Journal of Food Technology 1 (3): 84-96, 2003

A Comparison of Purchasing Habits and Sensory Preferences for Cola Consumers Across France, Germany, the United Kingdom and the United States

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Abstract: European consumers (France, Germany and United Kingdom) show similar purchasing habits and similar acceptance patterns for statements about their sensory requirements of cola. Respondents can be categorized into three consumer segments, based on the pattern of their utility values from internet-based conjoint analysis. COKE Classics seek traditional colas that are branded with the name Coca-Cola. Sweet Sippers respond to statements about sugar-sweetened beverages emphasizing the words "crisp and refreshing". Diet Devotees respond to statements about the taste and the image of diet soft drinks. In contrast, American consumers show different segmentation patterns based upon their profiles of cola utilities obtained from the same type of conjoint-measurement. Fast Food Fiends consume fountain colas in fast food restaurant chains, to accompany burgers and fries. Diet Devotees crave diet colas that taste good, but are low in calories. Pepsi Progressives prefer the trendy marketing style and the unique cola flavor varieties from Pepsi Co.

Key words: Consumer preference, market segmentation, conjoint analysis, cola and internet research

Introduction

The number of global food and beverage companies is rising (Steenkamp and Hofstede, 2002). Economic globalization has become appealing to large food companies for several reasons. First, globalization allows for companies to gain access to new markets for their products. With a rise in the global receptiveness to new foods companies can capitalize on new, untapped markets world-wide. Second, globalization provides significant advantages when marketing the same brand worldwide. Consumers develop trust and reliance on recognizable, global brands. Third, packaging and advertising become very affordable when done on a global scale. Fourth, the increased volume of raw materials necessary to operate globally encourages more strategic relationships with vendors, allowing for better pricing and services (Anonymous, 1995).

However, international product development also creates new challenges for food and beverage companies. In order to compete in new, global markets, companies must learn how to connect to consumers of different cultures and backgrounds, in new languages (Toops, 2000). Strategic market research and sensory research must be performed in each geographical region in order to understand the sensory characteristics that influence product acceptability, since these may vary between cultures. Without this research companies will not develop and market products that are meaningful and desirable to new populations of consumers. Part of this strategic research uncovers patterns of consumption, the reasons why the beverage is consumed and the situations in which consumption takes place. Most companies have data of this type in their "tracking studies", run year after year. Closely involved in this strategic research, but rarely obtained, is an analysis of what specific types of communications about the product drives people world-wide and whether there exist segments of people who respond to different types of communications.

Tracking Studies as a Market Research Procedure to Understand the Patterns of Consumption: Large companies conduct tracking studies on a regular basis to measure consumer trends that are taking place. Companies rely on these studies to determine whether consumers have changed their perception of a brand's image or quality, whether consumers have modified their purchasing behaviors or frequencies and whether consumer awareness of a brand has changed (Choy *et al.,* 2002). The scale of these studies can be large or small. They can be executed as frequently as a company demands. They can investigate one country, or they can be international. Therefore, this type of study can obtain a lot of basic consumer information for multi-national corporations. The internet lends itself well to developing and executing these studies in an affordable manner (Choy *et al.,* 2002).

Despite the advantages of tracking studies, there are several factors that can limit the legitimacy and the functionality of these studies. Tracking studies generally take the form of a questionnaire. Questionnaires can contain leading questions that may bias consumers into answering in a particular, predetermined manner. Furthermore, questionnaires do not necessarily allow for the interpretation of how factors interact to strengthen or weaken purchase demand (Sultan, 2002). Conjoint analysis is a more advanced technique that allows consumers to examine and evaluate a range of features or attributes involved when making their purchase selections. Conjoint analysis examines the trade-offs to determine what features are most valued by consumers and it allows the researcher to evaluate the effectiveness of different communications and the ways in which they interact and affect the consumer.

Conjoint Measurement as a Method to Understand the Drivers of Effective Communication: Conjoint analysis provides consumers with a large number of product descriptions, which they are required to rate in terms of attractiveness and appeal (Naes *et al.,* 2001). These descriptions comprise a core set of elements or attributes, which are systematically combined together to produce product descriptions. The ratings are analyzed through regression analysis to provide a formula of product acceptance for each consumer. These consumer ratings provide insight into the types of communications and 'selling messages' that would be effective in convincing segments of the consumer population to purchase a food (Moskowitz, 1999). Conjoint methods have proven effective to uncover market segments for wine (Hughson *et al.,* 2002a), olives (Moskowitz *et al.,* 2002a), beer, tequila and RTD's (Hughson *et al.,* 2002b), coffee and tea (Hughson *et al.,* 2002b) and yogurt (Luckow *et al.,* 2003). These studies are obtained from internet-based 'mega-studies' (Beckley and Moskowitz, 2002) in which respondents rate different concepts on acceptance or interest.

Scope of the Paper: The primary objective of this research or study is to identify possible segments of consumers based upon their pattern of reactions to systematically varied concepts and within this context determine the demographics and the purchasing habits of cola consumers relative to these emergent segments. The study is international in scope, allowing for a comparison of attitudes, behaviors and communication preferences of cola consumers across France, Germany, the United Kingdom and the United States, respectively. The ability to compare reactions to concept elements in four countries can reveal whether the same segments exist across different countries, albeit in different proportions by country. The secondary objective was to provide a database that beverage marketers can use in order to understand the needs and behaviors of their consumers, across the US and Europe. This study was part of the "Eurocrave Mega-Study" (Aarts *et al.,* 2002), which measured responses to concepts across Europe and in some cases continued original work begun in the United States (Beckley and Moskowitz, 2002).

