



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

The Effect of Logo Visibility on Brand Recognition and Willingness to Pay

Gnel Gabrielyan and David Just

Gnel Gabrielyan, Visiting Assistant Professor, Department of Agricultural Economics and Rural Sociology, Auburn University. 306 Comer Hall, Auburn University, Auburn AL 36830, email: gabrielyan@auburn.edu

David Just – The Susan Eckert Lynch Professor of Science and Business in the Charles H. Dyson School of Applied Economics and Management, Charles H. Dyson School of Applied Economics and Management, College of Business, Cornell University, Ithaca, NY 14850, email: drj3@cornell.edu

Selected Paper prepared for presentation at the 2022 Agricultural & Applied Economics Association Annual Meeting, Anaheim, CA; July 31-August 2

Copyright 2022 by Gnel Gabrielyan and David Just. All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.

The Effect of Logo Visibility on Brand Recognition and Willingness to Pay

Abstract

When a consumer drinks from a can of soda, he or she is inadvertently acting as a walking advertisement for that product. This free advertisement might, however, only be effective if the can's logo is properly aligned and easily visible to other passersby. In this paper we attempted to quantify the impact of such canned beverage logo alignment on consumers using product placement marketing tactics. Subjects in the online experiments watched video stimuli featuring partygoers holding canned beverages with logos that were either properly aligned or completely misaligned. All canned beverages used were chosen based on similarities in taste and package design across brands. The results showed that logo alignment significantly impacted rates of correct and incorrect brand recognition; rates of correct brand recognition increased when the brand's logo was properly aligned, and rates of incorrect brand recognition increased during misaligned treatments of the actual brand's logo. This finding may play an important role in the first-mover advantage and response of beverage companies should one brand decide to implement logo alignment.

Keywords: Logo visibility, brand recognition, product placement, canned drinks

Introduction

Companies often use logos to represent the brand name on products, which have developed as a major point of recognition for consumers. It is important, then, to consider the impact of brand logos on consumer perception and willingness to pay (WTP) for a product, and more specifically, whether the salience and visibility of the logo has any effect on brand recognition, recall, and product adoption. Understanding the impact of logo visibility and salience could be particularly beneficial for smaller or emerging brands to gain more brand awareness through strategic packaging designs and marketing campaigns.

Effective logos will be familiar and easily recognizable, generate speedy consumer recognition of the associated brand name, and elicit some meaning and positive affect for the associated company (Foroudi, Melewar, and Gupta 2014, Henderson and Cote 1998, Morrow 1992). The ideal logo and package design will differ based on the type of brand and the objective of the firm, though there are some universal features which may be used by all firms, regardless of cultural differences or the firm's specific and individual goals (Henderson and Cote 1998, Henderson et al. 2003, Orth and Malkewitz 2008, van der Lans et al. 2009). Other studies show that physical placement of the logo on the product packaging has significant impact on consumer purchase intent and their subsequent WTP for those packages (Sundar and Noseworthy 2014).

Familiarity, brand knowledge and preconceived beliefs concerning a brand have been shown to have significant impact on brand recall, brand attitude, and purchase intentions (Ephron 2003, Kit and P'ng 2014). There is a growing body of research on brand equity and its impact on product evaluation (Senthilnathan and Tharmi 2012, Porral and Lang 2015).

Furthermore, thought to be a main driver of brand equity, advertising spending and its role on brand equity-driven product evaluations has been the focus on many recent studies. Research shows that advertisements both in traditional media and in social media are very important for creating and maintaining brand equity (Hanaysha 2016).

Due to the difficulty of measuring the impact of logo visibility on consumer recall and their WTP through peer-to-peer influence in a field, we use product placement approach. Product placement is a marketing tactic of inserting branded products within television programs and movies (Russell 2002, Newell, Salmon, and Chang 2006, Williams et al. 2011). This practice has grown in popularity and is regarded as a means to positively impact consumers' brand perceptions either with subtle persuasion or blatant product pushes (Avery and Ferraro 2000). In part, the rise of product placement is driven by the shortcomings of traditional advertising, wherein there is a trade-off between control by the advertiser and consumer perception of the marketing initiative (Balasubramanian 1994).

The main objective of this study is to measure and quantify the impact of logo visibility on brand recognition, brand recall and WTP, and the effect of salience on WTP. We use ginger ale soda brands in our study given the similarity of soda across several distinct brands. We conduct the study using product placement tactics in Qualtrics survey tools that were administered through the Amazon Mturk platform. We analyzed the impact of logo alignment on consumer recall and consumers' WTP for canned ginger ale sodas. In addition, we conducted a small scale field experiment in a college dining hall.

Literature Review

A well-received logo drives numerous benefits and positive spillovers. In general, consumers who perceive a logo favorably will also perceive corporate image and reputation

favorably (Foroudi, Melewar, and Gupta 2014). Logos can also influence perceived trustworthiness and modernity of brands (Hagtvedt 2011, Müller, Koehler, and Crettaz 2013). In an effort to have an appealing and easily recognizable logo, companies spend a tremendous amount of time and resources to identify the best logo design with all its components. Hagtvedt (2011) found that subjects perceived firms with logos that featured incomplete typeface (i.e., logos which were stylized such that parts of the brand name were not completely visible) to be more innovative, but less trustworthy. Müller, Koehler, and Crettaz (2013) found that redesigning a logo may rejuvenate a brand, altering consumer perceptions of brand modernity -- though the authors did not find that logo redesign had any significant impact on brand loyalty or other brand attitudes.

Marketing efforts by prominent brands have imbued their logos with some power over consumer tastes, preferences, and choice. Allison and Uhl (1964) compared consumer evaluations of beers given varying levels of information about brands. The authors found that subjects were unable to reliably distinguish differences between beers in unlabeled bottles. Subjects' evaluations of the beers changed greatly when information about brands was provided. The presence of labels significantly impacted subjects' evaluations of otherwise indistinguishable beers. The participants' failure to identify the same differences in unlabeled bottles implies that the logo, brand name, and associated marketing efforts, rather than inherent product characteristics, biased consumers' evaluations.

Companies use various forms of advertisements to introduce new products and/or brands, increase brand awareness and brand equity. Cobb-Walgren et al. (1995) found that brands with higher advertising spend also had higher brand equity, which in turn led to higher purchase intentions and more favorable brand evaluations. Johnson (1984) found that there is a direct relationship between advertising spending and brand loyalty, wherein brands that suffered a

steep decline in brand loyalty spent less on advertising. Moreover, studies have also shown that the effect of brand equity may differ across product categories (Nelson 1974). Therefore, the relevant importance of advertising can vary depending on the product type.

Sundar and Noseworthy (2014) found that consumers were more willing to purchase brands they perceived as powerful when the brand's logo was placed high on the product packaging. Similarly, consumers were more willing to purchase brands perceived to be low in power when the brand's logo was placed lower on the product's packaging. Logo placement thus interacted with perceived brand power to influence consumers' willingness to purchase a product. Sundar and Noseworthy (2014) suggest that the relationship between power and logo placement was due to the effects of height, but noted that they were unable to completely eliminate the possibility that perceptions of social status impacted the results.

The existence of a strong brand name may have a powerful influence on consumer behavior (Berry 1988, Hoeffler and Keller 2003, Kristensen, Gabrielsen, and Zaichkowsky 2012). Kristensen et al. (2012) found that consumers' WTP for similarly styled men's shoes increased when information about the brand name was available, even when that information was not necessarily connected to a specific pair of shoes. A brand name alone can increase consumers' WTP for a product.

