

## Comparative Analysis of Market Acceptance of Carton Packaged Bottled Water

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**ABSTRACT** Accessibility to safe water is a scarce and precious resource to some. Frequent press reports on questionable municipal water supplies have stimulated demand for bottled water, assuming it to be a safer and healthier option. However, the current packaging standard for water is plastic bottles. A major concern that exists is that plastic bottles may release harmful ingredients over a period of time, whilst disposal also seems to pose a problem. Against this backdrop, this study aimed to determine if carton packaging is a suitable alternative packaging format for bottled water and the perceptions surrounding carton bottled water. An exploratory study was conducted in the Germiston region, South Africa. The study conducted involved two focus group sessions (14 respondents) where the findings formed the basis for the quantitative research, where 100 participants had participated. The key findings in the study highlight that the launching of a bottled water range in carton packaging has proven not to be feasible. The most preferred packaging type was plastic bottles with consumers perceiving it as being the most "ideal" type. Carton packaging was perceived as being "environmentally friendly, safe and suitable for kids" however some negative perceptions portrayed were, namely: re-usability, lack of transparency and quality. Participants could not transfer the relationship of carton and milk to carton and water.

### INTRODUCTION

Healthy safe water is a scarce and precious resource to many people. Due to the lack of universally accepted safe tap water, many people opt to drink bottled water, assuming it to be a safer and healthier option. A major concern exists that plastic bottles may cause added pollution to the ecosystem. In South Africa, bottled water is currently sold in only two packaging formats, that is, plastic bottles and glass bottles. Plastic bottles dominate the category as a result of first entrant advantage. With the focus of government being on the environment and encouraging business to increase their environmental initiatives, it would be plausible to determine whether the bottled water category pose an opportunity for carton packaging to enter a category in which it is not well represented in South Africa. Presently, Woodlands Dairy in the Eastern Cape packages water in a two-litre Maxi curve Pure Pak (<http://foodstuffs.co.za>). The South African bottled water market value in 2005 was estimated at R1.3 billion (BMI FoodPack 2006) and in 2010 it was estimated at R3.5 billion (BMI Beverage Reports 2011). The bottle water market has had a strong growth over the years 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). According to BMI FoodPack (2006), 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.

### Research Problem

With the focus on healthier and safer living standards, the general population is increasingly seeking ways to protect and improve their health and environment at the same time. A major concern that exists is that plastic bottles are harmful to the environment even though recycling initiatives are pursued vigorously. Based on this, it would prove beneficial to determine the possibility of packaging the bottled water in carton packaging. However, positive consumer perceptions of carton packaged water are paramount to ensure the success of this type of bottled water.

### Aim of the Study

Based on the attractiveness of the bottled water category, this study investigated if there was indeed an opportunity for bottled water companies of launching bottled water in carton

packaging for consumers in the Germiston region of the Gauteng Province. The study also sought to investigate the consumers perceptions of carton packaged bottled water.

### Research Objectives

1. To determine if there is an opportunity for launching a bottled water range in carton packaging.
2. To determine if carton packaging is a suitable packaging format for a bottled water range.
3. To assess if the other packaging formats such as plastic bottles, glass bottles, cans etc. are perceived as a more suitable medium.
4. To determine the targeted consumer segments availability to the concept of a carton packaged bottled water range.
5. To determine how to enter the bottled water category if consumers are open to the concept of bottled water in carton packaging.

### Literature Review

Sales of bottled water around the globe had increased substantially due to focus on healthier lifestyles and water pollution. According to the WorldWatch Institute (July 2013), it is the fastest-growing beverage sector in the world. According to a research study conducted by Zenith International (Merrett 2007), it indicated that the global per capita consumption of bottled water will overtake that of carbonated soft drinks within the next two 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 Roethenbaugh (Merrett 2007). Multinational organisations that are likely to be leading the way are Nestlé, Danone, Coca Cola and PepsiCo, who control 33 percent of the global bottled water market (Merrett 2007). According to Merrett (2008), "over 30 million people in the UK enjoy drinking bottled water, understanding that it is a convenient and refreshing way to stay hydrated throughout the day." He goes on to say that global market is expected to grow by 34% from 2006 to 2011.