Materials and Methods

The study was performed using conjoint analysis, a research technique that estimates the value consumers place on a series of attributes or concept elements that define a product category (Helgesen *et al.,* 1998). Thirty-six product descriptions, or elements, were developed in order to describe different aspects of cola. These elements were grouped into six logical categories, E01-E09, E10-E16, E17-E21, E22-E27, E28-E30 and E31-E36). These categories represented Physical Cues (in a glass, with ice, dark brown color, with bubbles; E01-E09), Flavor Variety (flavored with vanilla, with caffeine, with a slice of lemon; E10-E16), Usage Occasion (with a burger, with dessert, in an ice cream float; E17-E21), Emotional Connection (relaxation, refreshment, decadence; E22-E27), Branding (Coke, Pepsi, private label; E28-E30) and Benefit (organic; E31-E36). The categories were developed based on the organizing principle that the leading factors involving food acceptance are the sensory properties of foods, the individual characteristics of the food product and the context of food consumption, respectively (Shepherd, 1989). Table 1 presents the rationale and the elements for the four studies. At times, it was necessary to change the elements for the different countries, but where possible, the elements were engineered to be as similar as possible.
The concept elements were developed in the United States, translated into German and French and adjusted in order to make them relevant to the European respondents, on a nation-by-nation basis. For example, the brand names for each of the four countries were adjusted to be appropriate to the country. Cola brands were chosen based on popularity and availability within each country. Diet cola in Europe is called Cola Light, therefore the concept elements about diet colas had to reflect this terminology difference. Additionally, within the Usage Occasion section, the types of meals and snacks chosen to accompany colas were adjusted to better represent the dairy eating patterns of respondents within each country. The translated European concepts appears in Table 2.
Each respondent evaluated a set of 60 combinations or test concepts, comprising these 36 concept elements. Each concept comprised 2-4 elements. The design was set up so that either one element or no element from each of the four silos appeared in the concept. A silo comprised nine elements (1-9, 10-18, 19-27, 28-36, respectively) and contained either one or two

categories of concept elements. No category appeared in more than one silo. Therefore, a concept never comprised pairs of potentially contradictory elements. The concepts were presented in either English, French, or German, depending upon the country.

Each respondent in the study received the combinations in a randomized order. The combinations sufficed to create an experimental design at the individual respondent level, allowing for subsequent data analysis by dummy variable regression (Beckley and Moskowitz, 2002). Although each respondent evaluated the same set of elements, a total of 100 designs were created, using the same structure of combinations, but with different specific combinations. This strategy reduced the possibility of bias that might ensue from a specific combination of elements that together and unexpectedly, either worked usually well, or unusually poor.

The respondents were instructed to treat all of the elements in the concept as belonging to that concept. The respondent rated the entire concept on a single anchored scale "How much do you crave drinking this cola?" The scale ranged from 1 (not at all) to 9 (very much) and was placed under each concept. The respondent rated each concept by clicking on one of the nine buttons. The concept automatically disappeared after the click and the next concept appeared. After rating each of 60 concepts, subjects completed a brief classification questionnaire. These questions related to demographics and to cola purchasing and consumption behaviors (Hughson *et al.,* 2002a).

Respondents and Invitations: The respondents were recruited through an open e-mail invitation sent by Open Venue Ltd. of Toronto, Canada. In the United States, the respondents were given a link that directed them to a series of 30 food category surveys, presented as a set of buttons. Cola was one of the 30 surveys. In Europe, an affiliate of Open Venue Ltd. sent out the invitation. The study in each European country comprised 20 different foods, of which cola was one survey.

The respondent was invited to participate in the study that most interested them. Respondents were motivated by the chance to win cash prizes on the successful completion of the survey. Immediate feedback of the respondent's results was also provided, in order to make the experience "fun" (Moskowitz, 2002). The feedback comprised two concepts, the combination of elements that the respondent liked the most, constructed from their ratings (one element per silo) and the most preferred combination of elements constructed from the data obtained from previous respondents. A cookie was inserted into the respondent's machine to prevent multiple participation in the same study. In total, 642 people responded to the cola survey, with 272 respondents in the United States, 130 respondents in France, 120 respondents in Germany and 120 respondents in the United Kingdom.

Modeling Responses: Consumers rated the concepts on an anchored 9-point scale. The ratings for interest on the 9-point scale were transformed into a binary scale, 0 or 100. Ratings of 1 – 6 were transformed to 0; ratings of 7 – 9 were transformed to 100. The transformation used conventional market research protocols, following the notion that consumers who do not feel strongly in their opinion to a concept would probably not be persuaded by it and consequently, it should be considered a failed concept. Positive interest in the concept was defined as a rating of 7-9 on the nine-point scale (Hughson *et al.,* 2002a). The transformation created two data-sets, one with the original 1-9 ratings and the other comprising transformed ratings and containing only the values 0 or 100, respectively. The original, 9-point ratings and the ensuing matrix were used for segmentation. All other analyses were done using the binary, 0/100 point scale.

