and the opportunity of launching a bottled water range in cartoon packaging for consumers in the Germiston Region of Gauteng"

PLEASE NOTE: The research data should be stored in the School for a period of 5 years

Yours faithfully

.....
MS. PHUMELELE XIMBA
RESEARCH OFFICE

cc. Faculty Officer (Christel Haddon)
cc. Supervisor (Prof. K Bhowan and Shamola Pramjeeth)

ADDENDUM 2: PERMISSION TO CONDUCT RESEARCH



MARKETING

GERMISTON

Cnr Jonas & Jack Streets, Driehoek, Germiston, Gauteng, 1401
PO Box 913, Germiston, 1400, South Africa
Tel +27 00 000 0000 Fax +27 00 000 0000
PG BISON LTD REG. NO. 1985/003787/06 VAT NO. 4110114666

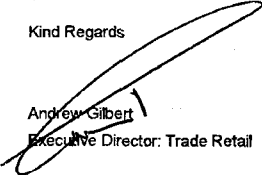
09 October 2006

To Whom It May Concern:

This letter serves to confirm that permission was granted to Vaneshree Naidu to approach staff at PG Bison, Germiston site, to voluntarily participate in her MBA research study.

Should you have any queries, please do not hesitate to contact me.

Kind Regards


Andrew Gilbert
Executive Director: Trade Retail

Directors LAH Cohen (Chairman) CJH van Nierkerk (Managing) GN Chaplin AT Gilbert* MJ Jooste—AR Norval PJ Roux IM Scott
DM van der Merwe JHN van der Merwe J Weeber** *British **German

ADDENDUM 3: RESEARCH INSTRUMENTS



1 August 2006

VOLUNTARY PARTICIPATION IN A RESEARCH STUDY

Dear Sir/Ma'am

I am currently completing my Masters in Business Administration at the University of Kwa-Zulu Natal. As partial fulfilment of the University's requirements, I am required to conduct a research study. The research that I am currently carrying out is to gain insights into consumers' attitudes, usage and perceptions of the Bottled Water category and the packaging thereof.

Although I would like for you to participate in my research study, you are not obligated to do so. If you do not wish to participate in this study, kindly return the blank questionnaire.

There are no wrong or right answers to any of the questions posed in the attached questionnaire. It is your feelings and opinions that are most important. What you say in this questionnaire remains private and confidential and your responses will be anonymous.

The attached questionnaire should take approximately 30 minutes to complete. Your participation would be sincerely appreciated.

Should you have any questions regarding this questionnaire or study for that matter, please do not hesitate to contact me.

Kind Regards



Vaneshree Naidu (Student Number – 971162539)

Mobile: 082 561 4736

Fax: 011 873 2963

Postal Address: P.O. Box 26048, East Rand, 1462

Email: vnaidu@pgbison.co.za

University of Kwa-Zulu Natal, Graduate School of Business

Supervisor: Ms Shamola Pramjeeth

c/o University of Kwa-Zulu Natal

Graduate School of Business

Tel: 084 702 2140

Email: shamola.pramjeeth@greif.com

QUESTIONNAIRE INDEMNITY – Permission to use my responses for academic research

I, _____ (FULL NAME) hereby give/do not give permission that my responses provided in the following questionnaire may be used for research purposes on condition that my identity is not revealed in the published records of this research.

Postal Address:

_____ Postal Code _____

Contact Telephone Numbers:

Home: _____

Work: _____

Cell: _____

Signature

Date: _____

HOW TO COMPLETE THE QUESTIONNAIRE

1. Please read the instructions carefully and follow the directions for each part.
2. Please read each question carefully and answer them as truthfully as you can.
3. Should you not feel comfortable about answering any particular question, please indicate that you do not wish to answer the question. For the questions that you do answer, your responses will be treated as confidential.
4. Please mark each response by making a tick/circle with a PEN (not a pencil).

Thank you very much for completing this questionnaire

PART 1 – BIOGRAPHICAL DETAILS

Please tick/circle the appropriate option for the questions stated below:

Q1.1. I am a:

1.1.1 Male	1
1.1.2 Female	2

Q1.2. Age Group

1.2.1 18-27 years old	1
1.2.2 28-37 years old	2
1.2.3 38-47 years old	3
1.2.4 48-59 years old	4
1.2.5 60+	5

Q1.3. Do you purchase Bottled Water?

1.3.1 Yes	1
1.3.2 No	2

Q1.4. If NO, would you ever consider purchasing Bottled Water?

1.4.1 Yes	1
1.4.2 No	2

If you have selected 1.4.1 in Q1.4, please proceed to PART 3 on Page 9

If you have selected 1.4.2 in Q1.4, kindly hand in your questionnaire to the researcher and thank you for participating in the survey

PART 2 – CURRENT BOTTLED WATER PURCHASING PATTERNS

Q2.1. In your opinion, what makes Bottled Water different from other beverage options like fruit juices, carbonated soft drinks, iced tea etc. (You may select more than one option)

2.1.1 It is a healthier option	1
2.1.2 It is natural as it has no preservatives, added sugar etc	2
2.1.3 It satisfies my thirst	3
2.1.4 It leaves no after-taste	4
2.1.5 Suitable for children	5
2.1.6 Suitable for people who are dieting	6
2.1.7 It hydrates me better	7
2.1.8 Other (please specify)	8

Q2.2. From the statements listed below; please select which ONE applies to you the most?

2.2.1 I have never bought Bottled Water, but may consider buying it	1
2.2.2 I have bought Bottled Water in the past but currently am not purchasing it. I may consider buying it in the near future	2
2.2.3 I buy Bottled Water from time to time	3
2.2.4 I buy Bottled Water regularly, but not all the time	4
2.2.5 I buy Bottled Water all the time	5

If you have selected options 2.2.1 or 2.2.2 in Q2.2, please proceed to PART 3 on Page 9.

If you have selected options 2.2.3 or 2.2.4 or 2.2.5 in Q2.2, please answer the questions below

Q2.3. WHEN do you purchase Bottled Water? (You may select more than one option)

2.3.1 When I am out shopping	1
2.3.2 When I do my monthly grocery shopping	2
2.3.3 When it is payday	3
2.3.4 Only when I have extra money	4
2.3.5 I purchase Bottled Water on a weekly basis	5
2.3.6 Only when I am at a restaurant	6
2.3.7 When I am socialising	7
2.3.8 Other (please specify)	8

Q2.4. From WHERE do you purchase your Bottled Water? (You may select more than one option)

2.4.1 Shoprite	1
2.4.2 Pick 'n Pay	2
2.4.3 Woolworths	3
2.4.4 Spar	4
2.4.5 Local Garage forecourt	5
2.4.6 At a restaurant	6
2.4.7 Makro	7
2.4.8 School Tuck-shop	8
2.4.9 Canteen	9
2.4.10 Other (please specify)	10

Q2.5. On which of the occasions listed below do you often enjoy drinking Bottled Water? (You may select more than one option)

2.5.1 When I feel thirsty	1
2.5.2 Anytime I like	2
2.5.3 When I am socialising	3
2.5.4 On a hot day	4
2.5.5 When I am having a meal	5
2.5.6 When I want a change from soft drinks	6
2.5.7 At the gym/sports events	7
2.5.8 When I feel tired and stressed	8
2.5.9 When I am shopping	9
2.5.10 When I am on holiday	10
2.5.11 Other (please specify)	11

Q2.6. Would you say that your purchase of Bottled Water is often...?

2.6.1 Planned	1
2.6.2 On impulse	2
2.6.3 A combination of planned and impulse	3
2.6.4 Routine	4

Q2.7. Where do you MOST OFTEN drink Bottled Water?

2.7.1 When I am at home	1
2.7.2 When I am out of home	2
2.7.3 When I am shopping	3
2.7.4 When I am out socialising with friends	4
2.7.5 When I am at the gym	5
2.7.6 When I am on holiday	6
2.7.7 When I have friends over at home	7
2.7.8 When I am at school	8
2.7.9 When I am at work	9
2.7.10 Other (please specify)	10

Q2.8. Do you consume *flavoured* Bottled Water?

2.8.1 Yes	1
2.8.2 No	2

Q2.9. If YES, which *flavours* do you purchase most often?

2.9.1 Honey Melon	1
2.9.2 Litchi	2
2.9.3 Marula	3
2.9.4 Naartjie	4
2.9.5 Peach	5
2.9.6 Youngberry	6
2.9.7 Apple and Mint	7
2.9.8 Lemon and Lime	8
2.9.9 Strawberry	9
2.9.10 Exotic Fruit	10
2.9.11 Blackberry	11
2.9.12 Blackcurrant	12
2.9.13 Ice	13
2.9.14 Three Berries	14
2.9.15 Peach and Pear	15
2.9.16 Forest Fruit	16
2.9.17 Cranberry	17
2.9.18 Other (Please specify)	18

Q2.10. Please rate each of the package types and sizes listed below in terms how you purchase you Bottled Water?

	Most Often	Often	Neutral	Sometimes	Never
2.10.1 Glass Bottle 200ml/250ml	1	2	3	4	5
2.10.2 Glass Bottle 750ml	1	2	3	4	5
2.10.3 Plastic Bottle 250-350ml	1	2	3	4	5
2.10.4 Plastic Bottle 500ml	1	2	3	4	5
2.10.5 Plastic Bottle 750ml	1	2	3	4	5
2.10.6 Plastic Bottle 1000ml	1	2	3	4	5
2.10.7 Plastic Bottle 1500ml	1	2	3	4	5
2.10.8 Plastic Bottle 2000-5000ml	1	2	3	4	5

PART 3 - KEY NEEDS STATES EXPLAINING NON-DRINKING OF BOTTLED WATER

ONLY if you have chosen 2.2.1 or 2.2.2 in Q2.2, please answer the following questions:

Q3.1. Please can you tell me why you are currently NOT purchasing Bottled Water? (You may select more than one option)

3.1.1 It is too expensive/overpriced	1
3.1.2 I see no difference between tap water and Bottled water	2
3.1.3 It doesn't suit my lifestyle	3
3.1.4 I see no value in buying Bottled water	4
3.1.5 I do not have a lot of money to spend	5
3.1.6 Other (please specify)	6

Q3.2. From the list below, what would make you want to purchase Bottled Water? (You may select more than one option)

3.2.1 If tap water became unsafe to consume	1
3.2.2 If the price on Bottled water was a lot lower	2
3.2.3 If Bottled water was fortified with minerals and vitamins	3
3.2.4 If I had extra money to spare	4
3.2.5 Other (please specify)	5

PART 4 - COMPETITIVE LANDSCAPE

For ALL participants, please answer the questions below:

Q4.1. Please name the top THREE brands of Bottled Water that come to mind? (Please rank in the order that you recall them)

4.1.1 Brand 1-	1
4.1.2 Brand 2 -	2
4.1.3 Brand 3 -	3

Q4.2. From the brands listed below, please tick which of these Bottled Water brands you are aware of? (You may select more than one option)

4.2.1 Aquartz	1
4.2.2 Aqua Azzurra	2
4.2.3 Aquatime	3
4.2.4 aQuellé	4
4.2.5 Aquarelle (for Woolworths)	5
4.2.6 Bené	6
4.2.7 Bon Aqua	7
4.2.8 Ceres Spring Water	8
4.2.9 Energade Ice Sports Water	9
4.2.10 Evian	10
4.2.11 Family Favourite	11
4.2.12 Fruitime	12
4.2.13 Get Oxygenated (GO)	13
4.2.14 Herb Aqua	14
4.2.15 La Vie de Luc	15
4.2.16 Nestlé Pure Life	16
4.2.17 NVigour8	17
4.2.18 Valpré	18
4.2.19 Seltzer	19
4.2.20. Other (please specify)	20

Q4.3. From the brands listed in Q4.2, please state which Bottled Water brand/s do you drink MOST OFTEN?

	Most Often
4.3.1	1
4.3.2	2
4.3.3	3
4.3.4	4
4.3.5	5

Q4.4. From the brands listed in Q4.2, please state which Bottled Water brand/s do you drink LEAST OFTEN?

	Least Often
4.4.1	1
4.4.2	2
4.4.3	3
4.4.4	4
4.4.5	5

Q4.5. Can you tell what is the reason(s) that you mentioned Brand 1 (in Q4.1) FIRST? What prompted you to mention this brand first?

4.5.1 It is the best brand	1
4.5.2 It is a well advertised brand	2
4.5.3 It tastes good	3
4.5.4 It is easily available in most shops	4
4.5.5 Its packaging is attractive	5
4.5.6 It's the one I trust	6
4.5.7 Other (please specify)	7

PART 5 - KEY BRAND DRIVERS

ONLY if you have selected options 2.2.3 or 2.2.4 or 2.2.5 in Q2.2, please answer questions below:

Q5.1. Now, thinking of your *favourite* brand of Bottled Water, what is it about this brand that makes you feel “this is my brand, the one I like to drink most often”?

5.1 It is the leading brand in the South African market	1
5.2 I trust the brand	2
5.3 Reasonable/affordable price	3
5.4 Always/Easily available	4
5.5 The package type suits my consumption	5
5.6 I like the packaging	6
5.7 I like the closure that is on the packaging	7
5.8 The size of this brand suits my consumption needs	8
5.9 Other (please specify)	9

PART 6 - RELEVANT BRAND FEATURES/BENEFITS

For ALL participants, please answer the questions below:

Q6.1. These are some of the attributes/features offered by the different brands of Bottled Water. Which of these benefits really appeal to you and influence your purchase of the brand? (You may select more than one option)

17.1 Natural Ingredients	1
17.2 Preservative Free	2
17.3 Caffeine Free	3
17.4 No Sugar	4
17.5 No colourants	5
17.6 Flavoured	6
17.7 Other (please specify)	7

Q6.2. If applicable, which of these flavours appeal to you thus influence you to buy the brand?

6.2.1 Honey Melon	1
6.2.2 Litchi	2
6.2.3 Marula	3
6.2.4 Naartjie	4
6.2.5 Peach	5
6.2.6 Youngberry	6
6.2.7 Apple and Mint	7
6.2.8 Lemon and Lime	8
6.2.9 Strawberry	9
6.2.10 Exotic Fruit	10
6.2.11 Blackberry	11
6.2.12 Blackcurrant	12
6.2.13 Ice	13
6.2.14 Three Berries	14
6.2.15 Peach and Pear	15
6.2.16 Forest Fruit	16
6.2.17 Cranberry	17

PART 7 - PACK TYPE PREFERENCES

For ALL participants, please answer the questions below:

Q7.1. Currently, you can purchase Bottled Water in plastic and glass bottles. Does the package type make any difference to you when deciding what brand of Bottled Water to purchase?

7.1.1 Yes	1
7.1.2 No	2

Q7.2. If you have answered YES for Q7.1, please indicate of the two package types that exits which type do you prefer?

7.2.1 Plastic	1
7.2.2 Glass	2

Q7.3. From the options stated below, what would you consider as your IDEAL packaging format for Bottled Water?

7.3.1 Plastic bottle	1
7.3.2 Glass bottle	2
7.3.3 Carton	3
7.3.4 Metal Can	4
7.3.5 Plastic pouch	5
7.3.6 Other (please specify)	6

Q7.4. Please rank the following packages, with 1 being LEAST environmentally friendly and 5 being MOST environmentally friendly?

7.4.1 Plastic bottle	
7.4.2 Glass bottle	
7.4.3 Carton	
7.4.4 Metal Can	
7.4.5 Plastic pouch	

Q7.5. In terms of CARTON packaging, how do you perceive this packaging format?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
7.5.1 Environmentally friendly packaging format	1	2	3	4	5
7.5.2 Safe packaging as it cannot break	1	2	3	4	5
7.5.3 Not a re-useable packaging format	1	2	3	4	5
7.5.4 Convenient packaging	1	2	3	4	5
7.5.5 Quality	1	2	3	4	5
7.5.6 Suitable for children	1	2	3	4	5
7.5.7 Transparency of package	1	2	3	4	5

Q7.6. If a well-established brand of Bottled Water was packaged in CARTON, would you purchase it?

7.6.1 Yes	1
7.6.2 No	2

Thank you for your valuable input and time!

FOCUS GROUP DISCUSSION GUIDE

(a) INTRODUCTION AND WARMUP EXERCISE

Here we want the respondents to get used to the idea of being in a group. Please do not spend too much time, only a brief exploration is needed.

- Respondents to introduce themselves – their ages, professions
- Family status – marital status, children, and who they live with in their households
- Leisure activities - what do you do in your spare/free time?
 - Activities
 - Interests and hobbies

(b) CURRENT BOTTLED WATER PURCHASING PATTERN

This section will seek to establish respondents' current purchasing patterns of Bottled Water

Q1.1. What would you say makes up a 'healthy' lifestyle?

Q1.2. What products/items do you think should be part of one's daily routine in order to lead a healthy lifestyle?

Q1.3. Why do you think Bottled Water is popular?

Q1.4. In your opinion, what makes Bottled Water different from other beverage options like fruit juices, carbonated soft drinks, iced tea etc?

PROBE:

- **Why this is the case?**
- **What are the positive associations with each of the beverage options?**
- **What are the negative associations with each of the beverage options?**

Q1.5. WHEN do you purchase Bottled Water?

Q1.6. From WHERE do you purchase your Bottled Water?

Q1.7. Can you tell me on what occasions do you consume Bottled Water?

Q1.8. Please name the TOP THREE Bottled Water brands that come to mind.

Q1.9. Can you tell me what is the reason(s) that you mentioned Brand 1 in the above question first? What prompted you to mention this brand first?

PROBE: Why this is the case?

Q1.10. Thinking of your *favourite* brand of Bottled Water, what is it about this brand that makes you feel “this is my brand, the one I like to drink most often”?

PROBE: Why do you think you relate to this brand?

Q1.11. Different Bottled Water brands offer different BENEFITS. Can you tell me which of these benefits really appeal to you and influence your purchase of the brand?

PROBE: Why do these benefits appeal to you?

(c) RESPONSE TO BOTTLED WATER IN CARTON PACKAGING

Q2.1. When purchasing Bottled Water, does the packaging of the product influence your decision? If YES, why?

Q2.2. What would you consider your IDEAL packaging format for Bottled Water?

Q2.3. What is your perception of CARTON packaging?

PROBE: Why do you have this perception of carton packaging?

Q2.4. I would like to show you some mock-up samples of a Bottled Water range that a well known company is considering introducing. What are your first impressions?

Q2.5. On a scale of 1-5, with 1 being *not interested at all* and 5 being *very interested*, how would you rate your INTEREST in this product?

2.5.1 Not interested at all	1
2.5.2 Not very Interested	2
2.5.3 Not sure	3
2.5.4 Quite Interested	4
2.5.5 Very Interested	5

Q2.6. Why would you be interested/not interested to purchase Bottled Water in this packaging format?

PROBE: What are the advantages/ disadvantages that they see about this packaging format?

Q2.7. If you HAD TO consume water out of this packaging, WHEN would you drink it?

PROBE: Why would they drink it at this particular time of day?

Q2.8. Which of these packages and sizes would you consider buying? (Rank in order of mention)

2.8.1 Option S (TBA 250ml S PullTab)	
2.8.2 Option R (TPA 250ml Sq PullTab)	
2.8.3 Option V (TPA 330ml Sq ScrewCap)	
2.8.4 Option T (TPA 500ml Sq ScrewCap)	
2.8.5 Option D (TPA 750ml Sq ScrewCap)	
2.8.6 Option C (TPA 1000ml Sq ScrewCap)	
2.8.7 Option B (TBA 1000ml S SlimCap)	
2.8.8 Option A (TBA 1500ml S SlimCap)	

Q2.9. I am going to name some manufacturers/brands who could be interested in launching a Bottled water range in carton packaging. Please tell me whether you would buy the product packaged in carton packaging or not?

Manufacturer	Comments
2.9.1 Lipton Bottled Water	
2.9.2 Red Bull Bottled Water	
2.9.3 LiquiFruit Bottled Water	
2.9.4 Ceres Bottled Water	
2.9.5 Pepsi Bottled Water	
2.9.6 Parmalat Bottled Water	

Q2.10. For the brands that you mentioned that you would BE interested in purchasing, why would you be interested in it...?

Q2.11. For the brands that you mentioned that you would NOT purchase, why would you not be interested in it?

Thank you for you valuable input and time!

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UNIVERSITY OF KWAZULU-NATAL

A STUDY TO ASSESS THE ATTITUDES, PERCEPTIONS AND
CONSUMPTION HABITS OF CONSUMERS OF BOTTLED WATER
AND THE OPPORTUNITY OF LAUNCHING A BOTTLED WATER
RANGE IN CARTON PACKAGING FOR CONSUMERS IN THE
GERMISTON REGION OF GAUTENG

By

Vaneshree Naidu

971162539

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the requirements for the degree of

MASTERS IN BUSINESS ADMINISTRATION

In the Graduate School of Business

Supervisor: Mrs. S. Pramjeeth
Co-Supervisor: Prof. K. Bhowan

June 2007

DECLARATION

This research has not been previously accepted for any degree and is not being currently submitted for any other degree at any other university. I declare that this Dissertation contains my own work where specifically acknowledged.

Student Name and Number: Vaneshree Naidu – 971162539

Signed: *V Naidu*

Date: *6 June 2007*

The undersigned certify that they have read and recommend this dissertation to the University of KwaZulu-Natal.

Title of Dissertation: A study to assess the attitudes, perceptions and consumption habits of consumers of bottled water and the opportunity of launching a bottled water range in carton packaging for consumers in the Germiston region of Gauteng.

Supervisor's Name: Mrs. S. Pramjeeth

Signed:

Date: *080142*

Co-Supervisor's Name: Prof. K. Bhowan

Signed:

Date:

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ABSTRACT

A STUDY TO ASSESS THE ATTITUDES, PERCEPTIONS AND CONSUMPTION HABITS OF CONSUMERS OF BOTTLED WATER AND THE OPPORTUNITY OF LAUNCHING A BOTTLED WATER RANGE IN CARTON PACKAGING FOR CONSUMERS IN THE GERMISTON REGION OF GAUTENG

Abstract

The transition of the South African market into the global village has transformed the general South African consumer into a discerning, well-informed global one. This has been the result of many new brands, products and services entering this country. Despite the fact that the bottled water category is a relatively new category, it has experienced exponential growth over the past few years. The attractiveness of this category has lured many new players into this segment. This study has been conducted to do a reality check on what the perceptions, attitudes and consumption habits are, of the consumers of this category and investigates, on behalf of Tetra Pak, the opportunity of launching a new packaging type in the bottled water category.

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*This research is dedicated to my mother...without your love and guidance in
life; I would not be who I am today.*

*"Yours the words that shaped my voice,
The spirit within mine.
Yours the will that shaped my choice,
My fortune, and my sign."*

By Turlough O'Carolan

TERMS AND ABBREVIATIONS

FDA – Food and Drug Administration

FMCG – Fast Moving Consumable Goods

PET – Polyethylene Terephthalate

PVC – Polymer of vinyl chloride

TDS – Total dissolved solids

EU – European Union

SANBWA – South African Bottled Water Association

NRF – National Research Foundation

WHO – World Health Organization

USA – United States of America

Chapter 1

STATEMENT OF PROBLEMS AND RESEARCH DESIGN

1.1 INTRODUCTION

South Africa's transition from an apartheid-led government to a democratically elected one has catapulted South African consumers into the global village. Over the past 11 years, South African consumers have been inundated with a plethora of new products and services. Re-entrance of multinational organisations into the South African Fast-Moving-Consumer-Goods (FMCG) landscape has been responsible for the ever-increasing number of new products and services.

One of the fastest growing FMCG product areas is the *non-alcoholic beverage market*, which comprises of a myriad of categories, ranging from 100 percent pure fruit juices to iced tea. Each category within the non-alcoholic beverage market contains several brands, each claiming its own uniqueness, value and positioning in the marketplace. One of the categories that stand out in this market is the bottled water category.

The South African bottled water market value in 2005 was estimated at R1.3 billion (BMI FoodPack, 2006:1). This relatively new category was introduced to South African consumers in 1998. Despite being in its infancy, local consumption growth for 2005 grew by 33 percent (BMI FoodPack, 2006:1).

The strong category growth has been driven by growing consumer focus on leading healthier lifestyles, coupled with the need to stay hydrated and the demand for a healthier non-alcoholic beverage (BMI FoodPack, 2006:4).

Based on the attractiveness of the bottled water category, this study will investigate the current consumer perception status and thereafter proceed to evaluate if there is indeed an opportunity of launching bottled water in carton packaging for consumers in the Germiston region of the Gauteng Province.

1.2 BACKGROUND OF THE STUDY

Tetra Pak is the world leader in aseptic liquid food packaging. “Tetra Pak works for and with its customers to provide preferred processing and packaging solutions for food. The company applies its commitment to innovation, its understanding of consumer needs and its relationships with suppliers to deliver these solutions, wherever and whenever food is consumed”. The vision adopted by Tetra Pak is “we commit to making food safe and available, everywhere”. (www.tetrapak.com)

Tetra Pak is represented in South Africa by its wholly owned subsidiary, Tetra Pak South Africa, which is represented in South Africa with a Head Office in Johannesburg, a converting factory in Durban and regional offices in Cape Town and Port Elizabeth. In South Africa, Tetra Pak’s customer base includes national and multinational food manufacturers (i.e. Clover Dairies, Ceres Fruit Juices, Nestlé, Unilever, and Parmalat). Tetra Pak South Africa is *the* leading supplier of aseptic fibre (carton) packaging in the long life White Milk and Fruit Juice categories. Tetra Pak is also represented in smaller categories such as Table Wine, Custard, and Flavoured Milk etc.

Tetra Pak differentiates itself through focusing on gaining an understanding on what its customers' value and would possibly value. According to Anderson & Narus (1999:5) *value* in a business-to-business environment can be explained as “the worth in monetary terms of the economic, technical, services and social benefits a customer firm receives in exchange for the price it pays for a market offering”. Tetra Pak’s business strategy is based on innovation for its customers and customer satisfaction.

Tetra Pak defines *innovation* as “the result of the total process of developing an idea into a product or a new way of working that adds value to the business” (www.tetrapak.com). Bottled water is an innovation for Tetra Pak.

Bottled water is currently sold in only two packaging formats, i.e. plastic bottles and glass bottles. Plastic bottles dominate the category as a result of first entrant advantage. As part of Tetra Pak’s innovation process does the bottled water category pose an opportunity for carton packaging to enter a category in which it is not represented? With this in mind the bottled water category has been identified as an area to explore, which is the focal point of this study.

In a recent study conducted by AC Nielsen (www.acnielsens.com/za), global figures indicate that the three greatest drivers behind any category growth are:

- Health,
- Convenience and
- Value for money

The above drivers have been identified as playing important roles in the Food, Beverage and Personal Care markets. History has shown that South African consumers follow these global trends.

The global movement towards *health* is characterized by three product categories:

- Diet related
- Health staples and
- Healthy alternatives

In terms of *convenience*, South African consumers mirror global consumers in their ever-increasing requirements for convenience. Longer working hours, lack of current efficient public transport, increase in the number of women entering the workforce has increased the demand for portable and prepared products. Furthermore South Africa’s buoyant economy in the recent times

has provided the perfect vehicle for consumers to indulge in categories that are new and offer novelty.

This study will assess the attitudes, perceptions and consumption habits of consumers of bottled water in terms of the above-mentioned global drivers.

According to BMI FoodPack (2006:23), the Gauteng Province accounts for the largest consumption of bottled water at a 51.9 percent share, followed by Kwa-Zulu Natal at 18.4 percent. The scope of this study is limited to consumers residing in the Germiston region of Gauteng. A possible area for further research would be the other provinces of South Africa and hence a national research study.

1.3 RATIONALE FOR THE RESEARCH

Tetra Pak's business strategy, which is oriented toward innovation, focuses strongly on offering its customers growth opportunities. In order to increase the company's penetration into the South African market, the bottled water category has been identified as a potential area for exploration and entrance. Tetra Pak's competitive advantage exists on the technology platform. Its aseptic technology allows liquid foods to be processed, packaged and distributed without the need for preservatives and refrigeration. To many South African consumers who do not have the luxury of owning refrigerators, the concept of having a healthy and convenient product, distributed under ambient conditions at an arm's reach, is very much consoling. Furthermore having an aspirational product, such as bottled water, in the right package will certainly be the formula for success to any manufacturer.

The results of the study will assist Tetra Pak in answering some key questions:

- What are the targeted consumer segment's attitudes, usage and perceptions of bottled water?

