Buyers' Awareness of the Traffic Light Color Coding System Introduced for Packages of Soft Drinks: A study conducted in Kekirawa Town Area

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Abstract

The research study aimed to investigate the Buyers' awareness of the Traffic Light Color Coding System introduced for packages of soft drinks. According to the rises of number of diabetes cases, the Health Ministry of Sri Lanka had introduced Color Coding System for soft drink industry based on the level of sugar content. All soft drinks products have to display colors with red, amber and green according to the sugar level used by various soft drinks manufacturers. This decision has been taken by the government to educate the public and keep up the health consciousness among the citizens of Sri Lanka. This regulation had been introduced to the carbonated beverages, ready-to-serve beverages than milk based products and fruit juices. The main objective of this research is to investigate how far the buyers have the awareness of Traffic Light Color Coding System introduced for packages of soft drinks and whether buyers are concerned about the color to decide the sugar level of soft drinks when making the purchase decision. For this purpose, fifty educated buyers were selected in Kekirawa town area through the purposive sampling method and data were collected among them via personal interview method. In addition to this, the participant's observation has also been made. The qualitative method interpretive analysis was incorporated to derive the results of the study. Findings concluded that few of the buyers had the awareness about the color coding system without knowing its meaning. But most of the buyers only know about the rule without knowing the color coding system and meaning. Findings also showed that buyers consider taste, brand name, price, ingredients, need and wants and quantity level of soft drinks than the meaning of the color coding system. Further buyers are not much concerned about their health consciousness when using soft drinks. This study suggests that a strong marketing campaign is needed to make the buyers aware of this color coding system at everywhere to implement a successful and healthy marketing practice in the country.

Key words: Awareness, Health consciousness, Sugar level, Traffic Light Color Coding System

INTRODUCTION

The growing occurrences of non- communicable diseases are rapidly increasingdue to high sugar levels. In Sri Lankan context, more than 40 percent of people are suffering from diabetes or pre- diabetes still, more than 13 percent of children, some below twelve years are now being

diagnosed as pre diabetes. According to stop the non- communicable diseases in Sri Lanka, The Ministry of health had announced a 'Traffic Light Color Coding System.' This system had introduced three colors in order to demonstrate its sugar level. Red, Amber and Green are used to give an illustration of the meaning: the red colorindicates that high sugar, amber colorindicates the medium sugar level and green is displayed to signify low sugar and sugar free soft drinks with healthiest choices. The implementation of this kind of rule is very important as a step to promoting the buyer health and education. Normally, lower socio-economic groups have lack nutritional knowledge and health literacy. The use of these kinds of symbolic colors and text on the labels provide to identify the nutrition level of soft drinks.

Soft drinks are considered as sugar sweetened carbonated or non- carbonated water based beverages that contain natural or artificial flavoring.The sweeteners which are used for soft drinks may be sugar, high-fructose corn syrup, sugar substitutes or some combination of these.A number of health issues are associated with the consumption of soft drinks.The use of soft drinks with high sugar drinks increases the risk of diabetes, heart disease, and other chronic conditions. Soft drinks soon grow up in every market place as a consumer product.

Traffic Light Color Coding System of soft drink industry in Sri Lanka

According to the rises of the number of diabetes cases, The Health Ministry of Sri Lanka had introduced Color Coding System for the soft drink industry based on the level of sugar content.

Traffic Light Color Coding System for soft drink industry is one of the regulation which was introduced by the Sri Lankan government for all soft drinks products containing sugar to display color codes according to the sugar content percentage used in the various soft drinks manufacturers. Deputy Director of the Food Control Administrative Unit of the Health Ministry, (Herath, 2017) said that bottles with the green coding will have low sugar content. Amber labeled bottles will have medium sugar content and the red label will be placed on drinkscontaining high sugar. Further, it explained that this coding system is based on the standard of World Health Organization. The survey was carried out in Western province had explored that sugar level, particularly among children higher than average. The Information from Director (Thilakaratne, 2017) the Consumer Affairs Authority's explained that among 36 sample, most of them drink high sugar level. As stated by Thilakarathne, the regulation of introducing a color code will be useful for the public to be aware of the sugar content in the drinks they take. According to the Gazette of the Democratic Socialist Republic of Sri Lanka (03 May 2016) gazette notification with effect from 01st of August 2016, all soft drinks will

have mandatory color codes. The purpose of this decision is to educate the public and reduce the sugar amount and control the non- communicable diseases. This regulation had been introduced to the carbonated beverages; Ready to serve beverages other than milk based products, Fruit Nectar and Fruit Juices. In 2016, Minister of the Health said that gazette No 86 of 1980 to introduce a color chart indicating the sugar levels in bottles of soft drink would be implemented from August 01.

