

Effect of Advertisement on Purchasing Energy Drink in Dhaka City of Bangladesh

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Abstract

Public announcement intended to promote the sale, purchase or rental of a product or service to advance a cause or idea or to bring about some other effect desired by the advertiser, for which transmission time has been given to the advertiser for remuneration or similar consideration. The consumer durables usually calls for a greater exchange and hence the consumer decision-making process turns into a comparative critical evaluation method before the purchase is made; the first moving consumers good (FMCG) do not follow the same procedure in reaching at the purchase decision. Failure to address the advertising communication tools accordingly is wastage of valuable time, money, effort as well as other resources. For instances, communicating through an ineffective media or otherwise failing to reach the target segment is wastage of resources along with loss of sales as well as other favorable consequences. So that this paper tries to identify the advertisement effectiveness of energy drinks in different media on the buying decision among the peoples of Dhaka in Bangladesh. In order to reach the study objectives convenience/purposive sampling has been employed and sample is selected from different shopping mall of different areas of Dhaka city. The results of this study show that advertisement has great influence in expanding Energy drink Company. So producer should spend huge amount of money in advertisement and also should prepare the advertisement in such way that people of all classes are attracted of that advertisement and the most effective media is TV.

Keywords: Energy Drink, Advertisement, Dhaka City, Bangladesh

1. Introduction

Advertising is a form of communication intended to persuade an audience (viewers, readers or listeners) to purchase or take some action upon products, ideas, or services. It includes the name of a product or service and how that product or service could benefit the consumer, to persuade a target market to purchase or to consume that particular brand. These messages are usually paid for by sponsors and viewed via various media. Advertising can also serve to communicate an idea to a large number of people in an attempt to convince them to take a certain action (<http://en.wikipedia.org/wiki/Advertising>). Public announcement intended to promote the sale, purchase or rental of a product or service to advance a cause or idea or to bring about some other effect desired by the advertiser, for which transmission time has been given to the advertiser for remuneration or similar consideration. Advertising is the promotion of goods, services, companies and ideas, most often through paid messages. Advertising may be the first road we think of when we want to carry a message to our targeted group. For many business people, however, advertising is the only road they think of. Advertising is the most visible and best-understood format in marketing. It also one of the two most used formats-particularly by small and midsized business (and, of course, by advertising agencies). Now, with the trend of industrialization of the society, energy drinks are becoming a part of the daily life. Energy drinks are soft drinks advertised as providing energy to improve physical activities of the drinker, as compared to typical drink. Rather than providing food energy (as measured in calories), these drinks are designed to increase a user's mental alertness and physical performance by the addition of caffeine, vitamins and herbal supplements which may interact to provide a stimulant effect over and above that obtained from caffeine alone. The aim of this paper is to assess the effect of advertisement of energy drink on TV or other media to buy the energy drink among the peoples of Dhaka city in Bangladesh. This paper investigates some demographic characteristics of the respondents considered in this study. This paper also finds the association between advertisement effect on convincing to buy the energy drink and age, sex, etc of the respondents.

2. Literature Review

Soft and energy drink consumption has exploded over the past three decades (Nielsen SJ, Popkin BM, 2004). Sugar sweetened energy drinks became a major source of added sugar in the American diet and have been linked to adverse nutritional and health consequences such as dental caries and obesity (Heller KE, Burt BA, Eklund SA, 2001). Energy drinks became popular in Asia long before they reached the United States. In 1962, the Japanese pharmaceutical company, Taisho, released its Lipovitan D drink. It was designed to help employees to work hard well into the night hours. An Austrian businessman, Dietrich Mateschitz picked up on the business potential of energy drinks while on a trip to Asia. Along with two Thai business partners, Mateschitz started the company Red Bull GmbH, with the idea of marketing the drink to young Europeans (Michael J. González, et al., 2012). Miller (2008) has indicated that those drinks contain caffeine, taurine, vitamins, and usually sugar. More than 500 new energy drinks were launched worldwide in 2006 and beverage companies are reaping the financial rewards of the 5.7 billion dollar energy drink industry (Boyle M, Castillo VD, 2006). Energy drinks typically contain 80 to 141 mg of caffeine per 8 ounces, the equivalent of five ounces of coffee or two 12 ounce cans of caffeinated soft drink such as Mountain Dew, Coca Cola, Pepsi Cola or Dr. Pepper (Pronsky ZM, 1997).

