Packaging Trends for Bottled Water

N. NOBLE[1], L. PAUL[1], C. McMINIMEE[1], M. MALLETT[1] and J. SINGH[2,*]

[1]*Undergraduate Student, Packaging Program, Cal Poly State University, San Luis Obispo, CA*

[2]*Associate Professor, Packaging Program, Cal Poly State University, San Luis Obispo, CA*

ABSTRACT: The *Journal of Applied Packaging Research* (JAPR) is an international forum for the dissemination of research papers, review articles, tutorials and news about innovative or emerging technologies for the packaging industry. In an effort to introduce research conducted by packaging students to the academics and industry professionals and to provide an outlet for these future stewards of the packaging industry to experience the world of publishing, JAPR, occasionally includes such work in its issues.

Bottled water is drinking water packaged generally in plastic bottles and regulated by national and local agencies. The Beverage Marketing Corporation defines the bottled water market segment as "retail PET, retail bulk, home and office delivery, vending, domestic sparkling and imports" but excluding "flavored and enhanced water". Bottled water, with a fifth ranking amongst all beverage types consumed in the US at the beginning of this decade, has moved to the second slot, after carbonated soft drinks, in 2008. This has been accompanied by the bottled water category increasing its US market share from 4.7 billion gallons to 14.1 billion gallons and 15% of the beverage market share during this period. The following is a research paper submitted by a group of packaging students and their advisor at California Polytechnic State University, San Luis Obispo, California. This paper researches the trends observed in the bottled water industry globally and includes package designing palettes such as retail environment, shape, imagery, colors, and sustainability. This report also includes the results of a survey that helped the authors' rank ten innovative bottled water solutions.

1.0 TRENDS

1.1 Retail Environment

BOTTLED WATER is among the most universally sold consumer products in the world. The retail venues for bottled water include

*Author to whom correspondence should be addressed. Email: jasingh@calpoly.edu

1557-7244/09/03 123-14
© 2009 DEStech Publications, Inc.

Figure 1. *Varieties of bottled water.*

Figure 2. *Retail environment.*

grocery stores, convenience stores, bulk stores, restaurants, and vending machines, among others. Point of sale displays are commonly used, although bottled water is typically displayed in cooler cases near other beverages such as energy drinks, sports drinks, and sodas.

1.2 Shape

The shape of a bottled water package is perhaps the most noticeable aspect. Although the standard bottle shape is still fairly prevalent, other forms such as pouches and cartons are gaining momentum. Additionally, the shape of the standard plastic bottle is being modified to include complex contours and swirls.

Response

The observed trends in bottled water package shapes are meant to catch the eye of the consumer. A sleek, contoured plastic bottle seems to be a highly desired component.

Figure 3. *Shape.*

Figure 4. *Imagery: mountain scenes/nature scenes/water droplets.*

1.3 Imagery: Mountain Scenes/Nature Scenes/Water Droplets

The mountain and nature scenes depicted on such well recognized water brands as Aquafina and Evian are a common and typical aspect of bottled water packages. Also commonly depicted are nature scenes and water droplets or snowflakes.

Response

The mountain and nature scenes are meant to convey a sense of freshness, purity, and coldness which many people associate with critical aspects of water. The operating assumption behind this nature related imagery is that many consumers associate the best water as coming from mountain springs and snow runoff.

1.4 Colors

Nearly every bottled water package we observed used some form of blue, in varying hues. Additional colors observed include white, yellow, and gold.

Figure 5. *Colors.*

Figure 6. *Clear Panels.*

Response

The prevalence of varying shades of blue in bottled water packaging serves to further convey the feeling of freshness and purity. Additionally, the blue color has a subliminal association with water for many consumers. Other colors such as white and gold are "soft" colors included to create an inviting tone.

1.5 Clear Panels

Another readily observable trend in bottled water packaging is the use of clear panels to give customers a glimpse of the water within. The sizes of these clear panels vary by brand.

Response

The use of clear panels is another attempt by the package designers to convey purity and to assure the customer that they are purchasing nothing but water. By being able to see through the product, the customer is more certain that there is nothing contaminating the water within.

1.6 Sustainability

Another observable trend within bottled water packaging is the use of more sustainable materials and the use of packaging designs which utilize less material. The use of flexible packaging such as pouches, as well as the use of new plastic bottle designs, reduces the required amount of plastic resin used per package. Additionally, the use of more sustainable materials such as paper (instead of or in conjunction with plastic) can be observed in many newer package designs.

Figure 7. *Sustainability.*

Response

The trend towards sustainability in water bottle packaging can be traced to the recent "green" movements of the current socio-economic climate, as well as the demonization of plastic in the media and increased concern over carbon footprint. With these more sustainable packages, consumers feel less guilty about purchasing bottled water because they feel that the packaging is less harmful to the environment.

2.0 TOP TEN BOTTLED WATER PACKAGES

In order to further discover trends in the water bottle market, the team posted a survey online that was taken by 108 people in the San Luis Obispo County of California, comprising of 71% female and 29% male respondents. 68% of these respondents were between the ages of 21–25 and 24% were between the ages of 15 to 20. The purchasing habits towards bottled water are described in Figure 8.