### Bottle Water Market in South Africa

As defined by BMI FoodPack (2006), the bottled water category is made up of the following types of water which can be flavoured or unflavoured: bottled water/drinking water, mineral water, natural water, artesian water, well water and purified/distilled water. BMI FoodPack (2006), 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. In 2010, bottle water volume production was 398 million litres (BMI Beverage Reports 2011). In the Bottled Water Report Purified/Distilled Water 2005, BMI FoodPack (2005) 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; and"
- ♦ "Increased disposable income."

In addition to these factors, in the Bottled Water Report 2006, BMI FoodPack (2006) 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" and "It is also more convenient for people on the go". However, according to the BMI Beverage Reports (2011) between 2008-2010 this growth began to taper off due to the recession in 2009 where bottle water was viewed as a non-essential item; the low barriers to entry in this market resulted in many suppliers not being able to meet their turnover targets; user-pool stagnation; aggressive competition with other non-alcoholic beverages and bottle water volumes reached market saturation as the category had become well established. Montague-Jones (2011) indicates that with the recovery of the global economy, premium bottled water sales are expected to grow due to the growing middle class and companies improving their environmental credentials.

In South Africa, there are two main formats of packaging currently present in the bottled water category namely: glass bottles and plastic

bottles, which varies in size from 200ml to 5L. In 2010, the dominant packaging format for bottled water was the plastic bottle, holding a volume market share of 98 percent of the total category (BMI Beverage Reports 2011). The Plastic Bottle packaging format experienced high growth rates averaging on 30 percent since 2002 (BMI FoodPack 2006). The demand for glass packaging has been fairly constant since 2002. BMI FoodPack (2005) 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 2011, South African company, Woodlands Dairy chose packaging manufacturer, Elopak's two-litre Maxi Curve Pure Pak carton to launch its First Choice Still Water. The Managing Director of Elopak, Johan de Smidt, indicated that the carton packaging has a "favourable CO<sub>2</sub> footprint, compared to other commonly-used packaging media. Further, it comes from a renewable source, is recyclable, and has a carbon footprint up to three times better than a plastic bottle." (<http://foodstuffsa.co.za>). The article goes on further to state that carton packaging does not have a major impact on the environment like other packaging types and it is made from renewable resources from natural well managed forests.

### Plastic Bottles

Plastic is made from oil and natural gases, both of which are non-renewable resources (Shah 2009). 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 (Shah 2009). 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 (Shah 2009).

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 (Shah 2009). Ramkumar (2013) highlights that many "environmentalists say recy-

cling of plastic is a myth." Ramkumar quotes Dharmesh Shah as indicating that plastic "can only be downcycled. Plastic bottles or bags can only be shredded and made into a product of thinner plastic and lesser quality. Which at the thinnest level have to be dumped,"

### Perception

Perception is important as individuals selectively perceive what they want, which in turn affects how to hear and see risks in the purchase of a particular product/service. However, Kotler and Keller (2012) discusses that perceptions "are more important than reality because perceptions affect consumer's actual behaviour."

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. Perceptions of the taste of a product are influenced by the context the brand name provides (Sheth and Mittal 2004). Brands, like Ceres<sup>TM</sup> and LiquiFruit<sup>TM</sup> fruit juices, are packaged in carton packaging and are perceived to be high quality products by its consumers. 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 Valpre<sup>TM</sup> 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. Kotler and Keller (2012) add that perception "does not depend only on physical stimuli", for example advertising, "but on the stimuli's relationship to the surrounding environment and on the conditions within each of us."