Energy drinks are marketed to young adults and marketing efforts may be particularly appealing among college students. For example, Cocaine energy drink, with a Cut Cocaine variety, has been marketed as a "legal alternative" to the class A drug (Cruse AE, 2007). Energy drinks have the capacity to mask intoxicated feelings that allows increased alcohol consumption, which in turn increases the likelihood that a young drinker will make the kind of choices that have negative, if not disastrous, results (Fornicola, 2007). Evidence suggests that energy drink consumption with and without alcohol remains on the increase, so educating on all aspects of energy drink consumption needs to become a priority, to ensure both wellness and safety (Marczinski, et al., 2012; O'Brien, et al., 2008). All of the popular energy drinks in the market have different variations of caffeine, and most of these drinks are not considered healthy for the human body. Most of these energy drinks should be watched carefully due to the unbalanced ingredients, especially sugar and caffeine in their compositions (Miller, 2008). Most energy drinks also stimulate and trigger reactions that can increase blood pressure, heart rate or alter glycemic levels. These can often prevent normal sleep cycles and dehydrate the body. Often times, the main reason why people turn to energy drinks is to obtain energy to perform school assignments, work outs tiredness or to finish job responsibilities. General public should not use energy drinks while exercising as the combination of all the stimulants and other ingredients in energy drinks can result in a loss of fluid from sweating, and cause severe dehydration and serious health problems (Scholey & Kennedy, 2004).

A variety of physiological and psychological effects have been attributed to energy drinks and their ingredients. Two studies reported significant improvements in mental and cognitive performances as well as increased subjective alertness. Excess consumption of energy drinks may induce mild to moderate euphoria primarily caused by stimulant properties of caffeine and may also induce agitation, anxiety, irritability and insomnia (Alford, C., Cox, H., Wescott, R., 2001, and Van Den Eynde, F., Van Baelen, P. C., Portzky, M., Audenaert, K., 2008). During repeated cycling tests in young healthy adults an energy drink significantly increased upper body muscle endurance (Forbes, S. C., Candow, D. G., Little, J. P., Magnus, C., Chilibeck, P. D., 2007). It has been suggested that reversal of caffeine withdrawal is a major component of the effects of caffeine on mood and performance (Yeomans, M. R., Ripley, T., Davies, L. H., Rusted, J. M., Rogers, P. J., 2002). Babu, K.M., James, R.C. and Lewander, W. (2008) identifies the major ingredients of energy drinks, and discusses the pharmacology and toxicology of caffeine. They suggest that, Clinicians should screen for energy drink use among their patients. Screening can identify symptoms related to toxicity and give patients greater understanding of the risks of high-dose and long-term energy drink use. When caffeine toxicity is suspected, immediate consultation with a regional poison control center or toxicologist is recommended. Brenda M Malinauskas, et al., (2007) determine energy drink consumption patterns among college students, prevalence and frequency of energy drink use for six situations, namely for insufficient sleep, to increase energy (in general), while studying, driving long periods of time, drinking with alcohol while partying, and to treat a hangover, and prevalence of adverse side effects and energy drink use dose effects among college energy drink users. They found that, the majority of users consumed energy drinks for insufficient sleep (67%), to increase energy (65%), and to drink with alcohol while partying (54%). The majority of users consumed one energy drink to treat most situations although using three or more was a common practice to drink with alcohol while partying (49%). Weekly jolt and crash episodes were experienced by 29% of users, 22% reported ever having headaches, and 19% heart palpitations from consuming energy drinks.

Advertisement of energy drink market was not diverse at the beginning. In the United States, energy drinks market was aimed primarily at athletes indicating that energy drink market was directed to specific groups. Recently the energy drinks market expanded and aimed at young adults between 18 to 34 years due to the "go

lifestyle” and receptiveness to advertisements to this kind of products (Lal, 2007). The marketing and branding of energy drink indicates the markets in which energy drink companies are targeting. In the advertisement of energy drinks, they have been marketed claims of performance enhancing effect like Red Bull states that on consuming the product it will help to enhanced performance, concentration, reaction speed, and also to boost metabolism (Red Bull Website, 2008) where consumers are made to believe to drink more to get the stated desires. Others namely Full Throttle, AMP Energy and Cocaine advertise that drinking these products enhance performance and consumers are made to believe to consume more to become better at their performance (Reissig et al. 2009). Besides most energy drinks companies use cross promotional tactics by combining their products with sport events such as the X games or NASCAR and advertising their products in connection with popular music icons. In addition, deliberate defiant names are given to draw the attention of consumers for example Full Throttle, Ammo, Havoc, Hydrive and Morning Spark (Heckman et al., 2010). In addition to this, new alcoholic energy drinks with resembling cans to their nonalcoholic counterparts target risk taking youth. Some energy drink products labeled that they may not be safe for children who are caffeine intolerant, pregnant women or nursing women (Seifert et al., 2011). Other energy drinks advertise the unique qualities that make them different from the rest as being natural, organic, gluten-free or as suitable for diabetics or vegetarian. Energy drink industry has proved to be extremely successful and more innovative products can only be expected in the near future (Heckman et al., 2010).