It is equally important to consider the impacts of logos and package design, as these attributes have the power to critically influence consumer attitudes toward a brand or firm and WTP for a product (Allison and Uhl 1964, Foroudi, Melewar, and Gupta 2014, Hagtvedt 2011). Product packaging has a significant impact on consumer brand perception (Underwood 2003). Though some argue that the overall design of a package is more important than the sum of its parts (Orth and Malkewitz 2008), there are individual design features which appear to have a

greater impact on consumers. Foroudi, Melewar, and Gupta (2014) found that corporate name, design, and typeface were the most important features of any logo.

Several studies have sought to qualify the relationship between product placement and brand recall. Gupta and Lord (1998) compared product placements to advertisements and found that the former delivered higher recall when products were prominently placed within the program. Moreover, Babin and Carder (1996) found that viewers are able to differentiate brands that did appear versus did not appear within a film. However, research also suggests that recall is dependent on variety of other factors, including number of placements, audio, screen size, and how well the product is integrated into the media content (Bressoud, Lehu, and Russell 2008, 2010, Babin and Carder 1996). Moreover, several studies illustrate that prior exposure and familiarity with the placed product has a significant impact on viewers' recall and/or recognition aptitude (Ephron 2003).

Studies have found that product placement can have a negative impact on the brand attitude and purchase intentions. Chan, Lowe, and Petrovici (2016) found that the degree of cognitive processing required for product placement negatively impacts viewers' attitude toward the placed brand. Unlike the overt nature of advertisements, product placements seek to discreetly integrate branded messaging into the media content. Consequently, viewers are more motivated to discern hidden messages than they would be with traditional advertisements, making them also more critical of the placed brand (Chan, Lowe, and Petrovici 2016).

Conversely, further studies have found that degree of prominence in media content and brand attitude are negatively related, with viewers evaluating prominent brand placements more critically, which triggers counter-reasoning (Cowley and Barron 2008, Friestad and Wright 1994). As with brand recall, research has also found familiarity to be a significant factor in

brand attitude and purchase intent evaluations. Kit and P'ng (2014) show that preconceived beliefs concerning placed brands impacts viewers' attitudes, which then directly impacts their purchase intentions towards the brand. Janiszewski and Meyvis (2001) further discussed the impacts of processing, and argued that subjects' processing of stimuli was related to degrees of sensitization and habituation, rather than solely dependent on the number of previous stimuli exposures.

Product placement on social media displays similar results to those found in television and film (Liu, Chou, and Liao 2015, Geurin and Burch 2017). Liu, Chou, and Liao (2015) found that brand placement prominence and media type directly impacted both brand attitude and click intentions. However, unlike product placement in television and film, social media has an added factor, peer-to-peer influence. Peer-to-peer or interpersonal influence is defined as "the need to identify with or enhance one's self image in the opinion of significant others through the acquisition and use of products and brands" (Bearden, Netemeyer, and Teel 1989).

While in recent years many advertisers have turned to social media platforms in order to leverage this asset and facilitate consumer-to-consumer marketing (Zhu et al. 2016, Gerhards 2019)}, research is still limited on the impact of peer-to-peer marketing on social media platforms. However, recent studies suggest that there may be a positive impact of user-generated-content on brand attitude and engagement (Geurin and Burch 2017, Rehmet and Dinnie 2013). Because of the nature of product placement and the difficulty and the complexity to measure the real impact of any product being advertised (Russell 2019), some of the recent studies have concentrated on analysis of categories of products used instead (Alruwaily et al. 2020, Eagle and Dahl 2018). For example, although Alruwaily et al. (2020) analyze the healthiness of food products used by kid influencers on YouTube, the study does not identify what impact these product

placements have on their viewers.

Product placement allows advertisers to present controlled messages in such a way that the viewer perceives them as credible. Studies pertaining to product placement and degree of visibility are particularly relevant to this study's methodology of examining the impact of logo and/or brand visibility on consumer product evaluations. There is a reasonable amount of existing research identifying the efficiency of product placement as a type of advertisement. However, the existing literature does not give an exact measurement for consumer recall and their WTP. By reviewing the current literature Busen and Mustaffa (2014) also concluded that there is a gap in the literature identifying effective measurements of advertising on consumer brand equity.

Supplementing research on user-generated-content and networks, studies dedicated to interpersonal effects offline further suggest that there may be significant benefits to successfully linking peer-to-peer influence with product placement. Du and Kamakura (2011) analyze the impact of network influence on new consumer packaged goods and found evidence that contagion does exist within the industry. Grinblatt et al. (2008) show evidence of peer influence in automobile purchase behavior, wherein the study found that neighbors influence one another's automobile purchase decisions.

This study fills the gap in the relevant literature by measuring the impact of logo visibility on consumer recall and WTP by designing a controlled study imitating product placement methodology. We also differentiate between national and regional/local products that will help the managers of smaller or emerging brands to identify strategies to increase their brands awareness and consumers WTP for their products.

Hypotheses

This study explores and quantifies the impact of logo alignment on brand recognition, WTP, and consumption through a series of experiments using canned soda products.

Logo alignment on brand recognition, brand recall, and WTP

Brand logos on canned beverages are not oriented consistently during production. In a tally of several brands of canned beverage products, we found that in about 60% of our sample, the brand's logo is printed around the can in such a way that it becomes hidden to some degree by the consumer's hand when he or she holds the can to consume the drink. A visual demonstration of this concept is provided in Figure 1. Given the sheer increase in the probability of noticing a brand logo and associating it with peer or public consumption, we believe canned beverages with outward aligning logos will boost recognition and recall of the brand. Therefore, our first hypothesis is as follows:

H1: Logo alignment increases brand recognition and recall.

Additionally, the evidence supporting the idea that consumers value products they are more frequently exposed to leads to our second hypothesis:

H2: Brand recall increases WTP for the brand.

Furthermore, given evidence for peer influence and contagion on purchase decisions, we hypothesize that product packaging with visible logos provides an opportunity to promote the product to peers, therefore increasing product diffusion and consumption among a social group. Therefore, our third hypothesis is:

H3: Logo alignment increases intent to consume

Data and Methodology

We determined ginger ale soda to be the best soda product for the purpose of our study, as it offered similarities in flavor and can designs across brands with vastly different levels of familiarity.

To control for existing consumer biases, we elected to use an assortment of well-known and lesser-known brands of ginger ale. For ginger ale, we chose two international brands, Canada Dry and Schweppes, and two lesser-known brands: Polar, a regional brand with distribution concentrated in the Northeast, and Great Value, a Walmart private label. Both Canada Dry and Schweppes are manufactured by the Dr. Pepper Snapple Group, which holds 17.3% market share in the overall soft drink industry in the United States (Statista 2018). No brand share or sales figures were available for the Polar and Great Value brands.

We hypothesized that better logo visibility affects brand recognition, recall and WTP. We also believed that logo visibility would result in a higher rate of product diffusion by peer-to-peer marketing and, therefore, higher consumption. The ideal study for measuring the impact of logo visibility on consumer recall and a subsequent selection of the item would be a controlled study in a field setting with observation capabilities. This would allow us to capture and quantify the extent and magnitude of the effect the logo alignment has on participant's peers and near-by people. However, to conduct the full capacity study in the field would require an enormous amount of time and resources. Given resource constraints, we implemented a limited scale field experiment.