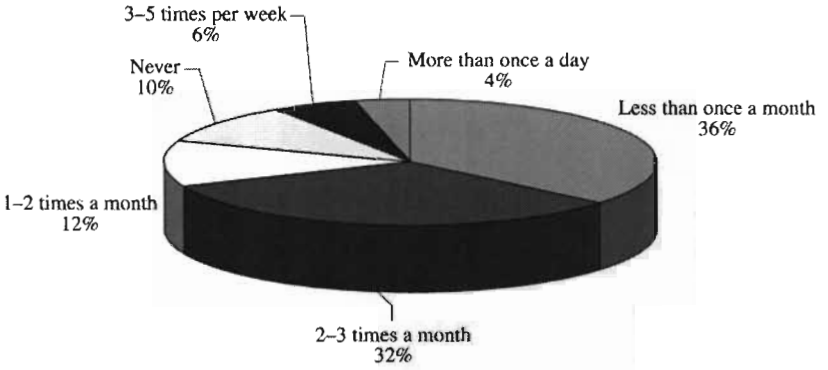

Figure 8. *The purchasing habits towards bottled water.*

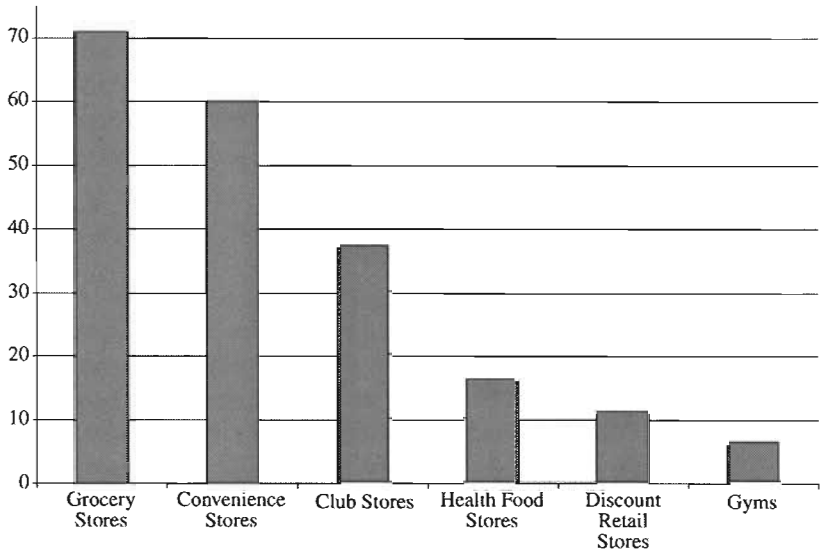

Figure 9. *Locations where the respondents most commonly purchased bottled water.*

Figure 9 shows the responses to locations where the respondents most commonly purchased bottled water.

The respondents were also asked to rank 15 different kinds of packages in the order of preference and the top ten packages are listed below.

1. Nao

Nao water bottles are made by the Jumeirah Hotel Group and designed by Fig Tree. This package is used in luxury hotels by the Jumeirah Hotel

Figure 10. *Nao water bottles.*

Group. The bottles are made of glass and have a sleek, new age look which appeals to the higher class. The process used to make these bottles is the press and blow process. Because these bottles are found in hotels, they do not get any bigger than about 12 oz. The target market consists of higher class, middle age people who spend a considerable time traveling because these are mostly found in luxury hotels.

2. Tap'd NY

Tap'd NY is a new brand of bottled water where the contents are nothing more than New York City tap water! They don't even hide it, in fact, it's part of their brand ethos. The design of the bottle is simple and transparent, and features the pipelines reminiscent of the layered NYC skylines. The colors were chosen to be orange and blue, the same as those of the Flag of the City of New York. Credits for the concept and design are shared between "many people", according to Craig Zucker of Tapped Drinks. This is manufactured by, Tap'd New York , and is made from PET. The bottle is injection blow molded, offered in 10, 16 and 20 oz bottles. It is targeted to middle and upper middle class people of New York, ages 14 and up, and is sold in convenience and grocery stores, and by street vendors in New York. It is unique because Tap'dNY is bottled water for the new age: an honest and local alternative for all New Yorkers. They purify and bottle New York City's famous tap water, leaving out the malarkey and long distance journey included in other bottled waters.

Figure 11. *Tap'd NY.*

Figure 12. *1 litre™.*

3. 1 litre™

1 litre™ has combined the elements of exceptional design and uncompromising taste to create a unique, stand-alone product with international appeal. The clean, crisp taste coupled with the innovative and uber-chic design, make 1 litre™ a natural complement to finest restaurants, luxury hotels, resorts, spas, casinos, meeting rooms etc. around the globe. It is manufactured by 1 litre bottle company, and is made from PET, injection blow molded, and is offered in half and full liter sizes. It is targeted toward upper middle class to upper class people, ages 14 and up. It is sold at the finest restaurants, luxury hotels, resorts, spas, casinos, meeting rooms etc. around the globe. It is unique because it is the first bottle in the world to feature an integrated cup. The proprietary design has been acknowledged as the most functional, sophisticated and visually appealing bottle on the market.

