

Impact of Mineral Water Packaging on Consumer Behavior

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Abstract: Packaging became an integral part of marketing as years went by. Certain product categories are heavily dependent on packaging in order to build a positive brand perception. However, for some products the brand name alone matters. But overall, the appeal of a good packaging cannot be denied. Mineral water is a heavily purchased product among city dwellers, due to people staying outside most of the time. Moreover, in a tropical country like Bangladesh the heat creates demand for water. With a 20% annual growth in sales in Bangladesh, it has become an important industry with many competitors. This research paper is aimed at understanding the impact of packaging in consumer perception and purchase behavior. The study was done by conducting an online survey and analyzing data from that. The findings from the data helped in understanding the underlying factors that contribute in consumer purchase decision as well as potential prospects of mineral water packaging.

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I. Introduction

The market of mineral water is growing rapidly in Dhaka. As a whole, sales of mineral water in the country is rising by up to 20% annually. And the cause is mainly the consumers' lack of confidence in public water service facilities. The increased mobility of people across the country, mostly at a major city like Dhaka has also contributed hugely in the ever-growing popularity of such products in the local market. People are preferring mineral water because this is the safest available option of water while they are on the go. This is the fastest growing business in the industry of beverage as this offers excellent opportunities for water treatment professionals to provide their customers with a new service that is increasing in demand. This growing demand of the consumers has also intensified the competition in the market. While Mum being the market leader with a 45% market share, Kinley, Aquafina, Fresh, Spa etc. are doing good to. There are some new players like Shena, Mukta etc. in market as well. In early days, packaging was important because of transportation and handling of a product. But in a rapidly growing market with high competition, the importance of product packaging can be significant. The primary purpose of packaging is to protect the product, but packaging can be used by companies as an instrument for promoting their marketing offer, and for boosting their sales. To stand out against competitors, every company tries to invent something new and to get the competitive advantage for providing the product to the end customer. A good packaging helps to identify and differentiate products to the consumers. Packaging also describes the value of a product. There is a big difference between high end and low budget product packaging. Over 70% of purchase decisions are made at the shelf, since packaging of product is the first thing that a consumer sees, it plays a vital role in differentiating a brand from competition.

Concerning the packaging of mineral water, it is a wide theme and many aspects can be investigated. The main objective of this study is to identify the impact of water bottle packaging on consumer perception and buying decision. Namely, to check the effect of packaging elements of mineral water on consumer behavior. The goal of this study is to identify elements of the packaging design of mineral water and its importance from the consumer point of view. This will assist companies in creating effective package design and attracting customers.

1.1 Objective

The study aims to identify and analyze the most important elements of packaging that influence the consumer behavior. So, the paper will focus on:

- a. Finding out the impact of packaging on consumer perception and buying decision
- b. Check the effect of packaging element on consumer behavior
- c. Measure the relative impact of each packaging element on consumers

1.2 Scope of the Study

The market of mineral water market in Bangladesh is of rapid growth. Due to increased mobility, the customer base is now a large one in this market. So for collecting data we have a huge population. Here the research considered people of Dhaka city and the respondents were chosen on a random basis.

1.3 Limitation of the Study

The study was limited by a number of factors. Firstly, the study was limited to only the city of Dhaka. Secondly, sample size was too small represent the population. Thirdly, time constraint led to narrower outcomes.

II. Literature Review

Many packaging elements are factors that influence the buying behavior of consumers such as, packaging color, printed information, packaging material, design of wrapper, printed information, brand image, innovation and practicality. Packaging plays an important role for marketing.

Ulrich R Orth et al. (2010) says package design is an integral part of projecting a brand image, which is sometimes designed to convey images of high quality, while at other times signaling affordable prices. Neeta & Sudha (2014) says the role of packaging as a medium for communication and branding is increasing in competitive markets for FMCG products. Packaging is the jar or a container or a protection for a product. Packaging includes the names and the brand names, brand logos, pictures of the product, different kinds of labels such as ingredients, manufacturing and expiry date, warnings, price, using method of the product, company name and place etc. and the main function of the packaging is to easily and safely distribute the products.