Field Experiment

The goal of this field study was to assess whether a particular brand's product was chosen at a higher rate when the logo is clearly visible on the product, or "aligned." The study

was conducted in a university dining hall (a co-ed residence hall on the campus) that houses mostly upper class undergraduate students. Given the added difficulty of conducting experiments in a field, we used a limited number of treatments. We also used a quasi-experimental setting in which on each study day we placed two brands of canned ginger ale soda drinks close to the entrance to the dining hall and observed the consumption. The field study visits occurred on three consecutive Thursdays (with number of students entering the dining hall of $n = 471$, $n = 520$ and $n = 402$ respectively).

Soda brands used for the field study were chosen based on product availability. Canada Dry was used as the well-known brand, and Polar was selected as the lesser-known brand. Prior to the experiment, soda cans were sorted one-by-one into aligned, misaligned, and “dubious” categories depending on the alignment of the logos. Cans with “dubious” alignment were not used in the experiment.

The experiment was designed to test for incremental effects of logo visibility. Visit 1 used cans with misaligned labels for both Canada Dry and Polar brands. Visit 2 used misaligned Canada Dry cans and aligned Polar cans; Visit 3 used aligned Canada Dry and misaligned Polar cans.

The team set up the soda display prior to the start of dinner service. Each brand of soda was placed in its own iced bucket on a stage at the front of the dining hall and two large flyers advertising free sodas were posted near the entrance and by the stage. No specific brand was advertised in the flyers. In every visit, the same number of cans were placed in each bucket. To prevent scarcity effects, a team member disguised as dining hall staff replenished each bucket whenever 10 cans had been removed by diners. Soda selection was discreetly recorded by the study team from the beginning to the end of dinner service, a duration of 3

hours and 15 minutes per visit.

While the aim for this part of the study was to measure the peer-to-peer effect of logo alignment, it was difficult to accurately measure any impact that logo alignment had on the selection of a drink. The research team did not have permission to video record the hall to identify any peer effect. The selection of a drink from the stand was the only data available. Polar represented 28.7%, 36.4% and 27.1% of selected ginger ale when cans were both misaligned, Polar was aligned, or when Canada Dry was aligned respectively. Unfortunately, given our limited ability to observe, results were too noisy to derive any valuable insights regarding the hypothesis based on this part of the study.

Online study

To more accurately measure the impact of logo visibility on consumer recall we used product placement tactics in an online setting. To test these theories, we needed to tease apart the effect of logo visibility on brand recall and on product placement marketing and product diffusion. The study tested the impact of logo visibility on brand recognition, recall, and WTP for ginger ale sodas (H1 and H2).

The purpose of this phase of the study was to test whether brand recognition and recall are higher when the brand's logo is visible on the product. Using Schweppes as the well-known brand and Polar as the lesser-known brand for ginger ale, we created a series of videos of a small party scene in which partygoers were shown holding beverages with logos aligned or misaligned. The study subjects were exposed to the products several times in the clip, approximately 30 seconds long. In total, there were six versions of the videos, as shown in Table 1.

The videos were embedded in a Qualtrics survey and administered through Amazon Mechanical Turk (Amazon Web Services 2018). Mturk participants were randomly shown one of the conditions at the beginning of the survey, then asked a series of questions about brand recognition, recall, and WTP. Demographic and attitude data were collected at the end. T-test and ANOVA analyses are used to analyze the differences of consumer recall and their WTP for different ginger ale drinks.

Overall, 1,203 individuals participated in the study with around 200 participants in each treatment group (Table 1)¹. 48.2% of participants were males with an average age of 36.6 years. The majority of participants were Caucasians with 78.3% of share. Almost half of the participants were married (44.1%) and 62.8% of participants were full-time employed. Average household size was 2.7 and 82.1% of participants were identified as the main shopper in their households.

Half of participants (49.5%) were located in suburban areas followed by those in urban and rural areas with respective shares of 29.1% and 21.4%. Low (\$0-39,999) and middle (\$40,000-\$79,999) income earners were equally distributed with 40.1% and 40.8% shares followed by those with high incomes (\$80,000 or more). Almost one third of participants had Bachelors' degree followed by those with some college (24.9%) and post-graduate degrees (15.2%). We did not capture any significant difference (at 10% significance level) between any categorical variable across treatment groups. One participant had an 8th grade education which is excluded from the table.

There were also questions about participants' consumption habits and preferences of soft drinks (Table 2). The most common places among participants to consumer soft drinks are

¹ Some of the variables have missing values, therefore, they have less than 1203 observations.

homes and restaurants followed by parties, schools/workplace, and bars/clubs. Taste is the most important factor while purchasing soft drinks followed by price and the brand of the drinks. On average, participants are health conscious and prefer brand names. Equal shares of participants (25% each) consume soft drinks once a week, once or twice a month or seldom. Only 16% of participants consume soft drinks a few times a week and 5% consume every day (Table 3). Most of the time, participants buy a single can/bottle (32%), 12-pack or more (31%), or large bottles (26%).

Results

H1: The effect of logo alignment on brand recall

After watching the video we asked the respondents whether they noticed a specific brand in the video or not. Table 4 show the frequencies of noticing one of the four mentioned brands. The second part of Table 4 show the number of times that participants thought they noticed each brand. There is an interesting observations during the treatments where the logos are misaligned. We found that for treatments in which only one brand is present in the video (treatments one to four), alignment of the logo increased the recall of that particular brand.

The results showed that logo aligning increased the brand recall of those brands. Correct recall of Schweppes increased 25.5% and recall of Polar increased by 22.8%. There is a significant difference (at 1 % significance level) between percentages of participants noticing the brand Schweppes between treatments one and two. While only 72% of participants claimed they noticed the Schweppes brand in treatment two, it was seen by 90% of participants in treatment one. There is also a significant difference (1 % significance level) between the percentages of participants noticing the Polar brand between treatments three and four. 86% of participants noticed the Polar can in treatment three compared to 70% participants in treatment

four.

This difference is even bigger between treatments five and six (also significant at 1% level). Brand recall for Polar increased by 115% in the dual-brand treatment in which only the Polar brand logo was aligned ($p < 0.05$). While 85% of participants notice the Polar branded cans in treatment five, only 40% of participants notice it in treatment six.

Moreover, there is a big difference in noticing the Schweppes brand in treatments one and two compared to other treatments. Similarly we notice a significant difference between the percentages of participants noticing the Polar ginger ale cans between treatments one and two compared to other treatments. It is important to highlight that while there were only Polar branded cans in treatments three and four, there were also misaligned Schweppes cans in treatments five and six. These results show that aligning the brand logo on a can, so that others see it, increases the possibility of others noticing it. The impact of an alignment is even bigger (double) when there are other products available in the mix.

The rate of incorrect brand recall increased when logos were misaligned. Participants in treatments two, four, and six wrongfully identified seeing Canada Dry compared to respective treatments one, three, and five. For example, half of the participants (53%) in treatment six identified noticing Canada Dry branded ginger ale compared to only 10% of participants in the treatment five. This shows that when there are more than one misaligned cans in the video consumers wrongly notice the brands they already know. Subsequently, we can argue that alignment may be a good strategy for lesser known brands or companies.

