

# Bottled water purchasing patterns of university students



Safe and reliable drinking water is an issue in most of the countries, so companies have installed their plants to supply water in bottles to satisfy the consumers. But the reliability of all bottled water is always questioned.

In Pakistan the purified water bottled industry is approximately 25 years old. It made its advent in Pakistan in 1980s. Abehayyat was the pioneer brand at that time.

It is a common perception that most mineral bottled water appears to be safe and of better quality than water from other sources (Filtered, Boiled and Tap water), but the quality of some brands is spotty, however, and such products may pose a health risk. (Natural Resources Defense Council, 2008)

There are rifts which seek to question the reliability and hygiene of Bottled water. Following are some brands of bottled water which are present in Karachi Market:

1. Aquafina 2. Aqua safe 3. Classic

4. Culligan 5. Kinley 6. Nestle

Furthermore, primary research has determined which brands are available, famous and considered to be reliable in the minds of students.

## **Research Problem**

This research explores the purchasing patterns of university students with regard to their attitude and buying behaviour of mineral bottled water.

By attitude I mean the following:

Is a particular gender more attracted to mineral bottled water?

Is household income affecting the buying behaviour towards mineral bottled water?

Do particular brands affect the buying behaviour of students?

What is the students' perception towards the reliability, and hygiene factors of mineral bottled water?

Which type of media is more influential for consumers regarding mineral bottled water?

What factors (brand image, company image, price, bottle shape and bottle size i. e. 0.5 liter, 1 liter, 1.5 liters, 2 liters, 5 liters, 10 liters, and others) influence students for using mineral bottled water?

These are the major questions which need to be addressed.

### **1.3 Scope of the Study**

The study was conducted in only two universities of Karachi

First is Karachi University; my focus was only on two departments Food & Sciences and Chemistry. Second is Bahria in which our respondents would be students' of Management Sciences i. e. BBA and MBA.

### **Study Objectives**

The main objectives of the study are the following:

To explore how demographic factors (income, gender etc) & psychographic factors (interest, attitudes, opinions & loyalty etc) affect buying of mineral bottled water.

To describe the information about brands of mineral bottled water available in Karachi Market

To find out which type of source of information (communication medium) is more influential for students towards mineral bottled water.

## **Importance of Research**

This study has been helpful in evaluating consumers' perception towards mineral bottled water in Karachi. What they perceive regarding each and every brand of mineral bottled water.

This study has let us know about the top of mind brands of mineral bottled in Karachi market.

It can help the companies to know that which segment be targeted and which marketing strategy of mineral bottled water be implemented.

## **1. 6 Research Methodology**

This study is qualitative in nature. Qualitative method is suitable to ascertain the in-depth insights of students' regarding mineral bottled water. It helps in exploring students' perception and attitude towards the purchase of mineral bottled water in Karachi.

Researchers used in-depth interviews with students based mainly on open ended questions. In depth discussion encourages a spontaneous and free flowing exchange of opinions and ideas among respondents.

We have taken two extremes, one is Government owned Karachi University in which Food & Sciences and Chemistry departments were interviewed because they deal in chemicals and reactions, so they must have clear knowledge about the composition of mineral bottled water. And second is privately owned Bahria in which BBA and MBA departments were interviewed with mainly upper & upper middle class backgrounds. A reason of choosing these disciplines is to get a clear idea of behaviour and class because lots of students drink mineral bottled water as a symbol of status.

Non probability, convenience sampling technique was used to conduct In-depth interviews. The questionnaire was finalized after consultation with the instructor, and was used after instructor's approval

### **1. 6. 1 Sampling & Data Collection**

In this study it includes a total sample of 200 students from two universities of Karachi i. e. KU & BAHRIA. Breakup is given as follows:

**Karachi**

**Institute/Departments**

**Management Sciences**

**Undergraduate**

**BBA**

**Graduate**

**MBA**

**1. BAHRIA**

Male

Female

Male

25

25

25

Sub Total

50

50

Total

100

BBA and MBA students were chosen to assess the different perceptives of two different disciplines. Being business students they have an understanding and knowledge of marketing and brand concepts.