- What are the purchase drivers of the bottled water category?
- At what occasions are bottled water consumed?
- Is there an opportunity of launching a bottled water range in carton packaging for the targeted consumer segment in the Germiston region in Gauteng?
- Is carton packaging a suitable packaging format for a bottled water range? Or do they perceive other packaging formats such as plastic bottles, glass bottles, cans etc a more suitable medium?
- What is the targeted consumer segments availability to the concept of a carton packaged bottled water range?
- How to best enter the bottled water category if consumers are open to the concept of bottled water in carton packaging

In conclusion, the results of the study will assess the feasibility of launching a bottled water range in carton packaging for the targeted consumer segment in the Germiston region of Gauteng. The study will also offer guidelines as to how this opportunity, if indeed an opportunity, should be approached.

1.4 THE PROBLEM STATEMENT

The above background and rationale for the study leads to the formulation of the problem statement for this study as:

Assessing the attitudes, perceptions, and consumption habits of consumers of bottled water and the opportunity of launching a bottled water Range in carton packaging for consumers in the Germiston region of Gauteng.

1.5 THE OBJECTIVES OF THE RESEARCH

Objective 1

- To provide an understanding of the present bottled water category and establish what the motives, perceptions, preferences and consumption habits of its consumers.

Objective 2

- To define the current competitive bottled water category landscape in terms of brands that boasts the highest levels of saliency, preference, and loyalty.

Objective 3

- To establish the positioning of the various packaging formats (such as glass, plastic, cans etc) in the targeted consumers' mind.

Objective 4

- To determine the targeted consumer segment's acceptance of the concept of a carton packaged bottled water range.

1.6 PRODUCT CATEGORY

- There are many descriptors that are used to identify and define packaged water. Although technically each descriptors has a specific definition, for purposes of this research the following terms will be regarded synonymous:

- Mineral water
- Bottled water
- Natural water

- Spring water
- Bottled tap water
- Well water

For consistency, the term *bottled water* is used throughout the research.

- This research study has been limited to people residing and/or working in the Germiston region of Gauteng. Hence the results are applicable only to this defined population and not the general population.

1.7 LIMITATIONS OF THE RESEARCH STUDY

There are very limited surveys conducted on the bottled water category. Hence, there are a limited number of sources on which this study has made reference to.

The sample selected for this study is confined to a specific geographical region; therefore the results of the survey must be used with caution.

The data has been obtained from a convenience sample and it is for this reason that the reader must interpret the data with caution.

1.8 BRIEF OVERVIEW OF THE RESEARCH METHODOLOGY

The research strategy guiding this study is a combination of exploratory and descriptive strategies.

According to Saunders et al (2003:96) an *exploratory strategy* aims to “seek new insights, to ask questions and to assess phenomena in a new light”. In terms

of the exploratory strategy, a questionnaire comprising of several key open-ended questions were used to provide insights as to how the targeted consumer segment view a carton packaged bottled water range. This questionnaire was administered for a focus group interview. Two focus group sessions, each consisting between six to ten participants, were conducted.

The participants were probed to provide insights to the following questions:

- Do they consume any form of bottled water i.e. are they open to the category?
- Where do they spend their money? At which shop/retailer do they do their monthly shopping at?
- How do they perceive the bottled water category?
- On what occasions is bottled water consumed?
- What are the targeted consumer segment's attitude and perceptions of the bottled water category?
- What are their preferences for bottled water packaging?
- What is their perception of the various packaging formats such as glass, plastic, carton etc?

Thereafter, the participants were probed specifically in terms of assessing the acceptability of carton packaging. To effectively do this, mock-up samples of a generic bottled water brand in carton packaging were shown to the participants in the focus groups.

The purpose of adopting a *descriptive strategy* is to provide data about the target population that is being studied in terms of who, what, when, where and how bottled water is consumed. This strategy will help “portray an accurate profile of persons, events or situations” (Saunders et al; 2003:97).

In terms of the descriptive strategy, a survey instrument, in the form of a questionnaire, will be used. The questionnaire will consist of several closed-ended questions. Due to time and financial constraints as opposed to having

the entire Germiston population participate in this study, convenience sampling (n=100) was used for this study.

The questionnaires were self administered by the participants. The criterion that was used to recruit participants is that the potential participants would have had to have consumed bottled water in the last month and must not have participated in the exploratory part of this study. To cater for non-response an additional five questionnaires will be included, thus taking the total sample size up to one hundred. To test for bias, validity and reliability of the questionnaire, a test was conducted with a group of five participants before commencing with the actual study. These questionnaires however, will not be included in the actual study. Questions that were found likely to compromise the reliability and validity of the study were eliminated from the final questionnaire design.

The above methods of administration are favoured in order for the objectives of this study to be achieved. Both questionnaires included a filter mechanism to ensure that only people who are available to the bottled water category were included in this study.

The administration of the questionnaires was applied exclusively to the targeted consumer segment defined as follows:

- Consumers aged eighteen years and upwards
- Male and female
- Across all race groups
- Consumer who have purchased/ are purchasing bottled water, for in-home and/or out-of-home consumption and/or who would be available to the category
- People who work and/or reside in the Germiston region of Gauteng.

1.9 STRUCTURE OF THE RESEARCH STUDY

The structure and content of the various chapters is briefly outlined below:

- Chapter Two – Review of related Literature
 - The literature review will bring to light the following:
 - Definition of bottled water
 - The World bottled water market
 - Case studies of bottled water brands packaged in carton packaging from around the world
 - Historic performance of the bottled water category in South Africa with respect to consumption and production, key manufacturers, main packaging formats, distribution, pricing, promotion etc
 - Why consumers choose bottled water?
 - Environmental impact of the various packaging formats
- Chapter Three – The Research Design and Methodology
 - This chapter focuses on the rationale of the research design, the methodology adopted for this study and a detailed outline thereof.
- Chapter Four – Research Findings
 - Based on the administration of the research instruments, the findings were analysed using Survey System Version 9.
- Chapter Five – Discussion of Results
 - In this chapter the research findings outlined in chapter four are interpreted and crosschecked with the study's pre-defined objectives.

Chapter 2

LITERATURE SURVEY

2.1 INTRODUCTION

The first bottle of water commercially produced in South Africa can be traced back as far as the early 1800's at the Van Riebeeck plant in Cape Town. According to the South African Natural Bottled Water Association (SANBWA), the "water came from the Albion Springs, which is the strongest flowing of the springs at the base of Table Mountain. The plant was then purchased by South African Breweries and eventually became part of Cape Town's municipal water supply" (www.sanbwa.co.za).

Despite South Africa being classified as a developing country, its consumers are no different to those consumers in developed markets. The increasing consumer demand for a healthy non-alcoholic beverage, the need for access to safe water, obesity, the awareness of the need to stay hydrated etc have all added to the exacerbated growth of the bottled water category in South Africa (www.zenithinternational.com).

According to Euromonitor's Soft Drinks Report (2005:56), the bottled water category in South Africa is considered by many beverage manufacturers as "the golden sector" of the non-alcoholic beverages. However, despite this being the view, to package water is extremely challenging as its attributes are such that it cannot be preserved and is easily influenced by its surroundings in terms of colour, taste and clarity etc.

Kotler (2003:436) defines *packaging* as “all activities of designing and producing the container for a product”. The container, in essence, is the package. There are a number of factors that have led many marketers to use packaging as one of their tools. These factors include the increase in consumer self-service, consumer affluence, company/brand image and opportunity for innovation (Kotler, 2003:436).

Bottled water is the most dynamic sector in the food and beverage industry, with consumption increasing globally at an average of 7 percent per annum (Ferrier, 2001:6), despite the premium price it commands when compared to tap water. Irrespective of the country, most competitors in the bottled water industry are very profitable.

The research study will evaluate whether packaging can be used as a differentiating tool to enter a very attractive beverage category, bottled water.

2.2 HOW THE LITERATURE SURVEY WAS CONDUCTED

The approach adopted for the literature review is to convey what knowledge and ideas have already been established of the bottled water category. The literature review is further guided by the research objectives and the problem statement of this study.

The following sources have been consulted as part of the literature review:

- Electronic databases were accessed via the University of KwaZulu-Natal’s homepage (www.ukzn.ac.za) to identify relevant literature:
 - NEXUS – which is an electronic database maintained by the National Research Foundation (NRF) of completed scholarly research from various South African universities across various disciplines

- Search Engines – searches were conducted on the internet using the following search engines:
 - www.google.com
 - www.scholar.google.com
- Electronic theses websites was also reviewed:
 - www.dissertation.com
- Local newspapers and magazine publications were consulted
- The bottled water category reports were purchased from a Research House
- Tetra Pak's internet and intranet website was also consulted
 - www.tetrapak.com

2.3 THE HISTORY OF PACKAGING

The origins of packaging can be traced to the late eighteenth century, when the Industrial Revolution brought significant change to manufacturing. Where most processes had relied on intense manual labour, the introduction of large scale automation called for greater quantities of the product as well as its packaging (Tetra Pak, 2003:8). In 1795 Napoleon Bonaparte offered a reward to anyone who could come up with a way of preserving food for his armies (Tetra Pak, 2003:9). The outcome of this exercise was the development of metal packaging. With time, the use of this packaging format evolved to take many shapes and sizes and initiated the development of alternative packaging formats.

2.4 WHY BOTTLED WATER?

The human body requires the consumption of two litres of water per day and in order to meet this ideal, consumers are increasingly looking towards bottled

water as a means of fulfilling this ideal (www.wateryear2003.org). The general perception amongst consumers is that bottled water is safer and of a superior quality compared to tap water. The safer perception is fuelled by the occurrence of food scandals in industrialised countries and water borne diseases in developing countries (www.wateryear2003.org).

In addition, many manufacturers through persuasive and effective marketing, position their bottled water brands as being the healthier alternative to all other beverages.

2.5 BOTTLED WATER VERSUS TAP WATER

Many consumers believe that natural bottled water has medicinal properties and offers other health benefits (www.who.int/mediacentre/factsheet), with certain bottled water brands being able to provide certain micronutrients like calcium. However, the World Health Organization (WHO) has not received any convincing evidence to support the 'benefit' perception that bottled water has obtained (www.who.int/mediacentre/factsheet).

2.6 THE WORLD BOTTLED WATER MARKET

Sales of bottled water are booming around the globe. According to the World Wildlife Fund, it is the fastest-growing beverage sector in the world (www.cbc.ca). According to a research study conducted by Zenith International (www.beveragedaily.com), it indicates that the global per capita consumption of bottled water will overtake that of carbonated soft drinks within the next five years. "Across the world consumers are increasingly turning to bottled water as it becomes more accessible and as the health and hydration benefits become widely accepted," said Zenith Research Director Gary Ro-

ethenbaugh (www.beveragedaily.com). Multinational organisations that are likely to be leading the way are Nestlé, Danone and PepsiCo.

In 2004, the world bottled water market had an estimated volume of 154 billion litres (www.cbc.ca). This equates to 24.2 litres of bottled water consumed per person per annum globally (www.cbc.ca). In terms of individual countries, the United States of America leads in the consumption of bottled water (Table 2.1, page 44).

Although the United States of America (USA) and European markets are the markets with the highest consumption of bottled water, the markets with the most promising growth are China, India and Indonesia, all exhibiting a compound annual growth rate of over 15 percent (Table 2.1, page 44). The noted increase in the Asian region is attributed to the high population growth and water supply problems. Using India as an example, in 1999, the bottled water industry in this country had a turnover of approximately US\$70 million, with more than a hundred companies operating in this segment, each achieving an average growth rate of 50 percent every year (Ferrier, 2001:13).

The world consumption of bottled water has a compounded annual growth rate of 9.4 percent per annum (www.cbc.ca).

Table 2.1: World bottled water consumption in 2004

2004 RANKING	COUNTRIES	1999 (Million Litres)	2004 (Million Litres)	COMPOUND ANNUAL GROWTH RATES (1999/2004)
1	USA	17.3	25.8	8.2%
2	Mexico	11.6	17.7	8.8%
3	China	4.6	11.9	20.9%
4	Brazil	5.7	11.6	15.4%
5	Italy	8.9	10.7	3.6%
6	Germany	8.3	10.3	4.4%
7	France	6.9	8.5	4.2%
8	Indonesia	3.4	7.4	16.5%
9	Spain	4.1	5.5	6.2%
10	India	1.7	5.1	25%
	Top 10 Subtotal	72.5	114.4	9.5%
	All other countries	25.9	39.9	9%
	TOTAL	98.4	154.3	9.4%

Source: www.cbc.ca

Table 2:2: Per capita consumption by top bottled water consuming countries

2004 RANKING	COUNTRIES	LITRES PER CAPITA	
		1999	2004
1	Italy	154.82	183.6
2	Mexico	117	168.5
3	United Arab Emirates	109.7	163.5
4	Belgium-Luxembourg	121.9	148
5	France	117.3	141.6
6	Spain	101.8	136.6
7	Germany	100.7	124.9
8	Lebanon	67.7	101.4
9	Switzerland	90.1	99.56
10	Cyprus	67.4	91.9
11	USA	63.6	90.5
12	Saudi Arabia	75.3	87.8
13	Czech Republic	62.1	87.1
14	Austria	74.5	82.1
15	Portugal	70.4	80.3
	Global Average	16.27	24.2

Source: www.cbc.ca

The growth of bottled water has largely benefited companies like Danone and Nestlé, who have well-established brands such as Evian, Volvic and Vittel respectively, in this category.

Nestlé is the number one bottled water manufacturer with a turnover of US\$3.5 billion in 1999 and a world market share of 15.3 percent (Ferrier, 2001: 11). Danone follows suit, as the second largest player in this category with a world market share of 9 percent (Ferrier, 2001: 11).

Soft drinks giants PepsiCo and Coca Cola have also begun to enter into this category by taking advantage of its Bottler network. PepsiCo has performed well with its two brands, Aquafina and Propel, and hence promoting Pepsi

into the top ten bottled water brands (www.beveragedaily.com). In comparison, Coca Cola has only one brand present in the top ten list ranking, namely, Dasani.

Nonetheless, between Nestlé, Danone, Coca Cola and PepsiCo, they control 32 percent of the global bottled water market (www.beveragedaily.com).

These multinational companies opted for investing abroad through the creation of local bottling facilities to reduce transportation costs. With the upswing of the bottled water category globally, many of these companies will recover their investments and reap high profits in a very short period of time.

2.7 GLOBAL CASE STUDIES OF BOTTLED WATER IN CARTON PACKAGING

2.7.1 France



Figure 2.1: Teisseire bottled water in carton packaging

Teisseire is one of the oldest French companies in the food industry, dating back to 1720. The main activity of Teisseire has been the manufacturing of fruit syrups. In recent years however, the company has moved into the fruit juice category with value-added juice products like special breakfast juices and ethnic fruit juice products. This was the result of the company looking for new market opportunities due to the shrinking market for fruit syrups. One attractive market segment, which has shown exponential growth over the past

few years, has been the flavoured, bottled water category. With the great success that Nestlé France had in this segment with its “P’tit Vittel” brand targeting kids, this convinced Teisseire to enter into this target market segment. Furthermore, the entrance into the kids’ flavoured bottled water segment served as a natural line extension to Teisseire’s fruit syrups. The product was launched in three flavours, namely strawberry, grenadine and peach/raspberry. The product was targeted at mothers with kids aged between five and eight years old. The product was distributed through hypermarkets and supermarkets and merchandised in the flavoured water section of these stores. (Tetra Pak Product Review No.38, 2001:11)

2.7.2 Germany



Figure 2.2: Apollinaris bottled water in carton packaging

The market for *still* bottled water in Germany is relatively low i.e. 16 litres per capita in comparison with the rest of its counterparts in Europe (Tetra Pak Product Review No. 50; 2004:35). The bottled water market in Germany shows huge potential for growth due the increasing packaged water consumption. Since 2003, there has been a rapid increase for returnable bottles (com-

prising of plastic and glass) at the expense of non-returnable bottles due to the introduction of mandatory deposit/levy on non-returnable bottles by the German Government. As consumers were used to consuming water and disposing of the packaging, the popularity of non-returnable bottles dropped dramatically. However cartons, which is classified as a non-returnable package and which is not subject to the Mandatory deposit, gained in this situation.

The success story of this brand begun with a failure: on a vineyard where the vines would not grow. The vintner who had purchased the vineyard at an auction, decided to investigate why this was the case. Upon investigation it was revealed that the soil contained exceptionally high concentrations of carbon dioxide. The vintner began to dig and discovered a spring. The spring was named 'Apollinaris' after the sacred Saint Apollinaris statue, which stood at the bottom of the vineyard. Today, this brand is the best-known and most renowned bottled water brand in Germany, commanding a 90 percent brand awareness level and being exported to more than 60 countries worldwide (Tetra Pak Product Review No.50, 2004:36).

Apollinaris is the leader in the carbonated segment of the bottled water category, which is the preferred segment of German consumers with a per capita consumption of 117 litres for this segment. However, in the rapidly growing *still* bottled water segment, this brand ran the risk of losing appeal to a younger consumer base, which generally preferred *still* water. The impact of this was further exacerbated due to the import of strong French bottled water brands. The introduction of the mandatory deposit however, aided Apollinaris' venture into the carton package.

In a market research study carried out by Apollinaris, some of the findings were (Tetra Pak Product Review No.50; 2004:36):

- "The Tetra Prisma Aseptic® is an appealing package aimed especially at a younger target audience, a consumer group which Apollinaris would like to gain and grow"

- “Even though German consumers prefer pure, unspoiled and original bottled water with its ‘pureness’ ideally visible through a transparent bottle, Apollinaris, in a silver metallic Tetra Prisma package scored very high as consumers considered Apollinaris a brand to trust”

In March 2004, Apollinaris launched a *still* bottled water in Tetra Prisma Aseptic® 500ml Square and Tetra Prisma Aseptic® 1000ml Square packages, both with StreamCap® closures. In addition to the natural bottled water, three flavoured variants were launched, namely, orange, pear/apple and lime. The product range in this new packaging was positioned as:

- “High quality appeal”
- “Ideal impulse article”
- “For consumption on-the-go”
- “No deposit, the right solution”
- “Modern offer for the mobile generation”
- “Ideal for cinemas, swimming baths, bowling centres, fitness studios, canteens, coffee shops etc”

Market acceptance has been very positive (Tetra Pak Product Review No.50, 2004:36).

2.7.3 Germany



Figure 2.3: Christinen bottled water in carton packaging

The 'Christinen' bottled water brand is especially popular in the on-the-go segment of bottled water and still drinks. In addition to its existing range, in March 2004, Gehring-Bunte Getränke-Industrie introduced a new range of bottled water and bottled water-based beverages under its Christinen brand in a deposit-free package, namely, Tetra Prisma Aseptic® package. Three variants were introduced (Tetra Pak Product Review No.50, 2004:38):

- “Carat – which is low sodium bottled water with iron salts removed”
- “Sport Apfel and Sport Lemon – which is calorie reduced still drinks with apple/lemon flavours with fructose, sweeteners and six vitamins”

The new range was marketed using the slogans, “The way out for one way” and “Mineral water without deposit” (Tetra Pak Product Review No.50, 2004:38).

2.7.4 France and Germany



Figure 2.4: Evian bottled water in carton packaging

During 2004, two major local German brands, Apollinaris and Christinen launched *still* bottled water versions in deposit-free Tetra Prisma Aseptic® packages. In light of this, Danone Waters with their Evian brand decided to

follow suit. “Evian is one of the strongest and best-perceived bottled water brands worldwide and in the German market is placed fourth in terms of volume” (Tetra Pak Product Review No.52, 2004:25).

The key sales argument for this product was (Tetra Pak Product Review No.52, 2004:26):

- “Premium offer”
- “Attractive new shape: modern and innovative”
- “Convenient package for on-the-go consumption: easy to open, light and easy to handle”
- “Deposit-free”

2.8 SURVEY OF LITERATURE THAT RELATES TO THE THEORETICAL FRAMEWORK OF THE RESEARCH STUDY IN A SOUTH AFRICAN CONTEXT

2.8.1 Defining the bottled water category

In order to understand the different types of water available on the South African market, one needs to understand what differentiates one type of water from another.

Water gets its character from the rocks that it flows through which implies that the type of water is dependant on the geology of the area that it is sourced (www.vitalfoods.co.za).

As defined by BMI FoodPack (2006:7), the bottled water category is made up of the following types of water:

- Bottled water/drinking water – “water that meets all the applicable government standards, sealed in a sanitary container and sold for human consumption. Bottled water may not contain sweeteners or chemical additives (other than flavours, extracts or essences). Flavours derived

from spices or fruits may be added to bottled water, but these additions must comprise of less than one percent by weight of the final product. Beverages containing more than one percent by weight of flavour limit are classified as a soft drink. Bottled water may be sodium free or contain very low amounts of sodium and can contain natural or added carbonation". Bottled water can either be water that is packaged from the tap or mineral water, which is sourced from a spring.

- Mineral water – “true mineral waters are obtained from a natural or drilled spring. The mineral salts content gives it specific properties that may be beneficial to health, containing not less than two hundred and fifty parts per million total dissolved solids. These waters can have a salty, soapy or earthy taste depending on its mineral content. They are distinguished from other types of bottled water by its constant level and relative proportions of mineral and trace elements at the point of emergence from source. No minerals can be added to this product”.
- Natural water – “regarded as spring, mineral artesian or well water is derived from an underground formation and not from a municipal system or public water supply”.
- Artesian water – “bottled water from a well that taps a confined aquifer in which the water level stands at some height above the top of the aquifer”.
- Spring water – “natural water derived from underground formations from which the water flows naturally to the earths’ surface. Spring water generally has a lower mineral content and a purer taste. Spring water that is collected with the use of an external force must be from the same underground stratum as the spring and must have all the physical properties before treatment and be of the same composition and quality as the water that flows naturally to the earths’ surface”.
- Well water – “bottled water from a hole, bored, drilled or otherwise constructed in the ground, which taps the water of an aquifer”.
- Purified water – “water that has been produced by distillation, deionisation, reverse osmosis or other suitable processes and that meets

the definition of purified water. Also called distilled water, deionised water, reverse osmosis water according to the process used”.

As previously mentioned in chapter one, although these various types of water exist by definition, for the purpose of this research the term bottled water is used generically and will encompass all the above types of water that is packaged.

2.8.2 Still versus sparkling bottled water

According to BMI FoodPack (2006:7), *sparkling* bottled water is defined as “natural water containing natural or added carbonation”. The definition for *still* water is the converse. During 2005, *still* bottled water dominated, with a market share of 65.4 percent (BMI FoodPack, 2006:35). During 2005 the *sparkling* bottled water segment market share increased to 34.6 percent (BMI FoodPack, 2006:35). This was an increase of 10 percent. The growth was primarily fuelled by the introduction of flavours in this segment.

2.8.3 Flavoured versus unflavoured bottled water

The high growth experienced by the *flavoured* bottled water segment can be attributed to consumers considering the product as a healthier alternative to carbonated soft drinks. This rests directly on the positioning of this segment. According to BMI FoodPack (2005:32) this segment is communicated to consumers as:

- “Enhancing vitality and health”
- “Eliminating cause of throat burn that sports people often experience after they consume sports drinks”
- “Low in carbohydrates”
- “Encourages weight loss”
- “Has an energy promoting effect”

During 2005, the split between *flavoured* and *unflavoured* bottled water was 31.6 percent and 68.4 percent respectively (BMI FoodPack, 2006:38).

2.9 KEY MANUFACTURERS OF BOTTLED WATER IN SOUTH AFRICA

The bottled water industry is partially governed by the South African Natural Bottled Water Association (SANBWA). The main aim of this Association is to offer longevity to the industry by ensuring long-term sustainability through the protection of consumers. This is achieved through all SANBWA members being compliant with the regulations set out by the Department of Health. Manufacturers belonging to this Association have to ascribe to certain pre-defined standards in terms of safety, excellence, quality etc. It must be noted however, that SANBWA represents only the Bottlers of natural water and not Bottlers that use tap/municipal water as a source (www.sanbwa.co.za). This research covers both SANBWA members and non-members.

The major bottled water manufacturers together with their brands are listed below:

Table 2.3: Major bottled water manufacturers 2005/2006

MANUFACTURERS	BRANDS
Algin Juices	Water + Defence Water + Endurance Water + Energy Water + Slimming** Water + Strength
Alternative Beverage Company	Crystal Clear
Aqua d'or	Aqua d'or
Aqua Tiqua	Aqua Tiqua
aQuellé	aQuellé
Beau d'Eau	H ₂ Olive
The Bené Water Company	Bené
Blue Mineral Water Company	Blue Mineral Water
The Blue Stream Water Company	Blue Stream
Breakfree	Breakfree Spring Water
Bromor Foods	Energade Ice Sports Water**
Caledon Natural Spring Water	Caledon Natural Spring Water
Ceres Spring Water	Ceres Spring Water
Chantilly Waters	H ₂ O to Go Life
Clearly Cape	Clearly Cape
C'est La Vie	C'est La Vie
Clover	Aqua Quartz** Evian*
Coca-Cola Company (The)	Bon Aqua Valpré
Drakenstein Mineral Water	Drakenstein Mineral Water
Elandsfontein Beverages	Elfonte
Fontenel Spring Water	Fontenel
Franschhoek Water Company	L'Aubade

Table 2.3: Continued...

MANUFACTURERS	BRANDS
Fruitime	Aquatime Fruitime
Herb Aqua	Herb Aqua Bliss Herb Aqua Immune Herb Aqua Lift Herb Aqua Slim**
Hex Valley Spring Water	Cape Dew Hex Valley Spring Water
Inhle Beverages	Aqua Azzurra
Just Water	Just Water
Karoo	Karoo
La Vie de Luc	La Vie de Luc
Meicash Trading Ltd	Family Favourite
Mount Anderson Spring Water	Mount Anderson Spring Water
Mountain Falls Estate	Mountain Falls
Nestfield Investments	Canfina
Nestlé SA	Nestlé Pure Life Schoonspruit
Natural Beverage Company (The)	Aqua Naturelle** Niche Naturelle**
NVigour8	NVigour8
Pureau Fresh Water Company	Pureau
Reeks Creek Mineral Water	Get Oxygenated (GO)
Speedo International	Speedo*
USN	Lite EnerG**
Viljoen Beverages	Waterberg Spring Water
Waterval Minerale	Naturale Minerale
Zambesi Beverages	Ice Age Seltzer

*Imported

** Introduced during 2005 and 2006

Source: BMI FoodPack, 2006:9

2.10 CONSUMPTION OF BOTTLED WATER IN SOUTH AFRICA

The import and export trends of bottled water in South Africa will be appraised first as they impact on local consumption. Thereafter the total production and consumption of bottled water will be examined.

2.10.1 Import trends

According to BMI FoodPack (2006:13), during 2005, a total of 2.2 million litres of bottled water was imported into South Africa. The top three countries from which bottled water was imported during 2005 were Italy, France and the United States of America (Table 2.4). In comparison with 2004, there was a shift in the top three countries, where in 2004 the top three countries were Italy, Malaysia and France (Table 2.5). Nonetheless, from 2004 to 2005, water sourced from Italy remained the preferred choice. This preference could be attributed to the fact that globally Italy accounts for the largest per capita consumption of bottled water hence an abundance of well-established manufacturers and brands looking for new markets abroad to venture into.

Table 2.4: Imports of bottled water into South Africa during 2005

COUNTRY OF ORIGIN	LITRES	% OF TOTAL
Italy	1 182 279	52.8%
France	619 141	27.7%
United States of America	121 183	5.4%
Saudi Arabia	89 848	4.0%
China	57 2425	2.6%
United Arab Emirates	54 591	2.4%
All other countries	114 844	5.1%
GRAND TOTAL	2 239 128	100%

Source: BMI FoodPack, 2006:15

Table 2.5: Imports of bottled water into South Africa during 2004

COUNTRY	LITRES	% OF TOTAL
Italy	776 068	44.2%
Malaysia	443 190	25.3%
France	268 179	15.3%
Sri Lanka	39 335	2.2%
Portugal	33 130	1.9%
Mozambique	23 709	1.4%
All other countries	171 551	9.8%
GRAND TOTAL	1 775 162	100%

Source: BMI FoodPack, 2006:14

2.10.2 Export trends

During 2005, the exporting of bottled water increased by 28 percent according to BMI FoodPack (2006:16). The top three destinations were Mozambique, Angola and Sri Lanka.