4. Aquafina

Aquafina is a product by Pepsi Co. that is marketed internationally. This bottled water is a standard for convenience and portability. The custom shape of the bottle is recognizable and acts as a branding tool for Aquafina. The bottle is made from PET and is injection blow molded into a proprietary custom mold. The water bottle is marketed to a wide target market focusing on middle class from the ages of 18+. This product can be purchased at most general market stores including grocery stores, convenience stores, and restaurants. This bottle was designed as an eco-friendy bottle. It reduces the amount of plastic used by 50 percent. The Aquafina bottle was the industry's lightest water bottle at the time of this study.

Figure 13. *Aquafina.*

5. Malmberg

Malmberg water is a fine mineral water collected from an artesian spring in southern Sweden. It is known for its low salt content, distinct intensity, and neutral mineral tone with a hint of carbonation. It comes in a few different bottles that can be made of glass or plastic. The bottles vary in sizes and include 25 oz., 16 oz., and 11 oz.

The bottles are manufactured in Sweden and are made using different processes depending on the material of the bottle. The glass bottles are made using the narrow neck stretch and blow process and the plastic bottles are made using the injection blow molding process. This product is targeted towards the health conscious naturalist that is looking for a refreshing sip of natural spring water. Something unique about this water is the location from which it comes and the hint of carbonation they add to it, giving the buyer a slight tingle upon consumption. This drink is sold primarily in Sweden but can be ordered through an online store.

Figure 14. *Malmberg.*

Figure 15. 360 Paper Bottle.

6. 360 Paper Bottle

The 360 Paper Bottle is an innovative new product designed and manufactured by Brand Image. The product is a single serve paper water bottle with an innovative cap feature unlike anything currently on the market. Marketing appeal for this product is the sustainable nature of the materials, the recyclability of the container after use, and the sleek modern design. The product is manufactured by sealing two halves of sheet stock to attain the final shape. The product is currently unavailable for retail purchase in the United States, but would eventually be featured in health-food stores, convenience stores, and grocery stores. The target market is environmentally conscious adults.

7. KOR ONE Hydration Vessel

This thoughtful and attractive bottle manufactured by KOR ONE, was

Figure 16. KOR ONE Hydration Vessel.

designed with the intention of encouraging consumers to reuse water bottles. The bottle is made with PET and is created by extrusion blow molding. The target audience is active individuals between the ages of 18-50. The bottle was designed by One of Eastman and RKS design. The major goal of the bottle is function and convenience. The bottle offers the ability to drink with one hand with the hinge snap cap. It has a wide mouth cap for easy fill. The mouth also offers enough room to fill the bottle with ice. This unique and innovative bottle design combines function and aesthetic appeal.

8. Another Bloody Water

Another Bloody Water is natural spring water that comes from the Victorian Alps. It is sourced from an aquifer 70 meters below the surface, and is separate from ground water, like rivers and creeks so it does not take water away from the farmers. The water is possibly hundreds of years old and is encased in rock granite, and its levels of the aquifer are constantly checked and has been confirmed to be renewable.

The bottle shape is a proprietary design and unique to Another Bloody Water. It is manufactured in Australia, made from PET, injection blow molded, and offered in a variety of sizes—most popular are 12, 16 and 24 oz sizes. The target market segment is middle to upper middle class people, ages 18–40. It is sold at general and convenience stores in and around Australia. The unique marketing features for this product is that the name and branding is blunt and to the point. The text is printed directly on the bottle for added visual appeal.

Figure 17. *Another Bloody Water.*

Figure 18. *Malmberg.*

9. Boxed Water Is Better

Boxed Water Is Better is a manufacturer of boxed water out of Michigan. The product features a 100% recyclable paper carton instead of the traditional bottle. The recyclibility of the container and the fact that each carton is made using sustainable materials provide the main marketability for this product. Form, fill and seal concept is used for manufacture of the packages and filling of the product within. The product is available in 20 oz and 1 liter sizes and is sold at convenience stores and grocery stores. The target market for Boxed Water Is Better is environmentally conscious individuals of all adult age ranges.

10. Pique

Pique water bottles are "The world's first water that infuses a special

Figure 19. *Pique.*

blend of ingredients that reinvigorate tired minds and bodies with much needed vitamins and minerals." These eye catching bottles are designed by David Fung. They are made of glass using the narrow neck press and blow process. The target market for these bottles is made up of people who are looking for that extra energy boost but have a little more money to spend because of the glass bottles. Because of the appearance, they are targeting a more mature crowd instead of the young, edgy energy drink seekers. A unique marketing feature of these bottles is that they are made of glass. That gives the consumer a feeling of value and they feel like they are purchasing a high class product.