## **Karachi**

### **Institute/Departments**

#### **Food & Sciences**

#### **Chemistry**

### **2. Karachi University**

Male

Female

Male

25

25

25

Sub Total

50

50

Total

100

BAHRIA and KU were chosen to get an equal representation of students in Karachi from every aspect i. e. socio-economic class and perception.

Aforementioned departments have been chosen, their students possess sufficient knowledge beverages and chemical compositions.

### **Data Collection:**

Secondary Data: This data was conducted through research Journals, previous Researchers conducted, business magazines and relevant websites

Primary Data: Non probability convenient sampling technique was used to collect data through semi-structured questionnaires. Relevant samples (Top of mind brands of mineral bottled water revealed by students at a later stage)

### **1. 7 Limitation of This Study**

This was a new area of research which had not yet been tapped in Pakistan, so it is very difficult to acquire information (especially from secondary data).

This research was confined to only two universities of Karachi. Within those universities two departments were targeted for this research.

This research concerns only the behaviour of students towards mineral bottled water because their consumer patterns may differ from outside market or other departments of universities or other universities of Karachi.

Growing terrorist concerns resulted in the closure of Universities which led to delays.



## **2. Literature Review**

### **2.1 Mineral Bottled Water: An Overview**

Mineral Bottled water by definition is pure water bottled for commercial purposes sold to consumers throughout different countries at different prices. It is now clear that mineral bottled water has become a commodity and various brand names have sprung up around the globe. According to Hall (2007) Water bottling is a huge business which is getting greater, by growing annually about ten percent over the past five years. There is no arguing how much mineral bottled water has become a part of our lives. Mineral bottled water is easily available everywhere in our colleges, universities, hospitals etc. Mineral bottled water has become a popular source of refreshment and revitalization internationally.

Mineral bottled water has become a multibillion dollar industry with huge profit margins which has led to some big questions. Can we really put a price on something that is such a sustainable part of life and isn't putting a price on mineral bottled water denying some people the right to consumption of safe and reliable water resources?

But even bigger questions are what is mineral bottled water exactly is it pure mineral water or is it just filtered tap water that has gone through a process of purification and put in plastic bottles along with a price tag that has a huge cost to profit margin for the manufacturers

According to Eric Goldstein, co-director of the urban program at the Natural Resources Defense Council (NRDC), a non-profit organization devoted to protecting health and the environment. Evocative names and labels

<https://assignbuster.com/bottled-water-purchasing-patterns-of-university-students/>

representing pastoral scenes have persuaded us that liquid is the purest drink around. But we should not think that mineral bottled water is better regulated, protected and safer than tap water. Some mineral bottled water does come from sparkling springs and pristine sources, but 25 percent or more of mineral bottled water comes from a municipal supply, which is treated, distilled and sold to us, at raised prices. Most people are amazed to find out that they're drinking overvalued tap water, but bottlers do not need to mention the resource on the label. (Jemmott, 2008).

## **2. 1. 1 Origin of Bottled Water**

Columbia Water Centre says that since ancient times mineral bottled water has been around in some form or the other. In the first century AD, during the times of the Roman Empire, people would travel to collect water in ceramic containers from the area's source water to their homes to enjoy it, and the rich had slaves and servants who did this for them.

Water is and always has been a source of life sustainability and people have always considered mineral water as therapeutic so in some form or the other water has been used for commercial gain.

According to the Columbia Water Centre bottled water did not become a business until the 1700s. Before the opening of spas where people used to come for the treatment of illnesses, modern medicine people started to consume mineral waters to help treat constipation, kidney stones and for common health. The business of mineral bottled water began with the opening of spas. Initially, the spas would give out the water to their guests when they left to take with them. Then in the early 1800s, the spas began to

ship the water to people, by charging only the shipping costs and not for the real water. As this practice rose, the spas realized that they could earn profits by charging for the mineral water also.

Vittel, Evian, Perrier and San Pellegrino, are the early suppliers of mineral bottled water who are still well known among others.

But according to McCormack (2004) the real boost of bottled water market did not commence until 1968 when Vittel revolutionarily launched the first plastic bottled water aimed for general public consumption and within thirty years' time it became a contemporary phenomenon.