H2: The effect of logo alignment on willingness to pay (WTP)

We also asked participants about their WTP for a 12 fl. oz. Ginger Ale drinks given that

alternative drinks range in price from \$1.00 to \$2.50 for a single 12 fl. oz. can. Logo alignment had marginal effects on WTP. When only one brand was shown, logo alignment caused a small and statistically insignificant decrease in willingness to pay for the displayed brand (Table 5). In the Schweppes treatments (one and two), alignment of the Schweppes logo caused a marginal decrease in Schweppes, Polar, Canada Dry brands and a small increase in the Great Value brand; none of these differences were statistically significant at 10% significance level. In the Polar treatments (three and four), alignment of the Polar logo did not cause any significant change in consumers' WTP for any brand including the Polar itself.

It is worth noting that in the Schweppes treatment, even though the Schweppes logo alignment caused a decrease in willingness to pay for Polar, Schweppes and Canada Dry brands, the largest decrease for the valuation was seen in the Canada Dry brand, causing the valuation of Canada Dry to fall slightly below Schweppes. Among the four brands, the Canada Dry brand showed the highest willingness to pay in all conditions except in the condition in which the Schweppes logo was aligned.

When we compared willingness to pay when the Polar logo was aligned (treatment five) to that when no logo was aligned (treatment six), willingness to pay was higher for all brands. The increase in valuation of the Polar brand was the largest, \$0.11, and statistically significant (at 5% level). While there is no difference in WTP for Schweppes in any treatment group, participants were willing to pay higher prices for Polar cans in treatment groups where the brand was present (both aligned and misaligned).

We also run a list of logistic regressions identifying the impact of each treatment on noticing each of four brands by participants (Table 6). We run three different logistic regressions for each brand for baselines when the brands are misaligned; treatment one, three

and five. Aligning Polar brand has a positive and significant impact (at 1% significance level) on recalling the Polar brand compared to respective bases. Aligning the Schweppes brand also has a positive and significant effect on the recall of the brand (at 1% significance level). Aligning the Polar brand in treatment 5 decreases the probability of recalling the Schweppes ginger ales in the video.

H2-b: The effect of salience on willingness to pay (WTP)

Given the observed high rates of incorrect brand recall, willingness to pay by salience was evaluated. In this analysis, we compared willingness to pay based on the subjects' reports of whether or not they believed they saw the brand in the video, independent of the treatment (i.e. actual exposure). The results of ordinary least squares regressions are summarized in Table 7.

For the Schweppes brand, willingness to pay was not significantly different (at 10% significance level) when participants believed they saw the brand in the video. Conversely, for the Polar, Canada Dry and Great Value brands, WTP for each brand was higher when the subjects believed they saw the respective brands. All these results were significant at 1% significance level.

Discussions

Our findings confirmed our hypothesis that logo alignment increases correct brand recall using product placement approach. Rates of correct brand recall are significantly higher when logos are aligned and visible on the products than when the logo is misaligned. When we compared the rate of Polar brand recall between an aligned Polar-only treatment and a treatment in which we had aligned Polar cans and misaligned Schweppes cans, the subjects correctly identified Polar

brands at similar rates.

Additionally, when the logos were misaligned, there were significantly higher recall rates of the wrong brands. When the cans were misaligned in both Polar and Schweppes treatments, there were significantly higher rates of subjects reporting seeing the Canada Dry brand. In the Polar treatment, misaligned cans also resulted in significantly higher incorrect recall of the Schweppes brand. Here, there appears to be a similarity effect in which the misaligned logo prompts subjects to recall a different but similar-looking product that is offered by a more familiar brand.

Our findings suggest that the brand with aligned logos have an advantage for brand recall, even within a choice set with competing brands. Remarkably, Polar and Schweppes brands had similar rates of correct recall when the logo was aligned. Given the substantially larger reach and familiarity of the Schweppes brand, we believe that the similar levels of brand recall between Polar and Schweppes can be attributed to the effect of logo alignment.

The effect of logo alignment on willingness to pay was less clear. When only one brand was displayed, logo alignment had statistically insignificant impacts on valuation for any of the brands used in the choice set. Valuations of nearly all brands decreased when one brand logo was displayed. On the other hand, when two brands were presented, alignment of the Polar logo caused an increase in willingness to pay for all brands in the choice set, with a statistically significant increase for the Polar brand.

Interestingly, when the Schweppes brand was aligned, valuation decreased for Schweppes, Polar, and Canada Dry brands. However, the largest decrease was for the Canada Dry brand, causing the willingness to pay for Canada Dry brand to fall just below that of Schweppes, but the difference was not statistically significant. In essence, alignment in this

scenario leveled the valuation of Canada Dry to the reported value for Schweppes. This condition was the only one of six in which the valuation for Canada Dry was lower than Schweppes or any other brand.

An anchoring effect seems to impact willingness to pay in different directions depending on context. With presentation of only one brand option, visibility of the brand logo appears to cause consumers to value the entire category less. Canada Dry, the largest brand of ginger ale with more than half the category's market share, appears to be used as the anchor to define the price, and valuation of the other brands are adjusted and lowered accordingly. In the Schweppes-only treatment, the introduction of the aligned Schweppes brand shifts the attention and anchor to Schweppes, causing a decrease in willingness to pay for Canada Dry. Given the assumed relative familiarity of Polar and Schweppes in consumers' minds, it is reasonable to assume that subjects were more likely to have tasted Schweppes in the past, but not Polar.

Perhaps seeing the properly aligned and familiar Schweppes logo triggered a more visceral memory of tasting the product, serving as a reminder of personal experience(s) with the product and triggering a change in relative ranking (i.e., compared to Canada Dry). Seeing the properly aligned but unfamiliar logo for Polar brand led to a slightly different anchor and adjust effect where WTP increased, but relative rankings remained the same – perhaps because subjects were unable to recall a visceral experience in which they tasted the unfamiliar soda.

In the dual-brand treatment, alignment of the Polar logo caused the valuation to increase for all four brands, with the largest and statistically significant increase for Polar. In other words, when more than one option is presented, better visibility of one brand appears to shift the anchor to that brand, but elevates the entire category, making all options in the category more appealing.

Prior literature suggests that brand placement can negatively impact consumers' attitudes toward the brand. This could explain the discrepancies in our findings between willingness to pay in the one-brand and dual-brand treatments. In the one-brand treatments, subjects may have perceived the logo alignment as blatant brand placement, prompting them to value the brand less. However, brand placement may have been more subtle in the dual-brand treatment, buffering the negative response. Additionally, the dual-brand treatment may have implied a variety, prompting a favorable response. This is consistent with Iyengar and Lepper's (2000) article that suggests that humans prefer moderate choice over no choice. However, the explanation is largely speculative, as no studies to date have quantified the impact of a moderate choice set on an entire category, and there is no consensus on how assortment set impacts choice (Hutchinson 2005).

Recall that many participants incorrectly reported seeing certain brands in the video. We attempted to tease apart the effect of logo visibility (actual exposure and correct recall) and salience (having a brand in mind regardless of exposure) on willingness to pay. For Polar, Canada Dry, and Great Value brands, WTP increased when subjects believed they saw these brands; this effect was statistically significant. There was a smaller, negative, and statistically insignificant effect for the Schweppes brand.