Following the transformation, ratings were analyzed at the individual respondent level using dummy regression analysis. For each individual, the data set comprised 60 observations and 36 independent variables, corresponding to the 36 concept elements, which had been combined into the 60 concepts. The regression analysis showed the relative weight of each of the 36 elements as drivers of the interest rating (100, as transformed from ratings of 7-9). The equation is expressed as follows:

$$\text{Rating} = k_0 + k_1(\text{Element\#1}) + k_2(\text{Element\#2} + \ldots k_{36}(\text{Element \#36})$$

The additive constant, k_0 is an estimated parameter that can be interpreted as the likelihood of the consumer craving cola, with no elements in the concept. All concepts had at least two and at most four elements. Despite the fact that the constant is computed, it allow for a substantive interpretation. Previous research suggests particular guidelines for interpreting the value of the additive constant. Values above 50 for k_0 suggest a high degree of basic interest in a particular product. Constants below 20 indicate a low basic interest in a product. (Krieger *et al.,* 2002) The element coefficients, or utility values (k_1–k_{36}), show the degree to which the concept element drives interest in the concept. Positive coefficients add to consumer interest, whereas negative coefficients detract from interest. For example, if a concept element receives a coefficient score of +15, then it can be assumed that the inclusion of that concept element in the marketing strategy would attract an additional 15% of respondents to the cola concept. The coefficients can be analyzed by standard procedures, such as analysis of variance, to determine which coefficients differ significantly from '0' (corresponding to no effect).

The interpretation of the coefficient is more relevant than simple statistical tests of difference, because of the practical application of the data to business problems. Previous studies (Hughson *et al.,* 2002a, Moskowitz *et al.*, 2002, Cappuccio *et al,* 2002) provide the following qualitative guidelines for interpreting the coefficients in terms of "meaningfulness" to the corporation.

1. Coefficient/Utility values of >15 represent highly important concept elements
2. Coefficient/Utility values of 10–15 represent important elements
3. Coefficient/Utility values of 5–10 represent useful elements
4. Coefficient/Utility values of 0–5 represent elements with minimal impact
5. Coefficient/Utility values of <0 represent negative concept elements and should be avoided

Segmenting Respondents: The respondents were divided into homogenous groups by a segmentation procedure (Systat, 1997). As noted above, the segmentation was done on the utilities prior to conversion to a binary scale. The distance between each pair of respondents was defined by the statistic (1-R), where R is the Pearson correlation between two respondents, based upon the 36 utility values (prior to transformation into binary numbers). K-means clustering divided the respondents into four sets of segments, comprising two segments, three segments, four segments and five segments. The four different segment solutions were inspected to determine which solution made the most intuitive sense. Only the researcher, however, can ultimately decide whether or not the segmentation itself truly classifies the respondents in a meaningful way.

Results and Discussion

Demographics of Respondents in the Four Countries: The age and gender distribution for the entire respondent population appears in Table 3, shown by country. Previous internet studies showed that females more frequently participate in consumer studies (Krieger *et al.,* 2002; Krieger and Moskowitz, 2002), therefore the respondent population for conjoint analysis tests generally skews female. Whereas the panel composition in the United States and in the United Kingdom showed this skew, the composition in Germany and France did not show the heavy skew towards females. Within Germany and France, there were similar numbers of male and female respondents.

Attitudes of the Respondents from Self-Profiling in the Classification Questionnaire: A classification questionnaire asked respondents for information pertaining to their purchasing and consumption habits for colas. For the most part, the questions for the three European countries were the same as those asked in the US, with a few exceptions. For example, the US questionnaire asked more questions dealing with demographics (i.e., economic status, ethnic background and neighborhood description). Some results from this questionnaire appear at the bottom of Table 3.

In general, cola consumers participating in this study say that they drink cola frequently. According to marketing research, (Anonymous, 2003), North Americans have the highest rate of carbonated soft drink consumption in the world, followed closely by Western Europeans. Therefore, it is not surprising that the average frequency consumption for all participants was high across all geographical locations.

Consumers stated that they are most influenced by the taste and the brand of colas and would frequently make their purchase decisions based on those two factors. Many similarities exist between the consumption behaviors of Western Europeans (France, Germany and UK) and those of Americans. Finally, Western Europeans typically purchase colas in the Supermarket, a Food Store, or in a Fast Food Restaurant. Although US respondents weren't specifically asked about the locations of their cola purchase, it has been reported that the Supermarket and Fast Food Restaurant chains report very high sales of soft drinks, in the US (Tarrant, 2003).

Despite all of these similarities, each country surveyed displays some unique behaviors, which differentiate them from the other nations.

France: Whereas cola is consumed several times per day in France, it is consumed later in the day, than it is consumed in the other countries. The only meal that features cola is dinner. Furthermore, to the French, but not to the other Europeans, aroma is an extremely important attribute for colas in France and contributes to cola craveability.