Packaging is one of the foremost component of promoting, designing and plays an important role in marketing. Shruti, (2014) says an honest and effective packaging will absorb a lot of consumers and will increase people intentions on buying products. A good product and its packaging remains long in the mind of customers so it can be used as a promotional tool also. Deliya & Parmar, (2012) says packaging should also be designed to promote product sales. As the packaging will influence consumers and hence change their buying behavior towards that brand which will help company to generate revenue. As for many people first impression is the last impression so if people get attracted by the first look of the product that can generate revenue. Ulrich R. Orth (2009) Packaging is used for identification of the product. Good and well planned designs are eye-catching and can differentiate products on the shelves and can attract consumers more easily. According to Charles W. Lamb et al., (2011), in their book “Essentials of Marketing” think that packaging has four distinct marketing functions. It contains and protects the product. It promotes the product. It helps consumers use the product and finally, packaging facilitates recycling and reduces environmental damage. Therefore, packaging does more than just protecting the company’s products. It also helps in developing the image of the product in consumer mind. So, failing to pay attention to the design of the packaging can decrease the chances of being visible and attractive, which can result in using sales.

Kumar (2017) says consumer perception applies the idea of tactile observation to showcasing and publicizing. Similarly, as tangible recognition identifies with how people see and procedure tactile improvements through their five detects, purchaser discernment relates to how people structure feelings about organizations and the product they offer through the buys they make.

Gerard (1958) explored the impact of various colors on psychophysiological measures that demonstrate passionate changes. Blue, red, and white lights of equivalent brilliance were each anticipated for 10 minutes on 24 typical grown-up guys.

As per (Pinya Silayoi and Mark Speece, Oct, 2004) nourishment items brands utilize a scope of bundling qualities, which involves bundling hues, bundling plans, shapes, messages, and images. These qualities draw in and supports the consideration of shoppers and help them to relate to the pictures introduced. The significance of bundling plan and the utilization of bundling as a vehicle for correspondence and marking are developing in bundled nourishment focused markets. Silayoi and Speece, (2004) states that in bundling, the other visual components, for example, measure and shape are likewise significant in thought. Bundle size, shape and lengthening additionally influence purchaser decisions and contemplations. Shoppers utilize these things as rearranging visual heuristics to make volume decisions. They for the most part see increasingly stretched bundles to be bigger. Pinya Silayoi and Mark Speece (2004), characterizes the fundamental elements of bundling strategically and showcasing by their job. The strategic capacity of bundling is essentially to shield the item from occurrence of harm, waste or misfortune through burglary or lose products during development through the appropriation channel. While with regards to promoting capacity, the bundling should be sufficiently appealing and well structure, so it passes on the message of item characteristics obviously.

III. Methodology

The research for this study has been conducted in two phases: primary and secondary.

Primary Research: The primary research includes web based surveys of 101 respondents. For primary research a questionnaire was prepared covering the core issues of the study such as brand image, influence in purchasing behavior, quality of packaging, perceived price, significance of design, ease of opening, attitude towards current brand etc. The questionnaire mainly used Likert scale and Category scale to conduct the survey. The questionnaire also contained one open ended question where respondents have the

freedom the write down their reason of preferring a specific brand of mineral water. All the respondents are dwellers of Dhaka and age group is around 15 to above 50 years old. Data from secondary sources mainly explained the current market situation of the city. The responses helped to figure out some significant discussion and recommendations for packaging of mineral water.

Secondary Research: The secondary research includes books, journals, working paper, newspaper articles etc. from the internet. Academic theories were also explained and how it is related with the findings from the primary research also discussed thoroughly.

IV. Analysis

The survey for the research was conducted on 101 respondents of 15-above 50 age group, most (56.4%) of which are male.

The first question of the survey depicts how frequently people consume mineral water and it is found out that daily consumers are 41.6%, whereas 28.7% claim to consume it weekly and 16.8% respond to the option of twice a week. It makes the study more necessary because a study is definitely due on such a frequently bought FMGC product.