Separately examining the effect of logo visibility and salience on WTP, we found that for the largest category brand, Canada Dry, and small regional and private label brands, Polar and Great Value, valuation increased substantially and significantly under both evaluations. In other words, for the dominant brand and the lesser-known brands, the subjects needed only to think that they saw the brand to increase valuation of the brand; they did not need actual exposure. This impact mirrors the effect packaging and brand recognition can have on actual

valuation of an item as a whole, consistent with consumer behavior and neuroscience literature (Kristensen, Gabrielsen, and Zaichkowsky 2012).

We used logo-alignment on canned drinks to identify the impact of product placement on consumer recall and their WTP for these products. This study also fills the gap in the current literature by providing an effective measurement of product placement tactic on consumer recall, brand recognition and WTP. The findings are also important for managers of small and new brands to increase the brand awareness through strategic packaging and logo placements and the use of product placement as a marketing campaign to promote their products.

Limitations

There are several limitations in this study. First, it should be noted that ginger ale is a polarizing product, strongly disliked by some consumers. The effects of logo alignment might have been amplified by our product choice, or might even be product-specific.

The MTurk studies evaluating brand recall and WTP had favorable statistical power. However, constraints on resources limited the conditions that we could test. In an ideal study replication, we would add conditions to the dual-brand treatment in which the Polar brand was misaligned and Schweppes is aligned, and both brands were aligned. Furthermore, we would lengthen the video stimuli, so that participants were exposed to the aligned and misaligned cans for longer periods of time. The design of video length is, indubitably, a balancing act, since subjects would be likely to stop paying attention to excessively long videos. Still, the stimuli used in the present research might have been too short to allow subjects enough time to absorb the information and be impacted by the experimental manipulations.

Additionally, our experiment only evaluated the immediate impact of logo alignment on brand recall and WTP. We did not test the effects of logo alignment on factors such as selection

and consumption. Perhaps most important, long-term effects of logo visibility on factors such as brand awareness and familiarity are not captured in this study, but are critical business considerations.

Conclusions

How important is logo visibility? From a practical business perspective, is it worth the extra effort of ensuring logo alignment on canned beverage products? While the field study would be an ideal medium to test our hypothesis, the online study was more practical and efficient given the limitations of the field experiment. Based on our findings, we argue that there is more value to lesser-known brands. Consumers typically must make choices given a multitude of options; for canned beverages, for example, many brands and flavors. We found that brand recall is higher when the logo is visible, and logo misalignment prompts consumers to recall similar-looking products under a different and more familiar brand; this has large repercussions for lesser-known brands.

When the size of the choice set increases on the margin, with one additional brand visible, valuation of the whole choice set increases. As observed in the effect on Polar, the largest increase occurs in the brand that is clearly visible. We found that salience alone could increase valuation of a brand. Our field study also found promising signals that consumption increases for a logo-aligned brand. Therefore, we believe lesser-known brands can effectively gain brand awareness and familiarity from ensuring logo visibility.

References

- Allison, Ralph I., and Kenneth P. Uhl. 1964. "Influence of Beer Brand Identification on Taste Perception." *Journal of Marketing Research* 1 (3):36.
- Alruwaily, Amaal, Chelsea Mangold, Tenay Greene, Josh Arshonsky, Omni Cassidy, Jennifer L. Pomeranz, and Marie Bragg. 2020. "Child Social Media Influencers and Unhealthy Food Product Placement." *Pediatrics* 146 (5). doi: 10.1542/peds.2019-4057.
- Amazon Web Services. 2018. "Amazon Mechanical Turk." <https://www.mturk.com/>.
- Avery, Rosemary J., and Rosellina Ferraro. 2000. "Verisimilitude or Advertising? Brand Appearances on Prime-Time Television." *The Journal of Consumer Affairs* 34 (2):217-244.
- Babin, Laurie A, and Sheri Thompson Carder. 1996. "Viewers' recognition of brands placed within a film." *International journal of advertising* 15 (2):140-151.
- Balasubramanian, Siva K. 1994. "Beyond advertising and publicity: Hybrid messages and public policy issues." *Journal of Advertising* 23 (4):29.
- Bearden, William O., Richard G. Netemeyer, and Jesse E. Teel. 1989. "Measurement of Consumer Susceptibility to Interpersonal Influence." *Journal of Consumer Research* 15 (4):473-481.
- Berry, Norman C. 1988. "Revitalizing Brands." *Journal of Consumer Marketing* 5 (3):15-20. doi: doi:10.1108/eb008228.
- Bressoud, Etienne, Jean-Marc Lehu, and Cristel Antonia Russell. 2008. "Integrating placement and audience characteristics to assess the recall of product placements in film: findings from a field study." 7th International Conference on Research in Advertising (ICORIA),

- Antwerp, 27-28 June, Belgium, 2008.
- Bressoud, Etienne, Jean-Marc Lehu, and Cristel Antonia Russell. 2010. "The Product Well Placed." *Journal of Advertising Research* 50 (4):374-385.
- Busen, Salem Mohamed S., and Che Su Mustaffa. 2014. "The Role of Interactive Advertisements in Developing Consumer-based Brand Equity: A Conceptual Discourse." *Procedia - Social and Behavioral Sciences* 155:98-103. doi: <https://doi.org/10.1016/j.sbspro.2014.10.263>.
- Chan, Fanny Fong Yee, Ben Lowe, and Dan Petrovici. 2016. "Processing of product placements and brand persuasiveness." *Marketing Intelligence & Planning* 34 (3):355-375. doi: doi:10.1108/MIP-03-2015-0051.
- Cobb-Walgren, Cathy J., Cynthia A. Ruble, and Naveen Donthu. 1995. "Brand equity, brand preference, and purchase intent." *Journal of Advertising*, 1995 Fall, 25+.
- Cowley, Elizabeth, and Chris Barron. 2008. "When Product Placement Goes Wrong: The Effects of Program Liking and Placement Prominence." *Journal of Advertising* 37 (1):89-98. doi: 10.2753/JOA0091-3367370107.
- Du, Rex Yuxing, and Wagner A. Kamakura. 2011. "Measuring Contagion in the Diffusion of Consumer Packaged Goods." *Journal of Marketing Research* 48 (1):28-47.
- Eagle, Lynne, and Stephan Dahl. 2018. "Product Placement in Old and New Media: Examining the Evidence for Concern." *Journal of Business Ethics* 147 (3):605-618. doi: 10.1007/s10551-015-2955-z.
- Ephron, Erwin. 2003. "The paradox of product placement." *Mediaweek* 13 (22):20-20.
- Foroudi, Pantea, T. C. Melewar, and Suraksha Gupta. 2014. "Linking corporate logo, corporate image, and reputation: An examination of consumer perceptions in the financial setting."