Germany: Germans drink less cola than do consumers in the other countries. Whereas French, UK and US respondents drink cola an average of 'several times a

Table 1: Concept elements used in the study for 272 US respondents

Element Number	Concept Element	Rationale
E 01	Classic taste.... the way you remember it	Physical cue – tradition
E 02	Classic cola	Physical cue – tradition
E 03	Cola...carbonated and sparkling, just the right amount of taste and bubbles	Physical cue - bubbles, sparkling
E 04	Everything you want...all in one place...a blending of tastes.	Physical cue - flavor blend
E 05	The perfect mixer for everything you drink	Physical cue – mixer
E 06	A thick slushy of cola and ice	Physical cue - thick, slushy
E 07	Exactly the way you always imagined it	Physical cue - imagination
E 08	Cola...the dark brown color, faint smell of vanilla and bubbles tell you that you have real cola	Physical cue - brown, vanilla, bubbles
E 09	Prepared just to your liking...add whatever your heart desires	Flavor Variety - customized
E 10	Premium quality...the best cola in the whole world.	Flavor Variety - best flavor
E 11	Available at a value price	Flavor Variety - value flavor
E 12	With twice the jolt from caffeine...gives you the added energy you need	Flavor Variety - caffeine
E 13	Flavored with vanilla	Flavor Variety - vanilla
E 14	Diet cola...refreshment without the calories	Flavor Variety - diet
E 15	With a slice of lemon.	Flavor Variety - lemon
E 16	An ice cream float...cola and ice cream, chilled and tasty	Usage Occasion - ice cream float
E 17	With a warm burger and fries	Usage Occasion - fast food
E 18	With your choice of warmed dessert cookies or breads	Usage Occasion - dessert
E 19	So delicious, just thinking about it makes your mouth water	Usage Occasion - thirst
E 20	When you think about it, you have to have it...and once you have it, you can't stop drinking it	Usage Occasion - impulse
E 21	You'd drive any distance...at any hour...to get exactly what you want	Emotional Connection - desire
E 22	Relaxes and refreshes you...inside and out	Emotional Connection - relaxing
E 23	A joy for your senses...seeing, smelling, tasting	Emotional Connection - senses
E 24	Drinking it makes all the stress just melt away	Emotional Connection - stress reliever
E 25	A quick refresher for when you're on the run	Emotional Connection - refresher
E 26	To be enjoyed while surrounded by family and friends	Emotional Connection - sharing
E 27	A special treat...you will savor every sip	Emotional Connection - decadent treat
E 28	From your favorite local store brand	Brand - private label
E 29	From A&W	Brand - A&W
E 30	From Dr. Pepper	Brand - Dr. Pepper
E 31	From Pepsi	Brand - Pepsi
E 32	From Coca-Cola	Brand - Coca-Cola
E 33	Dispensed fresh from the fountain	Benefit - fresh
E 34	Ready-to-drink, easy to pick up	Benefit - convenience
E 35	Certified to be natural and organic	Benefit - natural / organic
E 36	Guaranteed to be safe for you to drink	Benefit - safety

day', German respondents say that they drink cola an average of '1–3 times per week'. Cola is not typically consumed with meals but rather consumed during the late afternoon, while watching TV. This suggests that cola consumption is part of relaxation behavior in Germany and it is seen as more of a treat than as a regular part of the diet. In Germany, the mouthfeel of a cola is a key factor for craveability, contrasting with the aforementioned importance of aroma to the French respondent.

UK: In the UK, cola is mainly consumed during a meal (i.e., lunch and dinner) and is mostly consumed in the home. Mood is a key contributor of cola craving for UK respondents. UK respondents did not check off sensory aspects as drivers of cola craveability, in contrast to the other respondents.

USA: In the US, cola is consumed throughout the day,

Table 2: Concept elements used in the study for 370 European respondents

Element Number	Concept Element	Rationale
E 01	Classic cola	Physical cue – tradition
E 02	Cola, cold and sparkling	Physical cue – cold, sparkling
E 03	Cola with a lot of ice	Physical cue – ice
E 04	Cola with some ice cubes and a slice of lemon	Physical cue – ice, lemon slice
E 05	Cola in a mix with lemonade, or with a dash of rum	Physical cue – mixer
E 06	Cola light: all the taste but one calorie only	Flavor Variety – diet
E 07	Cola light with a lot of ice	Flavor Variety – diet/ice
E 08	Cola light with some ice cubes and a slice of lemon	Flavor Variety – diet/lemon
E 09	Caffeine free cola	Flavor Variety – caffeine free
E 10	With caffeine, the energizer	Flavor Variety – caffeine
E 11	You can just savour it, when you think about it	Usage Occasion - impulse
E 12	When it's hot outside, cola is cold and refreshing	Usage Occasion – hot weather
E 13	With a snack eg. crisps or nuts	Usage Occasion – with snack
E 14	When you think about it, you have to have it...and once you have it, you can't stop drinking it	Usage Occasion - impulse
E 15	Escape the routine....a way to celebrate special occasions	Usage Occasion – special occasion
E 16	It quenches the thirst	Usage Occasion - thirst
E 17	Simply the best cola for me	Emotional Connection - personalization
E 18	You can imagine the taste as you see the glass in front of you	Emotional Connection – image
E 19	So refreshing you have to drink another glass / can	Emotional Connection – refreshing
E 20	Quick and fun, drinking along doesn't have to be boring	Emotional Connection – fun, quick
E 21	A real experience...shared with friends or family	Emotional Connection - sharing
E 22	A joy for the senses...seeing, smelling, tasting	Emotional Connection – senses
E 23	Fills the empty spot in you, just when you want it	Emotional Connection – companion
E 24	Cheers you up	Emotional Connection - cheer
E 25	Pure enjoyment	Emotional Connection – enjoy
E 26	With all the extras you want	Emotional Connection – personalization
E 27	From Tesco. (UK) From your favorite local store brand (France, Germany)	Brand - private label
E 28	From Virgin (UK) From Virgin (France) From Sinalco-Cola (Germany)	Brand
E 29	From Sainsbury's Classic (UK) From American Cola (France) From River-Cola (Germany)	Brand
E 30	From Safeway (UK) From Look Cola (France) From Jolt (Germany)	Brand
E 31	From Pepsi	Brand
E 32	From Coca-Cola	Brand
E 33	Premium Quality...that great traditional taste	Benefit – quality
E 34	100% natural and fresh	Benefit – natural / fresh
E 35	With the highest quality and standards that you can trust	Benefit – quality, trust
E 36	Cola at 3 degrees Celsius	Benefit – stored cold