### Learning

According to Sheth and Mittal (2004) there are four different mechanisms of learning, namely: cognitive learning, classical conditioning, instrumental conditioning and modelling, which can be defined as:

- ♦ “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 hypothesize 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. Furthermore consumers have experience with carton packaging as a wide range of fruit juices and milk products are available in this packaging format. Bottled water is not a cheap beverage option and has been originally packaged in clear plastic bottles. One can hypothesize that because of this, consumers may readily accept a carton range of bottled water offered under the same brand. Bottled water is not a cheap beverage option. The out-of-home consumption of bottled water by many consumers can be related to the convenience, safety and status obtained when consuming this beverage option. One can hypothesize that the consumption of bottled water entails a certain aspirational element.

### **Attitude**

According to Sheth and Mittal (2004) 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.

### **RESEARCH METHODOLOGY**

The research strategy that guided this study was a combination of exploratory and descriptive strategies. In terms of the exploratory strat-

egy, a discussion guide comprising of several key open-ended questions were used to provide insights as to how the targeted consumer segment viewed a carton packaged bottled water range. Two focus group sessions, each consisting of seven participants, were conducted. In addition to the questions, mock-up samples of a generic bottled water brand in carton packaging were shown to the participants in the focus groups, to facilitate the discussion. The discussions were led by a trained facilitator. In terms of the quantitative study, a survey instrument, in the form of a questionnaire, was used. The questionnaire consisted of several closed-ended questions. Due to time and financial constraints as opposed to having the entire Germinston population participate in the study, convenience sampling 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 that last month and must not have participated in the exploratory part of this study. To cater for non-response an additional five questionnaires was included, thus taking the total sample size up to one hundred. For the quantitative 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. To test for bias, validity and reliability of the questionnaire, a pilot test was conducted with a group of five participants before commencing with the actual study. Questions that were found likely to compromise the reliability and validity of the study were eliminated from the final questionnaire design. A Cronbach’s Alpha Test was conducted measuring 0.5, implying an average reliability. Both questionnaires included a filter mechanism to ensure that only people who used bottled water were included in this study. Focus group data was categorised according to thematic areas based on the objectives and analysed. The questionnaire was analysed using the statistical programme, Survey System Version 9 for Windows. Descriptive and inferential statistics were performed. To define the segments and understand how big the potential market for carton packaged bottled water was, a cluster analy-

sis was performed. By defining the segments and interpreting the results one could tailor marketing strategies for each.

**RESULTS AND DISCUSSION**

**The Influence of the Package Type When Deciding What Brand of Bottled Water to Purchase**

In Table 1, 66.5% of the participants claimed that packaging was important when buying bottled water. In the younger age groups, (18-27 and 28-37) one can hypothesize that it was perhaps a status issue. However this study does not refute or validate this premise and this could be another area for a future study. In terms of gender, the selection of bottled water and the packaging that it came in was more important to female consumers (77.4 %) than male consumers.

**Preference of Existing Packaging Type**

Approximately 90% of the participants stated that plastic was the most preferred packaging format for bottled water, in Table 2. This view

was shared across both gender groups. Glass packaging was preferred by a small number of consumers that fell within the 48-59 years old age group.

Table 3 shows the perceived ideal packaging format for bottled water.

The ideal packaging format for majority of the participants (88.8%) was the plastic bottle, as indicated in Table 3. 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 those options.

**Perceptions of Carton Packaging**

In terms of carton packaging, the *positive* perceptions of this packaging format were as follows: “It is an *environmentally friendly packaging*, 65 % of the participants agreed with this; it is a *safe packaging format* as it cannot break, 67.1% of the participants agreed; it be a *convenient form of packaging*, 47.7 % of the participants agreed and *it being suitable for kids*, 60.8% of the participants agreed”. Areas for concern when it came to carton packaging were its re-usability, transparency and quality perception.