- Journal of Business Research* 67 (11):2269-2281. doi:
<https://doi.org/10.1016/j.jbusres.2014.06.015>.
- Friestad, Marian, and Peter Wright. 1994. "The Persuasion Knowledge Model: How People Cope with Persuasion Attempts." *Journal of Consumer Research* 21 (1):1-31.
- Gerhards, Claudia. 2019. "Product placement on YouTube: An explorative study on YouTube creators' experiences with advertisers." *Convergence* 25 (3):516-533. doi:
10.1177/1354856517736977.
- Geurin, Andrea N., and Lauren M. Burch. 2017. "User-generated branding via social media: An examination of six running brands." *Sport Management Review* 20 (3):273-284. doi:
<https://doi.org/10.1016/j.smr.2016.09.001>.
- Grinblatt, Mark, Matti Keloharju, and Seppo Ikäheimo. 2008. "Social Influence and Consumption: Evidence from the Automobile Purchases of Neighbors." *The Review of Economics and Statistics* 90 (4):735-753. doi: 10.1162/rest.90.4.735.
- Gupta, Pola B., and Kenneth R. Lord. 1998. "Product Placement in Movies: The Effect of Prominence and Mode on Audience Recall." *Journal of Current Issues & Research in Advertising* 20 (1):47-59. doi: 10.1080/10641734.1998.10505076.
- Hagtvedt, Henrik. 2011. "The Impact of Incomplete Typeface Logos on Perceptions of the Firm." *Journal of Marketing* 75 (4):86-93.
- Hanaysha, Jalal. 2016. "The importance of social media advertisements in enhancing brand equity: A study on fast food restaurant industry in Malaysia." *International Journal of Innovation, Management and Technology* 7 (2):46.
- Henderson, Pamela W., and Joseph A. Cote. 1998. "Guidelines for selecting or modifying logos." *Journal of Marketing* 62 (2):14-30.

- Henderson, Pamela W., Joseph A. Cote, Siew Meng Leong, and Bernd Schmitt. 2003. "Building strong brands in Asia: selecting the visual components of image to maximize brand strength." *International Journal of Research in Marketing* 20 (4):297-313. doi: <https://doi.org/10.1016/j.ijresmar.2003.03.001>.
- Hoeffler, Steve, and Kevin Lane Keller. 2003. "The marketing advantages of strong brands." *Journal of brand management* 10 (6):421-445.
- Hutchinson, John M. C. 2005. "Is more choice always desirable? Evidence and arguments from leks, food selection, and environmental enrichment." *Biological Reviews* 80 (1):73-92. doi: 10.1017/S1464793104006554.
- Iyengar, Sheena S., and Mark R. Lepper. 2000. "When choice is demotivating: Can one desire too much of a good thing?" *Journal of Personality and Social Psychology* 79 (6):995-1006. doi: 10.1037/0022-3514.79.6.995.
- Janiszewski, Chris, and T. O. M. Meyvis. 2001. "Effects of Brand Logo Complexity, Repetition, and Spacing on Processing Fluency and Judgment." *Journal of Consumer Research* 28 (1):18-32. doi: 10.1086/321945.
- Johnson, Tod. 1984. "The Myth of Declining Brand Loyalty." *Journal of Advertising Research* 24 (1):9.
- Kit, Liew Chee, and Elizabeth Lim Qui P'ng. 2014. "The effectiveness of product placement: The influence of product placement towards consumer behavior of the millennial generation." *International Journal of Social Science and Humanity* 4 (2):138.
- Kristensen, Tore, Gorm Gabrielsen, and Judith Lynne Zaichkowsky. 2012. "How valuable is a well-crafted design and name brand?: Recognition and willingness to pay." *Journal of Consumer Behaviour* 11 (1):44-55.

- Liu, Su-Houn, Chen-Huei Chou, and Hsiu-Li Liao. 2015. "An exploratory study of product placement in social media." *Internet Research* 25 (2):300-316. doi: doi:10.1108/IntR-12-2013-0267.
- Morrow, David J. 1992. "An Image Makeover." *International Business* 5 (3):66.
- Müller, Brigitte, Bruno Kocher, and Antoine Crettaz. 2013. "The effects of visual rejuvenation through brand logos." *Journal of Business Research* 66 (1):82-88. doi: <https://doi.org/10.1016/j.jbusres.2011.07.026>.
- Nelson, Phillip. 1974. "Advertising as Information." *Journal of Political Economy* 82 (4):729-754.
- Newell, Jay, Charles T. Salmon, and Susan Chang. 2006. "The Hidden History of Product Placement." *Journal of Broadcasting & Electronic Media* 50 (4):575-594. doi: 10.1207/s15506878jobem5004_1.
- Orth, Ulrich R., and Keven Malkewitz. 2008. "Holistic Package Design and Consumer Brand Impressions." *Journal of Marketing* 72 (3):64-81.
- Porral, Calvo Cristina, and Mark F Lang. 2015. "Private labels: The role of manufacturer identification, brand loyalty and image on purchase intention." *British Food Journal* 117 (2):506-522. doi: doi:10.1108/BFJ-06-2014-0216.
- Rehmet, Jonas, and Keith Dinnie. 2013. "Citizen brand ambassadors: Motivations and perceived effects." *Journal of Destination Marketing & Management* 2 (1):31-38. doi: <https://doi.org/10.1016/j.jdmm.2013.02.001>.
- Russell, Cristel Antonia. 2002. "Investigating the Effectiveness of Product Placements in Television Shows: The Role of Modality and Plot Connection Congruence on Brand Memory and Attitude." *Journal of Consumer Research* 29 (3):306-318. doi:

10.1086/344432.

Russell, Cristel Antonia. 2019. "Expanding the Agenda of Research on Product Placement: A Commercial Intertext." *Journal of Advertising* 48 (1):38-48. doi:

10.1080/00913367.2019.1579690.

Senthilnathan, Samithamby, and Uthayakumar Tharmi. 2012. "The Relationship of Brand Equity to Purchase Intention." *IUP Journal of Marketing Management* 11 (2):7-26.

Statista. 2018. Soft drink market share by company in the U.S. from 2004 to 2015.

<https://www.statista.com/statistics/225464/market-share-of-leading-soft-drink-companies-in-the-us-since-2004/>.

Sundar, Aparna, and Theodore J. Noseworthy. 2014. "Place the Logo High or Low? Using Conceptual Metaphors of Power in Packaging Design." *Journal of Marketing* 78 (5):138-151.

Underwood, Robert L. 2003. "The Communicative Power of Product Packaging: Creating Brand Identity via Lived and Mediated Experience." *Journal of Marketing Theory and Practice* 11 (1):62-76.

van der Lans, Ralf, Joseph A. Cote, Catherine A. Cole, Siew Meng Leong, Ale Smidts, Pamela W. Henderson, Christian Bluemelhuber, Paul A. Bottomley, John R. Doyle, Alexander Fedorikhin, Janakiraman Moorthy, B. Ramaseshan, and Bernd H. Schmitt. 2009. "Cross-National Logo Evaluation Analysis: An Individual-Level Approach." *Marketing Science* 28 (5):968-985,1002-1006.

Williams, Kaylene, Alfred Petrosky, Edward Hernandez, and Robert Page Jr. 2011. "Product placement effectiveness: revisited and renewed." *Journal of Management and Marketing research* 7:1.

Zhu, Zhiguo, Jianwei Wang, Xiening Wang, and Xiaoji Wan. 2016. "Exploring factors of user's peer-influence behavior in social media on purchase intention: Evidence from QQ." *Computers in Human Behavior* 63:980-987. doi: <https://doi.org/10.1016/j.chb.2016.05.037>.