but is most frequently consumed mid-morning and with lunch. The consumption pattern differs from the European pattern. American consumers might be using cola as a stimulant, due to the caffeine content and would therefore be consuming the product during the day. Furthermore, Americans identified thirst as their most powerful driver for cola craveability. Branding and usage were more frequently cited by Americans as

Table 3: Gender distribution, age and modal consumption pattern for the total population in each of the four markets

	France	Germany	United Kingdom	United States
Base Size	130	120	120	272
Males	46%	49%	32%	30%
Females	54%	51%	68%	70%
Average Age	26–35	26-35	26-35	41-50
Modal frequency of cola consumption	Several Times/ Day 55%	1-3 Times/ Week 57%	Several Times/ Day 54%	Several Times/ Day 73%
Time of Day Crave Cola	Late afternoon / Dinnertime	While watching TV/ Afternoon	Lunch / Dinnertime	Mid-morning / Lunchtime
Attributes Influencing Cola Craving	Taste Brand Aroma	Taste Mouthfeel Brand	Taste Brand Mood	Thirst Taste Brand
Location of Cola Purchase	Supermarket / Fast Food Restaurant	Supermarket / Fast Food Restaurant	Food Store / Supermarket	N/A Question not asked

Table 4: Utility values for brand and emotional-connection elements across four countries

	France	Germany	UK	US	Average	Range
Additive Constant	55	25	42	42	41	30
Number of negative elements	21	20	19	20	20	2
Number of positive elements	15	16	17	16	16	2
Average utility–male respondents	-2	3	0	-2	0	5
Average utility–female respondents	0	3	0	4	2	4
Highest utility value	15	16	9	7	12	9
Lowest utility value	-29	-16	-20	-16	-20	13
Utility of brands						
Private Label/Store Brand	-23	-11	-16	-13	-16	-12
Utility of Coca Cola Brand	15	16	9	7	12	9
Utility of Pepsi Cola Brand	-15	2	3	-5	-4	18
Utility of emotion elements						
When you think about it, you just have to have it and once you have it, you can't stop drinking it	-1	-2	3	0	0	3
A joy for your senses ... seeing, smelling, tasting	1	2	0	4	2	4
To be enjoyed while surrounded by family and friends	-2	2	-2	-1	-1	4

craveability drivers.

Insight into the General Consumer 'Mind-Set' Across Four Countries Through Conjoint Analysis: Conjoint analysis allows the researcher to identify the communication elements that drive interest in a product. The additive constant measures basic interest, whereas the utilities measure the contributions of the individual elements to interest. When analyzing conjoint data with 36 elements, a very productive approach examines the pattern of utilities to uncover what types of messages drive interest and whether there exists a commonality among those messages.

The conjoint elements viewed as a totality, across the four countries. The pattern across the 144 elements suggest four key general patterns (Table 4).

More Weak Performing Elements than Strong Performing Elements: Regardless of age, gender, or country of residence, consumers rejecting more concept elements than accepting them and found very few overwhelmingly acceptable elements.

Demographics not Important as Influencers of Utility Value: Concept element acceptance or rejection did not co-vary with age, gender, or income, the key

Table 5: Most liked versus least liked elements for four countries. Utility values are shown in parentheses

	Overall France	Overall Germany	Overall UK	Overall USA
Constant	55	25	42	47
Most Liked	*From Coca-Cola (15)*Cola with lots of ice (7)	*From Coca-Cola (16) *Cola with ice cubes (9) & a slice of lemon (12) *Sparkling cold cola (12)	*From Coca-Cola	* From Coca-Cola (7) *With a warm burger and fries (6) *Premium quality... the best cola in the whole world (6)
Least Liked	*From Look-Cola (-34) *Caffeine-free Cola (-29) *From American Cola (-26)	*Caffeine-free Cola (-16) *From Sinalco Cola (-11) *From River Cola (-10)	Caffeine-free Cola (-23) *Cola in a mix with lemonade, or a dash of rum (-20) *Cola light: All the taste but only 1 calorie (-18)	*With a slice of lemon (-16) *Dietcola... refreshment without the calories (-15)