Table 2.6: Exports of bottled water from South Africa during 2005

COUNTRY	LITRES	% OF TOTAL
Mozambique	1 856 947	30.9%
Angola	1 062 555	17.7%
Sri Lanka	1 000 225	16.6%
United Kingdom	650 185	10.8%
Mauritius	148 723	2.5%
Zambia	123 478	2.1%
All other countries	1 172 004	19.5%
GRAND TOTAL	6 014 117	100%

Source: BMI FoodPack, 2006:16

2.10.3 Total local consumption of bottled water (including imports)

BMI FoodPack (2006:18), states that the total consumption of bottled water in South Africa during 2005 was 198.6 million litres. The bottled water category showed a healthy growth with an increase of 33 percent from the previous year. Since its introduction to the South African market, the bottled water category has shown an encouraging compounded growth tabulated below.

Table 2.7: Total consumption of bottled water (including imports)

YEAR	MILLION LITRES	% CHANGE PER ANNUM
1998	41.1	64.6%
1999	51.4	25.0%
2000	57.7	12.3%
2001	73.4	27.1%
2002	90.1	22.8%
2003	117.1	30.0%
2004	149.3	27.5%
2005	198.6	33.0%

Source: BMI FoodPack, 2006:18

In the bottled water Report 2005, BMI FoodPack (2005:28) stated that the following factors contributed to the high growth of the bottled water category in the local market:

- “Consumers are fast becoming aware of the bottled water category and the health benefits associated with bottled water”
- “The category is supported by good promotional activity and effective distribution”
- “Favourable weather conditions”
- “Increased disposable income”

In addition to these factors, in the bottled water Report 2006, BMI FoodPack (2006:4) added that two more factors could be identified which contributed to the good performance of the bottled water category in 2005, namely:

- “Tourists perceive bottled water as safer than tap water”
- “It is also more convenient for people on the go”

The per capita consumption of bottled water is captured in the table below. On average, every person in South Africa consumed on average 4.2 litres of bottled water during 2005.

Table 2.8: Historical per capita consumption in South Africa

YEAR	MILLION LITRES	LITRES PER CAPITA	POPULATION
2002	90.1	2.0	45.8
2003	117.1	2.5	46.2
2004	149.3	3.2	46.6
2005	198.6	4.2	46.8

Source: BMI FoodPack, 2006:29

2.10.4 Total production of bottled water (including exports)

Similar to local consumption, the total production of bottled water also experienced double digit growth compounded year on year (Table 2.9). The growth is attributed to the increase in local market demand for bottled water and exports.

Table 2.9: Total production of bottled water in South Africa (including exports)

YEAR	MILLION LITRES	% CHANGE PER ANNUM
1998	41.1	59.3%
1999	51.4	25.1%
2000	62.2	21.0%
2001	73.3	17.9%
2002	94.9	29.3%
2003	118.7	25.1%
2004	152.3	28.3%
2005	202.4	32.9%

Source: BMI FoodPack, 2006:19

2.11 DISTRIBUTION OF BOTTLED WATER IN SOUTH AFRICA

2.11.1 The retail landscape in South Africa

The consumer landscape in South Africa is constantly evolving. In the twelve years, since South Africa's entrance into the global arena, many things have occurred – the demand for housing has experienced a phenomenal growth of 27 percent due to various factors; the growth of an emerging black middle class and low interest rates in the recent past (www.fmcg.co.za). Greater than the housing growth has been the increase in the number of retailers.

Between 1994 and 2004, over 547 new stores have opened within the *formal* trade grocery sector; equating to a growth rate of 46 percent over the period (www.fmcg.co.za). According to AC Nielsen South Africa, these new stores have been almost evenly split between major retailing giants like Shoprite, Pick 'n Pay and franchise groups, such as Spar, Pick 'n Pay Family and U-Save (www.fmcg.co.za). This growth however, excludes service stations/garage forecourt stores, which over the same period increased by 1420 stores (www.fmcg.co.za).

The overall retail spend is highly skewed towards the Gauteng Province and Western Cape, despite these two provinces containing only 30 percent of South Africa's population (www.fmcg.co.za). On the other hand, regions like Limpopo and KwaZulu-Natal retail spend remains far below its population density (www.fmcg.co.za).

Another anomaly that exists in South Africa's retail landscape is store concentration. The formal trade grocery sector comprises of a mere 5 percent of stores but accounts for 70 percent of the country's grocery turnover (www.fmcg.co.za). On the other end of the continuum, smaller counter and self-service or traditional stores account for much less than their numbers warrant.

In comparison to retailing globally, it is important to note that local retailers such as Pick 'n Pay and Shoprite groups respectively, have a turnover of 4 billion US dollars annually, placing them around the 70th position internationally in this sector (www.fmcg.co.za).

2.11.2 Distribution channel of bottled water

In terms of the bottled water category the distribution channel can be broken down into five key route-to-market channels, namely:

- Top-end Retail – Hypermarkets and Supermarkets

- Bottom-end Retail –“bottom-end outlets such as convenience stores, general dealers, liquor stores” (BMI FoodPack, 2006:5)
- Wholesalers – wholesale chains such as Makro and Independent Wholesalers
- On-Consumption – “restaurants, hospitality and pubs, at work, recreational” (BMI FoodPack, 2006:5)
- Garage Forecourts – garage shops including outlets that are linked to garages e.g. Woolworths forecourts

Each of these route-to-market channels is discussed briefly below.

2.11.3 Top-end and bottom-end retailers

The top-end retail channel in South Africa is dominated by 3 retailers, namely; Pick ‘n Pay, Spar and Shoprite.

According to BMI FoodPack (2006:20), top-end retailers accounted for the distribution of 65.5 million litres of bottled water, whilst the bottom-end retailers, 36.1 million litres during 2005.

2.11.4 Wholesalers

The Wholesalers channel is represented by various Independent Wholesalers and Massmart Holdings through its Makro subsidiary. During 2005, wholesalers accounted for the distribution of 23.8 million litres of bottled water (BMI FoodPack, 2006:20).

2.11.5 On-consumption

The On-Consumption channel is defined as the place where purchase and consumption occurs simultaneously. An example of such is dinner at a restaurant. Food is purchased and consumed at the same place. This channel includes restaurants, hospitality and pubs, at work and recreational outlets. Dur-

ing 2005, the On-Consumption channel constituted 36.3 million litres of bottled water (BMI FoodPack, 2006:20).

2.11.6 Forecourts

Forecourts can be defined as any outlet linked to a garage. During 2005, Forecourts distribution comprised of 36.7 million litres of bottled water (BMI FoodPack, 2006:20).

2.12 GEOGRAPHICAL DISTRIBUTION OF BOTTLED WATER IN SOUTH AFRICA

South Africa has nine provinces, namely:

- Gauteng
- KwaZulu-Natal
- Western Cape
- Eastern Cape
- North West Province
- Mpumalanga
- Limpopo
- Northern Cape
- Free State

Each of these provinces has very distinct characteristics, especially in terms of what they contribute to South Africa as a whole. Each of the provinces varies in population size and wealth.

Gauteng, which is the smallest province, boasts the second largest population and generates nearly one third of South Africa's total Gross Domestic Product (SA at a Glance, 2005/2006:78). According to SA at a Glance

(2005/2006:78) Gauteng is regarded as the financial and industrial heartland of the country. In terms of bottled water consumption, this province is where the bulk of consumption occurs. BMI FoodPack (2006:23) states that during 2005 approximately 103.1 million litres was consumed within the Gauteng province.

KwaZulu-Natal is South Africa's most populated province. After Gauteng it has the largest economy, which is based on agriculture and tourism. According to BMI FoodPack (2006:23), this province accounted for 37.9 million litres of bottled water consumed in 2005.

Tourism, textiles, viticulture and agriculture are the economic mainstays of the Western Cape Province (SA at a Glance, 2005/2006:82). This province holds the third highest consumption of bottled water during 2005 of 28.4 million litres (BMI FoodPack, 2006:23).

The Eastern Cape is the second poorest province in South Africa. In terms of bottled water consumption, during 2005, this province consumed 15.9 million litres (BMI FoodPack, 2006:23).

According to BMI FoodPack (2006:23), the North West, Mpumalanga and Limpopo provinces accounted for 7.1 million litres, collectively, of bottled water consumption during 2005.

The Free State and Northern Cape provinces shared a consumption figure for 2005 of 6.2 million litres of bottled water (BMI FoodPack, 2006:23).

From the above overview, it can be clearly noted that Gauteng accounts for more than 50 percent of total local bottled water consumption during 2005. It is for this reason, as well as time and financial constraints that this study has been limited to the Gauteng province.

2.13 PRICING OF BOTTLED WATER IN SOUTH AFRICA

The pricing of bottled water worldwide is extremely high in comparison to that of tap water. The majority of the price of bottled water (about 90 percent) that a consumer pays for is for the products' transportation costs; packaging costs, marketing costs and profits for the retailer (Ferrier, 2001:19).

The bottled water category in South Africa is a highly competitive market. During 2005, prices on average increased by 5.5 percent (BMI FoodPack, 2006:32). Compared to previous years, this price increase was relatively high (Table 2.10). Nonetheless, this increase did not impact on demand, the local demand was the highest ever during this period.

Table 2.10: Average historical bottled water retail selling price

YEAR	RETAIL SELLING PRICE (RAND/LITRE)	% INCREASE
1999	5.0	-
2000	5.4	8.0%
2001	5.5	1.9%
2002	5.8	5.5%
2003	6.0	3.4%
2004	6.4	6.7%
2005	6.8	5.5%

Source: BMI FoodPack, 2006:32

2.14 PROMOTION OF BOTTLED WATER IN SOUTH AFRICA

Being a highly competitive and extremely attractive category, existing manufacturers in the bottled water category turn to innovation that will help them stay ahead of the game. Many local manufacturers exhibited this in the manner in which they promoted their bottled water brands. Examples of such are:

- Sponsorships of various sports – Nestlé has been active in sponsoring various sport teams and activities
- Product differentiation through new and innovative packaging – during the first half of 2004, aQuellé launched a new shape bottle and a new logo for its bottled water range. (BMI FoodPack, 2005:29)
- Introduction of flavoured bottled water - during 2004, several brands introduced a flavoured version to its existing range. Bon Aqua by Coca Cola Ltd was one such brand where five flavours were launched. Aquatime was another brand that launched its flavoured bottled water range with a differentiated bottle cap (BMI FoodPack, 2005:30).

2.15 PACKAGING OF BOTTLED WATER IN SOUTH AFRICA

Packaging of bottled water is an important factor on which the marketing success of the product rests. The local bottled water category's landscape is painted with a myriad of bottles, in different shapes and colours, each trying to attract the eye of the consumer. Functionality varies with each brand and in some instances stretches the imagination of the average consumer. An international example of this is the 330ml Evian bottled water brand, which can be adapted to a teat, to turn into a baby's bottle (Ferrier, 2001:15).

In South Africa, there are two main formats of packaging currently present in the bottled water category namely, glass bottles and plastic bottles. Sizes vary across these two formats as tabulated below.

Table 2.11: Historical demand for bottled water packaging (includes exports and excludes imports)

Pack Format & Size	2003 (Million Litres)	2004 (Million Litres)	2005 (Million Litres)
Glass Bottle 200ml/250ml	1.4	1.5	1.7
Glass Bottle 750ml	0.4	0.4	0.4
Total Glass	1.8	1.9	2.1
Plastic Bottle 250-350ml	4.6	4.5	4.8
Plastic Bottle 500ml	46.7	73.5	107.6
Plastic Bottle 750ml	1.7	1.9	2.2
Plastic Bottle 1000ml	9.0	13.8	16.1
Plastic Bottle 1500ml	36.1	39.7	51.1
Plastic Bottle 2-5 litre	18.8	16.9	18.5
Total Plastic Bottle	116.9	150.3	200.3
GRAND TOTAL	118.7	152.3	202.4

Source: BMI FoodPack, 2006:43

In 2005, the dominant packaging format for bottled water was the plastic bottle, holding a volume market share of 99 percent of the total category (BMI FoodPack, 2006:43). The Plastic Bottle packaging format experienced high growth rates averaging on 30 percent since 2002 (BMI FoodPack, 2006:43). The demand for glass packaging has been fairly constant since 2002. BMI FoodPack (2005:38) states that one of the key drivers for the high growth of the plastic packaging format is consumer preference for the convenience and safety offered by this packaging format.

In terms of size popularity, the most popular size is the 500ml plastic bottle followed by the 1.5 litre plastic bottle (Table 2.11). In 2005, the demand for both package sizes increased by 46 percent and 29 percent respectively (BMI

FoodPack, 2006:43). The 500ml and 1.5 litres together make up more than 75 percent of the bottled water primary packaging format.

2.16 ENVIRONMENTAL REVIEW OF BOTTLED WATER PACKAGING

Like any other industrial activity, the manufacturing of bottled water has an *impact on the natural environment*, from its source to the packaging material that is used in its production. The manufacturing of bottled water, transportation thereof and the recycling of the packaging material used imply the need for energy in order for any of these activities to take place.

2.16.1 Water quality

“The 1980 European Directive on natural mineral water sets very strict standards for the water, its bottling and transport conditions; the equipment for exploiting the water must be so installed as to avoid any possibility of contamination and to preserve the properties which the water possesses at source” (Ferrier, 2001:20). The European Directive is not only applicable to natural mineral water, but covers other drinking water types such as, bottled spring or purified water and tap water. Quality checks are put in place for the ongoing appraisal of bottled water quality.

In the USA, bottled water is classified as a food product hence it is governed by the Food and Drug Administration (FDA) regulations in terms of packaging and quality (Ferrier, 2001:20).

In emerging countries the regulation is not as clear-cut. As an example, India “lacks standards on bottled water, hygiene requirements for the containers and a mandatory system for testing and monitoring bottled water quality and safety” (Ferrier, 2001: 21). The result of such a situation is the exploitation of

various sources, poor quality standards and pollution due to poorly managed manufacturing entities.

South Africa is not that far off. The bottled water industry in South Africa is presently not well controlled. It lacks strict specifications relating to “water quality, health standards, testing and monitoring” (www.randwater.co.za).

2.16.2 Plastic bottles

Plastic is made from oil and natural gases, both of which are non-renewable resources (www.wateryear2003.org). In the manufacturing of bottled water, more than 1.5 million tons of plastic is used. Polyethylene Terephthalate (PET), which is the substance that water bottles are made of, requires less energy to recycle than glass, for example and releases fewer emissions into the atmosphere (www.wateryear2003.org). The processes however used to manufacture the plastic bottles can cause serious pollution, thus impacting both on the environment and human health if left unregulated (www.wateryear2003.org).

Currently the majority of plastic bottled water bottles is not being recycled and eventually ends up in landfills. Since the degradation of plastic occurs at a very slow rate, these bottles will remain in these landfills for a significantly long time (www.wateryear2003.org).

More than a quarter of the total annual production of bottled water worldwide is consumed outside its country of origin. The impact of this is the emissions of the green house gas carbon dioxide, which is produced during the transportation process.

2.16.3 Aluminium

One of the advantages aluminium offers is that no matter how many times the product is recycled; aluminium does not lose its properties. It is more ef-

fective to recycle aluminium and use it again than source new aluminium, primarily because of the level of energy consumption required (Ferrier, 2001: 22). In terms of recycling, about 25 percent of aluminium that is produced globally is recycled (Ferrier, 2001: 22).

2.16.4 Glass

Similar to aluminium, glass also does not lose its properties when recycled. Ferrier (2001:22) reports “Glass bottles can be washed and re-filled about 80 times”. The use of ‘used’ glass in a manufacturing environment reduces energy consumption by approximately 25 percent (Ferrier, 2001: 22).

2.16.5 Multiple packaging

Various shapes and colours of packaging are used to package bottled water. According to Ferrier (2001: 9) for a long period bottled water was only available in glass packaging. It was only at the end of the 1960’s did manufacturers start to venture out of glass packaging and experiment with a polymer of vinyl chloride (PVC) plastic. When PET was later introduced, the experimentation extended to this packaging format as well.

PET is gradually replacing PVC because of the many advantages it has to offer, such as (Ferrier, 2001: 21):

- “It is brighter than PVC, very transparent and almost looks like glass”
- “Is shatter-resistant and easy to work on”
- “Its light-weight (20 percent lighter than PVC) enables to reduce plastic quantities needed to make a bottle”
- “It is compressible, so volumes of was are smaller”
- “It is easy to recycle” with various outputs such as polyester carpets, fabrics and fibres for the textile and clothing industry and new PET bottles etc.

- “When burnt is doesn’t release chlorine into the atmosphere, which is contrary to PVC”

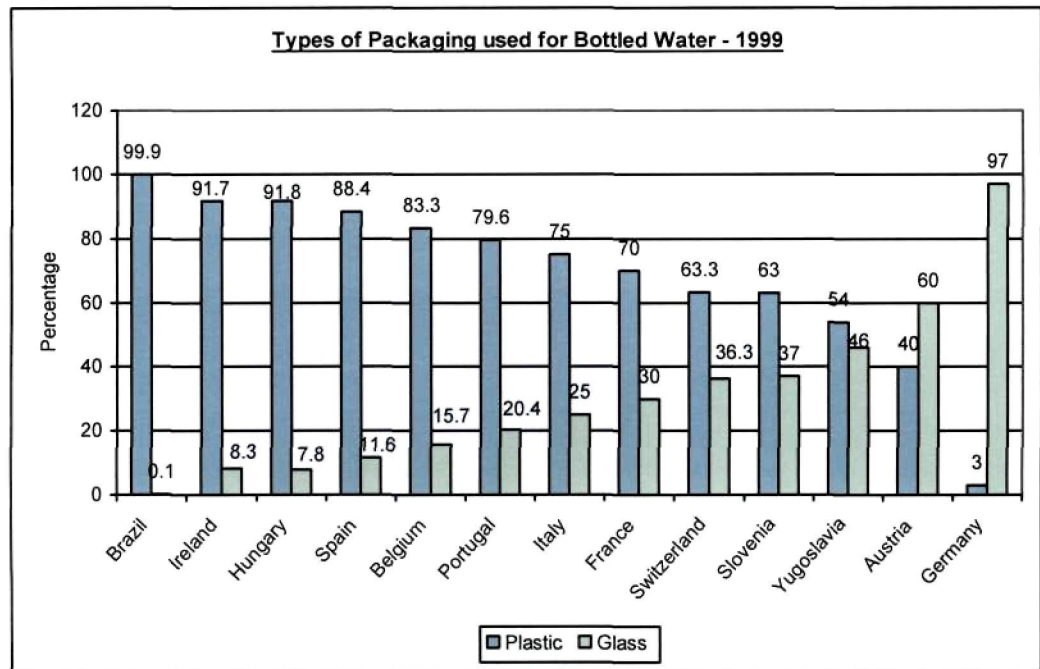


Figure 2.5: Types of packaging used for bottled water, in percentage, in 1999 (Source: Ferrier, 2001:9)

According to Ferrier (2001:10) roughly 1.5 million tons of plastic is used globally in the manufacturing of bottles for bottled water. The cost of the plastic is greater than the liquid it carries as the price of plastic is linked to the global market’s oil prices. Germany is the anomaly, where consumers prefer bottled water in returnable glass packaging.

Packaging is an essential part of bottled water marketing strategies. It is possible to identify a brand of bottled water through the shape and colour of its packaging. Perrier bottled water has become synonymous with the green coloured bottle that it comes in (www.bottledwaterweb.com). It sometimes serves as *the* key to the identification of a particular brand. An example of

such is Coca Cola and the contour bottle that consumers instantaneously link to the Coca Cola brand.



Figure 2.6: Perrier green bottle bottled water (Source: www.aqua-store.com)



Figure 2.7: The Coca Cola contour bottle (Source: www.antiquebottles.com)

2.17 WHY CONSUMERS CHOOSE BOTTLED WATER?

The understanding of *consumer behaviour* is fundamental to the success of any business. Companies are constantly looking at consumer behavioural patterns to predict future trends. Why? Marketing may promote a given product/service but unless the target audience perceives the product/service to be relevant to their needs, they will never consume it.

According to Sheth & Mittal (2004:129) *consumer behaviour* is defined as “mental and physical activities undertaken by consumers that result in decisions and actions to pay for, buy and use products and services”.

The importance of consumer behaviour recognition unfolds in the stage of strategic planning of the company. The adoption of a customer orientation strategy provides a business with competitive advantages that leads to a highly sustainable, profitable company. The creation of such a strategy is based on a sound understanding and evaluation of a customer’s needs and wants. Sheth & Mittal (2004:18) state that *consumer needs* are “determined by the traits of the individual and of the environment” and *consumer wants* are “determined by the individual context and environment context”.

All consumer behaviour is driven by needs and wants, whose satisfaction consumers seek and value. According to Maslow’s hierarchy of needs as depicted below, high-level needs become important only when the low-level needs are satisfied (Sheth & Mittal, 2004:164):

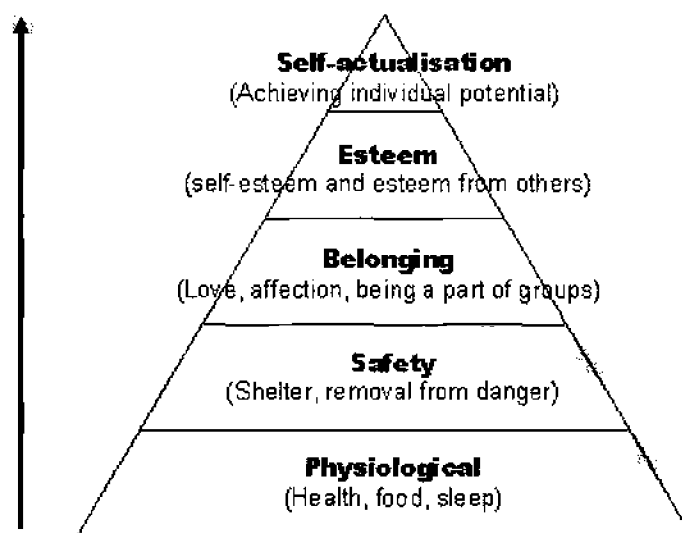


Figure 2.8: Maslow’s hierarchy of needs (Source: www.changingminds.org)

With reference to the bottled water category, water safety will only become an issue when a physiological need such as thirst, is fulfilled.

In France, 39 percent of consumers, predominantly female and elderly people, choose to consume only bottled water (Ferrier, 2001: 16). The critical and fundamental question is WHY?

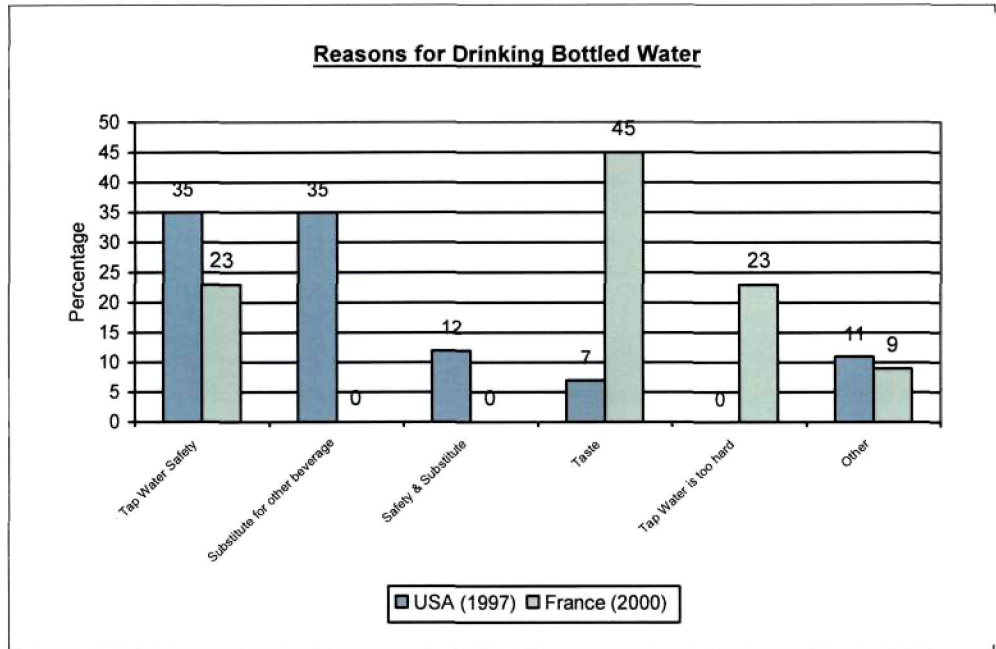


Figure 2.9: Reasons for drinking bottled water (USA 1997, France 2000)

(Source: Ferrier, 2001:16)

Several reasons can be identified as the motives for this choice (Ferrier, 2001: 16):

- “consumers object to the taste of chemicals (i.e. Chlorine) that is used to purify tap water”
- “consumers look for security and often mistrust tap water because of previous bacterial contamination and hence perceive bottled water as being safer”
- “general and seasonal shortages of tap water lead people to turn to bottled water”
- “consumers also drink bottled water because they care for their health” etc

2.17.1 Influencing buyer behaviour

Consumer belief and acceptance in the positioning of bottled water as a healthier beverage can be explained using Kotler's Stimulus-Response Model (2003:183).

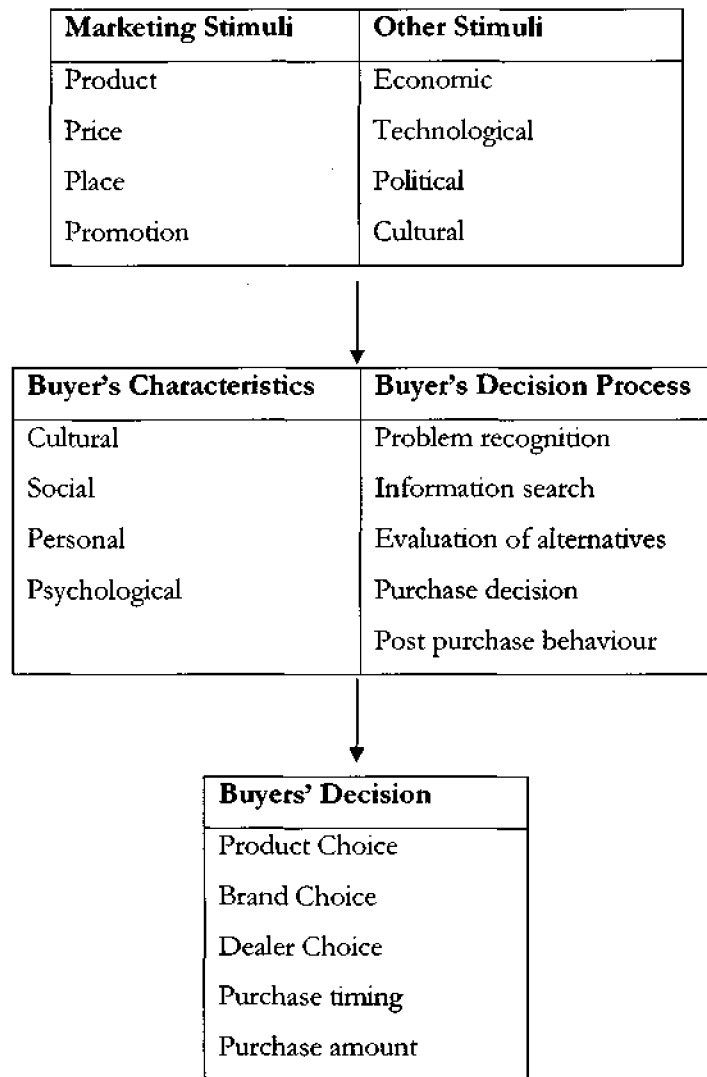


Figure 2.10: Model of buyer behaviour (Source: Kotler, 2003: 184)

An in-depth understanding of Buyer's characteristics, in terms of what drives people to purchase bottled water, enables bottled water Manufacturers to reach and serve consumers that are open to this category. It also enables mar-

keting campaigns to be precisely targeted towards these consumers. Each of the Buyer Characteristics will be discussed in detail below, with reference to the bottled water category.

2.17.2 Buyer characteristics

2.17.2.1 Cultural factors

According to Kotler (2003:183) culture, subculture and social class is the common thread that dictates an individual's wants and behaviour. These factors often serve as the guide to an individuals' brand and product preferences. An examples quoted by Kotler (2003:184) is media preferences, where the upper-class consumers prefer consumer magazines and books whilst the low-class consumers prefer radio.

In the bottled water market segment, the cultural factors play a critical role in defining what is 'socially' acceptable by consumers.