Sugar content for the Color Coding:

Column 1 (Sugar content) (per 100 ml of drink)	**Column 2** Relative Sugar Level	**Column 3** Colour Code
More than 11 gram	High sugar	Red
2 grams to 11 gram	Medium sugar	Amber
Less than 2 gram	Low sugar	Green

Table 1: Sugar content for the Color Coding (Source: Gazette of the Democratic Socialist Republic of Sri Lanka: 03 May 2016)

Further, the gazette had mentioned how thecolor code should be displayed on the package of soft drink bottles. According to the regulation, the diameter of the inner circle in the logo should be shown specifies the color relating to particular sugar level, shall not be less than 1 cm. The description shall comprise font size with the minimum height of 1.5mm and shall be legible and the description of the sugar level shall be indicated as high sugar, medium sugar or low sugar in all three languages.

Logo:

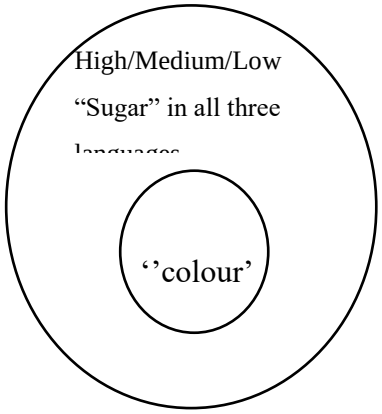

Figure 1: Logo

(Source: Gazette of the Democratic Socialist Republic of Sri Lanka: 03 May 2016)

It is clear that the use of these kinds of color coding for soft drinks industry is effective to Sri Lanka as a developing county to avoid the health risk by increasing the literacy of health among public. However, when considering about these issues, the buyers not much aware about the Traffic Light Color Coding System of the soft drinks. Thilakaratne, (2017), Director of the Consumer Affairs Authority explained that the regulation of introducing a color code will be useful for the public to be aware of the sugar content in the drinks they take. A challenging problem which arises in this domain is the lack of awareness of the Traffic Light Color Coding System of soft drinks. On the other hand, as per the knowledge of the authors, no previous studies have investigated to identify the buyer's awareness of Traffic Light ColorCoding System introduced for packages of soft drinks among Sri Lankan buyers. Therefore, the present study ia an attempt to bridge the research gap in this area.

Objectives of the Study

Based on the research gap, this study aimed to achieve the following objectives.

- To investigate how far the buyers have the awareness of Traffic Light Color Coding System introduced for packages of soft drinks.
- To identify whether the buyers have concerned about the color to determine the sugar level of soft drinks when making the purchase decision.

LITERATURE REVIEW

Color Coding practices and sugar content of Soft drinks

Displaying the information of nutritional level of food on label is help to make the food choices to consumer. (Verbeke et al.,2012).It means that these kinds of practices facilitate to the buyer in order to make the better purchasing decision. But in some aspect consumers may interest nutrition labeling but consumer do not use the information. (Hoefkens et al., 2011).Most of the time, the consumers draw their attention and interest towards some factors such as taste, price, and some nutritious details (Hoefkens et al., 2011). Gokhale (2016) mentioned that the use of this kind of simple color coding of packaging to share nutrition information is popular in developed countries like Australia, New Zealand and UK. As well as these label had been designed to give scientific advice to people in order to make healthier food choices. In this way,color coding practices for packaging use to indicate the level of sugar, fat, salt on the foods and beverages.According to some of researcher explained that the main ingredient of soft drinks is high sugar. Hu and Malik(2010) stated that soft drinks are non-alcoholic beverages containing basically water, flavor and a sweetener.Soft drinks are composed of 100% carbohydrates, with no protein and fats (low in cholesterol and saturated fats). According to Van der Horst, et al., (2007) defined sugar sweetened soft drinks as carbonated or non-carbonated water based beverages that contain natural sweeteners like table sugar (sucrose), high fructose corn syrup and concentrates of fruit juice (Brownellet al., 2009).

Most of the times, it is necessary to communicate and display about the nutrition level of product through the product labeling or packaging. The numbers of potential health risk are associated with the soft drinks (Duffett, 2017). Pacific(2012) assessed that health problem has been increasing due to the excessive consumption of high sugar soft drinks. Moreover, a cross-sectional study conducted by Hashem et al. (2014) found that among 169 carbonated sugar sweetened soft drinks in UK, the amount of free sugar and calories are higher in most of the drinks. Another interesting finding derived from the study of Varsamiset al. (2017) showed that as a comparison of the soft drinks in Australia, Europe and United States, Australia and Europe have somewhat similar conditions and in United States the level of glucose content in the soft drinks is lower than the other two regions.