Table 6: Most liked versus least liked elements for three European segments

	Coke Classics	Sweet Sippers	Diet Devotees
France			
Constant	61	60	20
Most Liked	*From Coca-Cola (18)	*Classic Cola (11) *Cola, fresh and crisp (10)	*Cola light: with lots of ice and a slice of lemon (64) *Cola light: with lots of ice (43) *Cola light: with all the taste, but only one calorie (43)
Least Liked	*From Look-Cola (-43) *From American Cola (-36) *From Virgin (-32)	*Cola light: with lots of ice and a slice of lemon (-47) *Caffeine-Free cola (-38) *Cola light: with all of the taste, but only one calorie (-31)	*A unique experience to be shared with friends or family (-18) *With caffeine, to provide lots of energy (-15)
Germany			
Constant	27	30	13
Most Liked	*From Coca-Cola (15) *Sparkling, cold cola (14)	*From Coca-Cola (15)	*Cola light: with ice cubes and a slice of lemon (30) *Cola light: with lots of ice (22) *Cola light: full flavor but no calories (18)
Least Liked	* From Sinalco-Cola (-22) *From Jolt (-19) *From River Cola (-18)	*Caffeine-free Cola (-28) *Cola light: with lots of ice (-25) *Cola light: full flavor, but no calories (-22)	N/A
UK			
Constant	39	47	2
Most Liked	* From Coca-Cola (21)	*When it's hot outside, cola is cold and refreshing (10)	*Cola light with ice cubes and a slice of lemon (33) *Cola light with a lot of ice (24)
Least Liked	*From Tesco (-31) *From Sainsbury's Classic (-28) *From Virgin (-23)	*Cola light: All the taste but only one calorie (-30) *Cola light with some ice cubes and a slice of lemon (-24) *Cola light with a lot of ice (-24)	*Quick and fun...drinking alone doesn't have to be boring (-15) *Fills the empty spot in you. ... just when you want it (-12)

Table 7: Distribution patterns of self-profiles for three European concept response segments

	Coke Classics	Sweet Sippers	Diet Devotees
% of Population			
France	65%	21%	14%
Germany	45%	36%	19%
United Kingdom	30%	61%	9%
Gender	Gender Split (M/F)	Male	Female
Average Age	All Ages	Under 25	26-45
Average cola consumption	Several times/day	Several times /day	4-6 times/week
Time of day for cola cravings	Afternoon (Lunchtime) Evening (Dinnertime) While watching TV	Afternoon (Lunchtime) While watching TV	Afternoon (Lunchtime) With friends Mid-afternoon
Location of cola purchase	Supermarket Fast Food Restaurant	Supermarket Fast Food Restaurant	Supermarket Food Store Restaurant

Table 8: Winning versus losing concept elements for US respondents

	Fast Food Fiends	Diet Devotees	Pepsi Progressives
Constant	46	37	57
Most Liked	*With a warm burger and fries (10)	*From Coca-Cola (22) *Diet cola...refreshment without the calories (10)	*From Pepsi (??)
Least Liked	*Diet cola...refreshment without the calories (-31) *With a slice of lemon (-17) *Certified to be natural and organic (-15)	*From Dr. Pepper (-23) *From Pepsi (-19) *From A&W (-16)	*From Dr. Pepper (-28) *Cola...the dark brown color, faint smell of vanilla and bubbles tell you that you have the real cola (-19) *With your choice of warmed dessert cookies or breads (-19)

Table 9: Distribution patterns of self-profiles for three European concept response segments

	Fast Food Fiends	Diet Devotees	Pepsi Progressives
% of Population	58%	19%	23%
Gender	Female	Female	Gender Split
Average Age	All ages	30–60	30-60
Average Cola Consumption	Everyday	4-6 times/week	Everyday
Time of Day for Cola Cravings	Lunch Dinnertime	Lunchtime Mid-afternoon	Mid-afternoon Lunchtime
Attributes Influencing Cola Craving	Taste 72% Thirst 71% Brand 62%	Thirst 74% Brand 72% Taste 64%	Thirst 79% Taste 76% Brand 55%
Type of Neighborhood	Suburban Neighborhood	Suburban Neighborhood	Urban Neighborhood

demographic variables.

Brand Name Critical: Consumers were most influenced by cola brand name, than by any other category of concept element, in every country surveyed. The effect of brand name in food choice, food acceptability and consumer expectation has been well documented in many studies (Guerrero *et al.*, 2000; Cardello *et al.*, 1996; Cheng *et al.*, 1990).

Verbal Statements of Emotion not Effective: Although it has been shown (Canetti *et al.*, 2002) that a strong link exists between eating and emotion, respondents in each country were indifferent to elements that verbally described 'Emotional Connection".

Highlights of Consumer Response to Concept Elements: On an overall basis, consumers in every country liked concept elements that contained the Coca-Cola brand name. However, each country demonstrated unique trends for the acceptance of physical, flavor variety, occasion of usage and emotional cues. Table 5 shows the winning and losing elements for each country, from the total panel.

France: French consumers were most driven by branding cues and by physical cues. They desired images of iced colas, containing caffeine. They were most interested in cola products made by Coca-Cola, but disliked cola brands including Pepsi, Look-Cola, American Cola, Virgin and private label.