Table 1. Descriptive Statistics of Demographic Variables by Treatment

	Schweppes Polar	A*	M	-	-	M	M	Total	
		-	-	A	M	A	M		
Variables	Definitions/ Categories	Treatments						Total	Tests
		1	2	3	4	5	6		
Number of participants		207	200	206	189	204	197	1,203	
Continuous variables		Means (Standard Deviations)							F-test (p-val)
Age	From 18 to 87	36.99	37.17	35.49	36.76	36.88	36.00	36.55	0.66
		(11.45)	(12.64)	(10.73)	(11.53)	(12.04)	(10.84)	(11.55)	(0.657)
Household size	From 1 to 8	2.73	2.76	2.61	2.56	2.55	2.82	2.67	1.40
		(1.32)	(1.44)	(1.28)	(1.24)	(1.31)	(1.48)	(1.35)	(0.221)
Dummy variables		Means (Standard Deviations)							Chi-2 (p-val)
Gender	Male	0.47	0.47	0.50	0.52	0.46	0.48	0.48	2.43
		(0.50)	(0.50)	(0.50)	(0.50)	(0.50)	(0.50)	(0.50)	(0.787)
Race	Caucasian	0.81	0.80	0.74	0.79	0.80	0.75	0.78	4.82
		(0.40)	(0.40)	(0.44)	(0.41)	(0.40)	(0.43)	(0.41)	(0.439)
Marital Status	Married	0.46	0.43	0.45	0.39	0.44	0.49	0.44	4.42
		(0.50)	(0.50)	(0.50)	(0.49)	(0.50)	(0.50)	(0.50)	(0.490)
Employment Status	Full-time Employed	0.64	0.59	0.65	0.59	0.63	0.68	0.63	5.60
		(0.48)	(0.49)	(0.48)	(0.49)	(0.48)	(0.47)	(0.48)	(0.347)
Shopper status	Self-shopper	0.80	0.82	0.82	0.80	0.86	0.83	0.82	2.86
		(0.40)	(0.39)	(0.39)	(0.40)	(0.35)	(0.38)	(0.38)	(0.722)
Categorical Variables		Frequencies							Chi-2 (p-val)
Location	Urban	32.37	24.00	31.07	25.40	33.33	27.92	29.09	9.08 (0.525)
	Suburban	47.34	53.50	48.06	52.91	48.53	47.21	49.54	
	Rural	20.29	22.50	20.87	21.69	18.14	24.87	21.36	
Income	(\$0-39,999)	39.61	38.00	37.86	44.44	46.08	34.52	40.07	12.51 (0.253)
	(\$40,000- \$79,999)	43.48	42.00	43.20	36.51	38.24	40.10	40.65	
	\$80,000 or more	16.91	20.00	18.93	19.05	15.69	25.38	19.29	
Education	High School	8.21	12.50	13.11	8.99	10.29	10.66	10.64	24.06 (0.516)
	Some College	28.50	30.50	26.70	23.81	25.00	24.87	26.60	
	Associate's Degree	13.53	10.00	13.11	14.29	12.25	13.20	12.72	
	Bachelor's Degree	35.75	36.50	31.07	41.27	43.63	36.04	37.32	
	Post-Graduate Degree	13.53	10.50	16.02	11.64	8.82	15.23	12.64	

* A – Aligned, M – Misaligned,

Table 2. Participants' consumption habits and preferences of soft drinks.

Variables	Treatments						Total	F-test* (p-val)
	Sc-A	Sc-M	Po-A	Po-M	B.Po-A	B.Po-M		
Ranking of the most common places of soft drinks (1 – most often and 5 – least often)								
Home	2.27	2.12	2.26	2.30	1.86	2.06	2.15	2.36
	(1.62)	(1.56)	(1.59)	(1.69)	(1.43)	(1.48)	(1.57)	(0.039)
Restaurant	2.28	2.49	2.37	2.62	2.35	2.27	2.39	2.51
	(1.12)	(1.11)	(1.20)	(1.25)	(1.06)	(1.14)	(1.15)	(0.028)
Bar/Club	3.80	3.77	3.75	3.71	3.90	3.79	3.79	0.41
	(1.39)	(1.40)	(1.34)	(1.38)	(1.26)	(1.36)	(1.35)	(0.844)
Party with friends	3.20	3.36	3.29	3.21	3.37	3.30	3.29	0.62
	(1.19)	(1.22)	(1.10)	(1.16)	(1.07)	(1.15)	(1.15)	(0.683)
School or work	3.35	3.39	3.45	3.37	3.53	3.62	3.45	1.23
	(1.33)	(1.31)	(1.31)	(1.33)	(1.26)	(1.30)	(1.31)	(0.293)
How important are the following factors in your decision to purchase soft drinks? (1 – not important at all, 9 – very important)								
Brand	5.64	5.69	5.50	5.77	5.61	5.69	5.65	0.16
	(2.49)	(2.54)	(2.54)	(2.50)	(2.52)	(2.60)	(2.53)	(0.977)
Taste	8.17	8.25	8.24	8.12	8.22	8.21	8.20	0.27
	(1.10)	(1.37)	(1.30)	(1.59)	(1.22)	(1.41)	(1.33)	(0.931)
Price	6.77	6.75	6.65	6.59	6.86	6.83	6.74	0.58
	(2.10)	(2.22)	(2.16)	(2.23)	(1.96)	(2.21)	(2.14)	(0.712)
Other	3.69	3.83	3.65	3.76	3.93	3.95	3.80	0.54
	(2.83)	(2.99)	(2.86)	(2.89)	(2.82)	(3.01)	(2.89)	(0.745)
How health conscious are you? (1 - not at all health conscious, 9 - extremely health conscious)								
Health consciousness	5.98	6.10	5.97	5.98	5.91	6.15	6.01	0.61
	(1.76)	(1.86)	(1.91)	(1.84)	(1.63)	(1.72)	(1.79)	(0.689)
Prefer brand name or generic products? (1 – Strong preference for generic, 9 - strong preference for brand names)								
Preferences	6.21	6.20	6.14	6.26	6.14	6.38	6.22	0.70
	(1.78)	(1.80)	(1.79)	(1.75)	(1.69)	(1.83)	(1.77)	0.620

* – Assuming normally distributed continuous variables

Table 3. Consumers' consumption frequencies of soft drinks

Variables	Treatments						Total	Chi2 (p-val)
	Sc-A	Sc-M	Po-A	Po-M	B.Po-A	B.Po-M		
Purchase frequency								
Every day	4.83	5.50	3.40	5.82	4.90	4.06	4.74	27.29 (0.341)
A few times a week	19.81	15.50	15.53	12.70	20.10	14.21	16.38	
Once a week	24.15	21.00	23.30	25.93	26.96	26.40	24.61	
Once or twice a month	24.15	24.50	28.16	20.63	23.04	28.43	24.85	
Seldom	24.15	27.50	26.21	28.04	23.04	19.80	24.77	
Never	2.90	6.00	3.40	6.88	1.96	7.11	4.66	
The amount purchased								
Single can/bottle (20 fl.oz or less)	31.88	32.00	29.61	33.86	27.94	34.01	31.50	10.95 (0.047)
Large bottle (2-Liter)	24.64	21.50	28.16	25.93	28.43	24.87	25.60	
6-pack	10.14	10.00	11.17	9.52	7.84	7.61	9.39	
8-pack	2.42	3.00	0.97	3.17	1.96	2.54	2.33	
12-pack or more	30.92	33.50	30.10	27.51	33.82	30.96	31.17	
Consumption frequency								
Every day	25.12	22.00	22.33	24.34	23.53	20.30	22.94	33.60 (0.117)
A few times a week	11.11	10.00	13.11	9.52	8.82	8.12	10.14	
Once a week	24.15	23.50	23.79	19.58	31.37	27.41	25.02	
Once or twice a month	15.46	11.00	12.62	15.87	12.25	20.81	14.63	
Once or twice a month	20.77	28.50	24.76	23.81	22.06	17.26	22.86	
Never	3.38	5.00	3.40	6.88	1.96	6.09	4.41	