The plastic bottle made it easier to carry around water for consumption leading to its massive sales and growth as an industry.

## **2. 1. 2 Bottled Water Worldwide Scenario**

According to Jemmott (2008) Mineral Bottled water is in all places, restaurants, homes, stores, offices and aeroplanes and all across the country. In 2006, we consumed more than eight billion gallons of the matter, which was 10 percent more than 2005. It's stimulating, calorie-free, handy, and tastier than the other tap water, also better than sugary sodas.

Because of this According to the (World Watch Institute, 2007) consumers feel that choosing bottled water is a convenient alternative to buying many other packaged beverages, which may include unessential sugars, caffeine, and other chemical additives. It would seem that buying and drinking water is a logical action.

Water bottlers around the world use this consumer faith to promote their product as convenient, safe and clean etc. They use a variety of marketing tools to communicate their message to their target audience.

The non-alcoholic beverage industry spends an average of \$2 billion per year (as of 2005) on advertising, making these beverages one of the most heavily advertised commodities in the U. S. (Zheng and Kaiser, 2008)

This is no ordinary amount it shows how aggressively the bottled water industry markets its image of purity and safety.

## **2. 1. 3 Global Bottled Water Market**

According to statistics presented by the Global Industry Guide, “ In 2006 the global market of mineral bottled water grew by 7% and reached to \$60, 938. 1 million, whereas on 2011, the value reached to \$86, 421. 2 million which was an increase of 21. 8% from 2006 to 2011. In 2006 market grew by 8. 1% and reached a volume of 115, 393. 5 million litres. The market forecast for 2011 is to have an increase of 51% from 2006 with a volume of 174, 286. 6 million litres.”

### **bottled-water world figures**

#### **Source: New Internationalist, Plastic is Forever, 2008**

The United States holds the highest consumption in terms of countries followed by Mexico and then by China. In terms of regional global bottled water sales Europe is clearly the leader as shown in the pie chart below.

Figure 2. 8: United Kingdom Bottled Water Market Segmentation II: % Share, by Value, 2005(e) Source: Datamonitor (2), (2005), Global Bottled Water, Industry Profile, p. 12.

## **2. 1. 4 Market share and Distribution**

According to Zhao (2006) Group Danone, which is one of the world's largest food producers, holds the largest market share in the UK bottled water market by the end of 2004. The company had a 22% of the market consumed volume, followed by Nestle S. A., accounted for 13. 4% of the market. The domestic player-Highland Spring, which is one of the UK's leading bottled water suppliers, had 10. 3% market share.

In 1992 one could find seven hundred brands of mineral bottled water in the United States, and today there are over a thousand brands of mineral bottled water there and the number keep on increasing. The top five companies in the United States are earning billions, and the US companies are controlling just about half of the worlds market for the bottled water.

6

Source: US Bottled Water Industry

## **2. 2 Bottled Water Pakistan Scenario**

It is clear that bottled water is a global phenomena and the focus of much consumer attention internationally. The figures clearly show a growing consumer trust in bottled water. The question now is does Pakistan have a similar level of consumer trust which has lead to an increase in bottled water consumption.

<https://assignbuster.com/bottled-water-purchasing-patterns-of-university-students/>

In an article by Syed Ali Muhammad (2005) In Asian Countries, demand for mineral bottled water has developed by leaps and bounds over the past seven years, the Trans-Caucasus, North Africa and Middle East. The bottled water market in Pakistan is observing nearly 40 percent of the annual growth. Advertisement campaigns for mineral bottled water seldom show it as a lucrative luxury item; however they give the impression that it is a part of common effort against shortage of water.

According to Rosemann (2005) A yearly consumption of about 2 litres per person bottled water. 128 Compared with Thailand's 43 litres and Philippine's 15 litres per capita consumption, this seems relatively low. But taking Pakistan's population into account, one has to estimate an annual consumption of 318 million litres. While again, sufficient figures are not available to prove this 964 percent consumption increase in five years, one is able to conclude that Pakistan is a highly dynamic and lucrative market.