2.1 Advertising Media

Modern advertising developed with the rise of mass production in the late 19th and early 20th centuries. Mass media can be defined as any media meant to reach a mass amount of people. Different types of media can be used to deliver these messages, including traditional media such as newspapers, magazines, television, radio, outdoor or direct mail; or new media such as websites and text messages (<http://en.wikipedia.org/wiki/Advertising>). Some commercial advertising media include: billboards, printed flyers, radio, cinema and television ads, web banners, skywriting, bus stop benches, magazines, newspapers, town criers, sides of buses, taxi cab doors, elastic bands on disposable diapers, the opening section of streaming audio and video, and the backs of event tickets. Any place an "identified" sponsor pays to deliver their message through a medium is advertising. Covert advertising embedded in other entertainment media is known as product placement. The TV commercial is generally considered the most effective mass-market advertising format and this is reflected by the high prices TV networks charge for commercial airtime during popular TV events. Advertising on the World Wide Web is a recent phenomenon. Prices of Web-based advertising space are dependent on the "relevance" of the surrounding Web content. E-mail advertising is another recent phenomenon. Unsolicited E-mail advertising is known as "spam". (Source: www.google.com). A recent advertising innovation is "guerrilla marketing", which involve unusual approaches such as staged encounters in public places, giveaways of products such as cars that are covered with brand messages, and interactive advertising where the viewer can respond to become part of the advertising message. Guerrilla advertising is becoming increasing more popular with a lot of companies. This type of advertising is unpredictable and innovative, which causes consumers to buy the product or idea. This reflects an increasing trend of interactive and "embedded" ads, such as via product placement, having consumers vote through text messages, and various innovations utilizing social network services such as Facebook (<http://en.wikipedia.org/wiki/Advertising>).

2.2 Kinds of Advertising

Virtually any medium can be used for advertising. Commercial advertising media can include wall paintings, billboards, street furniture components, printed flyers and rack cards, radio, cinema and television adverts, web banners, mobile telephone screens, shopping carts, web popups, skywriting, bus stop benches, human billboards, magazines, newspapers, town criers, sides of buses, banners attached to or sides of airplanes ("logojets"), in-flight advertisements on seatback tray tables or overhead storage bins, taxicab doors, roof mounts and passenger screens, musical stage shows, subway platforms and trains, elastic bands on disposable diapers, doors of bathroom stalls, stickers on apples in supermarkets, shopping cart handles (grabertising), the opening section of streaming audio and video, posters, and the backs of event tickets and supermarket receipts (<http://en.wikipedia.org/wiki/Advertising>). Advertising is not a waste of money if it is on the right path to reach the right people, and when it gets there the information is what they want or need. According to John P. Graham that there are four major reasons that advertising fails:

1. it is used in the wrong media
2. it is used to accomplish the wrong goals(s)
3. it sends the wrong message
4. its users have the wrong expectation

Research International (Research International), has been “building a body of knowledge about all aspects of market research”, and some of what they’ve found appeared in an advertisement in advertising age in April 1995.

First, Research International answers the questions, is advertising likeability the best predictor of sales? Research International refutes a major study by saying:

It isn't necessarily so. Many consumers who told us they "loved the advertising" didn't buy the product. Rules of thumb: For standard package goods items, consumers have to like the advertising-as well as the product ... and its packaging and price. On the other hand, for "big ticket" items, advertising that rub people the wrong way might cause them to think more seriously about ... it can pay to stir people up.