2.17.2.2 Social factors

In addition to the Cultural factors mentioned above, there are key social factors which influence consumer behaviour, namely reference groups, family, and social roles and statuses (Kotler, 2003:184). Consumers are driven by an individual need for membership and through their actions (by way of consumption of a particular product/service), enables them to obtain this membership. These social factors influence individual behaviour as they serve as points of reference and a source of norm, value and conduct (Sheth & Mittal, 2004:63).

In high-value purchase decisions, the use of interpersonal influence becomes more apparent and influences a consumer's behaviour to a far greater level.

With application of Maslow's hierarchy of needs, this study aims to refute or validate this hypothesis - the consumption of bottled water by a younger age

group of consumers is driven by a need for social group acceptance and status.

2.17.2.3 Personal factors

Kotler (2003:190) states that a buyer's decision is also influenced by his/her age, occupation, economic circumstances, lifestyle, personality and self-concept. Some of factors will be used to evaluate the consumers of the bottled water category.

2.17.2.4 Psychological factors

There are four major psychological factors that a person's buying choices are influenced by, namely, perception, learning, motivation, and beliefs and attitudes.

2.17.2.4.1 Perception

There are three factors that shape consumer *perception* of a product/brand (Sheth & Mittal, 2004:130):

- “stimulus characteristics – which is the nature of information from the environment” namely, sensory and information content
- “context characteristics – the setting in which the information is received”
- “consumer characteristics – personal knowledge and experiences”

Perception is important as individuals selectively perceive what they want, which in turn affects how they see risks in the purchase of a particular product/service.

With regards to the bottled water category there exists a myriad of brands in different packaging shapes and sizes. Each bottled water brand claims a

unique and distinctive positioning in this category, which is communicated through its advertising. Advertising is used as the stimulus to trigger sensory and information content about a particular product. For example, the imagery used in the advertising of Valpré bottled water of a snow-capped mountain, a pristine flowing river and a bottle of Valpré, are all used to stimulate the senses of the consumer and draw him/her to the product.

Perceptions of the taste of a product are influenced by the context the brand name provides (Sheth & Mittal, 2004:131). Brands, like Ceres and LiquiFruit fruit juices, are packaged in carton packaging and are perceived to be high quality products by its consumers. This study will test to see if the perception of carton packaging in relation to these brands can be carried over to a bottled water range packaged in carton packaging and is launched under one of these brands. Brands in plastic bottle and glass packaging will also be tested.

Finally, perception is also driven by what the consumer already knows about the product. An example of such is, when a consumer purchases a bottle of Valpré water they expect the product to be consistent and deliver what it promises i.e. taste like water and deliver on the any claims that it makes.

However, as a result of the vast amounts of marketing information that consumers of today receive, consumers have become selective in their reception of these factors and hence bias their perceptions.

2.17.2.4.2 Learning

According to Sheth & Mittal (2004:138) there are four different mechanisms of *learning*, namely:

- “cognitive learning – acquiring new information from written or oral communication”
- “classical conditioning- learn an association between two stimuli due to their constant appearance as a pair ”

- “instrumental conditioning – learning to respond in particular way because it is rewarding”
- “modelling – learn by observing others”

In relation to cognitive learning, consumers ascribe the bottled water category with their need to lead a 'healthy' lifestyle. This inference is due to the manner in which brands within the bottled water category is advertised, both in print and through oral communication.

The constant imagery used in the advertising of bottled water has also influenced consumers in their perception of this category. In terms of packaging type one can hypothesis that consumers are 'classically conditioned' in purchasing bottled water in plastic bottles as this is the main packaging type that bottled water is sold in. This study will investigate this and either validate or refute this hypothesis.

Furthermore consumers have experience with carton packaging as a wide range of fruit juices and milk products are available in this packaging format. One can hypothesis that because of this, consumers may readily accept a carton range of bottled water offered under the same brand. This will be evaluated in this study.

Bottled water is not a cheap beverage option. The out-of-home consumption of bottled water by many consumers can be related to the status obtained when consuming this beverage option. One can hypothesis that the consumption of bottled water entails a certain aspirational element. This study will try to delve into this and validate this.

2.17.2.4.3 Motivation

In a broad sense motivation pertains to the reason from acting/responding. There are several theories that have been developed to understand human motivation. The three best know theories are Freud's Theory, Maslow's Hierarchy of Needs and Hertzberg's Model.

With reference to Maslow's theory, certain needs can be classified as 'biogenic' and others, as 'psychogenic'. A need transforms itself into a motive when the level of intensity increases to a sufficient level. The need then transforms into a *motive*. "A *motive* is a need that is sufficiently pressing to drive the person to act" (Kotler, 2003:195).

This study will aim to uncover what are the motivating factors that make consumers consume bottled water.

2.17.2.4.4 Beliefs and attitudes

Individuals acquire and develop beliefs and attitudes over a period of time. Attitudes and beliefs are a generalization and therefore an individual doesn't go through the process of evaluation for each and every object (www.fao.org). An example of such is the country-of-origin effect (Kotler, 2003:198). Marketers may strongly promote a brand based on its locally production.

This research study will attempt to unpack what the current attitudes are of consumer of the bottled water category.

2.17.3 Innovation adoption

According to Sheth & Mittal (2004:144), *innovation* can be defined as “a product, service, or an idea that a customer perceives new”. Newness has two dimensions to it, namely (Sheth & Mittal, 2004:144):

- Uniqueness - “how different it is from existing products”
- Age - “how long it has existed in the marketplace”

Consumer reception of an innovation varies and can be explained using the *diffusion process* as illustrated below (Sheth & Mittal, 2004:144):

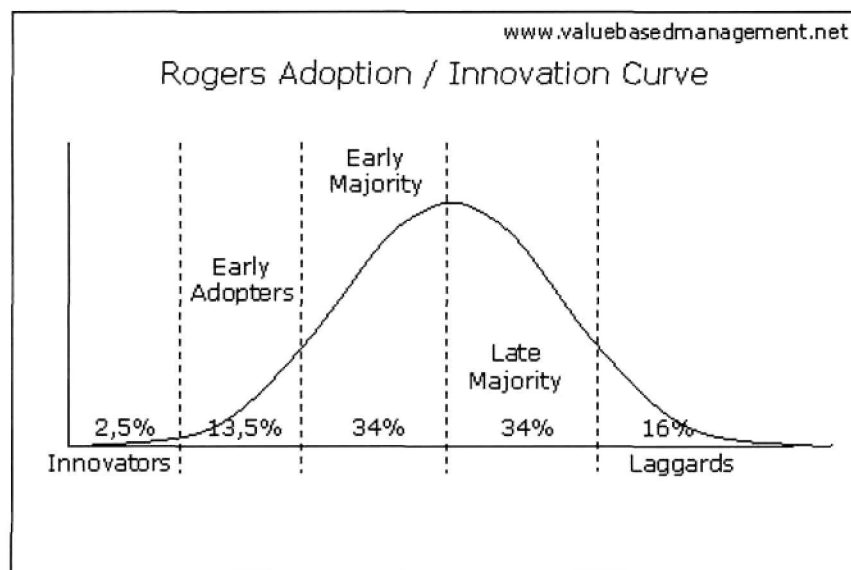


Figure 2.11: The Roger’s adoption/Innovation Curve (Source: www.12manage.com)

The Innovation Adoption Curve classifies adopters of innovation into various categories (www.12manage.com):

- “Innovators – brave people, pulling the change”. These individuals serve as an important communication mechanism for the innovation
- “Early Adopters – Respectable people, opinion leaders, that will try out new ideas but in a careful manner”

- “Early Majority – Thoughtful, careful people that will accept change more quickly than average people do”
- “Late Majority – Skeptic individuals that will use new ideas/products only when the majority is using it”
- “Laggards – Traditional people who love to stick to the ‘old ways’. They are critical about new ideas/products and will only accept it if becomes mainstream”

The Innovation Adoption Curve is based on the idea that certain individuals are more receptive and open for adaptation of new ideas/products than others. This model proposes that for a new idea/product to be accepted, one should commence with targeting the innovators and early adopters first. Thereafter, the other categories can be approached. The percentages in the model can be used as “a first draft to estimate target groups for the communication process” (www.valuebasedmanagement.net). In terms of carton packaging, participants will be evaluated and categorized using the above model.

According to Sheth & Mittal (2004:200) *attitudes* are “learned predispositions to respond to an object or class of objects in a consistently favourable or unfavourable way”. Hence attitudes can be used to predict consumer behaviour. This implies that if consumers view a new product concept in a favourable light, then when the new product becomes available these consumers are likely to purchase it. This study will assess consumer attitudes with regards to carton packaging. The assessment will indicate as to whether there is indeed an opportunity for launching a range of bottled water in carton packaging.

2.17.4 Changes in consumers’ lifestyle

The increase in urbanisation can also attribute to the bottled water phenomenon. In 1971, bottled water consumption in France was at an average of 52 litres per inhabitant, compared to 85 litres per inhabitant in Paris and its sur-

rounding areas (Ferrier, 2001:18). Increase in urbanisation also impacts negatively on the quality of tap water.

Improvement in the standard of living amongst many consumers and the greater use of cars allow for consumers to purchase bottled water with much difficulty. The changes in the working habits of people as they become more office bound create a tendency for them to have a bottle of water within arms reach.

The success of bottled water is also attributed to the highly effective and appealing marketing behind the various brands. According to Ferrier (2001:18), marketing and advertising is fundamental to brands that are selling such a similar product, which is colourless, odourless and tasteless. The aspirational element of all bottled water advertising has been the engine of growth for this category.

2.17.5 The negatives of this booming category

Legislation requires that bottled water declares its composition and origin of water, though this may vary from country to country. According to Ferrier (2001:19), the European Union (EU) requires “natural mineral water’s labels to state the waters’ analytical composition, giving its characteristic constituents and the specific water source and name, and information on certain treatments used.” It further prohibits bottled water brands from making claims about the “prevention, treatment or cure of human illness” (Ferrier, 2001:19).

In South Africa, “...most consumers of bottled water are clueless about what the terms on the labels really say about the clear stuff they are drinking” (The Star Newspaper, Consumer Watch, 28 August 2006, page 7). In the absence of proper legislation, many bottled water manufacturers have been given Carte Blanche with the marketing and labelling of their bottled water brands.

However, this is about to change as the legislation for bottled water becomes more stringent. The Department of Health has just published its “Regulations relating to all bottled water” (The Star Newspaper, Consumer Watch, 28 August 2006, page 7). The impact of this is the revision of label information of many well-known and established brands.

2.17.6 Influence of packaging on a purchase decision

A study conducted in the USA by The Consumer Network (www.fdp.com), was undertaken to view the degree of influence of packaging on purchase decisions in relation to price, brand, freshness and specific item preferences.

The survey was prompted as a result of non-delivery by many brands and the explosion of brand offerings currently available in the marketplace. The survey asked participants to consider packaging in every category and to consider brands in two ways:

- “The influence of specific items they liked or were in the habit of buying, such as Diet Coke “ and
- “The influence of the brand itself, such as Coca Cola”.

The study sample covered a wide age group, ranging 20-34, 35-49, 50-74 and 75+ years old.

Table 2.12: How packaging ranks in 25 product categories

CATEGORY	PACKAGING	PRICE	BRAND	PRODUCT	FRESHNESS
Cleaning	22.3%	25.2%	22.4%	19.8%	10.4%
First aid	20.9%	24.3%	21.0%	19.1%	14.7%
Cut fruit	20.5%	20.9%	14.8%	17.9%	25.9%
Ketchup	19.4%	21.8%	20.1%	20.6%	18.2%
Pills/Tablets	19.4%	23.0%	19.0%	18.8%	19.8%
Cut veggies	19.3%	23.8%	14.7%	17.1%	25.1%
Cheese	19.2%	21.8%	19.4%	17.7%	22.1%
Frozen entrees	18.6%	23.1%	20.8%	18.1%	19.4%
Soup	18.1%	19.0%	22.6%	19.4%	18.1%
Cat food	18.0%	23.2%	19.3%	21.1%	18.3%
Crackers	17.7%	21.5%	21.0%	19.0%	20.9%
Ice cream	17.7%	23.3%	21.0%	18.2%	19.8%
Sauce	17.7%	23.0%	20.8%	19.4%	19.1%
Dog food	17.6%	23.4%	23.4%	19.3%	17.7%
Soft drinks	17.5%	22.6%	22.4%	19.7%	17.8%
Cereal	17.5%	22.7%	21.6%	20.7%	19.9%
Cookies	17.5%	21.5%	19.6%	17.9%	23.6%
Juice	17.4%	23.2%	19.7%	18.1%	21.6%
Mayonnaise	17.1%	21.7%	23.0%	18.9%	19.3%
Chips	16.9%	22.2%	20.0%	18.7%	22.1%
Milk	16.7%	22.9%	18.9%	18.0%	23.6%
Meat	16.1%	24.1%	16.8%	18.5%	24.6%
Candy	16.0%	21.7%	20.6%	20.5%	21.2%
Whole veggies	15.7%	25.5%	14.0%	18.5%	26.4%
Whole fruit	11.7%	25.2%	11.5%	19.1%	25.1%

Source: www.fdp.com

The results of the study showed that participants acknowledged the influence of packaging on their purchases overall. The three categories where the influence of packaging overtook the brand name were:

- Pills/tablets
- Whole veggies
- Cut fruit

When compared to the other attributes that were rated, packaging was rated as more influential than specific product reference in seven categories. Brands led in only three of the categories.

The study also revealed that a younger age group of participants rated the influence of packaging greater than the older age group. This is an interesting finding as one would have assumed that the older participants would have rated packaging more influential due to trouble of opening and closing packaging. This is a critical observation for this study and will be carefully explored with consumers in the bottled water category.

Further findings in the study revealed that brand marketers need to look for more opportunities to use packaging as a brand-building tool.

2.18 BRANDING OF BOTTLED WATER

Branding is the art and cornerstone of marketing. According to the American Marketing Association, a brand can be defined as a “name, term, sign, symbol, or design, or a combination of them, intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competition” (Keller, 2003:3).

Brands differentiate themselves from products by adding other unique dimensions that allows it to differentiate in some way from other products which satisfy the same need.

Some brands attain a competitive advantage through product and/or non-product performance. In the bottled water category, several brands exist, each claiming a unique selling point. For example, the brand called Water + Slimming, claims that water contains added ingredients, which aids in weight-loss.

Brand proliferation remains one of the key opportunities that many brands face today. An example of such is Coca-Cola, which now comes in many versions – namely Classic Coke, Diet, With Lemon etc. This study will test to see if established brands in the non-alcoholic beverage category will be able to enter the bottled water category with an offering.

2.18.1 Brands and packaging innovation

Keller (2003:210) states that there are a number of objectives which packaging must achieve, namely –:

- “Brand identity”
- “Convey descriptive and persuasive information”
- “Facilitate product transportation and protection”
- “Assist at-home storage”
- “Aid product consumption”

Packaging innovation has allowed brands to distinguish from each other; to such an extent that certain brands have managed to achieve a leadership position in the marketplace through successful packaging innovation. An example of successful packaging innovation is Heineken - if the average consumer was asked what came to mind when they thought of Heineken beer, the common response would be the ‘green bottle’ (Keller; 2003:212). This illustrates the interdependent relationship that packaging has with a brand, where it can eas-

ily become an integral part of brand recognition and impact sales almost instantaneously. This study will assess if certain brands, which are currently present in Tetra Pak packages, are more easily accepted as brands in the bottled water category or not.

Keller (2003:212) states that structural packaging innovations can be undertaken to create a point of difference, which can command a premium price in the marketplace. New packages can be used to expand and capture new markets. This study will assess consumer acceptance of existing packages (Tetra Brik Aseptic ®), as well as new packages (Tetra Prisma Aseptic ®) from Tetra Pak, for the bottled water category.

The manner in which a brand name is displayed on a package is critical in terms of the visual impact the brand has on shelf. The colours used on a package can affect consumers' perception of the product itself. For example, a lighter coloured orange displayed on a fruit juice package could be perceived by consumers as the product content not being sweet, when compared to a darker coloured orange.

The display area on Tetra Pak packages exceeds all other packaging formats. This allows for more graphics to be displayed and hence assist in the sale of the product.

In conclusion, packaging is a critical interdependent variable that add to a brands' success or failure. It is for this reason that careful consideration must be given on the package selection for the bottled water category.

RESEARCH DESIGN &
METHODOLOGY

3.1 INTRODUCTION

The research strategy adopted for this study is a combination of descriptive and exploratory strategies.

3.2 RESEARCH DESIGN

3.2.1 Descriptive strategy review

The purpose of adopting a descriptive strategy for this study was to provide data about the target population that is being studied in terms of who, what, when, where and how bottled water is consumed. The adoption of this strategy aims to “portray an accurate profile of persons, events or situations” (Saunders et al; 2003:97).

In terms of the descriptive strategy, a self-administered survey tool, in the form of a questionnaire, was used. The questionnaire consisted of several closed-ended questions. According to Cooper & Schindler (2003:179) there are many compelling reasons for sampling versus a census study, namely:

- “Lower cost”
- “Greater accuracy of results”
- “Greater speed of data collection”
- “Availability of population elements”

A *census* study is only appropriate when the following conditions exist (Cooper & Schindler, 2003:181):

- Population is small
- Variability within the population is high

With the Germiston population total estimated to be 171 541 in 1991 (www.encyclopedia.com) and for the above mentioned reasons on sampling, coupled together with time and financial constraints, instead of having the entire population of the Germiston region surveyed, a *non-probability sample* was adopted for this study.

Non-probability sampling uses human intervention and is subjective, allowing the researcher to choose sample elements “at random” (Cooper & Schindler, 2003:184). There are many advantages associated with non-probability sampling, namely (www.tardis.ed.ac.uk):

- It is cheaper
- It is useful when the entire sampling frame is not available
- Is appropriate and useful when the population is widely dispersed that any form of probability sampling will not be efficient etc.

Disadvantages relating to non-probability sampling are (www.musc.edu):

- The subjectivity associated with this type of sampling prevents making inferences to the entire population
- The validity and credibility becomes questionable because of the selection process
- The reliability is also questionable due to the lack of confidence in the interpretation of the research findings etc.

There are several techniques of non-probability sampling that can be adopted, namely quota sampling, purposive sampling, snowball, self-selection and convenience sampling. Based on the external factors influencing a study, each of these techniques offers unique advantages. For example quota sampling is more appropriate when there is a high likelihood of the sample being represented, where data is need quickly and costs are constrained and there is a

high control over the sample contents. Convenience sampling on the other hand is more suited when there is a low likelihood of the sample being representative, where there is very little variation in the population and there are low costs and control over the sample (Saunders et al, 2003:172).

In summary, non-probability sampling techniques are useful when there are limited resources as in the case of this research study.

The type of non-probability sampling chosen for this study is *convenience sampling*. According to Joppe (www.ryerson.ca/~mjoppe/index.htm) in convenience sampling “the selection of units from the population is based on easy availability and/or accessibility”. Whilst convenience sampling offers the researcher the ease of accessing participants, this type of sampling entails no randomness and the likelihood of bias can be high.

As defined by Joppe (www.ryerson.ca/~mjoppe/index.htm) “any survey technique that requires the participant to complete the questionnaire himself/herself is referred to as a self-administered survey”. Dissemination of surveys of this nature takes various forms such as fax, email, post, Internet posting and even in person etc. For this study the researcher disseminated the descriptive questionnaires.

There are many advantages that follow a self-administered survey questionnaire, namely (www.ryerson.ca/~mjoppe/index.htm):

- The anonymity of the participant which can positively impact the validity in which the questionnaire is answered i.e., more truthful responses can be anticipated
- The questionnaire can be completed at the participants' convenience
- With the lack of an interviewer there is no bias or interviewer error
- The ability of covering a geographically spread sample is attainable.

There are also disadvantages that are associated with the adoption of a self-administered survey questionnaire in any research study, namely (www.ryerson.ca/~mjoppe/index.htm):

- The lack of control in terms of who actually completes the questionnaire
- The risk of the participant reading part or all of the questionnaire prior to completion, hence biasing his/her responses
- The low response rate

In order to overcome the low response rate usually associated with self-administered questionnaires, Joppe (www.ryerson.ca/~mjoppe/index.htm) suggests that the following be done:

- “A well written covering letter of appeal, personalised to the extent possible, that stresses why the study is important and why the particular participant should fill in the questionnaire”
- “Ensuring confidentiality and/or anonymity, and providing the name and contact number of the lead researcher and/or research sponsor should the participant wish to verify the legitimacy or have any specific questions”
- Providing a due date that is reasonable but not too far off and sending or phoning at least one reminder”
- “A well designed, visually appealing questionnaire”

Prior to disseminating the descriptive questionnaires, the researcher ensured that all of the above points were met in order to be able to obtain as high a response rate as possible.

A convenience sample size of one hundred participants was used for the administration of the descriptive strategy questionnaire. This included an additional five questionnaires to cater for non-responses. The criteria for obtaining the sample were that all participants had to meet the following criteria:

- Work and/or Reside in Germiston

- Be employed
- Be eighteen years or older

To ensure that the above criteria were met, the questionnaires were administered to individuals that were employed in the Germiston region only.

- **Descriptive questionnaire design strategy**

After establishing the objectives of this research study and conducting the literature review, the researcher then appraised the sampling technique most suitable and various methods that could be adopted to collect the replies for this study was chosen. Thereafter the design of the questionnaire was undertaken.

The design of the questionnaire was split into three steps, namely (Burgess, 2001:1-15):

- Determining the questions that needed to be asked – this step provided a key link between the objectives of this study and the individual questions. This was done by identifying the key issues and formulating appropriate questions. The key issues were outlined as follows:
 - Current bottled water purchasing patterns
 - Key need-states explaining non-drinking of bottled water
 - Competitive Landscape
 - Key brand drivers
 - Relevant brand features/benefits
 - Package type preferences

The discussion guide for the focus groups was also constructed using these keys issues.

- Selecting the question type for each question and specifying the wording – different types of questions were used, ranging from close-ended questions to ranking. The researcher opted not to include any open-ended questions in order to promote the ease of filling in the

questionnaire by the participants. The wording of the questions was checked for conciseness, ambiguity, negativity, a double-barrel nature and leading. This checked was conducted through the piloting of five questionnaires that were not included in the sample for this study.

- Designing the overall question sequence and overall questionnaire layout - the layout of the survey questionnaire included a covering letter explaining the purpose of the study; an indemnity section in which the participant acknowledged his/her voluntary participation in the study, granting permission of his/her input to be used in this study; and an instruction page outlining how the questionnaire should be filled in.

3.2.2 Exploratory strategy review

According to Saunders et al (2003:96) an *exploratory strategy* aims to “seek new insights, to ask questions and to assess phenomena in a new light”. Adopting an exploratory strategy for this study assisted in probing the target market as to whether there is indeed an opportunity of launching a bottled water range in carton packaging for a pre-defined target market.

As defined by Cooper & Schindler (2003:155), a *focus group* is “a panel of people, led by a trained moderator, who meet for ninety minutes to two hours.” The aim of a focus group is for individuals to share their ideas, feelings and experiences on a specific topic, under the guidance of a facilitator (Cooper & Schindler, 2003:155).

As with any research strategy, adopting a particular method of data collection has advantages and disadvantages.

Assessing the advantages offered by focus groups, the following can be listed (Cooper & Schindler, 2003:155):

- “Quickly and inexpensively grasp the core issues of a topic”
- “Provides the researcher the opportunity to observe reactions to their research questions in an open-ended group setting”

- “Participant respond in their own words, rather than being force-fit into a formalised method”
- Focus groups offer flexibility. “Agendas can be modified as the research team moves from one group to another”

The disadvantages associated with focus groups are (www.ag.arizona.edu):

- Poor control over the group and the information that will come out
- Its method produces data in a chaotic manner, making data analysis more difficult
- The size of the groups and use of convenience sampling limits the ability to generalize the results to the greater population
- The results may be biased based on the presence of an individual who may dominate the discussion and/or individuals whom remain reserved throughout the group discussion

With all this noted, because focus groups are a method of obtaining qualitative data, which offers limited sampling accuracy, the results from such, needs to be assessed with caution. In this study, to compensate for this risk, key questions have been repeated in both questionnaires and will be cross-checked.

To effectively carry through this strategy the reviewing of secondary data and the administering of a second questionnaire in a focus group environment was adopted. The questionnaire comprising of several key open-ended questions was used to provide insights as to how the targeted consumer segment would view a carton packaged bottled water range. Two focus group sessions, each consisting of between six to ten participants was conducted.

The participants were probed to provide insights to the following questions:

- Do they consume any form of bottled water i.e. are they open to the category?

- Where do they spend their money? At which shop/retailer do they do their monthly shopping at?
- How do they perceive the bottled water category?
- At what occasions is bottled water consumed?
- What are the targeted consumer segment's attitude, usage and perceptions of the bottled water category? etc

Thereafter the participants were probed in terms of assessing the acceptability of carton packaging. To effectively do so, mock-up samples of a generic bottled water Brand in carton packaging was shown to the participants in the focus groups.

3.3 DATA COLLECTION PROCEDURE

3.3.1 Descriptive questionnaire data collection procedure

For the administration of the descriptive questionnaire, the personnel of PG Bison Ltd, where the researcher is presently employed, were approached to participate in this study. The company is based in the Germiston region of Gauteng.

The administration of the survey questionnaires were managed through the following process:

- Participants were identified and a spreadsheet was used to track the status of completion the questionnaires
- Each questionnaire was numbered before dissemination
- The researcher personally disseminated the questionnaires and collected them

A total of one hundred questionnaires were given to people agreeing to participate in this study. A period of two weeks was given to all participants be-

fore collecting the questionnaires. Three days before the due date of the questionnaires, the researcher sent out an email reminder to all participants.

To test for bias and the reliability of the questionnaire, a test of this questionnaire was conducted with a group of five participants before commencing with the actual study. In the analysis of the data for this study, the test questionnaires were not included. To accommodate for non-response, an additional five questionnaires were included in the study, taking the total sample size up to one hundred.

3.3.2 Exploratory questionnaire data collection procedure

- **Selection criteria for the focus groups**

The personnel of the company (which is based in the Germiston region) at which the researcher is employed was approached to participate in the focus groups. An email was sent out to selected individuals from the company's email address book inviting people to participate in the study and explaining the purpose of the study. In order to encourage participation, a two hundred rand Woolworth's gift voucher was used as the incentive and individuals who volunteered to be part of the focus Groups stood a chance of winning the voucher. The lucky participant was drawn after the two focus groups were conducted.

Part of the prerequisite for participation was:

- Candidates had to have consumed bottled water in the last month and,
- Must not have filled out the descriptive survey questionnaire.

The above conditions were set to reduce the bias of this study.

Interested individuals had to reply to the researcher, and thereafter calendar appointments were sent out to the individuals confirming the venue details of the focus Group sessions.

3.4 RELIABILITY AND VALIDITY OF THE RESEARCH INSTRUMENTS

3.4.1 Reliability

Joppe (www.ryerson.ca/~mjoppe/index.htm) defines *reliability* as “the extent to which results are consistent over time and an accurate representation of the total population under study“. Simply stated reliability indicates the “degree to which a research instrument measures the same way each time it is used under the same condition with the same subjects: (www.socialresearchmethods.net). Reliability of an instrument is estimated and not measured.

There are two ways in which reliability can be estimated, namely:

- Test/Re-test - The ideology behind Test/Re-test is that one should get the same score on test one and test two. This method is the more conservative option used to estimate reliability.
- Internal Consistency – this method estimates reliability by “grouping questions in a questionnaire that measure the same concept” (www.socialresearchmethods.net).

For this research study reliability has been estimated using *internal consistency*. The statistical technique used is Cronbach’s Alpha test, which determines how reliable a multi-item scale may be for a given population. Interpretation of the results from this test indicates that the closer the Cronbach alpha is to one, the higher the reliability estimate of the research instrument is. (www.socialresearchmethods.net).

3.4.2 Validity

According to Cooper & Schindler (2003:231) *validity* refers to the “extent to which a test measures what we actually wish to measure”. Within validity itself there are two types, namely, external validity and internal validity.

In terms of this research study *external validity* cannot be evaluated, as non-probability convenience sampling was the method adopted.

Internal validity encompasses the “ability of a research instrument to measure what it is purported to measure” (Cooper & Schindler, 2003:231). For this research study internal validity was endorsed through the pre-testing of the descriptive survey questionnaire.

3.4.3 Bias

To avoid bias in this study the following mechanisms have been put in place:

- Filter questions have been incorporated in the questionnaire design

The focus groups were conducted under the guidance of a trained moderator.