Germany: Coca-Cola was the most trusted brand name for cola, whereas many of the lesser-known or 'B-Brands' (Sinalco Cola, River Cola) were disliked. Physical cues embodied in concept statements were important, especially when the cue portrayed images of cola as cold and icy. Caffeine was perceived as an added benefit to cola.

UK: Coca-Cola was also the most desired cola brand, whereas private label brands (Tesco) were disliked. The UK consumer desires classic cola beverages. Caffeine-free and diet colas are not acceptable to this group.

USA: Americans also liked the Coca-Cola brand name. American consumers liked elements talking about basic, classic colas without sugar substitutes, flavor top-notes, or lemon garnishes. Americans desired a cola of premium quality and would most prefer consuming cola with fast foods like burgers.

Concept Response Segments for the Three European Markets: The foregoing analyses dealt with the consumer population as if it was one homogenous group. However, cluster analysis identified the major segments of cola consumers in Europe and in the US. The US respondents generated their own segments, different from those segments generated by the Europeans. Despite the cultural differences between the populations of France, Germany and the UK, respondents from each of these three countries could be segmented into the same three groups that can be labeled (by the researcher) as coke Classics, Sweet Sippers and Diet Devotees, respectively. The choice of labels is left to the researcher, but the segmentation itself is done objectively using statistical criteria. Table 6 shows the winning and the losing elements for each segment within the European countries, as well as the performance of these elements across the total panel and the remaining segments. Elements scoring +10 or higher are categorized as winners. Elements scoring −10 or lower are categorized as losers. Table 7 shows the distribution of these segments across the three European markets.

Coke Classics: This segment comprises very brand loyal consumers who prefer the taste of Coca-Cola to any other cola brand available. Coke Classics from all three European countries show a strong preference for concept elements including the brand name Coca-Cola. Elements containing private labels and B-brand cola companies were not successful for any country. They will not consume regular Coke alternatives and are not interested in diet colas, or flavored colas. The coke Classics segment comprises 30% of the British respondents, 65% of the French respondents and 45% of the German respondents, making it the largest consumer segment in Europe.

Sweet Sippers: Sweet Sippers like 'classic' and 'refreshing' colas. This segment responds strongly to statements about the taste of sugar-sweetened beverages. They do not respond to elements in the diet cola category because they do not accept the taste or the image of the diet cola category. They prefer products from Coca-Cola, but they are not as conscious of the product brand name, as they are of sweetener system employed. Respondents in this category strongly disliked concept elements including diet cola and caffeine-free cola concepts, regardless of country of residence. An overwhelming 65% of the UK respondents belong to this segment.

Diet Devotees: To these consumers, diet cola is the healthier, less caloric alternative to classic cola, but it is still tasty and refreshing. Diet Devotees respond favorably to concept elements including images of diet colas. They prefer the taste and the image of diet colas and they are specifically interested in the flavor and the mouthfeel of Diet Pepsi. They do not respond to emotional statements, nor do they want to be told when or where they should consume diet soft drinks. This segment comprises many of the female cola consumers. Whereas this is the smallest consumer cluster for the European countries, it is still contains a very significant percent of the market.

Concept Response Segments for US Respondents: US consumers responded differently than did European consumers and therefore clustered into a somewhat different set of segments. American consumers could be classified into three groups: Fast Food Fiends, Diet Devotees and Pepsi Progressives. The winning and the losing elements for each segment within America can be shown in Table 8. The information regarding the demographics and purchasing behaviors of US respondents appears in Table 9.

Fast Food Fiends: These consumers purchase colas for consumption away from home. Specifically, they prefer to consume colas in fast food restaurants as an accompaniment to burgers and fries. These consumers do not appear to exhibit a preference for a particular cola brand. They do not respond to diet cola options and they are not interested in health claims that might be associated with colas (i.e., organic). They tend to drink cola everyday and they are wealthier than the other consumer segments. This cluster constitutes the largest consumer segment in the United States.

Diet Devotees: This segment comprises females between 30–60 years old. They drink cola 4–6 times per week at lunchtime, with friends or family members. They most prefer diet cola from Coca-Cola, because they enjoy the taste, it quenches their thirst and it only has one calorie. They do not respond to brand names of colas from other companies, including Dr. Pepper, Pepsi, or A&W.

Pepsi Progressives: This segment come from an urban background. They are less wealthy than the other consumer segments. They are very interested in having a unique style and in being an individual. They seek things that are new and exciting. Pepsi Progressives would be willing to try new things; therefore they would be drawn to interesting line extensions and trendy concepts. They would be turned off from products they thought to be traditional and mainstream.

Conclusions

In general, cola consumers have very strong expectations about the flavor, aroma, mouthfeel and appearance of cola. This may be because cola consumers have a long history with the product, they tend to consume it frequently and they view it as a staple in their diets. They have built a relationship with their favorite cola brand and they feel that they can trust their cola to be consistent from can to can. However, the specific needs and preferences of cola consumers vary, depending on geographical location. The results from this study illustrated that the needs and the preferences of American cola consumers are very different from those of European cola consumers. In general, Americans and Europeans are all very dependent on brand name, in the selection of cola products. However, Americans are also very interested cola formulation and image. Furthermore, their beverage selections are based on the location of their meal (away-from-home vs. at-home eating) and the availability of cola variety in the restaurants that they frequent. In comparison, Europeans mainly base their cola selection of cola formulation (sugar sweetened vs. artificially sweetened colas).