Second, Research International states that, some advertising "communicates" so much to prospects, it leaves their heads spanning.... It's been gospel that the more benefits you join into a commercial, the more persuasive it will be. We disagree some of the commercials, which do well in "communications" testing turn out to be least effective in the market place. Where do you want to be most effective? Third, Research International says that, unless you have a remarkable news story to tell, target your advertising toward users, not non-users: There's a going body of evidence that the best advertising doesn't persuade a consumer to buy something she's not buying; instead, it helps to solidify her good opinion of a product or service she already uses. And finally, Research International presents the most convincing reason for jumping on the new tech advertiser and consumer. When the viewers talk back to the commercial, you might have made a friend. It's not bad when a prospect argues with you, for you've got her actively thinking about you. Our research shows that even though people might play back the main copy points of your message, you won't make the sale until you have got them debating what you said. It's this kind of "processing" that can turn any enemy into any all. Advertising is influencing consumer attitudes and purchase behaviors in a variety of interlinked ways. An ad exposure can increase brand similarity, communicate brand attributes and benefits, develop an image and personality for the brand, associate specific feelings with the brand, link the brand to reference groups such as peers and experts and directly induce action.

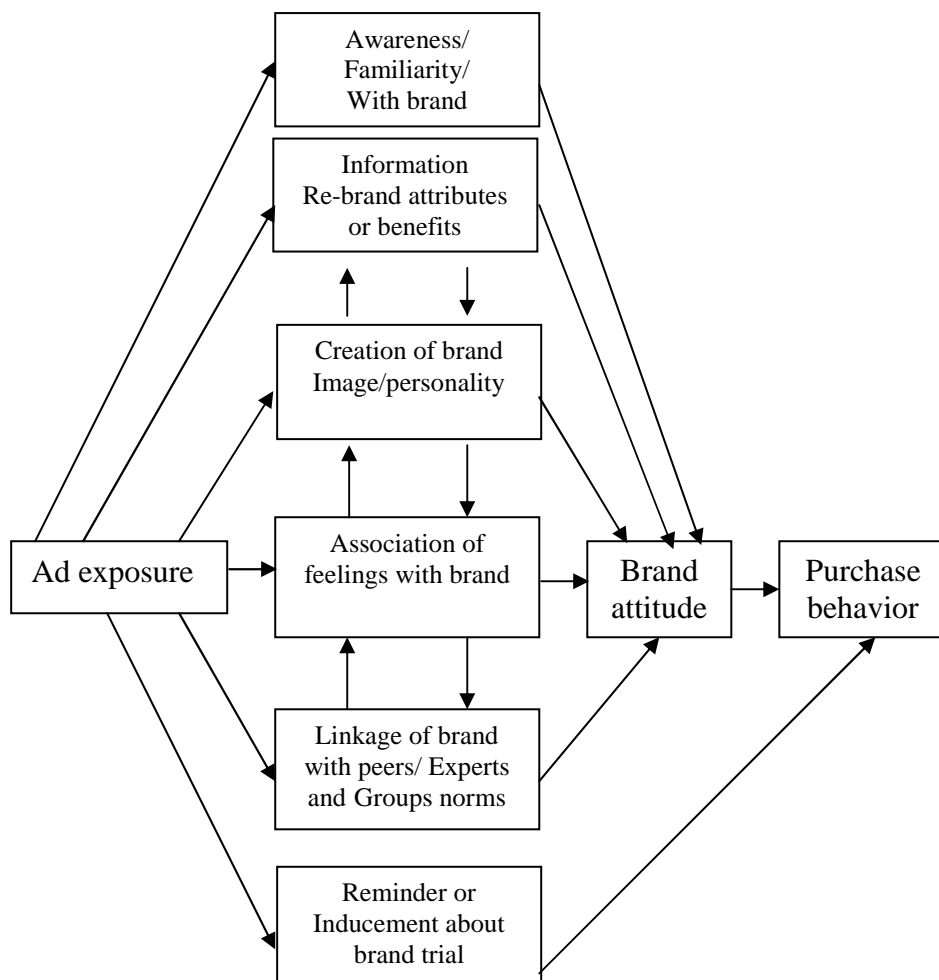


Figure 1: Interlinked ways of Advertising influence of consumer attitudes and purchase behaviors.

2.3 Objectives of Advertising

Hierarchy of effects model clarifies the objectives of an advertising campaign and for each individual

advertisement (Clow, Kenneth E., Baack, Donald, 2007), pp-165-171). The model suggests that there are six steps a consumer or a business buyer moves through when making a purchase. The steps are:

1. Awareness
2. Knowledge
3. Liking
4. Preference
5. Conviction
6. The actual purchase

Advertising ultimately seeks to establish what is called "mind share". Mind share is the status a brand can achieve when it co-exists with deeper, more empirical categories of objects. Kleenex, for example, can distinguish itself as a *type* of tissue. But, because it has gained mind share amongst consumers, it is frequently used as a term to identify *any* tissue, even if it is from an opposing brand. One of the most successful firms to have achieved this is Hoover (as mentioned above) whose name was for a very long time synonymous with vacuum cleaner (and Dyson has subsequently managed to achieve similar status, having moved into the Hoover market with a more sophisticated model of vacuum cleaner). Mind share can be established to a greater or lesser degree depending on product and market. Other objectives include short or long term increases in sales, market share, awareness, product information, and image improvement.