**Table 1: 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
Yes	6665.5	27 53.7	39 77.4	29 81.1	27 71.2	4 36.1	4 29.9	1 100.0
No	3434.5	23 46.3	11 22.6	7 18.9	11 28.8	7 63.9	9 70.1	0 0.0

**Table 2: 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
Plastic	5989.9	27 100.0	32 82.9	23 80.5	27 100.0	4 100.0	3 76.7	1 100.0
Glass	710.1	0 0.0	7 17.1	6 19.5	0 0.0	0 0.0	1 23.3	0 0.0

**Table 3: 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
Plastic bottle	8988.8	46 92.7	42 84.9	30 84.2	37 96.8	9 80.7	11 84.0	1 100.0
Glass bottle	99.0	2 4.9	7 13.2	6 15.8	1 3.2	1 10.9	1 7.0	0 0.0
Anything	22.2	1 2.4	1 1.9	0 0.0	0 0.0	1 8.4	1 9.0	0 0.0

Carton packaging was perceived as the most environmental friendly packaging format (39.5%), followed by plastic bottles (22.6%) and glass bottles (17.4%). 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. The mean scores out of a total of five indicated that 76% of participants viewed carton packaging as the more environmentally friendly packaging format. Plastic bottle was viewed as the packaging format that was least environmentally friendly.

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 packag-

ing, the consensus view was that carton has *“been around forever”*; *“we know it”*.

**First Impression of the Mock-up Samples of a Bottled Water Range in Carton Packaging**

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.

**Brand Influence on a Carton Packaged Range of Bottled Water**

Table 4 indicates that majority view (62%) 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. When participants in the focus group 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 were 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

**Table 4: 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
Yes	3838.0	22 43.9	16 32.1	16 45.7	11 27.4	5 47.0	6 43.0	0 0.0
No	6262.0	28 56.1	34 67.9	19 54.3	28 72.6	6 53.0	8 57.0	1 100.0

in carton packaging. This indicates that packaging has become an integral part of the brand recognition for Ceres™ and LiquiFruit™.

To define the segments and understand how big the potential market for carton packaged bottled water was, a cluster analysis was performed. 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** — consumers that were not that fussy about the packaging that their bottled water came in
- ♦ **Cluster Two** – consumers that were entrenched into their specific bottled water packaging and would not change to an alternative format
- ♦ **Cluster Three** – consumers that could see the value of carton packaging more than anybody else but required serious convincing to change to this packaging type

From all three clusters in Table 5, cluster one was the only one that would be open to purchasing bottled water packaged in carton packaging. Cluster two was highly loyal to what they currently purchased and could be considered as not being open to this opportunity. Cluster three were similar to cluster two, but to a marginally lesser degree.

**Table 5: Establishing brand influence on a carton packaged range of bottled water**

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

Cluster two, Table 6, participants could be considered as the consumers that are loyal to their chosen bottled water packaging type. It was these consumers that posed a challenge to convert to another packaging format of bottled water. 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*” and “*It must be easy to hold – easy to show-off with*”.

**Table 6: Influence of the packaging type when deciding on what brand of bottled water to purchase**

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

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

Across all three clusters, plastic bottle was the packaging format that was preferred as indicated by Table 7.

**Table 7: Preference of package type when purchasing bottled water**

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

Across all three clusters, Table 8, the packaging format that was considered as the *ideal* was the plastic bottle. These sentiments were expressed by the focus group as well. 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*” and “*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*”.

From all three clusters, cluster one was the only one that would be open to purchasing bot-

**Table 8: The ideal packaging format for bottled water**

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

tled water packaged in carton packaging, as per Table 9. Cluster two was highly loyal to what they currently purchased and can be considered as not being open to this opportunity. Cluster three were similar to cluster two, but to a marginally lesser degree.

**Table 9: Establishing brand influence on a carton packaged range of bottled water**

	Total	Cluster		
		1	2	3
Sample Base (unweighted)	94	37 (A)	38 (B)	19 (C)
Yes	35	24	6	5
	37.2	64.9	15.8	26.3
No	59.8	13	32	14
	62.8	35.1	84.2	73.7

### Focus Group Results

- ♦ **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.