6. How frequently do you consume mineral water?

101 responses

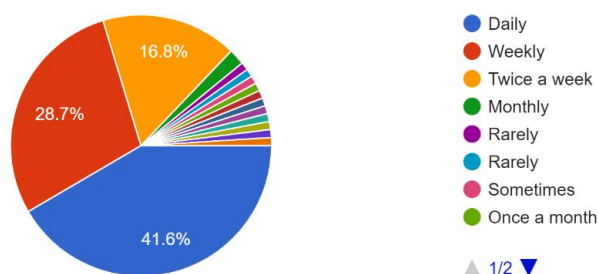


Figure 1: Frequency of consuming mineral water

The second question depicts the purchase point of mineral water. The survey dictates 72.3%, the majority, buy it from departmental stores whereas the second highest percentage, 41.6% buy it in restaurants and canteens.

7. Where do you buy mineral water from?

101 responses

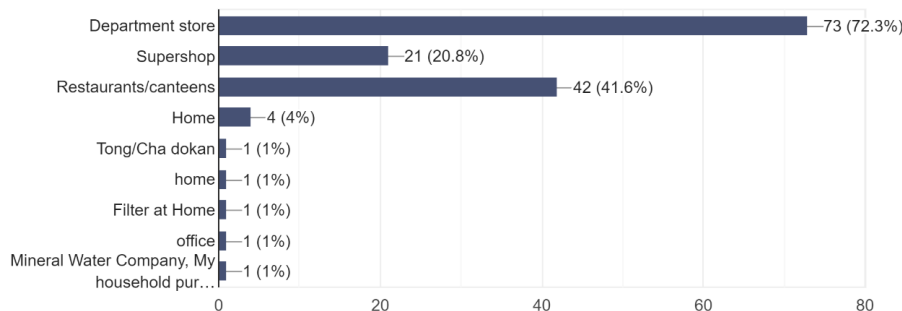


Figure 2: Purchase point of mineral water

The third question of the survey focuses on the preferred package of consumers for mineral water. The answer suggests people aren't yet preferring much innovativeness in case of this and thus 64.4% are preferring plastic bottles, which are usually available in market.

8. What do you prefer as package of mineral water?

101 responses

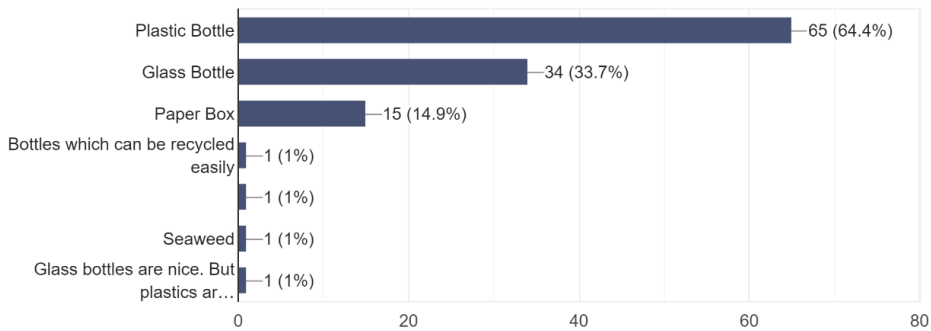


Figure 3: Preferred package of mineral water

The next two question of the survey measure the market readiness for eco-friendly packages for mineral water. And it is found that majority (87.1%) of the people will prefer an eco-friendly package and most (56.4%) are ready to pay more for that.