The statistics and figures above clearly do mention that Pakistan itself is a very lucrative market. There is a growing concern that people here are putting their trust in bottled water. Consumers use pet water bottles on the go because of their mobility and they use larger bottles of water at their homes for daily drinking purposes.

Daily Pakistani consumers are bombarded with a plethora of ads depicting bottled water as pure, hygienic and safe. This may be factual but it also displays a clear opinion that the consumers share that water from other sources namely tap water is not fit for consumption and for people who have a choice they are switching over to bottled water.

But are consumers here putting their trust into bottled water a little too early. What are the systems that govern bottled water in Pakistan namely its quality and the availability of safe brands of bottled water in the Pakistani market?

### **2. 2. 1 Pakistan Bottled Water Market**

According to the Standards and Quality Control Authority Pakistan, out of the 200 companies selling mineral bottled water in Pakistan, only 27 companies keep up the set standards. (Syed Ali Muhammad, 2005)

The Pakistani bottled water market has about 27 corporations officially selling their products. But during summers there is a high fluctuation and this number exceeds to above and beyond 200 companies that flood the market with products that were not there before.

The Pakistan Standards and Quality Control Authority, under the Ministry of Science and Technology, is the national standardization body. It is their duty to ensure the safety and standards of products in Pakistan.

From the viewpoint of quality control, PCRWR is observing a variation in the market of 50 percent, e. g. yearly about half of the brands vanish and are substituted by new brands. In 2005 PSQCA admitted that 200 companies are selling bottled water in Pakistan, but only 27 are registered as maintaining standards stipulated for the product. Nestle itself estimates approximately 150 water brands, with only 15 registered under the PSQCA scheme. (Rosemann, 2005)

Rosemann (2005) further states that Nestlé controls the majority of the market (over 50 percent) with its brands ‘ Pure Life’, AVA and Fontalia, while Danone’s subsidiary “ Sparkletts” holds 12 percent and another local brand “ BSW” has an estimated five percent market share.

## **2. 3 Consumer Perception towards bottled water**

In terms of definition consumer perception talks about how a person or an organization views a certain commodity or service. How he or she understands and apprehends that certain commodity or service. In this case consumer perception talks about how a consumer looks at and rates bottled water. What are the factors that lead to consumers purchasing mineral bottled water?

According to one study by MRUK research when asked to describe their reasons for using bottled water, respondents cited a range of different answers. In the May 2006 wave of research, over one-third (39%) of respondents reported that bottled water had a better taste, with a similar proportion (36%) who believed that bottled water was of better quality. This represents a significant increase over the September 2005 wave of research when only 14% of respondents cited better quality as a reason for using bottled water. (McKissock et al., 2007)

Below is a table listing the reasons consumers use Bottled water:

Table 1

Reasons for using Bottled Water



April '04

Sept '04

Sept '05

May '06

Better taste

33

23

32

39

Convenience

32

29

31

12

Better quality

16

3

14

36

Safer / healthier for the children

2

5

4

3

Prefer flavoured water

5

7

8

10

Prefer sparkling water

3

5

3

2

## Habit

1

16

8

11

Source: Mruk research limited (Consumer Perceptions and Experiences of Drinking Water Quality in Scotland: Secondary Research)

In another research by the Consumer Attitude Survey on Water Quality Issues (1993), people do show signs of worrying about tap water safety even in countries where tap water is filtered and provided to people on a regular basis.

Figure 2. 2: Why people drink bottled water

Source: Consumer Attitude Survey on Water Quality Issues (1993), American Water Works Association Research Foundation. p19. (Zhao, 2006)

The success story of bottled water as discussed seems to come from a variety of factors. Namely Consumer Perception of higher quality, better taste, convenience etc.

Because water is a source of life consumers see some water brands as revitalizing and even consider some water as healing.

A notable example is Fuji Water, which was bottled in Viti Levu, Fiji's main island, claiming has a very low pH level and contains the highest concentration of silica which helps tissue repair and reduce risk of heart disease, was becoming the No. 1 imported water in the U. S and also found its way to the UK supermarket chain, Waitrose (Rosa, 2004).

But this isn't the only perspective that consumers share about bottled water there are many who do feel that bottled water is a drain on our resources, as it takes more water to produce the plastic bottle than it does to actually fill that said bottle.