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 where 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”

This indicated that carton packaging lacked the ability to command status appeal to this consumer base.

- ♦ **Preference of Manufacturers/Brands in a Bottled Water Carton Range**

Tabulated in Table 10 is the level or interest in purchasing a bottled water range packaged in cartons from various manufacturers from the participants.

**Table 10: 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™. 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”

Participants expressed that for the brands they have indicated in that they would not be interested in; the underlying reason was 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”.

### Objective 1

*To determine if there is an opportunity of launching a bottled water range in carton packaging for the targeted consumer segment in the Germiston region in Gauteng.*

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

### Objective 2

*To determine if carton packaging is a suitable packaging format for a bottled water range*

When probed on the ‘environmentally-friendly’ nature of the various types of packaging, the participants ranked *carton* as the most environmentally-friendly packaging. This matched against preference, clearly indicated that the participants were 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 was important to note the negative perceptions, namely: “product tastes like the packaging, lacks transparency, it splutters when opened and it’s boring and cheap”.

The positive attributes associated with carton packaging were “environmentally friendly, safe, and suitable for kids”. 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 travel. Consumption would not happen when participants are socialising. This indicated that carton-packaging’s inability to command status appeal.

### Objective 3

*To determine if the other packaging formats such as plastic bottles, glass bottles, cans etc. are perceived as a more suitable medium.*

In the bottled water category, packaging was certainly an important driver when it came to the purchasing of the product. In the focus group interviews, when participants were asked what benefits appealed to them to purchase a particular brand of bottled water, packaging was listed as being one of the key elements.

Approximately 66% of the participants in this study claimed that packaging was important to them when buying bottled water (Table 1). 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 was made available in, the most preferred packaging type was plastic, which had an 89.9% preference (Table 7). 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 3). Participants in the focus group interviews also shared the view that the *ideal* packaging was the plastic bottle.

Based on the information, it can be deduced that consumers are ‘classically conditioned’ to only accept bottled water in the current packaging formats that it was available in. The participants could only relate two types of product content (namely, milk and fruit juice) to carton packaging. The overall ranking (out of five) for level of interest was a one. 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.

### Objective 4

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

In this study, 62% of the participants indicated that they would not be interested in purchasing a carton packaged bottled water brand (Table 4). 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 conducted; the Clusters can be profiled as follows:

**Cluster One** – had a marginally higher proportion of male participants than female participants. In terms of age group this cluster had 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** – had a marginally higher proportion of female participants than male participants. In terms of age group, participants under the age of 38 dominated 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** – was skewed more towards female participants. In terms of age group, consumers aged between 28-47 years dominated this cluster. Consumers within this cluster are similar to cluster two but to a marginally lesser degree.

The shared view by participants in the focus group interviews when shown the mock-up samples of the carton bottled water range were very negative. Participants could not transfer the relationship of carton and milk to carton and water. According to learning theory, the participants in this study were ‘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 was interesting to note was that the participants in the quantitative study and focus groups, were both skewed in terms of gender to the female sex and were 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 (that is, cluster one).

When probed why they would not be interested in purchasing a bottled water range in this packaging format, the expressed views were that visual appeal was lacking since the product con-

tent 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.

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 were 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 indicated that packaging had become an integral part of the brand recognition for Ceres™ and LiquiFruit™.

#### AREAS FOR FUTURE RESEARCH

Due to the limited nature of this study and the sampling technique 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; and
- ♦ Explore suitable positioning statements that the bottled water range in carton packaging can own.

#### CONCLUSION

Based on the findings of this research study, the launching of a carton range of bottled water to the targeted consumer segment proved to be not 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 conduct-

ed to further evaluate the bottled water category, in which the results can be extrapolated to the general population of South Africa. This study can be used as the basis.

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