9. In our country, most mineral water have plastic bottle as package. Will you prefer an Eco-friendly package?

101 responses

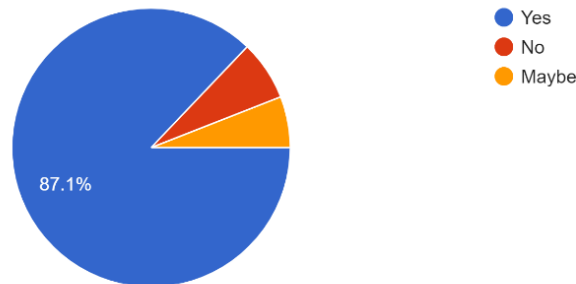


Figure 4: Preference for eco-friendly package of mineral water

10. For an eco-friendly package are you ready to pay more?

101 responses

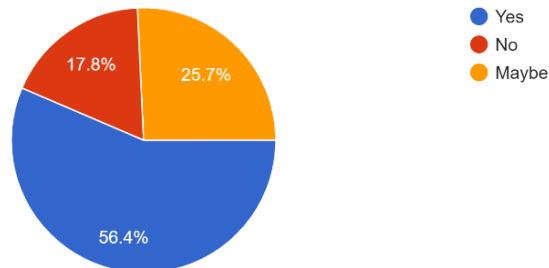


Figure 5: Readiness of paying more for eco-friendly package of mineral water

After that, the survey sheds light on the amount the respondents are ready to pay for the eco-friendly package of mineral water. It is found that 79.5% are ready to pay BDT 25 for per 500ml mineral water packaged with eco-friendly material.

11. If yes, how much are you ready to pay?
88 responses

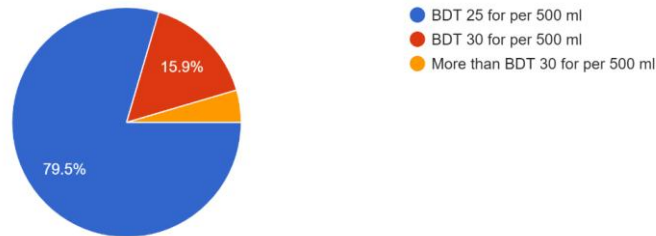


Figure 6: Preference of the amount to be paid for eco-friendly package of mineral water

The next question aims to measure the preferred size of packaging and it finds out 500 ml bottles or packages of mineral water is most preferred with the response of 58.4%. Another large percentage of respondents, the 43.6% people prefer 250ml packages.

12. What size of package/ bottle do you prefer to buy for mineral water?
101 responses

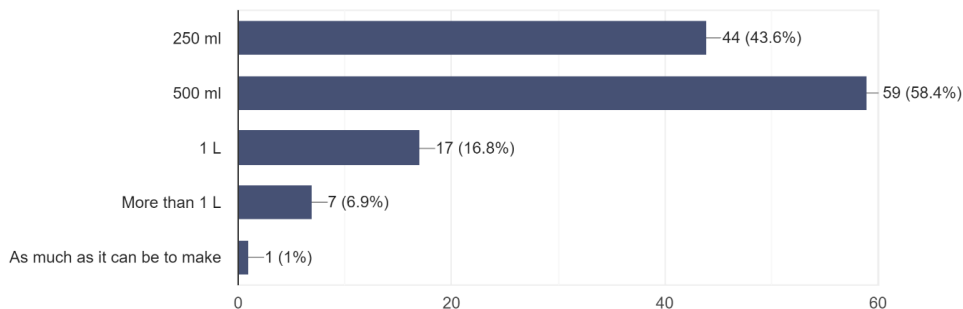


Figure 7: Preferred size for package of mineral water

Next, the survey focuses on the preferred brand and the majority, 55.4% chose the option of Mum whereas Aquafina is in the second position with a response of 21.8% and Kinley is in the third position with a response of 13.9%.

13. What brand of mineral water do you usually buy?
101 responses

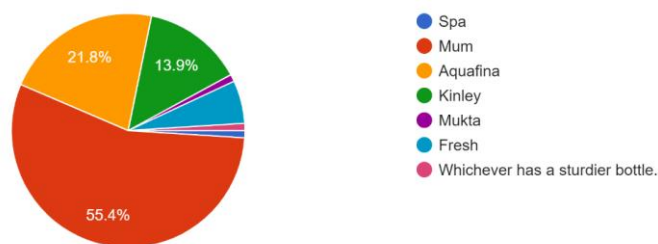


Figure 8: Preferred brand of mineral water

The next descriptive question reveals the causes behind the specific brand preference. And it is noticed that Reliability, Availability, brand name, recognition are the answers by majority.