Chapter 4

DATA ANALYSIS & RESULTS

4.1 ANALYSIS OF THE DATA

4.1.1 Descriptive survey analysis

The data obtained from the administration of the descriptive research instruments were analysed using Survey System Version 9 for Windows. This software is designed to help the user create questionnaires and enter, edit, process and present research results. The Survey System produces a number of different kinds of tables, graphs, charts and verbatim reports that can be used in research reports and presentations. Data can be entered in two ways into this software, namely, Keypunch style (enter answers as a row of numbers) or interview style (the question and answer choices appear on the screen). For this study the data was captured using interview style.

For the descriptive survey questionnaire, only ninety-four individuals responded to the study, despite a sample of one hundred. Survey system allowed the researcher to weight the ninety-four participants up to a sample size of one hundred. This was done to meet the study's predefined sample size of one hundred respondents.

The findings from the analysis are presented in this chapter.

4.1.2 Exploratory analysis

- **Administration of the focus groups**

The researcher of this study conducted the focus group sessions. The moderator in the steering of the focus group sessions used a discussion guide. The guide was used to ensure that the participants in the focus groups considered all relevant information for this study. Due to financial constraints, no special facilities were used to conduct the focus group sessions. In order to capture the discussion of each focus group, the researcher employed an individual to capture the discussion in writing. This individual was not allowed to participate in the group discussions. Each focus group session lasted approximately one hour.

The focus group participants are profiled as follows:

Focus Group A

Name	Age	Gender	Occupation
Mala Shunmoogam	40	Female	IT Administrator
Boipelo Mooketsi	37	Female	Office Administrator
Chantell Wilken	33	Female	Personal Assistant
Judy Moodley	34	Female	Pricing Administrator
Isabel Barbosa	40	Female	Personal Assistant
Justin Berry	34	Male	Group Brand Manager
Collin Willoughby	38	Male	Customer Appreciation Manager

Focus Group B

Name	Age	Gender	Occupation
Rejoice Kachipande	27	Female	Performance Management Consultant
Linda Bowden	42	Female	CSI Officer
Tyron Myburgh	40	Male	New Store Development Manager
Mandy Tsatsoulis	38	Female	IT Officer
Modiegi Kgokane	36	Female	Training and Development Consultant
Thabo Mfomme	38	Male	Recruitment Consultant

The data obtained from the focus groups will be examined and cross-checked with the descriptive survey results.

4.1.3. Reliability of the Research Instruments

Question 7.4 was used as the scale question to administer Cronbach's Alpha Test. It is estimated that the reliability of this study rests at a 0.5. This implies that the reliability of this study is average.

Table 4.1: Cronbach's alpha test

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q7.4 Please rank the following packages, with 1 being LEAST environmentally friendly and 5 being MOST environmentally? PLASTIC BOTTLE	13.62	16.454	.101	.528
Q7.4 Please rank the following packages, with 1 being LEAST environmentally friendly and 5 being MOST environmentally? GLASS BOTTLE	13.37	17.441	.101	.511
Q7.4 Please rank the following packages, with 1 being LEAST environmentally friendly and 5 being MOST environmentally? CARTON	12.71	16.702	.198	.447

4.2 RESULTS OF THE DATA

4.2.1 How to interpret the descriptive survey tables

The tables generated by Surveys System Version 9 are grouped under three main banner columns, namely, Gender, Age Group and User type. These main banner columns are further divided into sub-banner columns. Each sub-banner column compares the answers given by the people in that column to the answers given by everybody else. It indicates which of their answers (if any) are more different from everybody else's answers than could be expected due to chance, given the sample sizes involved. If an answer is significantly different, it is marked by one or more plus signs or minus signs at the bottom of the data cell. Plus signs are used if the group picks that answer more often than everyone else. Minus signs are used if it picks that answer less often

than everyone else. The number of plus or minus signs indicates the level of statistical significance. One sign (+) indicates the 0.10 level, two (++) the 0.05 level, and three (+++) the 0.01 level. For example, two plus signs means that you can be 95 percent sure that the people represented by that group really would pick that answer more often than the people represented by the rest of your sample.

Reading the rows from left to right, the top set of numbers is the actual number in terms of the participants, whilst the bottom set is the percentage thereof.

Due to only ninety-four questionnaires being answered the data was weighted accordingly to bring the total sample size up to one hundred. The *weighted base* row is the indicative of the number of participants.

4.2.2 Descriptive survey results

4.2.2.1 Demographics

Table 4.2: Gender of participants

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	100	50	50	36	38	11	14	1
Male	50 50.0	50 100.0 +++	0 0.0	21 57.9	16 41.2	4 32.6	10 72.1	0 0.0
Female	50 50.0	0 0.0	50 100.0 +++	15 42.1	23 58.8	8 67.4	4 27.9	1 100.0

An equal number of male and female participants participated in this survey.

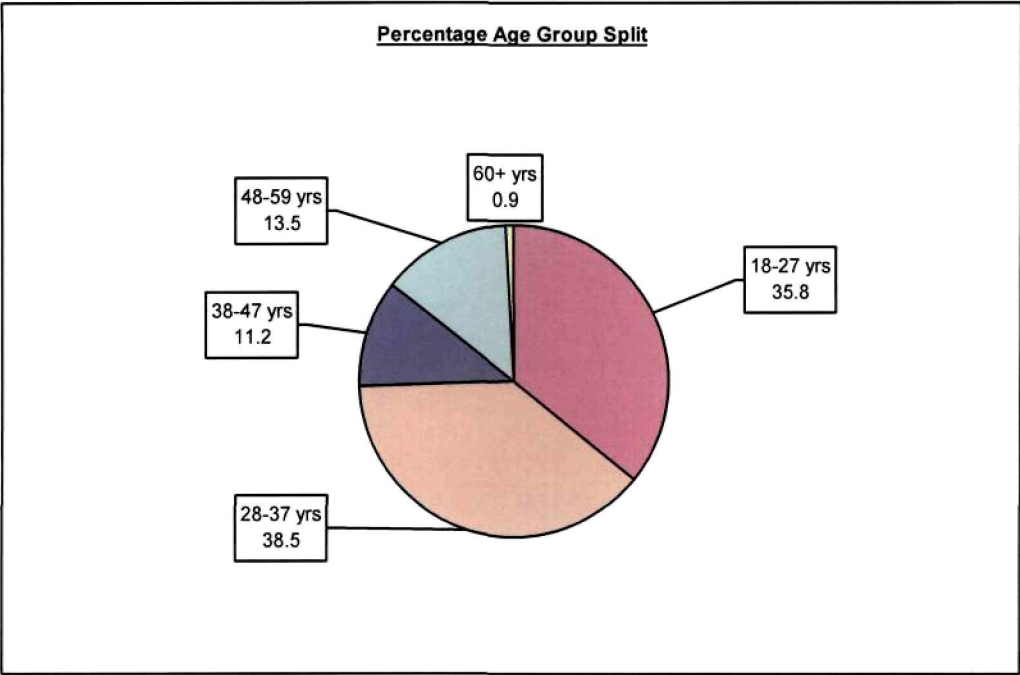


Figure 4.1: Age group profile of participants

A younger age group of participants participated in this study.

4.2.2.2 Perception of bottled water

Table 4.3: Key factors that make bottled water different from other beverage options like fruit juices, carbonated soft drinks, iced tea etc.

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	100	50	50	36	38	11	14	1
It is a healthier option	63 62.8	32 63.4	31 62.3	24 66.4	27 70.9	6 55.4	6 41.0	0 0.0
It is natural as it has no preservatives, added sugar etc	24 24.1	15 29.3	9 18.9	12 32.5	5 13.0	4 33.7	4 27.0	0 0.0
It satisfies my thirst	38 38.3	11 22.0	27 54.7 +++	13 36.5	15 38.9	7 61.4	2 18.0	1 100.0
It leaves no after- taste	8 7.8	1 2.4	7 13.2 +	1 2.6	1 3.2	5 42.1	1 7.0	0 0.0
Suitable for children	6 6.5	4 7.3	3 5.7	3 9.4	1 3.2	2 16.8	0 0.0	0 0.0
Suitable for people who are dieting	15 15.3	5 9.8	10 20.8	9 25.2 ++	1 3.2 ---	4 33.7	1 9.0	0 0.0
It hydrates me better	30 30.0	16 31.7	14 28.3	14 38.5	10 25.9	5 44.6	1 9.0	0 0.0
Nothing	1 0.9	0 0.0	1 1.9	0 0.0	0 0.0	0 0.0	1 7.0	0 0.0
Other unspecified	1 1.2	1 2.4	0 0.0	0 0.0	0 0.0	1 10.9	0 0.0	0 0.0

**More than one option could be selected*

A large proportion of the participants (62.8 percent) agree that bottled water is a 'healthy option' as this statement received the most mention. Other options receiving high mention were:

- "It satisfies my thirst" – 38 percent
- "It hydrates me better" – 30 percent
- "Its natural as it has no preservatives, added sugar etc" – 24 percent

The younger age groups (18-27 years old) are more in agreement with the statement that bottled water is suitable for people who are dieting, which is reflected by the 25.2 percent.

4.2.2.3 Current bottled water purchasing patterns

Table 4.4: Purchase of bottled water according to gender and age groups

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	100	50	50	36	38	11	14	1
Yes	88	40	48	29	38	11	9	1
	88.4	80.5	96.2	80.3	100.0	100.0	66.0	100.0
		--	++	-	+++			
No	12	10	2	7	0	0	5	0
	11.6	19.5	3.8	19.7	0.0	0.0	34.0	0.0
		++	--	+				

Out of the entire sample, 88.4 percent of participants purchase and consume bottled water and 70.9 percent (see Table 4.4 below) of those who do not currently purchase bottled water would consider purchasing it in the future. This indicates that a large number of participants are open to the bottled water category and the 71 percent requires motivating reasons to enter the category.

In terms of gender, females are more likely to purchase bottled water, which is indicated by 96.2 percent (Table 4.3). Compared to female participants, male participants seem to be less likely to purchase bottled water as indicated by the 19.5 percent negative response.

Appraising the data on age, one could hypothesize that the younger age group participants consume bottled water on a key driver being image, whilst the middle age groups purchase bottled water more on the basis of the products' health connotation. This hypothesis will be validated or refuted.

Table 4.5: Participants' currently not purchasing bottled water, but would consider purchasing it in the future

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	12	10	2	7	0	0	5	0
Yes	8	7	1	5	0	0	4	0
	70.9	75.0	50.0	65.4	0.0	0.0	79.5	0.0
No	3	2	1	2	0	0	1	0
	29.1	25.0	50.0	34.6	0.0	0.0	20.5	0.0

Of the total sample of participants only a small number, 12 percent, are currently not purchasing bottled water. However even though these individuals are not active in the bottled water category, 70.9 percent are open to the category.

Table 4.6: Participants' current status of bottled water purchases

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	100	50	50	36	38	11	14	1
I have never bought bottled water, but may consider buying it	6 5.8	5 9.8	1 1.9	3 9.4	0 0.0	0 0.0	2 18.0	0 0.0
I have bought bottled water in the past but currently am not purchasing it. I may consider buying it in the near future	7 7.0	6 12.2	1 1.9	6 16.2	0 0.0	0 0.0	1 9.0	0 0.0
I buy bottled water from time to time	38 37.7	12 24.4	25 50.9	12 32.4	12 31.6	7 63.9	6 43.0	1 100.0
I buy bottled water regularly, but not all the time	25 25.1	11 22.0	14 28.3	5 12.8	17 45.2	1 8.4	2 16.0	0 0.0
I buy bottled water all the time	23 23.4	16 31.7	8 15.1	10 29.1	9 23.2	3 27.7	1 7.0	0 0.0
Not answered	1 0.9	0 0.0	1 1.9	0 0.0	0 0.0	0 0.0	1 7.0	0 0.0

Of the total users of bottled water close to 50 percent purchase bottled water from time to time i.e. 4 in 10 people buy it from time to time (which is represented by the 37.7 percent). Three in ten people purchase bottled water regularly (which is represented by the 25.1 percent) but not all the time and 2 in 10 people purchase bottled water all the time (which is reflected by the 23.4 percent).

Although male participants don't purchase bottled water, when they do they are more likely to buy it all the time as reflected by the 31.7 percent. Male participants may be smaller in usage but are significant in volume when compared to their counterparts.

The younger age groups (18-27 year old) are open to the bottled water category but are currently not regular purchasers. As per the hypothesis stated in the discussion under Table 4.2, it is refuted, as these consumers should be

regular purchasers of bottled water if the image/status supposedly offered by bottled water was important.

Table 4.7: Occasions when bottled water is purchased

	Gender			Age group				
	Total	Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	86	39	47	27	38	11	9	1
When I am out shopping	52 60.5	22 56.3	30 64.0	20 75.6	25 64.6	5 44.6	2 24.2	0 0.0
When I do my monthly grocery shopping	11 12.2	5 12.5	6 12.0	2 8.1	4 11.2	2 16.8	1 13.7	1 100.0
When it is payday	2 2.2	0 0.0	2 4.0	0 0.0	0 0.0	2 16.8	0 0.0	0 0.0
Only when I have extra money	6 6.9	1 3.1	5 10.0	1 3.5	1 2.5	3 25.3	1 13.7	0 0.0
I purchase bottled water on a weekly basis	10 11.6	2 6.3	8 16.0	3 10.6	3 8.8	3 25.3	1 10.6	0 0.0
Only when I am at a restaurant	7 8.0	1 3.1	6 12.0	1 3.5	3 8.1	3 25.3	0 0.0	0 0.0
When I am socialising	13 15.4	9 21.9	5 10.0	3 12.7	3 8.8	4 36.1	2 27.3	0 0.0
When I'm on my way to work	6 6.6	0 0.0	6 12.0	0 0.0	6 14.7	0 0.0	0 0.0	0 0.0
On holiday	2 2.5	1 3.1	1 2.0	0 0.0	2 5.6	0 0.0	0 0.0	0 0.0
When travelling/ driving	10 11.5	6 15.6	4 8.0	1 4.6	6 14.4	1 8.4	2 24.2	0 0.0
No particular reason	1 1.4	1 3.1	0 0.0	0 0.0	0 0.0	1 10.9	0 0.0	0 0.0
When I'm thirsty / dehydrated	2 2.2	0 0.0	2 4.0	0 0.0	1 2.5	1 8.4	0 0.0	0 0.0
I purchase it mainly for the use of the bottle	1 1.1	0 0.0	1 2.0	0 0.0	1 2.5	0 0.0	0 0.0	0 0.0
When there's no access to filtered water	1 1.1	0 0.0	1 2.0	0 0.0	1 2.5	0 0.0	0 0.0	0 0.0
At the gym	2 2.5	1 3.1	1 2.0	1 4.6	1 2.5	0 0.0	0 0.0	0 0.0
Raving parties	1 1.4	1 3.1	0 0.0	1 4.6	0 0.0	0 0.0	0 0.0	0 0.0

**More than one option could be selected*

Each of the statements can be classified into broad categories as follows:

- When I am out shopping = ROUTINE
- When I do my monthly shopping = ROUTINE
- When it is payday = AFFORDABILITY
- Only when I have extra money = AFFORDABILITY
- I purchase bottled water on a weekly basis = PLANNED
- Only when I am at a restaurant = CONVENIENCE/STATUS
- When I am socialising = CONVENIENCE/STATUS
- When I am on my way to work = PLANNED
- On holiday = CONVENIENCE/STATUS
- When travelling/driving = PLANNED
- No particular reason = NONE
- When I'm thirsty/dehydrated = NEED
- I purchase it mainly for the use of the bottle = NEED
- When there's no access to filtered water = NEED
- At the gym = CONVENIENCE/STATUS
- Raving parties = CONVENIENCE/STATUS

Using the above classification, the following results can be categorised:

CATEGORY GROUP	PERCENT
ROUTINE	72.2
AFFORDABILITY	9.1
PLANNED	29.7
CONVENIENCE/STATUS	29.8
NEED	4.4

More than two thirds (72.2 percent) of the participants purchase bottled water as a routine purchase. Participants who fall within the PLANNED category could be considered as loyal users of bottled water.

Table 4.8: Outlets at which bottled water is purchased

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	86	39	47	27	38	11	9	1
Shoprite	4 4.4	0 0.0	4 8.0	1 3.5	2 4.9	1 8.4	0 0.0	0 0.0
Pick 'n Pay	39 45.2	10 25.0	29 62.0	9 35.4	19 49.4	4 36.1	6 62.1	1 100.0
Woolworths	21 24.9	7 18.8	14 30.0	4 15.2	10 25.9	3 25.3	5 51.5	0 0.0
Spar	23 26.8	6 15.6	17 36.0	2 7.1	12 31.6	6 53.0	2 24.2	1 100.0
Local Garage forecourt	44 51.5	17 43.8	27 58.0	13 49.2	22 57.9	6 50.5	3 37.9	0 0.0
At a restaurant	20 23.2	5 12.5	15 32.0	2 8.1	11 28.4	4 33.7	3 34.8	0 0.0
Makro	3 3.6	1 3.1	2 4.0	1 3.5	1 3.2	1 8.4	0 0.0	0 0.0
School Tuck-shop	1 1.4	1 3.1	0 0.0	0 0.0	1 3.2	0 0.0	0 0.0	0 0.0
Canteen	5 5.8	1 3.1	4 8.0	1 3.5	4 10.5	0 0.0	0 0.0	0 0.0
Depends on availability	10 12.1	9 21.9	2 4.0	7 27.5	2 4.9	0 0.0	1 13.7	0 0.0
Wherever I am	2 2.5	1 3.1	1 2.0	0 0.0	1 3.2	1 8.4	0 0.0	0 0.0
Local supermarket	1 1.4	1 3.1	0 0.0	0 0.0	1 3.2	0 0.0	0 0.0	0 0.0
Other unspecified	1 1.4	1 3.1	0 0.0	0 0.0	0 0.0	1 10.9	0 0.0	0 0.0
Off-sales	1 1.1	0 0.0	1 2.0	0 0.0	1 2.5	0 0.0	0 0.0	0 0.0
Wholesales	1 1.1	0 0.0	1 2.0	0 0.0	1 2.5	0 0.0	0 0.0	0 0.0
Gym	1 1.1	0 0.0	1 2.0	0 0.0	1 2.5	0 0.0	0 0.0	0 0.0

**More than one option could be selected*

The places at which most of bottled water purchases occur are at the local garage forecourt shops and Pick 'n Pay. These two points of purchase are not where bottled water is priced the cheapest. Hence, one can assume that consumers of bottled water are not particularly price sensitive. Other places of purchase include Woolworths, Spar and at a restaurant.

In terms of gender, females are skewed more towards Pick 'n Pay than their male counterparts. Males on the other hand are more driven by the product availability rather than a specific outlet.

Table 4.9: Purchase intention of bottled water

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	86	39	47	27	38	11	9	1
Planned	2	0	2	0	1	0	1	0
	2.2	0.0	4.0	0.0	2.5	0.0	10.6	0.0
On impulse	37	13	24	12	15	5	3	1
	42.9	34.4	50.0	46.7	38.9	47.0	37.9	100.0
A combination of planned and impulse	37	21	16	13	16	4	4	0
	42.7	53.1	34.0	49.8	41.1	36.1	41.0	0.0
		+	-					
Routine	11	5	6	1	7	2	1	0
	12.2	12.5	12.0	3.5	17.6	16.8	10.6	0.0

Approximately 85 percent (impulse and a combination of planned & impulse) of the sample admits to buying on impulse; compared to 14.4 percent who either plan their purchases or buy routinely. Hence, point of sale is vital. Sales could be driven by on-shelf appearance, price, packaging, perceived quality and offering, emotional benefits, and the like. Exploratory research could be undertaken to derive an understanding on the targeted participants in terms of what drives them.

4.2.2.4 Consumption habits of bottled water

Table 4.10: Occasions when bottled water is *most often* consumed

	Gender		Age group					
	Total	Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	86	39	47	27	38	11	9	1
When I feel thirsty	62 72.3	29 75.0	33 70.0	17 65.0	29 74.1	9 80.7	6 72.7	1 100.0
Anytime I like	21 24.6	6 15.6	15 32.0	6 22.3	8 21.0	5 44.6	1 13.7	1 100.0
When I am socialising	13 14.7	6 15.6	7 14.0	3 12.7	2 5.6	4 33.7	3 37.9	0 0.0
On a hot day	32 37.3	9 21.9	24 50.0	7 25.8	16 41.4	4 33.7	6 62.1	0 0.0
When I am having a meal	31 36.2	9 21.9	23 48.0	12 44.2	11 27.7	6 53.0	2 21.1	1 100.0
When I want a change from soft drinks	30 34.8	7 18.8	23 48.0	10 36.5	15 39.6	4 33.7	1 13.7	0 0.0
At the gym/sports events	13 15.1	7 18.8	6 12.0	2 8.1	8 21.8	1 10.9	1 13.7	0 0.0
When I feel tired and stressed	2 2.5	1 3.1	1 2.0	0 0.0	1 3.2	0 0.0	0 0.0	1 100.0
When I am shopping	24 28.3	4 9.4	21 44.0	9 32.9	14 35.7	2 16.8	0 0.0	0 0.0
When I am on holiday	22 26.0	7 18.8	15 32.0	3 12.7	12 30.8	5 42.1	2 27.3	0 0.0
I only drink water, bottled or tap, occasionally I will drink a soft drink/juice	1 1.1	0 0.0	1 2.0	0 0.0	1 2.5	0 0.0	0 0.0	0 0.0
Other unspecified	1 1.4	1 3.1	0 0.0	0 0.0	0 0.0	1 10.9	0 0.0	0 0.0

**More than one option could be selected*

Bottled water is mainly consumed on the following occasions:

- When I feel thirsty
- On a hot day
- When I am having a meal

The above occasions can be used as the basis of all marketing communication for carton packaging, should this packaging format prove favourable.

For female participants, the occasions when bottled water is most often consumed is skewed more towards when they require a change from soft drinks and when they are out shopping.

Table 4.11: Places of consumption of bottled water

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	86	39	47	27	38	11	9	1
When I am at home	25 29.3	16 40.6	9 20.0	9 34.6	10 25.6	4 36.1	2 24.2	0 0.0
		++	--					
When I am out of home	28 32.6	7 18.8	21 44.0	7 24.8	13 33.3	4 33.7	5 54.6	0 0.0
		--	++					
When I am shopping	8 8.8	0 0.0	8 16.0	4 14.2	3 7.4	1 8.4	0 0.0	0 0.0
			++					
When I am out socialising with friends	8 9.3	6 15.6	2 4.0	3 12.7	2 6.3	1 10.9	1 10.6	0 0.0
		+	-					
When I am at the gym	5 5.7	5 12.5	0 0.0	2 9.2	2 6.3	0 0.0	0 0.0	0 0.0
		++						
When I am on holiday	5 5.8	1 3.1	4 8.0	0 0.0	4 10.5	0 0.0	1 10.6	0 0.0
When I am at work	4 4.7	1 3.1	3 6.0	0 0.0	3 8.1	0 0.0	0 0.0	1 100.0
Not answered	3 3.9	2 6.3	1 2.0	1 4.6	1 2.5	1 10.9	0 0.0	0 0.0

There is an almost equal split of in-home consumption (29.3 percent) and out-of-home consumption (32.6 percent) of bottled water. Female consumers tend to consume bottled water more when they are out of home and shopping than their counterparts. Bulk consumption for male consumers occurs at the gym and at home.

Table 4.12: Consumption of flavoured bottled water

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	86	39	47	27	38	11	9	1
Yes	50	13	37	13	24	7	6	0
	58.2	34.4	78.0	47.1	62.4	63.9	72.7	0.0
		---	+++					
No	36	26	10	14	14	4	2	1
	41.8	65.6	22.0	52.9	37.6	36.1	27.3	100.0
		+++	---					

Of the total sample, 58.2 percent consume flavoured bottled water. Consumption of flavoured bottled water is driven by a significantly higher proportion of female consumers (78 percent). A significant proportion of male participants do not consume flavoured bottled water (65.6 percent).

In terms of age group, there is no specific trend that implies a preference towards flavoured bottled water.

Table 4.13: Preferred flavours of bottled water

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	50	13	37	13	24	7	6	0
Honey Melon	2	0	2	0	2	0	0	0
	3.8	0.0	5.1	0.0	7.9	0.0	0.0	0.0
Litchi	17	7	9	4	6	2	4	0
	33.4	54.5	25.6	32.3	25.9	30.2	66.7	0.0
Marula	15	2	12	8	5	0	1	0
	29.3	18.2	33.3	67.7	20.8	0.0	18.8	0.0
Naartjie	14	6	8	3	4	2	4	0
	27.2	45.5	20.5	24.8	18.0	26.4	66.7	0.0
Peach	4	2	2	1	1	0	2	0
	8.6	18.2	5.1	7.5	5.1	0.0	33.3	0.0
Youngberry	1	0	1	0	0	1	0	0
	1.9	0.0	2.6	0.0	0.0	13.2	0.0	0.0
Apple and Mint	6	1	5	1	3	2	0	0
	11.8	9.1	12.8	7.5	11.8	30.2	0.0	0.0
Lemon and Lime	17	6	11	3	11	3	0	0
	34.7	45.5	30.8	24.8	45.5	47.3	0.0	0.0
Strawberry	13	0	13	7	4	3	0	0
	26.3	0.0	35.9	52.7	15.7	39.5	0.0	0.0
Exotic Fruit	1	0	1	0	1	0	0	0
	1.9	0.0	2.6	0.0	3.9	0.0	0.0	0.0
Blackberry	3	1	2	0	2	0	1	0
	6.2	9.1	5.1	0.0	9.0	0.0	14.5	0.0
Blackcurrant	3	1	2	1	0	0	2	0
	6.2	9.1	5.1	7.5	0.0	0.0	33.3	0.0
Ice	1	0	1	1	0	0	0	0
	1.9	0.0	2.6	7.5	0.0	0.0	0.0	0.0
Three Berries	2	1	1	0	2	0	0	0
	4.3	9.1	2.6	0.0	9.0	0.0	0.0	0.0
Peach and Pear	7	0	7	6	0	1	0	0
	13.2	0.0	17.9	45.1	0.0	13.2	0.0	0.0
Cranberry	10	0	10	6	4	0	1	0
	20.7	0.0	28.2	45.1	15.7	0.0	14.5	0.0

Table 4.13: Continued...

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	50	13	37	13	24	7	6	0
Can't remember	1 1.9	0 0.0	1 2.6	0 0.0	1 3.9	0 0.0	0 0.0	0 0.0
Raspberry	1 1.9	0 0.0	1 2.6	0 0.0	1 3.9	0 0.0	0 0.0	0 0.0

**More than one option could be selected*

Of those that consume flavoured bottled water, the *most* preferred flavours are:

- Litchi,
- Lemon and Lime,
- Strawberry,
- Marula,
- Cranberry

The *least* preferred flavours are:

- Honey Melon,
- Youngberry,
- Ice,
- Raspberry,
- Exotic Fruit.

4.2.2.5 Key needs states explaining non-drinking of bottled water

Table 4.14: Reasons why bottled water is currently not being purchased

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	13	11	2	9	0	0	4	0
It is too expensive/overpriced	3	2	1	3	0	0	0	0
	26.3	22.2	50.0	36.7	0.0	0.0	0.0	0.0
I see no difference between tap water and bottled water	6	5	1	3	0	0	2	0
	45.3	44.4	50.0	36.7	0.0	0.0	66.7	0.0
It doesn't suit my lifestyle	2	2	0	2	0	0	0	0
	19.0	22.2	0.0	26.5	0.0	0.0	0.0	0.0
I see no value in buying bottled water	1	1	0	0	0	0	1	0
	9.5	11.1	0.0	0.0	0.0	0.0	33.3	0.0
I do not have a lot of money to spend	1	0	1	1	0	0	0	0
	7.3	0.0	50.0	10.2	0.0	0.0	0.0	0.0

Slightly less than half of the participants, who do not consume bottled water, see no difference in it compared to tap water. One can deduce that in their mind there is no *need* for bottled water. This is a point that should be taken into consideration in the marketing communication in the launching of a carton packaging range. The message must be modelled around a need for the product.

The lack of a need is also reflected in the statement, 'I see no value in buying bottled water', with nearly 10 percent of non-consumers agreeing with this statement.

In terms of gender, there is more male participants not currently purchasing bottled water than their counterparts.

From an age group perspective, it is the younger age group (18-27 years old) that is currently not purchasing bottled water.