2.4 Backgrounds of Energy Drinks

After the independence of our country many new industries were developed to make the different types of product available for our people. Beverage industry is one of them whose existence came just after the independence. Beverage is still considered as a fashionable drink in this country. However with the trend of industrialization of the society, energy drinks are becoming a part of the daily life. Energy drinks are soft drinks advertised as providing energy to improve physical activities of the drinker, as compared to typical drink. Rather than providing food energy (as measured in calories), these drinks are designed to increase a user's mental alertness and physical performance by the addition of caffeine, vitamins and herbal supplements which may interact to provide a stimulant effect over and above that obtained from caffeine alone. Energy drinks are sometimes mixed with alcohol. Where energy drinks are stimulants, alcohol is a depressant. The mix can be particularly hazardous as energy drinks can mask the influence of alcohol and a person can fail to take its effects into consideration. Normally fatigue would set in as large amounts of alcohol are being consumed, but the stimulating effect of energy drinks can override this effect. Here is a list of the most common ingredients found in Energy Drinks.

- 1) **Caffeine** - It is probably the most common ingredient in energy drinks, as it acts as a stimulant. It is the main ingredient in common sodas such as Pepsi, Coke, Mountain Dew and coffee refreshments (Desbrow & Leveritt, 2007; Caffeine: Watch out for "energy drinks", 2008). There is a very high content of caffeine in energy drinks. Most energy drinks contain around 100-200 mg of caffeine.
- 2) **Taurine** - Taurine is a free form amino acid contained in foods and manufactured in the body from the amino acid cysteine. It is supposed to help energy levels throughout the body. Taurine could possibly help with stress levels as well. Because taurine is utilized by the body during exercise and in times of stress, it's become a popular ingredient in energy drinks. But taurine has a stimulating effect on the central nervous system that's very unnatural. Studies have implicated synthetic taurine in illnesses ranging from high blood pressure to strokes and seizures to heart disease (Reissig, 2009). For these reasons it's been banned in some Scandinavian countries, after being linked to the deaths of three consumers.
- 3) **Guarana** - It is derived from South America in plant and is supposed to increase awareness and energy levels. Its effects can be compared to caffeine. (Ferreira, De Mello, Pompéia, & Oliveira de Souza-Formigoni, 2006).
- 4) **B Vitamins** - B Vitamins are co- factors of many enzymes involved in the generation of energy. (Ferreira, et al., 2006).
- 5) **Ginseng** - A herb that is known to increase energy levels and alleviate stress (Ferreira, et al., 2006).
- 6) **Ginkgo Biloba** - Along with ginseng, this is another herb with neurological effects. It is supposed to help memory concentration by increasing blood circulation. (Ferreira, et al., 2006).
- 7) **L-Carnitine** - Is an amino acid like substance and is supposed to help with your metabolism and energy levels. It speeds up your metabolism and increases energy levels. It is supposed to give you endurance as well (Agriculture and Agri-Food Canada, 2008).
- 8) **Sugars** - They are the body's main fuel but too much of it can get you hyperactive and energy drinks are loaded with them. They may also disrupt metabolic balance. (Brenner & Swanik, 2007).
- 9) **Antioxidants** - Molecules that inhibit the free radicals damaging species in your body (Higgins, Tuttle & Higgins, 2010).

Other less common compounds are Glucuronolactone, Beta-Phenylethylamine HCl, Evodiamine, Yohimbine

HCL that may also have neurological effects (Chawla & Suleman, 2011; Babu, James & Lewander, 2008).

3. Methodology

This is a field study research which has been made on the basis of a survey. A well structured questionnaire has been developed after an intensive review of the literature and practical experience. The target population of the study is the customer of different shopping mall of different areas in Dhaka city. The sample unit of this study is the individual customer of different shopping mall of different areas in Dhaka city. The sample size is 270 consisting males and females.