14. Why do you buy that specific brand?

101 responses

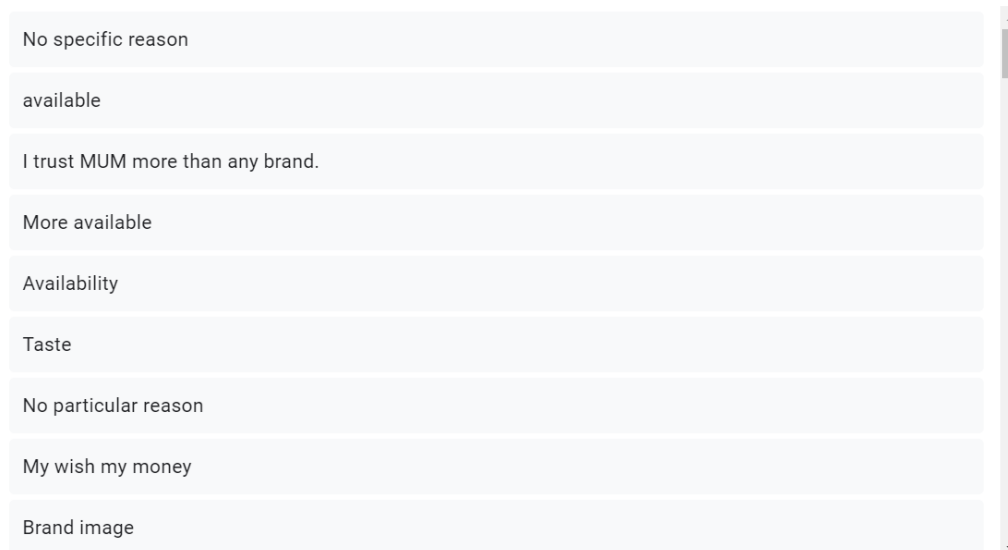


Figure 9: Reasons of preferring specific brand of mineral water

Next, the survey aims to identify if colored package will be a preferred option. While 36.6% the majority is neutral about it, another 32.7% is strongly disagreeing.

15. "I'll prefer colored package (bottle) for mineral water more"

101 responses

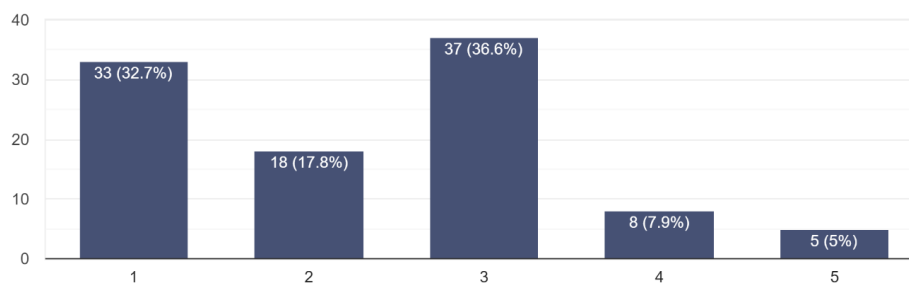


Figure 10: Preference for colored bottle as packaging of mineral water

After that, the survey asks a question to find out how important the ease of opening is to the consumers. 42% are neutral about it but 22% agree and 15% strongly on it whereas 13% strongly disagree too.