Sugar content of Soft drinks and Human Health

When the buyers determine to buy the products, their perception and attitudes are playing major roles before buy. Once time the buyers are going to buy the soft drinks then their perception differs among individuals because some are trying to find extremely high sugar while others may identify the same food as not sweet at all(Renwick and Nordmann, 2007). But this study suggested that, the reduction of sugar sweetness of soft drinks would be important but sometimes it will not be useful because consumer who are willing to go for products that satisfy their taste.Duffett, 2017 had explained that a number of potential health risks are associated with the consumption of fruit juice products. The number of health problems like childhood obesity and overweight, lower bone mineral density, and diabetes cases are happened due to the daily consumption of sugar sweetened soft drinks. Cucoetal., 2003; Dhingraet al., 2007; Gartlandetal., 2003; James et al., 2004; Ludwig et al., 2001; Schulze et al.,2004). The consumption of sugar beverages increases overweight, obesity heart diseases, tooth decay (Malik et al., 2006) (Roos and Donly, 2002).

Consumption of sugar sweetened beverages is associated with weight changes in all ages (James and Kerr, 2005), especially for those who take one or more drinks per day (Schulze et al. 2004). Bergen and Yeh, (2006) reported that the consumption of more than one soft drink per day had affected to decrease the body weight of adults. And also high consumption of soft drinks is linked to the increase of coronary heart disease (Fung et al. 2009), low mineral density in adolescent girls (Gartland et al. 2003). It also reported that the risk of dental caries would increase especially for children (Renatha Pacific, 2012).

The study of Frederick and Obed (2017) revealed that most of the students had little knowledge on the nutrients contained in the soft drinks and most of them knew the nutritional implications of taking soft drinks but it did not deter them from practicing it.

METHOD

Sampling Plan

This research is purely done to examine the awareness ofthis traffic light color coding system for the buyers in Sri Lanka. Therefore, it is important to understand the individual perception towards this system. As such researchers selected one of the familiar area(Kekirawa Town) for this study to collect the detailed information without any limitations. As a result of this, 50 educated buyers were selected based on the purposive sampling method to enhance the validity.

Research Approach

Researchers follow an inductive method in nature in this explorative study. In this study, interpretive analysis has been incorporated to analyze the data. The data were collected through the effective qualitative data collection methods- personal interviews and the participant's observation. Since this research is especially dealt with the consumption patterns and the self-perception of buyers, it is appropriate to carry out this study in a qualitative manner. Further, it would be more rich fullness, if it is carried out through qualitative method to inter-relate with two objectives.

INTERPRETATION OF DATA AND FINDINGS

Since this research study incorporated the interpretative analysis in the qualitative research method. It is very important and obvious to elaborate each question asked from the interviewees and their responses to derive the findings.

In case of health consciousness of buyers when buying the soft drinks, approximately 30 percent of the buyers accepted in Kekirawa area that they consider about their health before buying the soft drinks. The rest of the 70percentof respondents never considered the health aspect but only they paid attention on their preferences.In the Kakirawa area, the sample respondents mostly preferredcarbonated soft drinks but few of respondents are like to use the fruit juice and soft drinks with the natural tasty. That is to say, people's preferences are based on their habitual behavior taste.When the discuss about the factors to be considered when buying the soft drinks, respondents had mentioned that the tasty (sugar sweetened) of soft drinks, manufacturing and expire date, natural tasty, price, brand name, and ingredients. Moreover, quantity level, buyer needs, brand name, are considered as factors before buying the soft drinks. But approximately 20 percent of respondents consider about the sugar level as a factor when they make the purchase decision. In conclusion, the brand, buyer needs, price, and tasty can be identified as most influential factors for selecting soft drinks by the buyer rather sugar level.As similar to the health consciousness the buyers who considered the health consciousness totally agreed with the sugar level of the soft drinks too. To put it another way, some respondents consider about their health but they disagreed with consideration of sugar level when they are buying soft drinks.

Based on the information given by the respondents, it is understood that nearly 60 percent of people only have the awareness about this practice for soft drinks rather knowing that particular

three colors. Few respondents noted that these three colors but they failed to interpret the meaning of each color codes for determine the sugar level of soft drinks. Remaining was not aware of this color coding system.

The group of buyers who are aware of this system, responded that they come to know about this color coding system about one-year time period. From this interpretation, it is inferred that within the sample 50 percent are aware of this system. However, it is not adequate evidence in this research study.