Source: MANATAKA: American Indian Council <http://www.manataka.org/images/tapwater.jpg>

As the picture illustrates there are different perspectives shared around the world. From how bottled water is manufactured to how it impacts our planet and the way we live.

According to Jemmott (2008) Agree, some mineral bottled water does come from pristine sources and sparkling springs, but 25 percent or more of mineral bottled water comes from a municipal supply, which is treated, distilled and sold to us, at raised prices. Most people are amazed to find out that they're drinking overvalued tap water, but bottlers do not need to mention the resource on the label.

If more than 25 percent of bottled water comes from the tap instead of some pristine lake or some secret spring full of minerals that are pure then why do consumers feel it is the purest drink out there? This is the perception that

<https://assignbuster.com/bottled-water-purchasing-patterns-of-university-students/>

has been built around consumers even in countries where tap water is provided filtered to each and every home as a basic human need.

The success story then definitely remains to be positive consumer perceptions that outweigh the negative perceptions. It is these positive perceptions that are promoted by billion dollar advertising and promotion campaigns. This positive perception building has led to bottle water becoming big business with even bigger profit margins.

## **Theoretical Framework**

There are many perspectives to Bottled water around the world from general consumer preferences to University students' consumption preferences.

Universities around the world in developed countries like U. S., U. K. and Canada have both positive and negative perceptions about bottled water. Students in these universities have various arguments and counter arguments regarding bottled water preferences.

Universities students who hold positive perceptions see bottled water as a healthy diet and lifestyle choice, for them bottled water is part of life and walking around campus one can clearly see people holding water bottles. They drink because of positive perceptions regarding taste, quality and convenience (Battle of Water bottle, 2000; Devasenathipathi et al, 2008; Jemmott, 2008; Pip, 2000; Rosa, 2004; World Watch Institute, 2007; Zhao, 2006).

They said that every story has two sides to it and because in the developed world tap water is filtered there is a long debate over Bottled Water versus

Tap Water. Some students also see bottled water as a waste of precious  
<https://assignbuster.com/bottled-water-purchasing-patterns-of-university-students/>

water resources, a source of plastic poisoning and a drain on the environment. They question its purity and whether it is safe to drink or not. (Bottled Water vs. Tap Water, 2008; 2000, No Bottled Water at University, 2009; Rosemann, 2005; The Battle of Bottle).

Both these positive and negative perceptions determine the sales of bottled water domestically and abroad.

As discussed above there are different perspectives to Bottled water around the world from general consumer preferences to University students' consumption preferences. Therefore, it was our endeavor to find out Students perceptions about Bottled Water in Karachi. What effects their purchase decisions and how and why they choose to or not to drink Bottled water.

## **Data Analysis & Findings**

Monthly Household Income of the respondents of both universities; BAHRIA and Karachi University

Aforementioned figures shows that who used bottled water, majority of the BAHIRIA's students have had their monthly income more than Rs. 60, 000, whereas 28 students' household income was Rs. 40, 000 to Rs. 60, 000. In addition to that only 2 students those household incomes was under Rs. 20, 000.

While majority student's of KU have had their household income in between of Rs20, 000 to Rs. 40, 000. However, only 10 students those household incomes were over Rs. 60, 000.

<https://assignbuster.com/bottled-water-purchasing-patterns-of-university-students/>

### **3. 2 Residential Area of Students of BAHRI and KU**

Out of the 18 towns of Karachi, Our research incorporated respondents from 11 towns of Karachi.

Figure 3. 2(a) explained that the most of the inhabitants of Gulshan town were consuming mineral water than any other type of water. Whereas figure 3. 2(b) shows that the most of the inhabitants of Gulshan town were consuming mineral water than any other type of water.

### **3. 3 Type of water were being used by students for daily drinking purpose**

Above figure 3. 3(a) shows that there were huge differences in the responses of the students of university BAHRIA and KU. In figure 3. 3(a) shows that in BAHRIA, among 100 interviewed students 57% were the daily users of mineral water, whereas 21% were the users of filtered water, 15% were boiled tap water and only handful amount of students 7% were the users of tap water.