Table 4.15: Drivers promoting the purchasing of bottled water amongst non-purchasers

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	13	11	2	9	0	0	4	0
If tap water became unsafe to consume	9 73.7	9 77.8	1 50.0	7 76.5	0 0.0	0 0.0	2 66.7	0 0.0
If the price on bottled water was a lot lower	2 16.8	1 11.1	1 50.0	1 10.2	0 0.0	0 0.0	1 33.3	0 0.0
If I had extra money to spare	2 16.8	1 11.1	1 50.0	2 23.5	0 0.0	0 0.0	0 0.0	0 0.0

The key reason that would motivate non-consumers of bottled water to change is if tap water became unsafe to consume. This reflected by more than 70 percent of the non-consumers. Further investigation is required to try and determine what other reasons would motivate these people to purchase bottled water.

4.2.2.6 Competitive landscape

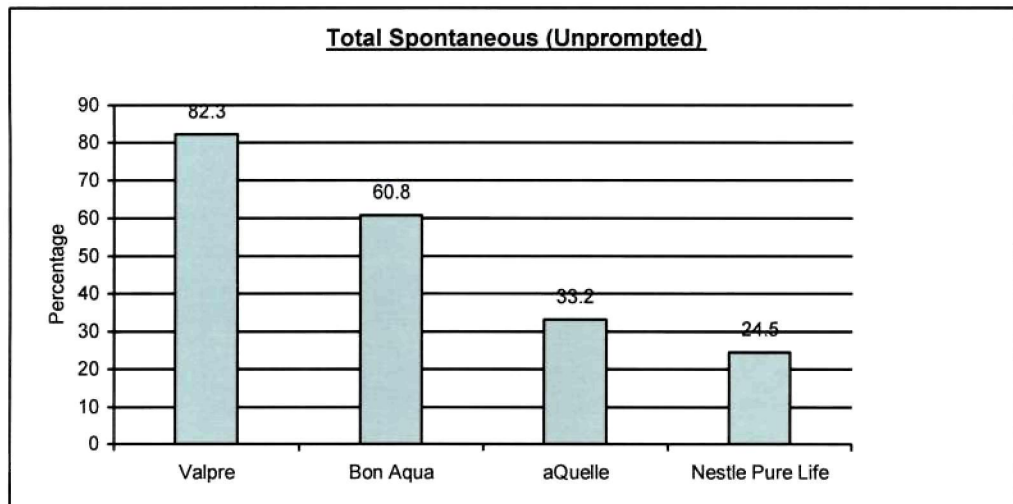
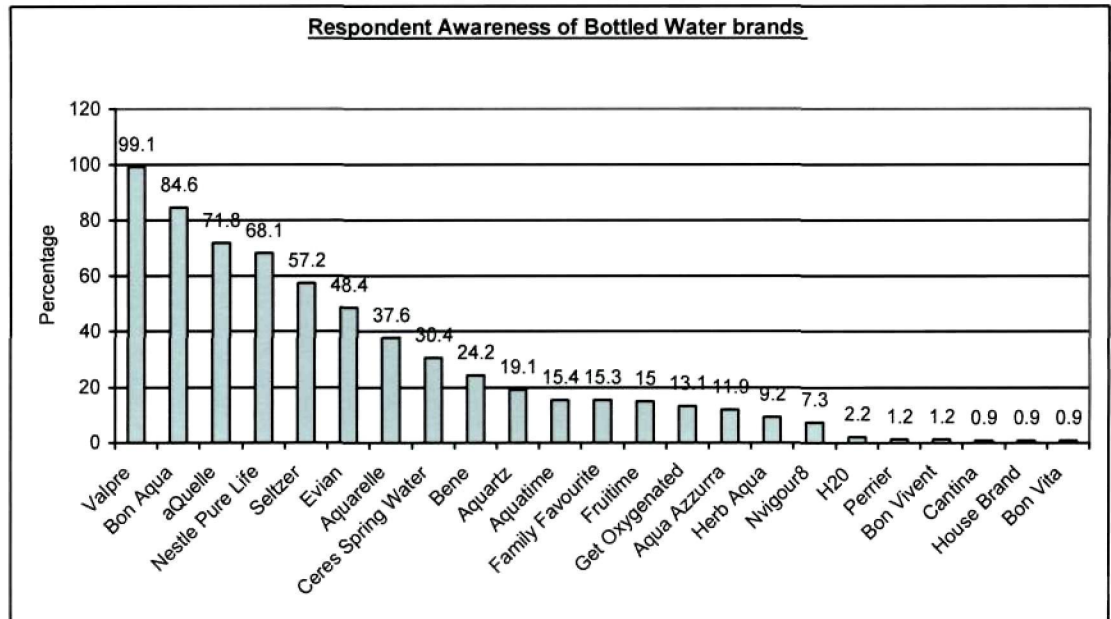


Figure 4.2: Unprompted top-of-mind awareness of bottled water brands

In terms of unprompted brand awareness, Valpré is the number one brand, with a brand awareness of approximately 83 percent. Bon Aqua and aQuellé follow second and third respectively.



**More than one option could be selected*

Figure 4.3: Prompted awareness of existing bottled water brands

There are 4 brands that share a high awareness level of greater than 65 percent. These brands are:

- Valpré – 99.1 percent
- Bon Aqua – 84.6 percent
- aQuellé – 71.8 percent
- Nestlé Pure Life – 68.1 percent

What is interesting to note is that the same manufacturer, Coca Cola, owns the first two brands.

Aquarelle, which is the house brand of Woolworths, enjoys a high level of awareness (37.6 percent) despite being a house brand. A comparable brand is Evian, which is an international bottled water brand, and yet holds a mere 48.4 percent awareness – which is marginally higher than Aquarelle.

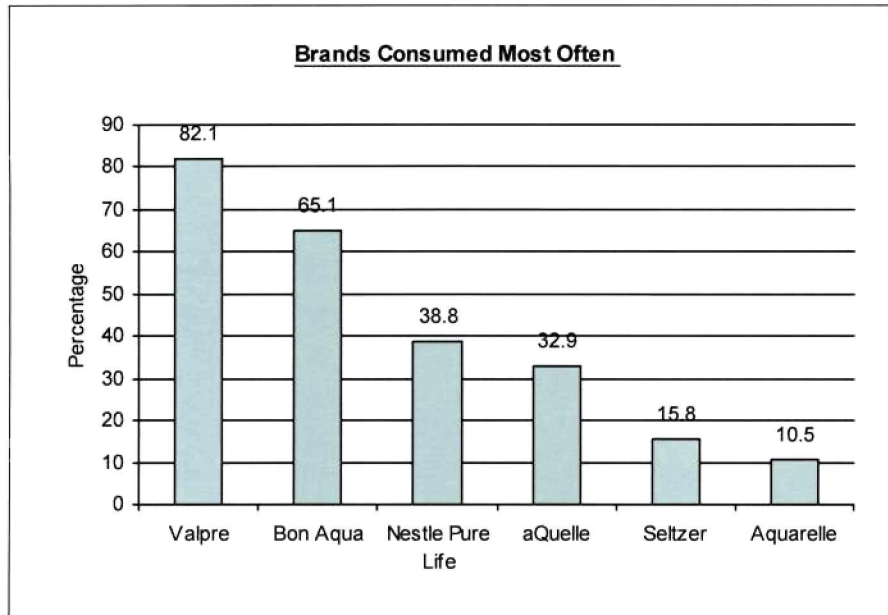


Figure 4.4: Bottled water brands that are most often consumed

Valpré is the brand that has highest awareness and is consumed the most often.

Comparing the *most often* consumed top six brands with its respective awareness level as indicated in Q4.2, the following could be said about each brand:

Table 4.15: Consumption versus awareness of top six brands

Brand	Most Often Consumed (Q4.3)	Awareness (Q4.2)	Total %
Valpre	82	99	82.8
Bon Aqua	65	85	76.5
Nestle Pure Life	39	68	57.4
aQuelle	33	72	45.8
Seltzer	16	57	28.1
Aquarelle	11	38	28.9

- Valpré – 82.8 percent of participants that are aware of Valpré, use it *most often*

- Bon Aqua – 76.5 percent of participants that are aware of Bon Aqua, use it *most often*
- Nestlé Pure Life – 57.4 percent of participants that are aware of Nestlé Pure Life, use it *most often*
- aQuellé – 45.8 percent of participants that are aware of aQuellé, use it *most often*
- Seltzer – 28.1 percent of participants that are aware of Seltzer, use it *most often*
- Aquarelle – 28.9 percent of participants that are aware of Aquarelle, use it *most often*

Table 4.17: Reasons given for unprompted top-of-mind awareness of bottled water brands

	aQuellé	Aquarelle	Bon Aqua	Valpré	Seltzer
It is easily available in most shops	41.8%	61%	56.3%	51.1%	66.7%
Its packaging is attractive	12.7%	n/a	7%	6.6%	33.3%
It is a well advertised brand	12.7%	17%	n/a	45.1%	n/a
It tastes good	41.8%	44%	18.6%	15.3%	100%
It's the one I trust	16.4%	22%	21.6%	10.7%	n/a
It is the best brand	n/a	n/a	8%	20.5%	33.3%

For the brands that were mentioned first by participants in Q4.1, the Grid above summarizes the key reasons given. Only brands that had high mention as Brand 1 have been included in the table above.

In terms of product availability and appealing packaging, Seltzer is the brand that had the highest mention. Participants share the view that Aquarelle, which is the Woolworths house brand bottled water, is easily accessible. What is interesting to note here is that the values shared by the positioning of the Woolworths brand has been transferred onto its bottled water brand. This

is indicative of the high mention received on the trust and taste statements. Participants view Valpré as a well-advertised product.

Table 4.17: Reasons given by participants as to why they identify with their choice of bottled water brand

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	86	39	47	27	38	11	9	1
It is the leading brand in the South African market	10 11.1	5 12.5	5 10.0	1 4.6	7 19.3 ++	1 8.4	0 0.0	0 0.0
I trust the brand	20 22.7	7 18.8	12 26.0	6 22.3	9 22.5	4 36.1	1 10.6	0 0.0
Reasonable/affordable price	22 25.5	10 25.0	12 26.0	7 27.9	12 32.3	2 19.3	0 0.0	0 0.0
Always/Easily available	60 70.1	29 75.0	31 66.0	19 73.1	26 67.0	8 74.7	6 65.2	1 100.0
The package type suits my consumption	12 14.1	4 9.4	8 18.0	0 0.0	10 26.7 +++	1 8.4	1 10.6	0 0.0
I like the packaging	14 16.3	4 9.4	10 22.0	4 16.2	9 22.8	1 8.4	0 0.0	0 0.0
I like the closure that is on the packaging	2 2.5	1 3.1	1 2.0	1 4.6	1 2.5	0 0.0	0 0.0	0 0.0
The size of this brand suits my consumption needs	22 25.4	13 34.4 +	8 18.0 -	12 43.7	7 19.3	2 16.8	1 10.6	0 0.0
No specific reason	1 1.1	0 0.0	1 2.0	0 0.0	0 0.0	0 0.0	1 10.6	0 0.0
Like the taste	3 3.3	0 0.0	3 6.0	1 3.5	1 2.5	1 8.4	0 0.0	0 0.0
Not answered	1 1.1	0 0.0	1 2.0	0 0.0	1 2.5	0 0.0	0 0.0	0 0.0
Lower TDS	1 1.4	1 3.1	0 0.0	0 0.0	0 0.0	0 0.0	1 13.7	0 0.0

**More than one option could be selected*

The above statements can be considered as triggers for the marketing of a

bottled water brand.

Availability, affordability and size respectively, are by far the most important attributes that a bottled water brand needs to have. One can conclude that the success of any bottled water brand rests primarily on the distribution infrastructure of the manufacturer of the brand.

For the middle age group (28-37 years old), the type of packaging that their preferred bottled water brand comes in is more significant to this group. *Market leadership of their chosen brand follows this.*

Using correspondence analysis, the results from Q5.1 and the top brands mentioned in Q4.1 is plotted together in a correspondence map. Correspondence analysis is a widely used market research method, which factors categorical variables and displays them in a property space, which maps their association in two or more dimensions. The use of correspondence analysis comes into play when the tabular approach becomes unmanageable due to a large number of rows and/or columns (www.statisticssolutions.com).

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For the correspondence map below only brands and statements that had significance were included.

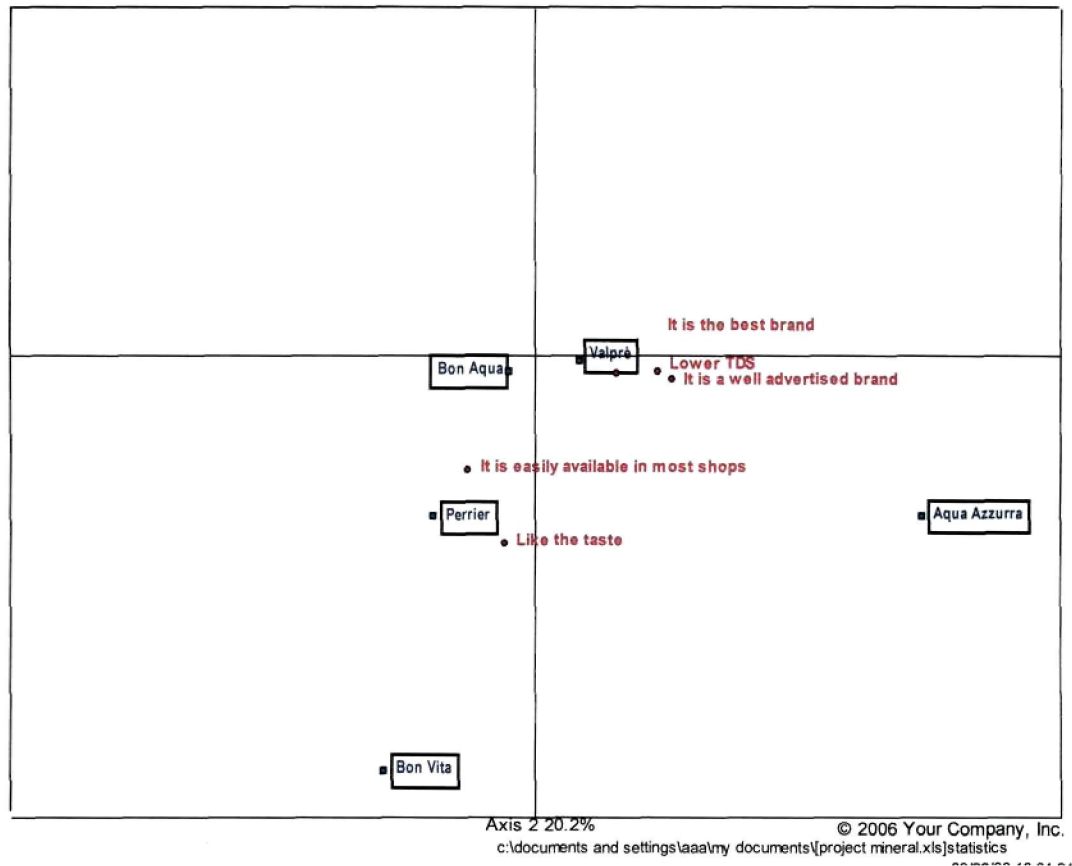


Figure 4.5: Correspondence map – Brand positioning in the participants' mind

Valpré is that brand that is associated with being the best brand that is well advertised and has a lower Total Dissolved Solids, implying better quality bottled water. These statement attributes can be used for future marketing and communication campaigns of Valpré. Perrier bottled water is that brand that holds the favourable taste statement attribute. Bon Vita, Bon Aqua and Aqua Azzurra are brands that do not have any unique selling point attribute associated with them. For these brands marketing and communication campaigns will need to be modelled around a particular attribute.



4.2.2.7 Relevant brand features/attributes

Table 4.19: Existing attributes/features offered by the different brands of bottled water that influence purchase

	Gender			Age group				
	Total	Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	100	50	50	36	38	11	14	1
Natural Ingredients	64	32	32	28	20	9	7	0
	63.8	63.4	64.2	77.7 ++	51.6 -	83.2	50.0	0.0
Preservative Free	31	20	11	13	11	3	5	0
	30.8	39.0 +	22.6 -	35.9	27.4	25.3	34.0	0.0
Caffeine Free	23	15	8	11	8	3	1	0
	23.1	29.3	17.0	29.9	21.8	27.7	7.0	0.0
No Sugar	30	15	15	13	12	3	1	1
	29.7	29.3	30.2	35.1	32.3	25.3	7.0	100.0
No colourants	17	9	8	4	8	3	1	1
	17.0	17.1	17.0	10.2	21.0	27.7	9.0	100.0
Flavoured	33	11	22	15	13	1	2	1
	32.7	22.0 --	43.4 ++	42.6	34.7	8.4	16.0	100.0
Should just be plain water	6	0	6	0	6	0	0	0
	5.7	0.0	11.3 ++	0.0	14.7 +++	0.0	0.0	0.0
Quench my thirst	2	1	1	0	1	0	1	0
	2.2	2.4	1.9	0.0	3.2	0.0	7.0	0.0
Unspecified	1	1	0	0	0	0	1	0
	1.2	2.4	0.0	0.0	0.0	0.0	9.0	0.0
Not answered	2	1	1	0	0	0	2	0
	2.2	2.4	1.9	0.0	0.0	0.0	16.0	0.0
Calcium, magnesium, potassium	1	1	0	0	1	0	0	0
	1.2	2.4	0.0	0.0	3.2	0.0	0.0	0.0
Availability	1	1	0	0	1	0	0	0
	1.2	2.4	0.0	0.0	3.2	0.0	0.0	0.0

**More than one option could be selected*

Each of the statements is *drivers* and can be classified into broad categories as follows:

- Natural Ingredients = PRODUCT FEATURE
- Preservative free = PRODUCT FEATURE
- Caffeine free = PRODUCT FEATURE
- No Sugar = PRODUCT FEATURE
- No Colourants = PRODUCT FEATURE
- Flavoured = TASTE
- Should just be plain water = TASTE
- Quench my thirst = NEED
- Have calcium, potassium, magnesium = PRODUCT FEATURE
- Availability = CONVENIENCE

The main driver that influences purchase is the *product feature*. One can conclude that consumers of bottled water in this targeted region are far more concerned with “what the product can do for me?”

4.2.2.8 Package type preference

Depicted below is the summation of the *Most Often* and *Often* consumption of the different packaging types and sizes:

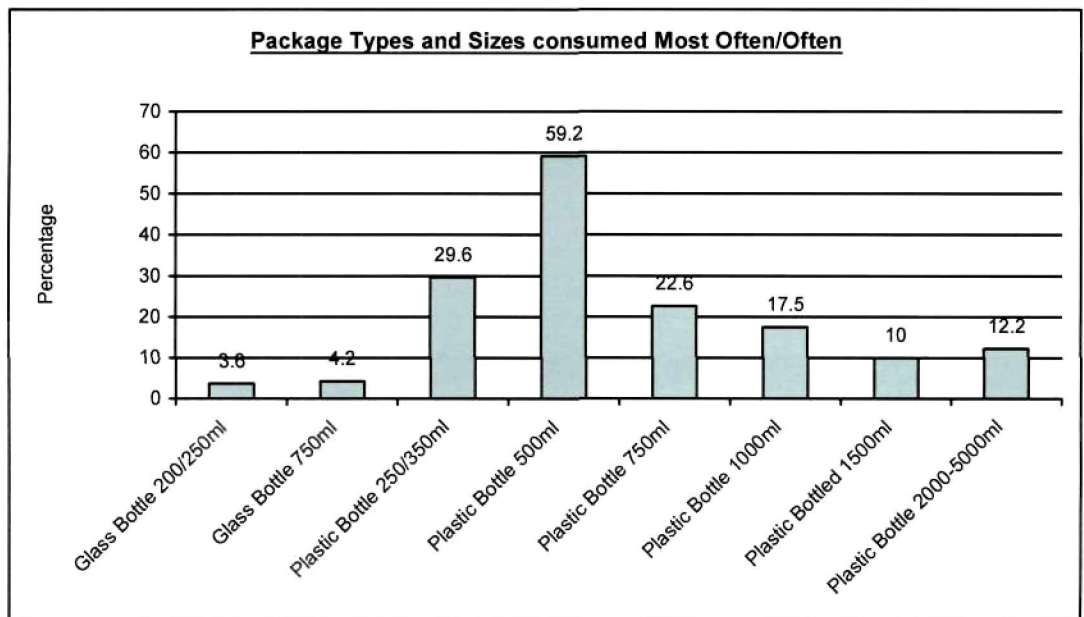


Figure 4.6: Package types and size consumed most often/often

The most preferred package type is the plastic bottle 500ml. If the plastic bottle 500ml is not available, people will either trade up or down or purchase the plastic bottle 750ml or 250/350ml. Glass bottle has a cumulative preference of less than 10 percent.

4.2.2.9 Learning

Table 4.20: The influence of the package type when deciding what brand of bottled water to purchase

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	100	50	50	36	38	11	14	1
Yes	66	27	39	29	27	4	4	1
	65.5	53.7	77.4	81.1	71.2	36.1	29.9	100.0
		--	++	++				
No	34	23	11	7	11	7	9	0
	34.5	46.3	22.6	18.9	28.8	63.9	70.1	0.0
		++	--	--				

Approximately 66 percent of the participants claim that packaging is important when buying bottled water. In the younger age groups, (18-27 year olds, 28-37 year olds) one can hypothesize that it is perhaps a status issue. However this study does not refute or validate this hypothesis and this could be another area for a future study.

In terms of gender, the selection of bottled water and the packaging that it comes in is more important to female consumers (77.4 percent) than male consumers.

Table 4.21: Preferred existing packaging type

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base Plastic	66	27	39	29	27	4	4	1
	59	27	32	23	27	4	3	1
	89.9	100.0	82.9	80.5	100.0	100.0	76.7	100.0
Glass	7	0	7	6	0	0	1	0
	10.1	0.0	17.1	19.5	0.0	0.0	23.3	0.0

Approximately 90 percent of the participants stated that plastic is the most preferred packaging format for bottled water. This view was shared across both gender groups. Glass packaging is preferred by a small number of consumers that fall within the 48-59 years old age group.

Table 4.22: Ideal packaging format for bottled water

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	100	50	50	36	38	11	14	1
Plastic bottle	89	46	42	30	37	9	11	1
	88.8	92.7	84.9	84.2	96.8	80.7	84.0	100.0
Glass bottle	9	2	7	6	1	1	1	0
	9.0	4.9	13.2	15.8	3.2	10.9	7.0	0.0
Anything	2	1	1	0	0	1	1	0
	2.2	2.4	1.9	0.0	0.0	8.4	9.0	0.0

The ideal packaging format for majority of the participants is the *plastic bottle*. This view was shared across both genders. Although carton, plastic pouch, and metal cans were on the ideal list, participants did not select any of these options.

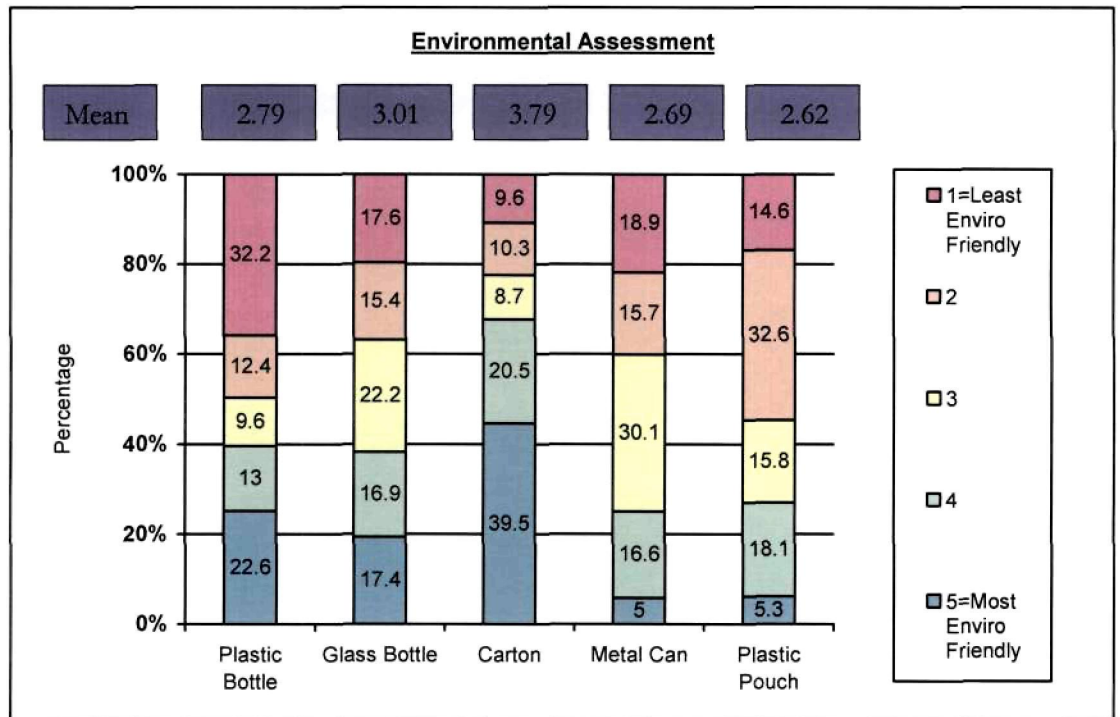


Figure 4.7: Environmental assessment of each packaging format

The most environmental friendly packaging format as perceived by these participants is carton, followed by glass bottles. Six in ten people consider carton packaging environmental friendly, compared to four in ten people for Plastic Bottle packaging. Three in ten people regard Plastic Bottle as being not environmental friendly at all.

According to Saunders et al (2003:481) *mean* can be defined as “the average value calculated by adding up the values of each case for a variable and dividing by the total number of cases”. The mean scores reflected in the above figure are out of a total of five. Interpreting the mean scores it can be noted that carton packaging has approximately 76 percent participants view it as the more environmentally friendly packaging format. Plastic pouch is viewed as the packaging format that is least environmentally friendly.

4.2.2.10 Innovation adoption

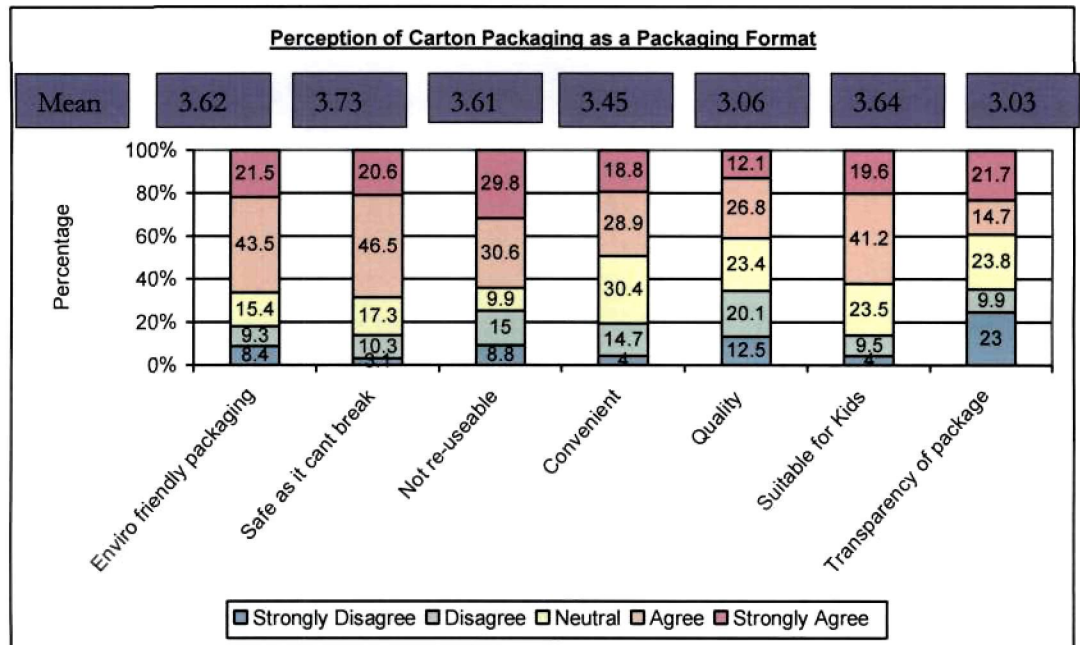


Figure 4.8: Perceptions of carton packaging

In terms of carton packaging, the *positive* perceptions of this packaging format are:

- It is an environmentally friendly packaging (65 percent of the participants agreed with this)
- It is a safe packaging format as it cannot break (67.1 percent of the participants agreed with this)
- It is suitable for kids (60.8 percent of the participants agreed with this)

Areas for concern when it comes to carton packaging are its re-usability, transparency and quality perception.