After the information given by the interviewer only the respondents got clear awareness about this color coding system and all most everyone agreed that this is healthy marketing practices. In other words, most of the respondent highly accepted this practices as a healthy marketing practices. Otherwise, some had responded that this is not a healthy marketing practice due to thelack of awareness of buyers as well as other ingredients which are included in soft drinks on behalf of the low sugar. In the point of view of researcher, the buyers insisted that very small number of people which around their area have considered these practicesdue to some predetermined purposes.All the respondents agreed in this color coding practice as a positive signal to increase the health of buyers to avoid the disease and bad impact from the current and potential marketers of the soft drink industry. In this study, it had found that some suggestions from the respondent to further improvement of this color coding practices for the soft drinks industry. It is mostly highlighted that as a requirement of effective communication to promote this practices among the public. To put it another way, publicity is essential via the mass media like television, posters, social media, print media like newspapers, broachers as well as it was suggested that the importance of public relations tools for the promotion. Specially, the respondents demonstrate the importance of the awareness to the school children because most of the time school children have addicted to use the soft drinks as a habit. To that end, promotion program can be conducted through the school level. According to the explanation of the respondents, the highlighted matter for this practice is given perfect awareness to the public to facilitate the buyer purchasing decision on soft drinks because the lack of awareness is a one of reason behind this practice. Further, some had suggested that it is need to certify these three colors related with the standard sugar level rather using it as a marketing practice. Government should impose regulations to the manufacturer is a compulsory one. The most compelling argument id presented by the respondents is that thecolor coding practice can be identified as a good habit to avoid the non- communicable diseases withthe clear awareness only. Further, the respondents explained that soft drinks can be considered as drinks for the

human thirsty. Based on that, it should be marketed in the healthy way. In the view of respondents, another key point to remember that the size of the symbol of color code should be maximizes on the package as it easy to show and to identifiedby the people in the market premises. In conclusion, 95 percent of the people have identified that this color coding practices as effective health practices in the soft drink industry.

CONCLUSIONS

The Traffic Light Color Coding system seems to apparent in almost as important practices to reduce the non-communicable diseases of the people and avoid the arising problem in future generation in Sri Lanka. Most of the research in the color coding practices for soft drinks highlighted that the importance of displaying the information of nutrition level including sugar level helps to make better purchasing decision. This exploratory research investigated on the awareness of Traffic Light Color Coding system for packaging of soft drinks among the Sri Lankan buyers with objectives of to identify how far the buyers have awareness of Traffic Light Color Coding system for packaging of soft drinks and identify whether the buyers have concerned about the color to determine the sugar level of soft drinks when making the purchase decision.

As researchers considered all the above aspects, it seems that the buyers havelack of awareness regarding the Traffic Light Color Coding system. Nearly 60 percent of people only have awareness about this practice for soft drinks rather knowing its meaning. As well as few respondents know about the color rather than knowing its meaning related with particular sugar level. In conclusion, it is evidence that the respondents in the study mostly consider about the brand name, buyer needs, tasty, manufacturing and expire date rather sugar level. But approximately 20 percent of the respondents in this study had mentioned that they consider about the sugar level when they are buying the soft drinks.

RECOMMENDATIONS

In this study, it was found that lack of awareness of buyers regarding the Traffic Light Color Coding system.This study suggests that a strong marketing campaign is needed to make the buyers aware of this color coding system at everywhere to implement a successful and healthy marketing practice in the country. It is important to promoting awareness through information campaigns and addressing environmental cues related to soft drink consumption. Most of the time soft drinks are used by the youngsters. Marketers and the Government have responsibility

to take advantage of new interactive digital media platforms (internet, social media, and mobile) to reach younger buyers as well as they can conduct the awareness program through appropriate authorities. Content Marketingcan also be used to launch the awareness programs. Content marketing is a marketing technique of creating and distributing valuable, relevant and consistent content to attract the target audience. Based on that, the soft drinks manufacturer can create small content regarding this color codes and publish it as videos, case study, images, white papers, slides share in online basis. Older buyers could still be reached by more traditional above-the-line advertising channels (television, radio, newspapers, and magazines).Promoting and displaying these three colors at shopping center, restaurants and fast food areas can help people who drink and buy frequently to identify about it. Therefore, easy-to-use and get the clear nutrition information during food ordering are essential as buyers can make informed food choices.The size of the symbol of color code should be maximizes on the package as it easy to show and to identified by the people. As a government policy, it is need to the government to give more awareness to the public regarding this color codes and their sugar level by showing the impact on health effects caused by consumption of soft drinks. The marketing point of view, marketers can use this color coding not only demonstrate the safety and sugar level of the soft drinks, but can also use to make a good impression to the package of it.In order to check the effectiveness of this color code practice, the long prospective studies are also needed. Therefore, future researches are recommended to maintain a healthy consumption pattern by buyers.

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