Table 4. Recall of a brand by Treatment – (Percentages)

Variables	Sub-Groups	Treatments						Chi-2 (p-val)
		Sc-A	Sc-M	Po-A	Po-M	B.Po-A	B.Po-M	
<i>Whether They saw the brand or not</i>								
Canada Dry	Yes	13.53	28.00	9.71	24.87	10.29	53.3	154.83 (< 0.001)
Great Value	Yes	5.80	6.00	4.85	7.94	3.43	8.63	6.47 (0.263)
Polar	Yes	4.35	7.00	86.41	70.37	84.80	39.59	567.98 (< 0.001)
Schweppes	Yes	90.34	72.00	8.25	15.34	12.25	39.09	504.53 (< 0.001)
<i>The frequency of seeing a specific brand</i>								
Canada Dry	Never	84.06	73.00	88.83	73.54	88.73	49.24	134.98 (<0.001)
	1-3 times	10.14	17.00	9.22	19.58	7.84	31.47	
	4-6 times	4.83	8.00	1.94	3.70	2.94	13.20	
	7+ times	0.97	2.00	0.00	3.17	0.49	6.09	
Great Value	Never	89.86	93.00	93.69	85.71	93.14	87.82	21.07 (0.134)
	1-3 times	9.18	3.50	4.37	10.05	5.39	8.63	
	4-6 times	0.97	3.00	0.97	3.17	0.98	2.54	
	7+ times	0.00	0.50	0.97	1.06	0.49	1.02	
Polar	Never	93.72	92.00	13.59	27.51	12.75	57.87	647.98 (<0.001)
	1-3 times	4.83	2.00	15.53	35.45	34.31	24.87	
	4-6 times	0.97	4.50	43.20	25.93	30.39	12.69	
	7+ times	0.48	1.50	27.67	11.11	22.55	4.57	
Schweppes	Never	5.80	28.00	88.35	79.37	84.31	56.85	566.67 (<0.001)
	1-3 times	18.84	17.50	9.22	13.23	8.33	23.35	
	4-6 times	43.48	37.00	1.94	5.82	4.90	15.23	
	7+ times	31.88	17.50	0.49	1.59	2.45	4.57	

Table 5. Consumers' WTP for a 12 fl. oz. Ginger Ale drinks given that alternative drinks range in price from \$1.00 to \$2.50 for a single 12 fl. oz. can.

Variables	Treatments						Total	<i>F-test*</i> (<i>p-val</i>)
	SP-A	SP-M	PL-A	PL-M	B.PI-A	B.PL-M		
Canada Dry	1.40 (0.78)	1.49 (0.77)	1.52 (0.80)	1.51 (0.76)	1.54 (0.77)	1.53 (0.78)	1.50 (0.78)	0.88 (0.494)
Great Value	0.93 (0.70)	0.86 (0.58)	1.01 (0.66)	1.00 (0.74)	0.99 (0.64)	0.91 (0.62)	0.95 (0.66)	1.68 (0.138)
Polar	1.10 (0.77)	1.14 (0.75)	1.29 (0.78)	1.30 (0.81)	1.33 (0.74)	1.22 (0.66)	1.23 (0.76)	3.08 (0.009)
Schweppes	1.42 (0.83)	1.46 (0.82)	1.41 (0.80)	1.44 (0.80)	1.43 (0.76)	1.41 (0.75)	1.43 (0.79)	0.13 (0.986)

Table 6. Logistic regression models of consumers' noticing the showcased brands given different treatment groups.

Treatment	Canada Dry			Great Value			Polar			Schweppes		
	Base 1	Base 2	Base 3	Base 1	Base 2	Base 3	Base 1	Base 2	Base 3	Base 1	Base 2	Base 3
<i>Odds Ratios (Std. Error)</i>												
Schweppes Misaligned		1.17 (0.27)	0.34*** (0.07)		0.74 (0.30)	0.68 (0.26)		0.03*** (0.01)	0.11*** (0.04)		14.19*** (3.63)	4.01*** (0.86)
Schweppes Aligned	0.40*** (0.10)	0.47*** (0.12)	0.14*** (0.03)	0.96 (0.41)	0.71 (0.29)	0.65 (0.25)	0.60 (0.27)	0.02*** (0.01)	0.07*** (0.03)	3.64*** (1.03)	51.59*** (15.99)	14.57*** (4.03)
Polar Misaligned	0.85 (0.20)		0.29*** (0.06)	1.35 (0.54)		0.91 (0.34)	31.55*** (10.09)		3.62*** (0.78)	0.07*** (0.02)		0.28*** (0.07)
Polar Aligned	0.28*** (0.08)	0.32*** (0.09)	0.09*** (0.03)	0.80 (0.35)	0.59 (0.25)	0.54 (0.22)	84.46*** (29.03)	2.68*** (0.69)	9.70*** (2.43)	0.03*** (0.01)	0.50** (0.16)	0.14*** (0.04)
Both – Polar Misaligned	2.93*** (0.62)	3.45*** (0.76)		1.48 (0.58)	1.10 (0.41)		8.71*** (2.73)	0.28*** (0.06)		0.25*** (0.05)	3.54*** (0.88)	
Both – Polar Aligned	0.30*** (0.08)	0.35*** (0.10)	0.10*** (0.03)	0.56 (0.27)	0.41* (0.19)	0.38** (0.17)	74.14*** (25.13)	2.35*** (0.59)	8.51*** (2.07)	0.05*** (0.01)	0.77 (0.23)	0.22*** (0.06)
Constant	0.39*** (0.06)	0.33*** (0.06)	1.14 (0.16)	0.06*** (0.02)	0.09*** (0.02)	0.09*** (0.02)	0.08*** (0.02)	2.38*** (0.38)	0.66*** (0.10)	2.57*** (0.40)	0.18*** (0.04)	0.64*** (0.09)

Base 1 – Schweppes Misaligned, **Base 2** – Polar Misaligned, **Base 3** – Both. Polar Misaligned

* - 0.10 significance level, ** - 0.05 significance level, *** - 0.01 significance level

Table 7. Consumers' willingness to pay for the following ginger ale brands depending on whether they thought they noticed the brand or not

Noticed the following brand	Willingness to pay			
	Canada Dry	Great Values	Polar	Schweppes
	Coefficient (Std. Error)			
Canada Dry	0.19*** (0.06)	0.08 (0.05)	0.10 (0.06)	0.15** (0.07)
Great Value	0.06 (0.09)	0.40*** (0.08)	0.23** (0.09)	0.08 (0.10)
Polar	0.15** (0.07)	0.04 (0.06)	0.21*** (0.07)	0.18** (0.07)
Schweppes	-0.04 (0.07)	-0.10* (0.06)	-0.06 (0.06)	0.09 (0.07)
Constant	1.39*** (0.07)	0.93*** (0.06)	1.12*** (0.07)	1.27*** (0.07)

* - 0.10 significance level

** - 0.05 significance level

*** - 0.01 significance level

Figure 1. Aligned (a) and misaligned (b) cans of Polar brand soda



a)



b