If the most important variable is qualitative and the related parameter of contrast is p , then sample size can be

$$\text{determined as, } n = \frac{pqz^2}{E^2} \quad (1)$$

In favor of the study, (1) has been used to determine the sample size. Because our main variable, advertisement effect on convincing to buy the product, is either yes or not. Now we use, $Z = 1.96$ at 5% level of significance, $p = 0.5$, for results in maximum sample size and $E = 0.06$, is the maximum allowable error.

$$n = \frac{(1.96)^2 \times 0.5(1-0.5)}{(0.06)^2} \approx 267$$

For convenience we use 270 samples instead of 267. Non-probability convenience/purposive sampling procedure have been used. Primary data has been collected through a questionnaire survey, the time period of which is around four months at the mid of the year 2013. The sample individuals were interviewed face to face through a well structured questionnaire to gather the required informations. The questionnaire contained two parts - part I pertained to general demographic variables of the respondents like age, gender, income, marital status, education. Part II contained the questions related to advertisements and energy drinks. Regarding the secondary data, due acknowledgements of the exact sources have been mentioned in the reference part of the study. The collected data were analyzed by using IBM SPSS V 20.

4. Results and Discussion

Summary of individual variables provide an important "first look" at the data. Measuring impact and or developing a model, we must have some knowledge or ideas of descriptive statistics (univariate or bivariate).

Table 1. *Distribution of respondents according to socio-economic characteristics*

Sex of the respondent	Frequency	Percent	Age of the respondents	Frequency	Percent
Male	197	73.0	less than 20	61	22.6
Female	73	27.0	20-30	193	71.5
Total	270	100.0	30-40	10	3.7
Religion of the Respondents			40 and above	6	2.3
Muslim	254	94.1	Total	270	100.0
Hindu	14	5.2			
Buddhists	2	0.7			
Total	270	100.0			
Respondent's occupation			Educational attainment		
Teaching	5	1.9	Primary	3	1.1
Business	24	8.9	SSC	4	1.5
Govt. service/NGO	25	9.3	HSC	184	68.1
Student	207	76.7	Graduate	59	21.9
Unemployed/Others	9	3.4	Post- graduate	20	7.4
Total	270	100.0	Total	270	100.0

Table 1, indicate that 197 (73%) respondents are male and 73 (27%) respondents are female. It is also observed that among the respondents within the age range of 20-30 years were highest in number 193 (71.5%). Only 6 (2.3%) of them were with the age range of 40 years and above. It also reports that 61 (22.6%) respondents have less than 20 years. Table 1 reports that 254 (94.1%), 14 (5.2%) and 2 (0.7%) respondents are Muslim, Hindus and Buddhist, respectively. Table 1 also revealed that 184 (68.1%) of the respondents had attended Higher Secondary school. Further analysis of Table 1 reveals that among 270 respondents 59 respondents have complete

Graduation degree and 20 respondents have post graduation degree which indicates that most of the respondents are educated. Only 2.6% of the respondents have Secondary school and primary education. The maximum 207 (76.7%) respondents were students and 24 respondents doing different types of their own business. Table 1 also revealed that 30 (11.2%) respondents are in government and private service of different position and some of the respondents are unemployed.

Table 2. Frequency Distribution of the respondents on different issue regarding energy drinks

Like energy drinks	Frequency	Percent	Brand name of Energy drinks liked by the respondents	Frequency	Percent
Yes	234	86.7	Tiger	92	39.32
No	36	13.3	Sumo	6	2.56
Total	270	100.0	Royel	8	3.42
Reason of drink energy drinks			Shark	28	11.97
Hobby	37	15.81	Big Boss	26	11.11
Refreshment	138	58.97	Speed	28	11.97
Increasing energy	49	20.94	Crown	15	6.41
Others	10	4.27	Blue Level	31	13.25
Total	234	100.0	Total	234	100.0
Is there advertisement effect on convincing to buy energy drink?			Name most influenced media to buy energy drink		
Yes	195	72.2	TV	155	79.49
No	75	27.8	Newspaper	32	16.41
Total	270	100.0	Radio	8	4.10
			Total	195	100.0
Family support to drink energy drink			Know the ingredients of energy drink or not		
Yes	94	34.8	Yes	68	25.2
No	176	65.2	No	202	74.8
Total	270	100.0	Total	270	100.0
			Liking point of advertisement		
			Song	89	33.0
How much advertisements was effective to convince to buy energy drink			Model	67	24.8
Very much	59	21.85	Trademark	36	13.3
Moderately	136	50.37	Slogan/Sound effect	50	18.5
Indifferently	75	27.78	Background	28	10.4
Total	270	100.0	Total	270	100.0

Table 2 reports that 234 (86.7%) respondents like energy drink and 36 (13.3%) respondents do not like energy drink among the respondents interviewed for this study. Table 2, reports that maximum 92 (39.32%) respondents drink Tiger and minimum 6 (2.56) respondents drink Sumo energy drink, respectively. Among the respondents,