Brand Name / Image: In America and in Europe, Coca-Cola and Pepsi-Cola are the two major cola players. Private label does have a small share in the business, but all other companies have very small, insignificant shares of the global cola market.

Americans in the Fast Food Fiend category are not as brand dependent as other consumer segments. This is because they consume their colas away-from-home in fast food restaurants. Therefore, they consume whatever cola is available in those restaurants. They cannot choose a brand, because fast food restaurant chains do not allow for that kind of variety. American Diet Devotees are more brand conscious than Fast Food Fiends. They prefer Coca-Cola to any other cola brand, however they would prefer to drink colas from competitors, than to drink sugar-sweetened soft drinks. Pepsi Progressives are extremely brand loyal consumers. They constitute a small but significant group of people (23% of US respondents) who consume Pepsi products that are new, exciting and trendy. They want a cola that shows individuality, because they think of themselves as individuals. They do not feel like Coke reaches them with their more mainstream advertising campaigns and with their 'safe', 'classic' line extensions like Vanilla Coke. They need more outrageous flavors and colors of cola like Mountain Dew Code Red and Pepsi Blue that defies the norms of what cola is supposed to look and taste like.

Europeans are a very brand loyal group. Coke Classics comprise 65% of the French population, 45% of the German population and 30% of the UK population. Together, this signifies a very significant group within Europe. Perhaps this popularity can be attributed to the image that Coca-Cola has established in Europe, as a symbol of American culture and freedoms. It defines the opportunity and the 'Hollywood' image that people perceive as being truly American. Therefore, consumption of Coca-Cola allows people to connect and to interact with American culture from across the globe and it has provided that brand with a large amount of significance and international popularity. Pepsi-Cola and other cola competitors have not managed to obtain the same level of international recognition. Diet Devotees and Sweet Sippers are not as brand dependent as coke Classics; however, they also prefer the concept elements containing the Coca-Cola brand name, to any other brand provided.

Consumption Location: In America, the location of cola consumption is a major factor involved in cola selection. Fast Food Fiends consume colas away-from-home in a fast food restaurant setting. The size of this group (58% of the US respondents) reflects the fact that Americans consume a large quantity of their meals outside the home in a quick, convenient, fast food restaurant. It also shows the importance that Americans place on the convenience, the portability and the consistent quality of their foods and drinks. Furthermore, it shows the necessity of availability. Consumers will drink whatever brand of cola is available at the Fast Food chain that they frequent. Companies whose cola products are not present in these chains lose these purchases. In Europe, location of cola purchase is not as significant in beverage selection.

Cola Formulation: It is not surprising that Europeans and Americans both have consumer segments that prefer the ingredient formulation of Diet cola products. Dieting is a global phenomenon that has caused consumers to demand more 'healthy' versions of food staples (e.g. fat spreads, soft drinks, dairy products, cereals) that taste good. Cola companies have been very successful over the past few decades, with their introductions of diet colas. Diet Devotee consumers develop an affinity to them and find difficulty in switching back to the sugar sweetened formulations. Diet-conscious females are the primary consumers of diet Cola in America and Cola Light in Europe.

In Europe, Sweet Sippers are another significant classification of cola consumers. Sweet Sippers select their colas based on the ingredient formulation and they seek out colas that are sweetened with sugar, rather than artificial sweeteners. Sweet Sippers favor products made by Coca-Cola, however they would prefer to consume a competitive brand of cola to an artificially sweetened Coke product.

Brand Quality and Performance: Large, multi-national cola companies have an interesting challenge. They have spent decades educating consumers about their brands and their products, therefore, consumers across the globe have a high degree of brand recognition. Further advertising and promotion serve as good reminders to consumers and generate news about new line extensions, however they do not necessarily reach consumer demographics who have not heard of cola and who do not currently consume the product. Therefore, cola companies use advertising and promotion as a means to maintain their current consumer base and in an attempt to convert cola consumers who are loyal to competitor brands.

To maintain their current consumer base, cola companies work hard to create line extensions that will cater to the needs and desires of their consumer base. They also ensure that their products are available in every retail location and that they are convenient and portable for the convenient to use and to dispose of. Finally, cola companies guarantee that their products are safe and consistent at each purchase. Cola companies cannot afford to make any quality errors that might alienate consumers, tarnish their brand name and provide an edge for the competitor to attract new, loyal consumers.

To convert consumers who are loyal to competitive brands, cola companies spend millions of dollars on advertising and promotions. They sponsor sporting events and music concerts that have high attendance and visibility. They place their products in movies, so consumers will subconsciously recognize and desire their products. They place vending machines in schools, work places and retail locations for convenience and accessibility and they provide sampling occasions and taste tests in malls, zoos and amusement parks, hoping that consumers will prefer the taste of their cola brand. With a plethora of innovative techniques, cola companies create consumer awareness and they generate excitement about their brand and their products, in an attempt to gain global recognition and to persuade consumers to use and to seek out their products.

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