16. "The ease of opening help you decide which brand you will buy"
100 responses

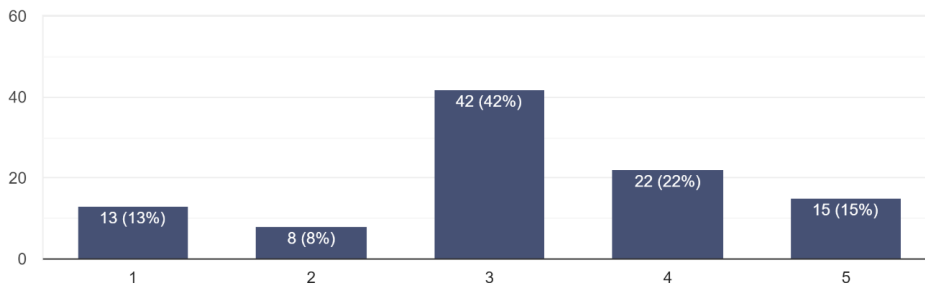


Figure 11: Importance of ease of opening for mineral water package

Next, the survey moves on to reveal what "Quality package" means to the consumers. 59% think it as a mark of credibility whereas 49% mark its presence as premium product's feature and 21% response that it means high price.

17. Quality package of water means-
100 responses

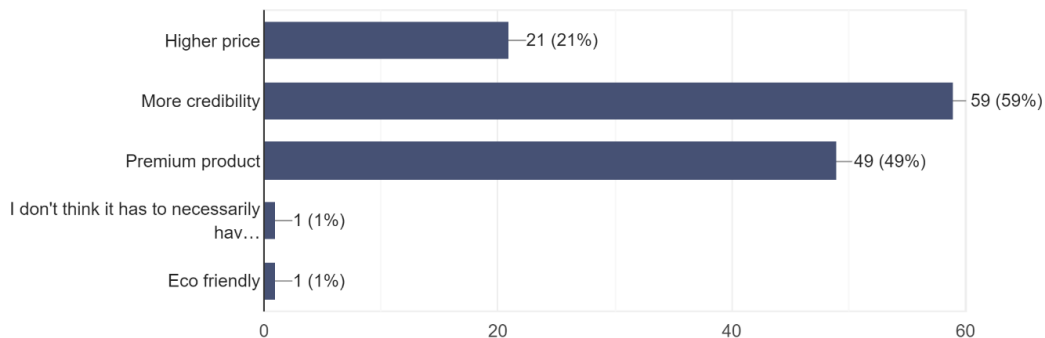


Figure 12: Meaning of quality package

The next question is about comparing the importance of packaging and brand name. 30% are neutral on this whereas 21% favor packaging, 14% strongly favor packaging but 18% favor the brand name more and 17% strongly favor brand name too. The total statistics suggest an equal importance of both the aspects.

18. "You prefer buying mineral water on the basis of good packaging rather than the brand name"
100 responses

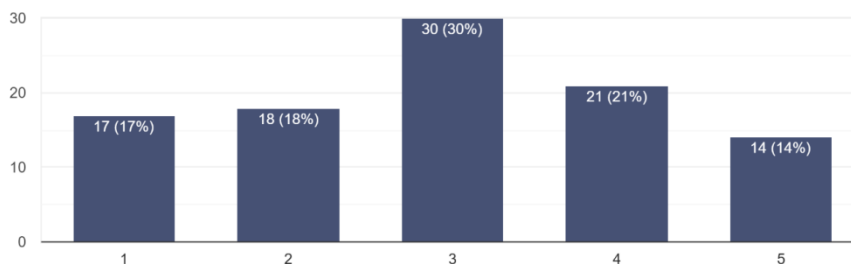


Figure 13: Comparing the importance of packaging and brand name

The second last question of the survey measures the effectiveness of printed information on package of mineral water. It seems pretty unnoticed as 57% say that they never read it.

19. Do you read printed information on the water bottle?*

101 responses

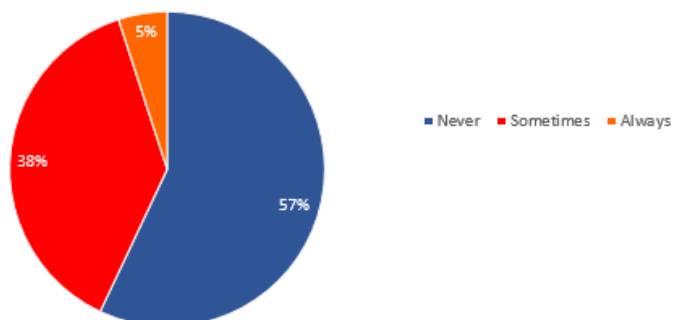


Figure 14: Effectiveness of printed information on package of mineral water

The last question identifies what information are noticed. 65% answer of noticing expired date whereas 20% notice brand name and 15% notice ingredients.