138 (58.97%) respondents drink energy drink just for refreshment and 49 (20.94%) respondent believe that energy drink increase energy so they drink energy drink to increase energy. Also 37 (15.81%) respondents drink energy drink just for hobby and 10 (4.27%) respondents drink energy drink for other reasons. Table 2 indicate that 195 (72.2%) respondents think that there is an effect of advertisement on the decision to purchase energy drink and 75 (27.8%) respondents think that there is no effect of advertisement on the decision to purchase energy drink among the total number of respondents. Among the respondents who is motivated by the advertisements of energy drink maximum 155 (79.49%) respondents is influenced to buy energy drink by TV advertisements and minimum 8 (4.1%) respondents is influenced to buy energy drink by Radio advertisements [Table 2]. Among the respondents, 176 (65.2%) respondents have no permission to drink energy drink from their family i.e., their family don't support to drink energy drink. Also 202 (74.8%) respondents don't know the ingredients of energy drink i.e., they are not conscious about ingredients of energy drink. Table 2 also indicate that 59 (21.85%) respondents very much affected by the advertisements of energy drinks to buy the energy drinks and 136 (50.37%) respondents moderately motivated by the advertisements of energy drinks. Also 75 respondents reports that they are not affected by the advertisements to buy energy drinks. Among the respondents of this study, 33% respondents says that they like song used in the advertisements of energy drinks and 24.8% respondents like the model used in the advertisements of energy drinks. Some of the respondent like slogan/sound and some of them like background that used in the advertisements of energy drinks.

4.1 Cross-Classified Analysis

In cross-classified analysis we may be interested in finding out if there is any relation between two variables. Here most of the variables are qualitative (nominal and ordinal) we are working with. So, we use measure of association to measure the strength of relationship. On the basis of the cross tabulation we test the hypothesis whether there exist any significant association between two (or more) variables or not. In this research we are interested in measuring advertisement effect on convincing to buy the energy drink and with it's related other variables such as Sex, Age, Monthly income, Who/which media influenced to buy for first time. That is, our main variables are Advertisement effect on convincing to buy the energy drink.

4.1.1 Advertisement effect on convincing to buy the energy drink by Sex of the respondents

From the results given in Table 3, we observe significance of chi-square statistic is less than 0.05, which implies that the relationship between Sex of the respondent and Advertisement effect on convincing to buy the energy drinks are statistically significant. Also observe that the significance values of Phi, Cramer's V and Contingency Coefficient are less than 0.05 indicating a statistically significant relationship between advertisement effect on convincing to buy the energy drink and age of the respondents.

Table 3. Distribution of Advertisement effect on convincing to buy the energy drink by Sex of the respondents.

Sex of the respondent	Advertisement effect on convincing to buy the energy drink			Total	Statistic	P value (2-sided)
	Yes	No	Not Applicable			
Male	103 (38.1%)	44 (16.3%)	50 (18.5%)	197 (73.0%)	Pearson Chi-Square = 6.239 Phi = 0.152	0.044
Female	41 (15.2%)	7 (2.6%)	25 (9.3%)	73 (27.0%)		
Total	144 (53.3%)	51 (18.9%)	75 (27.8%)	270 (100%)	Cramer's V = 0.152 Contingency Coefficient = 0.15	0.044

4.1.2 Advertisement effect on convincing to buy the energy drink by Age of the respondents

Table 4. Distribution of Advertisement effect on convincing to buy the energy drink by Age of the respondents.

Age of the respondent	Advertisement effect on convincing to buy the energy drink			Total	Statistic	P value (2-sided)
	Yes	No	Not Applicable			
Less than 15	3 (1.1%)	0 (.0%)	4 (1.5%)	7 (2.6%)	Pearson Chi-Square = 16.43 Phi = 0.247	0.037
15-25	123 (45.6%)	40 (14.8%)	54 (20.0%)	217 (80.4%)		
25-35	17 (6.3%)	10 (3.7%)	11 (4.1%)	38 (14.1%)	Cramer's V = 0.174 Contingency Coefficient = 0.24	0.037
35 and above	1 (.4%)	1 (.4%)	6 (2.2%)	8 (3.0%)		
Total	144 (53.3%)	51 (18.9%)	75 (27.8%)	270 (100%)		

From the above result we observe significance of chi-square statistic is less than 0.05, which implies that the relationship between Age of the respondent and Advertisement effect on convincing to buy the energy drinks are statistically significant. Also observe that the significance values of Phi, Cramer's V and Contingency Coefficient are less than 0.05 indicating a statistically significant relationship between advertisement effect on convincing to buy the energy drink and age of the respondents.