Table 4.23: Establishing brand influence on a carton packaged range of bottled water

	Total	Gender		Age group				
		Male	Female	18-27 years old	28-37 years old	38-47 years old	48-59 years old	60+ years old
Weighted Base	100	50	50	36	38	11	14	1
Yes	38 38.0	22 43.9	16 32.1	16 45.7	11 27.4	5 47.0	6 43.0	0 0.0
No	62 62.0	28 56.1	34 67.9	19 54.3	28 72.6	6 53.0	8 57.0	1 100.0

The majority view (62 percent) of the participants has indicated that they would not be interested in purchasing a carton packaged bottled water brand. This is indicative of this market being resistant to change based on their preference of the plastic bottle. However, there are certain benefits of carton packaging that are attractive. The key is to understand the motives and need states of this market so that one can educate this market of newer alternatives in which bottled water can be packaged.

Cluster Analysis can be defined as a “multivariate analysis technique that seeks to organize information about variables so that relatively homogeneous groups, or "clusters," can be formed” (www.socialresearchmethods.net). The clusters formed are usually highly internally homogenous (where its members are similar to one another) and highly externally heterogeneous (where its members are not like members of any other clusters).

There are 3 general categories of cluster analysis methods, namely:

- Tree Clustering – this type of clustering aims to join together objects into successively larger clusters, through the use of similarity or distance
- Block Clustering - this type of clustering allows both objects and variables to be grouped together into meaningful clusters
- K-Means Clustering – this method of clustering aims to product “exactly k different clusters of greatest possible distinction” (www.socialresearchmethods.net).

Using Q1.1, Q1.2, Q7.1, Q7.2, Q7.3, Q7.4, Q7.5 and Q7.6, cluster analysis using the k-means methods was conducted. The objective of this analysis is to define the segments and understand how big the potential market for carton packaged bottled water is. By defining the segments and interpreting the results one could tailor marketing strategies for each. Cluster analysis was adopted to segment the participants into three broad categories, namely:

- Cluster One - are consumers that are not that fussy about the packaging that their bottled water comes in
- Cluster Two – are consumers that are entrenched into their specific bottled water packaging and will not change to an alternative format
- Cluster Three – are consumers that can see the value of carton packaging more than anybody else but require serious convincing to change to this packaging type

Table 4.24: Gender of participants (Cluster analysis)

	Total	CLUSTER		
		1	2	3
Sample Base (unweighted)	94	37 (A)	38 (B)	19 (C)
Male	41 43.6	19 51.4	17 44.7	5 26.3
Female	53 56.4	18 48.6	21 55.3	14 73.7

Cluster one has a marginally higher proportion of male participants than female participants. The opposite is applicable for cluster two. Cluster three however is significantly skewed towards females.

Table 4.25: Age group profile of participants (Cluster analysis)

	Total	CLUSTER		
		1	2	3
Sample Base (unweighted)	94	37 (A)	38 (B)	19 (C)
18-27 years old	33 35.1	15 40.5	17 44.7	1 5.3
28-37 years old	37 39.4	11 29.7	14 36.8	12 63.2
38-47 years old	11 11.7	3 8.1	3 7.9	5 26.3
48-59 years old	12 12.8	8 21.6	3 7.9	1 5.3
60+ years old	1 1.1	0 0.0	1 2.6	0 0.0

In terms of age group distribution amongst the three clusters, in cluster one comprises of a mix of the different age groups. Cluster two is dominated by the under 38 year olds and cluster three, the 28 to 47 year olds.

Table 4.26: Influence of the packaging type when deciding on what brand of bottled water to purchase (Cluster analysis)

	Total	CLUSTER		
		1	2	3
Sample Base (unweighted)	94	37 (A)	38 (B)	19 (C)
Yes	63 67.0	23 62.2	30 78.9	10 52.6
No	31 33.0	14 37.8	8 21.1	9 47.4

Cluster two participants can be considered as the consumers that are loyal to their chosen bottled water packaging type. It is these consumers that pose a challenge to convert to another packaging format of bottled water.

Table 4.27: Preference of package type when purchasing bottled water (Cluster analysis)

	Total	CLUSTER		
		1	2	3
Sample Base (unweighted)	63	23 (A)	30 (B)	10 (C)
Plastic	56 88.9	16 69.6	30 100.0	10 100.0
Glass	7 11.1	7 30.4	0 0.0	0 0.0

Across all three clusters, plastic bottle is that packaging format that is preferred.

Table 4.28: The *ideal* packaging format for bottled water (Cluster analysis)

	Total	CLUSTER		
		1	2	3
Sample Base (unweighted)	94	37 (A)	38 (B)	19 (C)
Plastic bottle	83 88.3	26 70.3	38 100.0	19 100.0
Glass bottle	9 9.6	9 24.3	0 0.0	0 0.0
Anything	2 2.1	2 5.4	0 0.0	0 0.0

Across all three clusters the packaging format that is considered as the *ideal* is the plastic bottle.

Only the most environmentally scores are captured in the figure below:

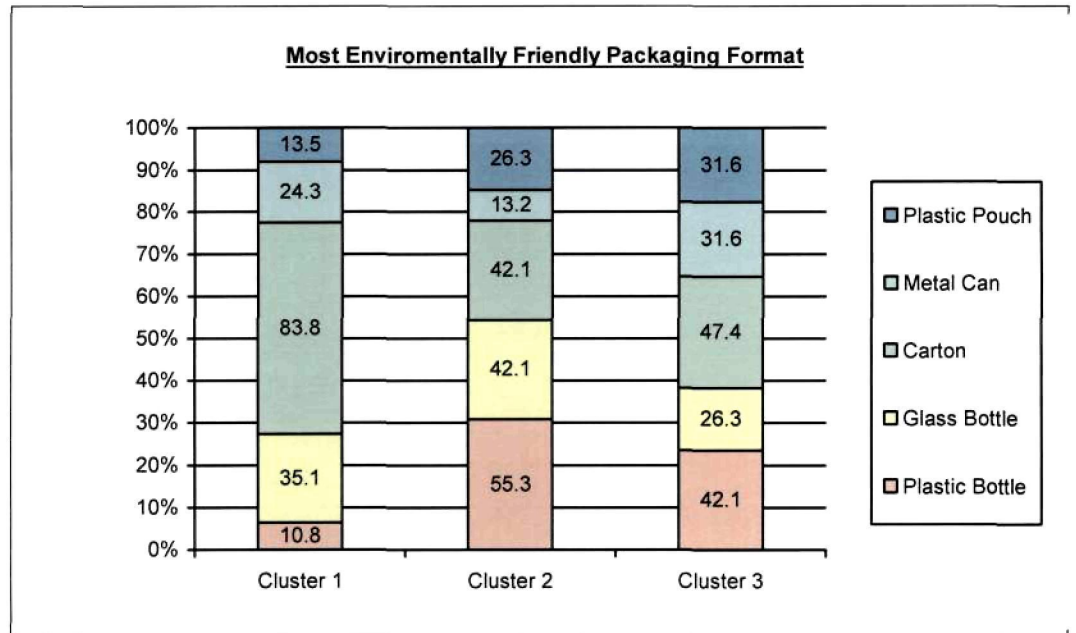


Figure 4.9: Environmental assessment of each packaging format (Cluster analysis)

Across all clusters, carton was perceived to be the most environmentally friendly packaging format.

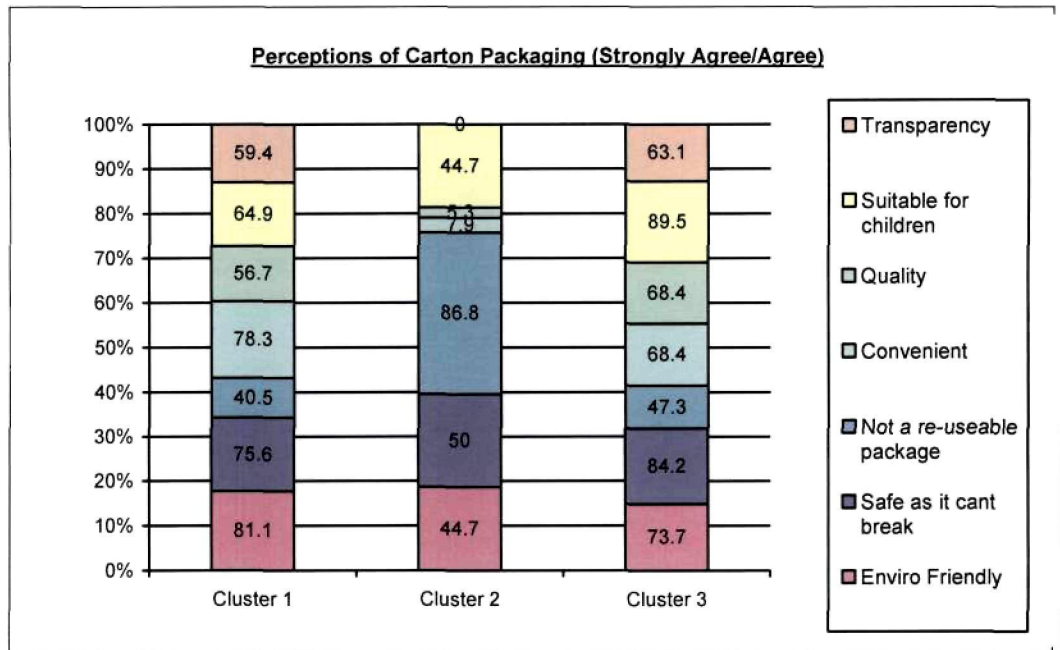


Figure 4.10: Perceptions of carton packaging (Cluster analysis)

On the pre-listed statements, the following can be said:

- Environmentally friendly – cluster one strongly believes that carton packaging earns this statement
- Safe as it cant break – cluster three agrees that there is a safety element to carton packaging
- Not a re-usable package – cluster two strongly agrees with the statement
- Convenient and Quality – across cluster one and three there is agreement that carton packaging offers an element of convenience and quality. However cluster two does not share this view.
- Suitable for children – across all clusters there is agreement that this packaging format type is suitable for children
- Transparency – cluster one and three agree that carton packaging does not offer this attribute. Cluster two however does not share this view. It could be that this attribute to this cluster is not important

Table 4.29: Establishing brand influence on a carton packaged range of bottled water (Cluster analysis)

	Total	CLUSTER		
		1	2	3
Sample Base (unweighted)	94	37 (A)	38 (B)	19 (C)
Yes	35 37.2	24 64.9	6 15.8	5 26.3
No	59 62.8	13 35.1	32 84.2	14 73.7

From all three clusters, cluster one is the only one that would be open to purchasing bottled water packaged in carton packaging. Cluster two is highly loyal to what they currently purchase and can be considered as not being open to this opportunity. Cluster three are similar to cluster two, but to a marginally lesser degree.

4.2.3 Exploratory focus group results

4.2.3.1 Perceptions of health

- *Definition of a 'healthy' lifestyle*

In both the focus groups, eating healthily, exercise and drinking plenty of water was mentioned as items that contributed to a healthy lifestyle. Other mentions included were:

- *"Doing everything in moderation"*
- *"Meditation and yoga"*
- *"Holidays"*
- *"At least 4 litres of water a day"*
- *"No soft drinks like Coke"*

- ***Products/ items that are associated with leading a healthy lifestyle***

Products that were mentioned by both focus groups were:

- *“Fruit and vegetables – five servings a day”*
- *“Water”*

Other mentions were:

- *“A prayer to start your day – this is for my spiritual wellbeing”*
- *“Red wine, but only a glass a day only”*
- *“Taking vitamins and supplements”*
- *“Having dairy like milk, yoghurt”*
- *“Having cereal in the morning”*
- *“Rest”*

- ***Exploring the popularity of bottled water***

A number of participants said that bottled water has a perception of being healthy compared to other beverage options. *“It’s a drink that is guilt-free”*; *“It’s a way of losing weight”*; *“It is perceived to be healthy”*

They also shared the view that drinking bottled water had an element of status attached to it. *“When I take my kids out to sports events or whatever, I feel guilty to give them tap water in public. I feel that I am being a bad mommy”*

Some participants expressed that *“tap water is dreadful; it has too much lime and impurities”* and *“you can get bottled water anywhere”* contributed to the popularity of bottled water.

- ***Key factors that make bottled water different from other beverage options like fruit juices, carbonated soft drinks, iced tea etc.***

Participants in both focus groups shared the view that the health connotation associated with bottled water was the primary distinguishing factor: *"It is healthy because it has no added sugar like fruit juices and iced tea"; "It is non-fattening. Why? Because that is the way it is perceived"*.

Another factor is that bottled water is thirst quenching: *"It satisfies me when I am thirsty. Iced Tea or Coke can't do that"; "You can drink a bottle of water without having your throat burning, like when you drink Coke"*.

One participant mentioned that the versatility bottled water has to offer is what makes it different from other beverage options: *"You can wash your kids face in an emergency with bottled water. You can't do the same with sodas or iced tea for that matter"*.

4.2.3.2 Current bottled water purchasing patterns

- ***Occasions when bottled water is purchased***

In both focus groups conducted, the shared purchase occasions were:

- *"When I am travelling far like to the bush"*
- *"When I am on the road"*
- *"When I do my weekly shopping"*

In addition, some participants stated that their purchase of bottled water happens when they are thirsty.

- ***Outlets at which bottled water is purchased***

The common places of purchase for both focus groups were *"at any garage shop"* and *"Woolworths"*. *"Pick 'n Pay, traditional food retailers, local supermarket"* were amongst the other options named by the participants of the focus groups.

4.2.3.3 Consumption habits of bottled water

- *Occasion at which bottled water is consumed*

The occasions for consumption of bottled water varied in the two focus groups. The occasions listed were:

- *“When I am eating”*
- *“Throughout the day”*
- *“During work meetings”*
- *“Where the water is not so good”*
- *“When I am travelling”*
- *“When I am thirsty”*
- *“After 3 glasses of wine”*

4.2.3.4 Competitive landscape

- *Unprompted top-of-mind awareness of bottled water brands*

In Focus Group A, the top three brands in order of mention were:

- *Bon Aqua*
- *Valpré*
- *Woolworths*

All participants in this group shared this listing of the above brands.

In Focus Group B, the top three brands in order of mention were:

- *Valpré*
- *Nestlé Pure Life*
- *Seltzer/Aquartz/H2O*

The participants in Focus Group B shared the first and second listing of the brands. However when it came to the third brand, there was a split view and no consensus was reached. Between both focus groups, the most common brand mentioned was Valpré.

- ***Reasons given for unprompted top-of-mind awareness of bottled water brands***

In Focus Group A, Bon Aqua which was mentioned first, was done so based on the products' packaging: *"I like the bottle – it has a big mouth spout"*.

In Focus Group B where Valpré was mentioned as the first brand, the following reasons were given to support this first mention:

- *"It is a well advertised and marketed brand"*
- *"I have seen it being advertised on Top Billing"*
- *"It is everywhere...in offices, magazines"*
- *It is preferred by all"*
- *"Its packaging is nice. It has a small mouth so it doesn't spill"*
- *"Its got a cool colour bottle"*

- ***Reasons given by participants as to why they identify with their choice of bottled water brand***

A variety of reasons were given as to why participants identified with their preferred brand of bottled water. Packaging, price, perceptions of pureness and quality, and the fact that the brand was the market leader were the range of reasons given.

4.2.3.5 Relevant brand features/attributes

- ***Existing attributes/features offered by different bottled water brands which influence purchase***

In both focus groups, participants concluded that micro and macro nutrient contents on bottled water were the main benefit that appealed to them and hence drove purchase of the product: *"Calcium enriched"*; *"Sodium and Potassium enriched is important to me"*.

For some participants the packaging is what drove them to purchase a particular brand of bottled water: *“The packaging-how the bottle fits into the cup holder when I am driving”*; *“the shape of the bottle is what I like”*.

- ***The influence of the package type when deciding what brand of bottled water to purchase***

Participants in both focus groups expressed that the packaging of bottled water they purchased, influenced their purchase decision. When probed why this was the case, the shared reasons given were:

- *“The water must look cool and thirst-quenching”*
- *“The shape of the bottled must be easy to hold”*
- *“It must be easy to hold – easy to show-off with”*

A few participants stated that although the packaging of bottled water influenced their purchase, the taste of the product was another major factor.

- ***Ideal packaging format for bottled water***

The shared ideal packaging format was plastic bottle. A variety of reasons were given as to why plastic bottle was perceived this way:

- *“Because the contents can be seen”*
- *“Carton makes you slurp”*
- *“Glass is dangerous and affects the taste of the product”*

Some recommendations were made as to how to improve the current plastic bottle offering: *“for me a plastic bottled with a cap like the Energade Bottled would be really perfect”*.

4.2.3.6 Perceptions of packaging

- *Perceptions of carton packaging*

Participants in both focus groups expressed positive and negative perceptions of carton packaging.

The positive perceptions stated were:

- *"Its is environmentally friendly"*
- *"It packs nicely - space saving"*
- *"I like the six pack which the milk comes in"*
- *"The new re-sealable caps are really nice"*
- *"The branding space is good – I like it – the manufacturer can use the entire box to communicate on"*
- *"It works okay"*
- *"It is recyclable"*

The negative perceptions expressed were:

- *"The product gets the packaging taste – there is infiltration"*
- *"It's boring, cheap and squashes easily. You know when its been around"*
- *"I cant see what's inside"*
- *"It splutters when you open it and makes a mess"*
- *"Its not very practical"*

When the participants were probed as to why they had these perceptions of carton packaging, the consensus view was that carton has *"been around forever"*; *"we know it"*.

4.2.3.7 Innovation adoption

- *First impression of the mock-up samples of a bottled water range in carton packaging*



Figure 4.11: Mock-up samples of a carton range of bottled water

Overall the shared views in both focus groups when shown the mock-up samples were very negative. Participants could not transfer the relationship of carton and milk to carton and water: *“I think its milk”*; *“Carton and water just doesn’t go. I am afraid that the carton is going to be soggy”*.

Participants also wanted to see the water inside the carton and hence didn’t find the product offering *“refreshing”*; *“I can’t see what’s inside”*.

Some participants liked the imagery on the carton and commented that it would look nice for a plastic bottle label.

- ***Level of interest in the mock-up samples of a bottled water range in carton packaging***

Participants in both focus groups rated their level of interest in the carton packaged bottled water range as being a 1 = not interested at all.

- ***Reasons given for the rated level of interest for the mock-up samples***

Focus Group A participants stated that they would not be interested in the carton range of bottled water because they would want to see the water inside. Focus Group B expressed the reason for their level of disinterest was based on the fact that they found the offering not appealing at all.

When probed further as to what were the advantages and disadvantages participants saw about this packaging format, a variety of reasons were given:

- Advantages – *“re-sealable”; “has an easy grip to hold”; “can control how much is being drunk”.*
- Disadvantages – *“expensive-it costs more than plastic bottle”; “water and carton just doesn’t go – it’s a mindset/perception”; “its old fashion. It’s not versatile or practical”.*

- ***Occasions for consumption of the carton range of bottled water***

The participants shared views were that consumption of bottled water out of the carton range, if it were to happen, would only occur at home and/or when travelling.

Another shared view was that consumption of bottled water out of the carton packaging range would only be done as a last resort and/or *“in an emergency”*: *“I wouldn’t want to be seen with it when I am shopping or socialising with friends”*

Clearly this indicates that carton packaging lacks the ability to command status appeal to this consumer base.

- *Mock-up sample ranking*

The order of preference in terms of package type and size expressed by both focus groups is tabulated below:

Table 4.30: Mock-up sample preference by both focus groups

Package	Focus Group A	Focus Group B
2.8.1 Option S (TBA 250ml S PullTab)	6	6
2.8.2 Option R (TPA 250ml Sq PullTab)	3	5
2.8.3 Option V (TPA 330ml Sq ScrewCap)	1	4
2.8.4 Option T (TPA 500ml Sq ScrewCap)	2	1
2.8.5 Option D (TPA 750ml Sq ScrewCap)	4	2
2.8.6 Option C (TPA 1000ml Sq ScrewCap)	5	3
2.8.7 Option B (TBA 1000ml S SlimCap)	5	7
2.8.8 Option A (TBA 1500ml S SlimCap)	7	8

All participants shared the view that the Tetra Prisma Aseptic® range was a better looking package range than the Tetra Brik Aseptic® range, which is the range that is widely available in the South African market. This preference is reflected by both groups opting for the Tetra Prisma Aseptic range® as their top three choices. In terms of size preference, between 330ml and 500ml is the preferred size.

- *Preference of manufacturers/brands in a bottled water carton range*

Tabulated below is the level of interest in purchasing a bottled water range packaged in cartons from various manufacturers from the participants.

Table 4.31: Manufacturer preference for both focus groups

Manufacturer	Focus Group A	Focus Group B
2.9.1 Lipton bottled water	No	Yes
2.9.2 Red Bull bottled water	No	No
2.9.3 LiquiFruit bottled water	Yes	Yes
2.9.4 Ceres bottled water	Yes	Yes
2.9.5 Pepsi bottled water	No	No
2.9.6 Parmalat bottled water	No	Yes

Comparing the responses from both focus groups, only two manufacturers have unanimous consensus, namely, Ceres and LiquiFruit.

- ***Reasons given for manufacturers/brands that received a positive response***

Probing further as to which participants would be interested in purchasing a Ceres and/or LiquiFruit bottled water range in carton packaging, the reasons given were:

- *“Because their brands are already in carton. You would expect it”*
- *I know LiquiFruit and Ceres are good quality fruit juice products so I would assume that the water would be the same:*
- *“these brands have always used cartons”*

- ***Reasons given for manufacturers/brands that received a negative response***

Participants expressed that for the brands they have indicated in Q2.9 that they would not be interested in, the underlying reason is that *“there is no link between the existing products and bottled water. I can't imagine drinking Pepsi water!”*; *“because these brands are not supposed to do water”*.

CONCLUSIONS & RECOMMENDATIONS

5.1 INTRODUCTION

This chapter aims to answer the objectives and critical questions of this study outlined in Chapter One.

5.2 LIMITATIONS

There are very limited surveys conducted on the bottled water category. Hence, there are a limited number of sources on which this study has made reference to.

The results from this study are confined to a specific geographical region, namely the Germiston region of Gauteng. This stated, the results of the survey must be used with caution.

Based on the findings from the analysis conducted in chapter four, conclusions and recommendations are discussed below. It is important to note that the data has been obtained from a convenience sample and it is for this reason that the reader must interpret the conclusions and recommendations with caution.

5.3 ANSWERS TO CRITICAL QUESTIONS & RECOMMENDATIONS

The pre-defined objectives and the findings from this study are discussed below.

Objective 1

- To provide an understanding of the present bottled water category and establish what are the motives, perceptions, preferences and consumption habits of its consumers.

Findings:

In both focus group sessions conducted, the participants viewed the consumption of *water* as being an integral part of leading a healthy lifestyle.

Bottled water is a beverage that crosses the age divide and appeals to all. This is reflected by the wide dispersion, in terms of age, by the participants that consume bottled water (Table 4.4, page 80). From the total sample of this study, only 12 percent (Table 4.4, page 80) of the participants are currently *not* purchasing bottled water.

Consumer behaviour theory outlined in Chapter 2 stated that all consumers are driven by particular needs and wants. Maslow's hierarchy of needs revealed the ranking of these needs. Thirst and satiety of it, is a need that is classified as a physiological need. When participants in this study were probed as to when bottled water is most often consumed, the statement, 'When I feel thirsty', was ranked the highest. Overall there is no skew towards in-home consumption versus out-of-home consumption of bottled water (Table 4.11, page 89). This was verified by focus group interviews, where bottled water was purchased when travelling (out-of-home) and when eating (in-home). However, in terms of gender, there is a skew towards out-of home consumption for female consumers.

Buyer characteristics, such as cultural, social personal and psychological factors all influence the purchasing of products/services. All these factors impact on the consumption of bottled water in either a negative or positive manner. Bottled water purchases are driven by a key needs state of *convenience/status* (Table 4.7, page 84). The implication of such is that the pricing of bottled water holds a higher price elasticity level. This is further verified through the type of outlets at which bottled water is predominantly purchased, namely, Garage forecourts and Pick 'n Pay (Table 4.8, page 86). These two points of purchase are not where bottled water is priced the lowest. This finding was further ratified by the focus group interviews, where the common place of purchase was “at any garage shop” and “Woolworths”. With reference to Maslow’s hierarchy of needs outlined in Chapter 2 (page 46), one can conclude that the purchasing bottled water is fulfilling the ‘belonging’ need of many consumers. Its place of purchase is irrelevant, as long as the ‘belonging’ need is satisfied. However, the need of ‘belonging’ only becomes elevated and important when the physiological need (i.e. thirst) is satisfied.

The perception theory outlined in Chapter 2 (page 51), illustrated the selective nature in which consumers perceive a product, which in turn affects how the risk in the purchase transaction is evaluated. Bottled water holds the perception of being a ‘healthy option’ when compared to other beverages options (Table 4.3, page 79). This view is further validated with the focus groups, where a number of participants stated that bottled water had a perception of being healthy in comparison to other beverages. This is the primary distinguishing factor in the participants’ mind that allows bottled water to differentiate itself. One can derive from this, that the marketing and advertising communication plan for a carton range of bottled water leverages the positive associations that are linked and associated to bottled water.

In terms of gender, female consumers are more likely to purchase bottled water than their male counterparts (Table 4.4, page 80). However male consumers, who do purchase bottled water, can be considered as being highly loyal patrons to this category, which is reflected by the 31.7 percent (Table 4.6,

page 82) that purchase bottled water all the time. Male consumers are smaller in usage but are significant consumers in volume terms, when compared to female consumers. This finding indicates as to who the target market of the carton range of bottled water should be.

Bottled water is an impulse purchase with approximately 43 percent of purchases falling within this segment (Table 4.9, page 87). This implies that the top-of-mind awareness of a brand is important and that the advertising and marketing of it, is imperative for the success of a carton range of bottled water. Tetra Pak can achieve a successful launch in its packaging offering by approaching strong brand owners to undertake the launch of a carton range of bottled water. With reference to the global case studies outlined in Chapter 2 (page 18-22), brands that are well established like Apollinaris and Christinen, allow the association of a product line extension to capitalise on the master-brand's reputation. The perception of a good experience is passed onto the product line extension brand. Both brands were well established in the non-alcoholic beverage category and the extension of the brands into the bottled water segment was well received by both consumer markets.

Consumption of flavoured bottled water is driven by a significantly higher proportion of female participants in this study. Of the flavoured bottled water that is consumed, the flavour preferences that ranked high are Litchi, Lemon & Lime, Strawberry, Marula and Cranberry (Table 4.13, page 91). A large proportion of male consumers do not consume flavoured bottled water (Table 4.11, page 90). This is important to note as it will influence the product content offering.

For consumers who are not currently consuming bottled water, the primary reason for non-consumption is that these consumers do not see any derived value from bottled water against tap water (Table 4.14, page 93). This point is critical to note and needs to be taken into account in the marketing communication of the launch of a carton range of bottled water. Whilst these consumers agreed that the main motivating factor which would result in them

purchasing bottled water is if tap water became unsafe. Further investigation is required to determine what other factors would motivate these consumers to switch to bottled water.

Objective 2

- To define the current competitive bottled water category landscape in terms of brands that boasts the highest levels of saliency, preference, and loyalty.

Findings

Valpré is the brand that holds the number one position in terms of unprompted top-of-mind awareness (Figure 4.2, page 95). In terms of the focus group interviews, Valpré and Bon Aqua were mentioned in the top three Brand ranking (unprompted). When probed in terms of why the participants mentioned these brands first, they shared the view that Valpré was a “well advertised and marketed brand”. Bon Aqua was mentioned because of the appealing packaging that it comes in. With reference to the importance of packaging covered in Chapter 2 (page 39), product packaging plays a critical and vital role in the total offering to the end consumer. It has the ability to command status and elevate brand image. This is clearly reflected in the Valpré and Bon Aqua brands. For a carton range of bottled water, it is imperative that the status of the carton be elevated and this packaging format made aspirational. This can be achieved by a well articulated and executive advertising campaign and is hence recommended as a key step in the launch of a carton range of bottled water.

With aided awareness, these three brands maintained their ranking. In terms of consumption, Valpré, which has the highest awareness, is also most often consumed (Figure 4.4, page 97).