20. If you read printed information which on do you read?

43 responses

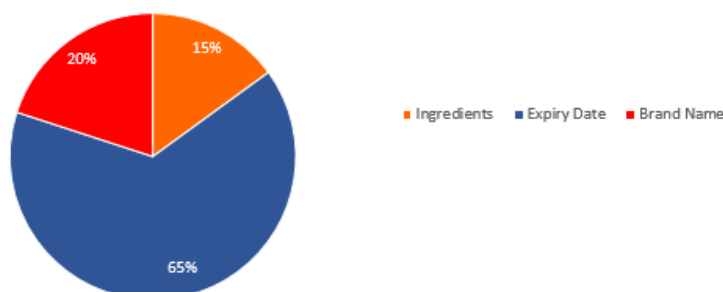


Figure 15: Kind of Printed Information Consumer read on Mineral Water Package

V. Findings And Discussion

People buy mineral water quite regularly mostly from departmental stores or restaurants. If popularity is considered, then Mum still tops the consumer choice while Aquafina and Kinley has grabbed a significant place in consumer mind in a short span of time. The reasons for choosing the brands depend on the Brand itself and availability. It is seen that people prefer smaller size bottles because they are more convenient to carry. The survey indicates that people are used to the idea of plastic bottle as packaging for mineral water. However, most of them are open to an eco-friendly alternative and even willing to pay more. Ease of opening a bottle is also a factor while choosing a brand but people are indifferent to this feature. They are averted to the idea of colored packaging when it comes to mineral water. Quality packaging represents credibility. In terms of reading printed information on the bottle, people rarely do that. Those read it, do it mainly to check the expiry date.

After analyzing the findings, it can be said that perceptions of consumers are affected by sensory stimuli such as color and size for mineral water packaging. Consumers also use selective attention when it comes to reading printed information on the packaging.

VI. Recommendation

As it is seen in the survey, that people seem to prefer smaller sized bottles over large ones, therefore marketers should focus on not making the mineral water bottles too large or bulky. Instead, they should design and make mineral water bottles smaller in such a way, that's it more convenient and easier to carry in hand, bags, purses etc. In this way they can also attract consumers to pay more for less, because there is large number of customer segment who value convenience over price. As the survey also specifies, that people are used to the idea of plastic bottle as packaging but however, they are open to eco-friendly paper bottles and are even willing to pay more for it, that's why marketers can bring paper mineral bottles as an alternative to plastic bottles. But that being said, they will have to segment their market and cannot go for mass marketing because only the people who are educated enough and are aware of the fact that plastic cannot be recycled and is harmful for the environment of Bangladesh, only they will be willing to pay more for it than a regular plastic bottle of the same quantity. Majority of the survey participants are against colored packaging, that's why marketers should stick to transparent packing as it gives a feeling of freshness, immaculateness and nature which are the exceptionally basic parts of water and are constantly taken note. As people also avoid reading the detailed information in packaging and mostly do it to check expiry dates, that's why marketers should avoid putting too much information and rather use that space for catchy taglines instead. The mark or tag of the bottle packaging additionally assumes an imperative job in the assurance of the subjective idea of the water. The tag or name ought not be wrapped totally around the bottle as it might shroud the boards of the bottle which in the long run can cause very nearly no ability to see of the water. This is the place the certainty level and trust of the customer is demolished, consequently, during the bottle packaging, it must be remembered that covering the whole zone can prompt the lessening in the deal as the purchaser can't see the water inside it. Lastly, as most people perceive quality packaging as a sign for credibility so the packaging should ensure quality.