4.1.3 Advertisement effect on convincing to buy the energy drink by family income of the respondents

Table 5. Distribution of Advertisement effect on convincing to buy the energy drink by family income of the respondents.

Monthly family income	Advertisement effect on convincing to buy the energy drink			Total	Statistic	P value (2-sided)
	Yes	No	Not Applicable			
Less than 15000	33 (12.2%)	4 (1.5%)	2 (.7%)	39 (14.4%)	Pearson Chi-Square = 41.8 Phi = 0.393	0.0
15000-30000	47 (17.4%)	22 (8.1%)	30 (11.1%)	99 (36.7%)		
30000-45000	17 (6.3%)	1 (.4%)	7 (2.6%)	25 (9.3%)	Cramer's V = 0.278 Contingency Coefficient = 0.366	0.0
45000-60000	25 (9.3%)	23 (8.5%)	19 (7.0%)	67 (24.8%)		
60000 and more	22 (8.1%)	1 (.4%)	17 (6.3%)	40 (14.8%)		
Total	144 (53.3%)	51 (18.9%)	75 (27.8%)	270 (100%)		

From the above result we observe significance of chi-square statistic is less than 0.05, which implies that the relationship between monthly family income of the respondent and Advertisement effect on convincing to buy the energy drinks are statistically significant. Also observe that the significance values of Phi, Cramer's V and Contingency Coefficient are less than 0.05 indicating a statistically significant relationship between advertisement effect on convincing to buy the energy drink and monthly family income of the respondents.

4.1.4 Advertisement effect on convincing to buy the energy drink by the types of media

From the results given in Table 6, we observe significance of chi-square statistic is less than 0.05, which implies that the relationship between monthly family income of the respondent and Advertisement effect on convincing to buy the energy drinks are statistically significant. Also observe that the significance values of Phi, Cramer's V and Contingency Coefficient are less than 0.05 indicating a statistically significant relationship between advertisement effect on convincing to buy the energy drink and monthly family income of the respondents.

Table 6. Distribution of Advertisement effect on convincing to buy the energy drink by family income of the respondents.

Influenced media to buy energy drink	Advertisement effect on convincing to buy the energy drink			Total	Statistic	P value (2-sided)
	Yes	No	Not Applicable			
TV	128 (47.4%)	27 (10.0%)	0 (.0%)	155 (57.4%)	Pearson Chi-Square = 314.95 Phi = 1.08	0.00
Newspaper	11 (4.1%)	21 (7.8%)	0 (.0%)	32 (11.9%)		
Radio	5 (1.9%)	3 (1.1%)	0 (.0%)	8 (3.0%)	Cramer's V = 0.764	0.00
Not Applicable	0 (.0%)	0 (.0%)	75 (27.8%)	75 (27.8%)	Contingency Coefficient = 0.734	0.00
Total	144 (53.3%)	51 (18.9%)	75 (27.8%)	270 (100%)		

5. Conclusion

Consumers should be communicated constantly in different approaches through innovative fashion to remain on their mind while the purchase occurs. Seasonal demand variations need to be matched accordingly with the increased productivity throughout the peak season and with heavy promotion during the winter when sales decline. To move the thoughts of the youth various innovative offers and engagements with the consumers is required. Newspaper quiz, other competitions with intend of involving the mass target segment to build up a sustainable relationship would appear as fruitful effort. In our research we emphasized on the effect of advertising in marketing of energy drink. We use tabulated and graphically represented data and also some statistical tests to establish our research on the topic that advertisement is a very effective tool to increase sales of energy drink and advertisement has a very strong positive relationship with the sales of energy drink. Television is the most effective media for making the consumers aware about the different uses energy drinks. So awareness related information should get importance of television advertisements. But the consumers, who are in the lower income group, do not have television. They do not also read newspaper regularly. So advertisement in radio should be given at a higher frequency. Many consumers have shown their willingness to buy newly marketed energy drinks. So there is a possibility to push new energy drink into the market. To prevent new entry, the existing energy drink marketers should be more efficient and careful. From the above description, we have realized that advertisement has great influence in expanding Energy drink Company. So producer should spend huge amount of many in advertisement and also should prepare the advertisement in such way that people of all classes are attracted of that advertisement and the most effective media is TV.

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