For the brands that were mentioned (unprompted), Valpré was mentioned primarily because it is a 'well advertised' brand Seltzer, for its availability and appealing packaging; Aquarelle, for its availability and taste attributes (Table 4.17, page 98). Availability, affordability and size are by far the most important attributes that bottled water needs to have.

The main driver that influences purchase is the product feature (Table 4.18, page 102). This implies that the marketing communication on the carton range of bottled water needs to be centred on "what the product can do for me". This is verified by the focus group interviews when participants were probed as to why they identified with their preferred brand of bottled water, a variety of reasons were given – namely, packaging, price, perceptions of quality and purity.

Objective 3

- To establish the positioning of the various packaging formats (such as glass, plastic, cans etc.) in the targeted consumers' mind.

Findings:

Packaging plays a critical role in product launches. Marketers use it as a tool in which to increase consumer affluence, brand image and an opportunity for innovation (page 57/60).

In the study conducted in the USA by The Consumer Network (page 57), it clearly revealed that packaging was rated as a more influential attribute when compared to others.

In the bottled water category, packaging is certainly an important driver when it comes to the purchasing of this product. In the focus group interviews, when participants were asked what the benefits are that appeal to them to

purchase a particular brand of bottled water, packaging was listed as being one of the key elements.

Approximately 66 percent of the participants in this study claimed that packaging is important to them when buying bottled water (Table 4.20, page 105). In the focus group interviews, participants expressed that the packaging of bottled water they purchased influenced their purchase decision. In terms of gender, this skewed more towards the female consumers than male consumers.

With reference to the two existing packaging types that bottled water is made available in, the most preferred packaging type was Plastic, which had an 89.9 percent preference (Table 4.21, page 106). This view was shared across both gender groups. This packaging type was also considered as the *ideal*, despite other options being available for the participants to choose from (Table 4.22, page 106). Participants in the focus group interviews also shared the view that the *ideal* packaging was the plastic bottle (page 116).

In validating hypothesis stated in Chapter 2 (page 51), one can conclude that consumers are 'classically conditioned' (page 51) to only accept bottled water in the current packaging formats that it is available in. This raises the need for an aptly designed advertising campaign to aid in the successful launch of a carton range of bottled water and is hence recommended.

The most preferred packaging format and size for bottled water is the 500ml Plastic Bottle (Figure 4.6, page 104). Should this not be available consumers will either trade up or down in size, but will remain within the Plastic Bottle offering.

When probed on the 'environmentally-friendly' nature of the various types of packaging, the participants ranked *carton* as the most environmentally-friendly packaging (Figure 4.7, page 107). This matched against preference, clearly indicates that the participants are not environmentally conscious consumers.

In the focus group interviews, participants had positive and negative perceptions of carton packaging. Whilst the positive perceptions were similar to those obtained in the descriptive survey, it is important to note the negative perceptions, namely, product tastes like the packaging, lacks transparency, it splutters when opened and its boring and cheap.

The positive attributes associated with carton packaging are environmentally friendly, safe, and suitable for kids (Figure 4.8, page 104). Areas of concern were re-usability, lack of transparency and quality perceptions that are associated with carton packaging.

According to the focus group participants, consumption of bottled water from a carton package would happen at home and/or when travelling. Consumption would not happen when participants are socialising. This indicates carton-packaging inability to command status appeal. This validates the hypothesis stated in Chapter 2 (page 51) regarding the aspirational element associated with bottled water. This is an important driver and marketing communication around the launch of a carton packaging range of bottled water needs to be modelled to help elevate the status appeal of carton packaging.

Objective 4

- To determine the targeted consumer segment's acceptance of the concept of a carton packaged bottled water range.

Findings:

In this study, 62 percent of the participants indicated that they would not be interested in purchasing a carton packaged bottled water brand (Table 4.23, page 109). This is indicative of this market being resistant to change based on their preference for plastic packaging. The key is to understand the motives and need states of this market and market the positive attributes of carton packaging to educate this segment.

With reference to the Cluster Analysis (Page 110-116) conducted; the Clusters can be profiled as follows:

Cluster one – has marginally higher proportion of male participants than female participants. In terms of age group this cluster has a mix. Participants within this cluster would be open to purchasing bottled water packaging in carton packaging, if a well-established brand was launched in it.

Cluster two – has a marginally higher proportion of female participants than male participants. In terms of age group, participants under the age of 38 dominate this cluster. Participants within this cluster can be considered as consumers that are *loyal* to their chosen bottled water packaging type and can be regarded as the ‘unconvertible’.

Cluster three – is skewed more towards female participants. In terms of age group, consumers aged between 28-47 years dominate this cluster. Consumers within this cluster are similar to cluster two but to a marginally lesser degree.

With reference to the Innovation Adoption curve (page 55), cluster one could be considered as the ‘early adopters’ of the carton range of bottled water; in the event of this range being launched.

The shared view by participants in the focus group interviews when shown the mock-up samples of the carton bottled water range was very negative. Participants could not transfer the relationship of carton and milk to carton and water. According to Learning theory covered under Chapter 2 (page 53), the participants in this study are ‘classically conditioned’ to only relate two types of product content (namely, milk and fruit juice) to carton packaging. This being the case, a strong communication strategy would have to accompany the launch of a carton range of bottled water in order to command a shift from this. The overall ranking (out of five) for level of interest was a one.

What is interesting to note is that the participants in the descriptive study and focus groups, are both skewed in terms of gender to the female sex and are very negative towards the suggested product offering. This clearly indicates

that should a carton range of bottled water be pursued, it needs to be developed to be more suitable and relevant to the male consumer (i.e. cluster one). When probed why they would not be interested in purchasing a bottled water range in this packaging format the expressed view was that the visual appeal was lacking since the product content could not be seen, together with the fact that the total offering was unappealing.

The implication of this is that the total offering of the carton range of bottled water needs to precisely match its target market and have a defined positioning in the marketplace.

The preferred options from the carton range were the Tetra Prisma Aseptic® 330ml Square and 500ml Square packages (page 123). The Tetra Prisma Aseptic® package range was considered a better looking package than the Tetra Brik Aseptic® packages.

When participants were probed in terms of manufacturers that could be interested in launching a bottled water range in carton packaging, the brands that were unanimously accepted was Ceres and LiquiFruit. Participants shared the view that should these brands extend into the bottled water category with carton, they would find it acceptable based on the fact that these brands have always been in carton packaging. This indicates that packaging has become an integral part of the brand recognition for Ceres and LiquiFruit.

The hypothesis stated in Chapter 2 (page 51) regarding consumers' acceptance of a carton range of bottled water under the same brand, the above-mentioned findings validates this hypothesis.

This is a critical conclusion as it influences the choice of brand under which a carton packaging range of bottled water should be launched and the success thereof.

In conclusion, based on the descriptive and exploratory findings of this study, the launching of a bottled water range in carton packaging has proven to be not feasible.

5.4 AREAS FOR FUTURE RESEARCH

Due to the limited nature of this study and the sampling techniques adopted, it is recommended that a more probable study be conducted, under more rigorous sampling techniques.

From this study the following recommendations/conclusions can be drawn on, when conducting the national research:

- The sample selected includes participants that meet the profile as per Cluster one,
- Explore the launch of a bottled water range in carton packaging under a brand that is already in carton packaging,
- Explore the importance of the 'status/convenience' purchasing driver,
- Explore what factors would motivate non-users of bottled water to switch,
- Explore factors that can be adopted to help elevate the status of carton packaging,
- Explore suitable positioning statements that the bottled water range in carton packaging can own.

5.5 CONCLUSION

Based on the findings of this research study, the launching of a carton range of bottled water to the targeted consumer segment proves itself not to be feasible. However, this must be interpreted with caution as this study and the sampling techniques adopted were limited. It is highly recommended that a more probable study be conducted to further evaluate the bottled water cate-

gory, in which the results can be extrapolated to the general population of South Africa. This study can be used as the basis.

ADDENDA

ADDENDUM 1: ETHICAL CLEARANCE



RESEARCH OFFICE (GOVAN MBEKI CENTRE)
WESTVILLE CAMPUS
TELEPHONE NO.: 031 - 2603587
EMAIL : ximbap@ukzn.ac.za

6 NOVEMBER 2006

MRS. V NAIDOO (971162539)
GRADUATE SCHOOL OF BUSINESS

Dear Mrs. Naidoo

ETHICAL CLEARANCE APPROVAL NUMBER: HSS/06622A

I wish to confirm that ethical clearance has been granted for the following project:

"A study to assess the attitudes, perceptions and consumption habits of consumers of Bottled Water and the opportunity of launching a bottled water range in cartoon packaging for consumers in the Germiston Region of Gauteng"

PLEASE NOTE: The research data should be stored in the School for a period of 5 years

Yours faithfully

MS. PHUMELELE XIMBA
RESEARCH OFFICE

cc. Faculty Officer (Christel Haddon)
cc. Supervisor (Prof. K Bhowan and Shamola Pranjeeeth)

ADDENDUM 2: PERMISSION TO CONDUCT RESEARCH



PG BISON

MARKETING

GERMISTON

Cnr Jonas & Jack Streets, Driehoek, Germiston, Gauteng, 1401
PO Box 913, Germiston, 1400, South Africa
Tel +27 00 000 0000 Fax +27 00 000 0000
PG BISON LTD REG. NO. 1986/003787/06 VAT NO. 4119114686

09 October 2006

To Whom It May Concern:

This letter serves to confirm that permission was granted to Vaneshree Naidu to approach staff at PG Bison, Germiston site, to voluntarily participate in her MBA research study.

Should you have any queries, please do not hesitate to contact me.

Kind Regards


Andrew Gilbert
Executive Director: Trade Retail

Directors

LAN Cohen (Chairman) CJH van Niekerk (Managing) GN Chaplin AT Gilbert* MJ Jooste ...AR Norval PJ Roux IM Scott
DM van der Merwe JHN van der Merwe J Webber**
*British **German

ADDENDUM 3: RESEARCH INSTRUMENTS



1 August 2006

VOLUNTARY PARTICIPATION IN A RESEARCH STUDY

Dear Sir/Ma'am

I am currently completing my Masters in Business Administration at the University of Kwa-Zulu Natal. As partial fulfilment of the University's requirements, I am required to conduct a research study. The research that I am currently carrying out is to gain insights into consumers' attitudes, usage and perceptions of the Bottled Water category and the packaging thereof.

Although I would like for you to participate in my research study, you are not obligated to do so. If you do not wish to participate in this study, kindly return the blank questionnaire.

There are no wrong or right answers to any of the questions posed in the attached questionnaire. It is your feelings and opinions that are most important. What you say in this questionnaire remains private and confidential and your responses will be anonymous.

The attached questionnaire should take approximately 30 minutes to complete. Your participation would be sincerely appreciated.

Should you have any questions regarding this questionnaire or study for that matter, please do not hesitate to contact me.

Kind Regards



Vaneshree Naidu (Student Number – 971162539)

Mobile: 082 561 4736

Fax: 011 873 2963

Postal Address: P.O. Box 26048, East Rand, 1462

Email: vnaidu@pgbison.co.za

University of Kwa-Zulu Natal, Graduate School of Business

Supervisor: Ms Shamola Pramjeeth

c/o University of Kwa-Zulu Natal

Graduate School of Business

Tel: 084 702 2140

Email: shamola.pramjeeth@greif.com

QUESTIONNAIRE INDEMNITY – Permission to use my responses for academic research

I, _____ (FULL NAME) hereby give/do not give permission that my responses provided in the following questionnaire may be used for research purposes on condition that my identity is not revealed in the published records of this research.

Postal Address:

_____ Postal Code _____

Contact Telephone Numbers:

Home: _____

Work: _____

Cell: _____

Signature

Date: _____

HOW TO COMPLETE THE QUESTIONNAIRE

1. Please read the instructions carefully and follow the directions for each part.
2. Please read each question carefully and answer them as truthfully as you can.
3. Should you not feel comfortable about answering any particular question, please indicate that you do not wish to answer the question. For the questions that you do answer, your responses will be treated as confidential.
4. Please mark each response by making a tick/circle with a PEN (not a pencil).

Thank you very much for completing this questionnaire

PART 1 – BIOGRAPHICAL DETAILS

Please tick/circle the appropriate option for the questions stated below:

Q1.1. I am a:

1.1.1 Male	1
1.1.2 Female	2

Q1.2. Age Group

1.2.1 18-27 years old	1
1.2.2 28-37 years old	2
1.2.3 38-47 years old	3
1.2.4 48-59 years old	4
1.2.5 60+	5

Q1.3. Do you purchase Bottled Water?

1.3.1 Yes	1
1.3.2 No	2

Q1.4. If NO, would you ever consider purchasing Bottled Water?

1.4.1 Yes	1
1.4.2 No	2

If you have selected 1.4.1 in Q1.4, please proceed to PART 3 on Page 9

If you have selected 1.4.2 in Q1.4, kindly hand in your questionnaire to the researcher and thank you for participating in the survey

PART 2 – CURRENT BOTTLED WATER PURCHASING PATTERNS

Q2.1. In your opinion, what makes Bottled Water different from other beverage options like fruit juices, carbonated soft drinks, iced tea etc. (You may select more than one option)

2.1.1 It is a healthier option	1
2.1.2 It is natural as it has no preservatives, added sugar etc	2
2.1.3 It satisfies my thirst	3
2.1.4 It leaves no after-taste	4
2.1.5 Suitable for children	5
2.1.6 Suitable for people who are dieting	6
2.1.7 It hydrates me better	7
2.1.8 Other (please specify)	8

Q2.2. From the statements listed below; please select which ONE applies to you the most?

2.2.1 I have never bought Bottled Water, but may consider buying it	1
2.2.2 I have bought Bottled Water in the past but currently am not purchasing it. I may consider buying it in the near future	2
2.2.3 I buy Bottled Water from time to time	3
2.2.4 I buy Bottled Water regularly, but not all the time	4
2.2.5 I buy Bottled Water all the time	5

If you have selected options 2.2.1 or 2.2.2 in Q2.2, please proceed to PART 3 on Page 9.

If you have selected options 2.2.3 or 2.2.4 or 2.2.5 in Q2.2, please answer the questions below

Q2.3. WHEN do you purchase Bottled Water? (You may select more than one option)

2.3.1 When I am out shopping	1
2.3.2 When I do my monthly grocery shopping	2
2.3.3 When it is payday	3
2.3.4 Only when I have extra money	4
2.3.5 I purchase Bottled Water on a weekly basis	5
2.3.6 Only when I am at a restaurant	6
2.3.7 When I am socialising	7
2.3.8 Other (please specify)	8

Q2.4. From WHERE do you purchase your Bottled Water? (You may select more than one option)

2.4.1 Shoprite	1
2.4.2 Pick 'n Pay	2
2.4.3 Woolworths	3
2.4.4 Spar	4
2.4.5 Local Garage forecourt	5
2.4.6 At a restaurant	6
2.4.7 Makro	7
2.4.8 School Tuck-shop	8
2.4.9 Canteen	9
2.4.10 Other (please specify)	10

Q2.5. On which of the occasions listed below do you often enjoy drinking Bottled Water? (You may select more than one option)

2.5.1 When I feel thirsty	1
2.5.2 Anytime I like	2
2.5.3 When I am socialising	3
2.5.4 On a hot day	4
2.5.5 When I am having a meal	5
2.5.6 When I want a change from soft drinks	6
2.5.7 At the gym/sports events	7
2.5.8 When I feel tired and stressed	8
2.5.9 When I am shopping	9
2.5.10 When I am on holiday	10
2.5.11 Other (please specify)	11

Q2.6. Would you say that your purchase of Bottled Water is often...?

2.6.1 Planned	1
2.6.2 On impulse	2
2.6.3 A combination of planned and impulse	3
2.6.4 Routine	4

Q2.7. Where do you MOST OFTEN drink Bottled Water?

2.7.1 When I am at home	1
2.7.2 When I am out of home	2
2.7.3 When I am shopping	3
2.7.4 When I am out socialising with friends	4
2.7.5 When I am at the gym	5
2.7.6 When I am on holiday	6
2.7.7 When I have friends over at home	7
2.7.8 When I am at school	8
2.7.9 When I am at work	9
2.7.10 Other (please specify)	10

Q2.8. Do you consume *flavoured* Bottled Water?

2.8.1 Yes	1
2.8.2 No	2

Q2.9. If YES, which *flavours* do you purchase most often?

2.9.1 Honey Melon	1
2.9.2 Litchi	2
2.9.3 Marula	3
2.9.4 Naartjie	4
2.9.5 Peach	5
2.9.6 Youngberry	6
2.9.7 Apple and Mint	7
2.9.8 Lemon and Lime	8
2.9.9 Strawberry	9
2.9.10 Exotic Fruit	10
2.9.11 Blackberry	11
2.9.12 Blackcurrant	12
2.9.13 Ice	13
2.9.14 Three Berries	14
2.9.15 Peach and Pear	15
2.9.16 Forest Fruit	16
2.9.17 Cranberry	17
2.9.18 Other (Please specify)	18

Q2.10. Please rate each of the package types and sizes listed below in terms how you purchase you Bottled Water?

	Most Often	Often	Neutral	Sometimes	Never
2.10.1 Glass Bottle 200ml/250ml	1	2	3	4	5
2.10.2 Glass Bottle 750ml	1	2	3	4	5
2.10.3 Plastic Bottle 250-350ml	1	2	3	4	5
2.10.4 Plastic Bottle 500ml	1	2	3	4	5
2.10.5 Plastic Bottle 750ml	1	2	3	4	5
2.10.6 Plastic Bottle 1000ml	1	2	3	4	5
2.10.7 Plastic Bottle 1500ml	1	2	3	4	5
2.10.8 Plastic Bottle 2000-5000ml	1	2	3	4	5

PART 3 - KEY NEEDS STATES EXPLAINING NON-DRINKING OF BOTTLED WATER

ONLY if you have chosen 2.2.1 or 2.2.2 in Q2.2, please answer the following questions:

Q3.1. Please can you tell me why you are currently NOT purchasing Bottled Water? (You may select more than one option)

3.1.1 It is too expensive/overpriced	1
3.1.2 I see no difference between tap water and Bottled water	2
3.1.3 It doesn't suit my lifestyle	3
3.1.4 I see no value in buying Bottled water	4
3.1.5 I do not have a lot of money to spend	5
3.1.6 Other (please specify)	6

Q3.2. From the list below, what would make you want to purchase Bottled Water? (You may select more than one option)

3.2.1 If tap water became unsafe to consume	1
3.2.2 If the price on Bottled water was a lot lower	2
3.2.3 If Bottled water was fortified with minerals and vitamins	3
3.2.4 If I had extra money to spare	4
3.2.5 Other (please specify)	5

PART 4 - COMPETITIVE LANDSCAPE

For ALL participants, please answer the questions below:

Q4.1. Please name the top THREE brands of Bottled Water that come to mind? (Please rank in the order that you recall them)

4.1.1 Brand 1-	1
4.1.2 Brand 2 -	2
4.1.3 Brand 3 -	3

Q4.2. From the brands listed below, please tick which of these Bottled Water brands you are aware of? (You may select more than one option)

4.2.1 Aquartz	1
4.2.2 Aqua Azzurra	2
4.2.3 Aquatime	3
4.2.4 aQuellé	4
4.2.5 Aquarelle (for Woolworths)	5
4.2.6 Bené	6
4.2.7 Bon Aqua	7
4.2.8 Ceres Spring Water	8
4.2.9 Energade Ice Sports Water	9
4.2.10 Evian	10
4.2.11 Family Favourite	11
4.2.12 Fruitime	12
4.2.13 Get Oxygenated (GO)	13
4.2.14 Herb Aqua	14
4.2.15 La Vie de Luc	15
4.2.16 Nestlé Pure Life	16
4.2.17 NVigour8	17
4.2.18 Valpré	18
4.2.19 Seltzer	19
4.2.20. Other (please specify)	20

Q4.3. From the brands listed in Q4.2, please state which Bottled Water brand/s do you drink MOST OFTEN?

	Most Often
4.3.1	1
4.3.2	2
4.3.3	3
4.3.4	4
4.3.5	5

Q4.4. From the brands listed in Q4.2, please state which Bottled Water brand/s do you drink LEAST OFTEN?

	Least Often
4.4.1	1
4.4.2	2
4.4.3	3
4.4.4	4
4.4.5	5

Q4.5. Can you tell what is the reason(s) that you mentioned Brand 1 (in Q4.1) FIRST? What prompted you to mention this brand first?

4.5.1 It is the best brand	1
4.5.2 It is a well advertised brand	2
4.5.3 It tastes good	3
4.5.4 It is easily available in most shops	4
4.5.5 Its packaging is attractive	5
4.5.6 It's the one I trust	6
4.5.7 Other (please specify)	7

PART 5 - KEY BRAND DRIVERS

ONLY if you have selected options 2.2.3 or 2.2.4 or 2.2.5 in Q2.2, please answer questions below:

Q5.1. Now, thinking of your *favourite* brand of Bottled Water, what is it about this brand that makes you feel “this is my brand, the one I like to drink most often”?

5.1 It is the leading brand in the South African market	1
5.2 I trust the brand	2
5.3 Reasonable/affordable price	3
5.4 Always/Easily available	4
5.5 The package type suits my consumption	5
5.6 I like the packaging	6
5.7 I like the closure that is on the packaging	7
5.8 The size of this brand suits my consumption needs	8
5.9 Other (please specify)	9

PART 6 - RELEVANT BRAND FEATURES/BENEFITS

For ALL participants, please answer the questions below:

Q6.1. These are some of the attributes/features offered by the different brands of Bottled Water. Which of these benefits really appeal to you and influence your purchase of the brand? (You may select more than one option)

17.1 Natural Ingredients	1
17.2 Preservative Free	2
17.3 Caffeine Free	3
17.4 No Sugar	4
17.5 No colourants	5
17.6 Flavoured	6
17.7 Other (please specify)	7

Q6.2. If applicable, which of these flavours appeal to you thus influence you to buy the brand?

6.2.1 Honey Melon	1
6.2.2 Litchi	2
6.2.3 Marula	3
6.2.4 Naartjie	4
6.2.5 Peach	5
6.2.6 Youngberry	6
6.2.7 Apple and Mint	7
6.2.8 Lemon and Lime	8
6.2.9 Strawberry	9
6.2.10 Exotic Fruit	10
6.2.11 Blackberry	11
6.2.12 Blackcurrant	12
6.2.13 Ice	13
6.2.14 Three Berries	14
6.2.15 Peach and Pear	15
6.2.16 Forest Fruit	16
6.2.17 Cranberry	17

PART 7 - PACK TYPE PREFERENCES

For ALL participants, please answer the questions below:

Q7.1. Currently, you can purchase Bottled Water in plastic and glass bottles. Does the package type make any difference to you when deciding what brand of Bottled Water to purchase?

7.1.1 Yes	1
7.1.2 No	2

Q7.2. If you have answered YES for Q7.1, please indicate of the two package types that exits which type do you prefer?

7.2.1 Plastic	1
7.2.2 Glass	2

Q7.3. From the options stated below, what would you consider as your IDEAL packaging format for Bottled Water?

7.3.1 Plastic bottle	1
7.3.2 Glass bottle	2
7.3.3 Carton	3
7.3.4 Metal Can	4
7.3.5 Plastic pouch	5
7.3.6 Other (please specify)	6

Q7.4. Please rank the following packages, with 1 being LEAST environmentally friendly and 5 being MOST environmentally friendly?

7.4.1 Plastic bottle	
7.4.2 Glass bottle	
7.4.3 Carton	
7.4.4 Metal Can	
7.4.5 Plastic pouch	

Q7.5. In terms of CARTON packaging, how do you perceive this packaging format?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
7.5.1 Environmentally friendly packaging format	1	2	3	4	5
7.5.2 Safe packaging as it cannot break	1	2	3	4	5
7.5.3 Not a re-useable packaging format	1	2	3	4	5
7.5.4 Convenient packaging	1	2	3	4	5
7.5.5 Quality	1	2	3	4	5
7.5.6 Suitable for children	1	2	3	4	5
7.5.7 Transparency of package	1	2	3	4	5

Q7.6. If a well-established brand of Bottled Water was packaged in CARTON, would you purchase it?

7.6.1 Yes	1
7.6.2 No	2

Thank you for your valuable input and time!

FOCUS GROUP DISCUSSION GUIDE

(a) INTRODUCTION AND WARMUP EXERCISE

Here we want the respondents to get used to the idea of being in a group. Please do not spend too much time, only a brief exploration is needed.

- Respondents to introduce themselves – their ages, professions
- Family status – marital status, children, and who they live with in their households
- Leisure activities - what do you do in your spare/free time?
 - Activities
 - Interests and hobbies

(b) CURRENT BOTTLED WATER PURCHASING PATTERN

This section will seek to establish respondents' current purchasing patterns of Bottled Water

Q1.1. What would you say makes up a 'healthy' lifestyle?

Q1.2. What products/items do you think should be part of one's daily routine in order to lead a healthy lifestyle?

Q1.3. Why do you think Bottled Water is popular?

Q1.4. In your opinion, what makes Bottled Water different from other beverage options like fruit juices, carbonated soft drinks, iced tea etc?

PROBE:

- **Why this is the case?**
- **What are the positive associations with each of the beverage options?**
- **What are the negative associations with each of the beverage options?**

Q1.5. WHEN do you purchase Bottled Water?

Q1.6. From WHERE do you purchase your Bottled Water?

Q1.7. Can you tell me on what occasions do you consume Bottled Water?

Q1.8. Please name the TOP THREE Bottled Water brands that come to mind.

Q1.9. Can you tell me what is the reason(s) that you mentioned Brand 1 in the above question first? What prompted you to mention this brand first?

PROBE: Why this is the case?

Q1.10. Thinking of your *favourite* brand of Bottled Water, what is it about this brand that makes you feel “this is my brand, the one I like to drink most often”?

PROBE: Why do you think you relate to this brand?

Q1.11. Different Bottled Water brands offer different BENEFITS. Can you tell me which of these benefits really appeal to you and influence your purchase of the brand?

PROBE: Why do these benefits appeal to you?

(c) RESPONSE TO BOTTLED WATER IN CARTON PACKAGING

Q2.1. When purchasing Bottled Water, does the packaging of the product influence your decision? If YES, why?

Q2.2. What would you consider your IDEAL packaging format for Bottled Water?

Q2.3. What is your perception of CARTON packaging?

PROBE: Why do you have this perception of carton packaging?

Q2.4. I would like to show you some mock-up samples of a Bottled Water range that a well known company is considering introducing. What are your first impressions?

Q2.5. On a scale of 1-5, with 1 being *not interested at all* and 5 being *very interested*, how would you rate your INTEREST in this product?

2.5.1 Not interested at all	1
2.5.2 Not very Interested	2
2.5.3 Not sure	3
2.5.4 Quite Interested	4
2.5.5 Very Interested	5

Q2.6. Why would you be interested/not interested to purchase Bottled Water in this packaging format?

PROBE: What are the advantages/ disadvantages that they see about this packaging format?

Q2.7. If you HAD TO consume water out of this packaging, WHEN would you drink it?

PROBE: Why would they drink it at this particular time of day?

Q2.8. Which of these packages and sizes would you consider buying? (Rank in order of mention)

2.8.1 Option S (TBA 250ml S PullTab)	
2.8.2 Option R (TPA 250ml Sq PullTab)	
2.8.3 Option V (TPA 330ml Sq ScrewCap)	
2.8.4 Option T (TPA 500ml Sq ScrewCap)	
2.8.5 Option D (TPA 750ml Sq ScrewCap)	
2.8.6 Option C (TPA 1000ml Sq ScrewCap)	
2.8.7 Option B (TBA 1000ml S SlimCap)	
2.8.8 Option A (TBA 1500ml S SlimCap)	

Q2.9. I am going to name some manufacturers/brands who could be interested in launching a Bottled water range in carton packaging. Please tell me whether you would buy the product packaged in carton packaging or not?

Manufacturer	Comments
2.9.1 Lipton Bottled Water	
2.9.2 Red Bull Bottled Water	
2.9.3 LiquiFruit Bottled Water	
2.9.4 Ceres Bottled Water	
2.9.5 Pepsi Bottled Water	
2.9.6 Parmalat Bottled Water	

Q2.10. For the brands that you mentioned that you would BE interested in purchasing, why would you be interested in it...?

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Q2.11. For the brands that you mentioned that you would NOT purchase, why would you not be interested in it?

Thank you for you valuable input and time!

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