VII. Appendix

Survey Questions

1. Age

- a. 15-20
- b. 21-25
- c. 26-30
- d. 31-35
- e. 36-40
- f. 41-45
- g. 46-50
- h. Other_____

2. Gender

- a. Male
- b. Female
- c. Prefer not to say

3. Income Level

- a. Below 10, 000
- b. 11, 000 – 30, 000
- c. 31, 000 – 50, 000
- d. 51, 000 – 70, 000
- e. 71, 000 – 90, 000
- f. Above 90, 000

4. Profession

- a. Student
- b. Homemaker
- c. Service Holder
- d. Businessman
- e. Other_____

5. How frequently do you consume mineral water?

- a. Daily
- b. Weekly
- c. Twice a week
- d. Other_____

6. Where do you buy mineral water from?

- a. Departmental Store
- b. Restaurants/ Canteen

- c. Super shop
 - d. Other_____
- 7. What do you prefer as package of mineral water?**
- a. Plastic Bottle
 - b. Glass Bottle
 - c. Paper Bottle
 - d. Other_____
- 8. In our country, most mineral water brands have plastic bottle as package. Will you prefer an Eco-friendly package?**
- a. Yes
 - b. No
 - c. Maybe
- 9. For an eco-friendly package are you ready to pay more?**
- a. Yes
 - b. No
 - c. Maybe
- 10. If yes, how much are you ready to pay?**
- a. BDT 25 for 500 ml
 - b. BDT 30 for 500 ml
 - c. More than BDT 30 for 500 ml
- 11. What size of package/ bottle do you prefer to buy for mineral water?**
- a. 250 ml
 - b. 500 ml
 - c. 1L
 - d. More than 1L
- 12. What brand of mineral water do you usually buy?**
- a. Mum
 - b. SPA
 - c. Aquafina
 - d. Kinley
 - e. Fresh
 - f. Mukta
- 13. Why do you buy that specific brand?**
- 14. On a scale of 1-5 how much do you agree with the statement, "I'll prefer colored package (bottle) for mineral water more"**
- | | | | | | | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| | 1 | 2 | 3 | 4 | 5 | |
| Strongly Disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly Agree |
- 15. On a scale of 1-5 how much do you agree with the statement "The ease of opening help you decide which brand you will buy"**
- | | | | | | | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| | 1 | 2 | 3 | 4 | 5 | |
| Strongly Disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly Agree |
- 16. Quality package of water means-**
- a. Higher Price
 - b. Credibility
 - c. Premium Product
- 17. On a scale of 1-5 how much do you agree with the statement "You prefer buying mineral water on the basis of good packaging rather than the brand name"**

1 2 3 4 5

Strongly Disagree ○ ○ ○ ○ ○ Strongly Agree

18. Do you read Printed information on the water bottle?

- a. Never
- b. Sometimes
- c. Always

19. If you read printed information, then which one do you read?

- a. Brand Name
- b. Ingredients
- c. Expiry Date

References

- [1]. Enam, F, Samdani S.Z (2019) *European Journal of Business and Management*, Retrieved from <https://www.iiste.org/Journals/index.php/EJBM/article/view/49933>
- [2]. Mazhar, M, Daud S, Bhutto S.A, Mubin M (2015) *Journal of Marketing and Consumer Research*, ISTE
- [3]. Zekeri J, Hasani V.V (2015) *Ecoforum* Retrieved from <http://www.ecoforumjournal.ro/index.php/eco/article/viewFile/189/167>
- [4]. Hess J.S, Singh J, Metcalf L.E, Danes J (2014) *Journal of Applied Packaging Research*, Retrieved from <https://pdfs.semanticscholar.org/753c/cbfdccf5df5ee773f31f292bdf1848f6adf0.pdf>
- [5]. Ksenia P (2013) Retrieved from https://www.theseus.fi/bitstream/handle/10024/55293/Polyakova_Ksenia.pdf?sequence=1

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