On the contrary, figure 3. 3(b) shows that among the 100 students of KU, majority 54% were the users of boiled tap water. However, 20% were the users of tap water, 18% were the users of Mineral Water and only small chunk were the users of filtered water.

Thus, it is extensively noticeable that the majority of the students of BAHRIA were the users of mineral water comparative to KU.

### **3. 4 Reasons behind drinking particular type of water**

As per above figure 3. 4(a), among the 100 students of BAHRIA, 44% thought that the reliability plays vital role while using particular type of water and 35% were in view of easy access and 21% students preferred to cite their own factors namely hygiene and price.

In figure 3. 4(b), however, 54% from 100 students of KU believed that easy access is important factor for them rather than reliability. Hence only 46% students marked their answers for reliability.

Therefore, there is visible difference between the views of BAHRIA's students and KU's students. For BAHRIANS reliability was the main reason for using particular type of water but for KU students' easy access was the foremost reason.

### **3. 5 Top of Mind brands of Bottled water**

Figure 3. 5(a) shows that from 100 students of BAHRIA; Nestle mineral water was the top of mind. Addition to that 80% students recalled Nestle water when they were asked the name of first brand came to their mind. Moreover, only 13% students were recalled Aquafina as their top of mind brand and only 7% students had top of mind awareness of Culligan. In other mentioned brands 42% students recalled Aquafina and 17% for Nestle and 16% Culligan.

In figure 3. 5(b) 68% students of KU had an awareness of Nestle as their top of mind brand and 27% students recalled Aquafina as their top of mind of brand. In other mentioned brands 33% students marked Aquafina in other



mentioned brands, 18% & 17% students marked Nestle and Culligan respectively.

Hence, it is widely visible that the BAHRIANS has more top of mind awareness of Nestle comparative to KU students. As far as other mentioned brands are concerned Aquafina was being marked after than Nestle by both universities students.

### **3. 6 Frequency of using bottled water among students**

In figure 3. 6(a) out of 100 students of BAHRIA 14% students who were consuming bottled water several times in a day. Moreover, 32% students consumed bottled water at least once in a day, 36% were consuming more than once in a week and 16% students who were consuming bottled water once a week. There were small chunk of students who consumed bottled water less than once a week.

However, figure 3. 6(b) shows that in KU out of 100 students only 6% of students were consuming bottled water several times in a day. 22% students were consuming at least once daily, 17% students consumed bottled water more than once in a week, and 10% students consuming once a week, 12% students were consuming less than once a week and 33% students were consuming bottled water once a month or less.

Therefore, the students of BAHRIA consumed more bottled water than KU students. Similarly, the frequency of consumption of bottled water of BAHRIANS was far more ahead than KU students. Though the respondents of KU belonged to Food and Sciences department yet their frequency of

consumption is less than BAHRIANS. However, in KU 33% students marked <https://assignbuster.com/bottled-water-purchasing-patterns-of-university-students/>

their answers of consuming water in a month or less, on the contrary there wasn't a single respondent in BAHRIA, whose consumption of bottled water was as lowest as KU students.

Aforementioned figures show that the students of BAHRIA were more attracted towards bottled water than KU students. As far as gender was concerned Females were more inclined towards using of bottled water than male; in both universities.

### **3. 7 Size of bottles preferred by students**

In figure 3. 7(a) majority of the students of BAHRIA purchased bottled water from university Cafe and the size of the bottle was 0. 5 litre because on the other hand students were in view that the they purchased 1. 5 liter or larger than this quantity rather preferred to purchase from shop.

As far as figure 3. 7(b) is concerned that the students of KU whosoever consumed bottled water they had preferred to purchase from university cafe of 0. 5 liter and preferred larger quantity of bottled water from nearby shop of their respective homes.

Thus, there is not visible difference because 0. 5liter was sufficient for them to consume at university as compared to other sizes of bottled water in both of the universities.

### **3. 8 The most important factors towards buying of bottled water**

Figure 3. 8(a) shows that in BAHRIA 61% students thought of availability was the most important factor for purchasing bottled water, 16% students were

in view of Price is the most important for purchasing bottled water, 12% students for promotion and only 9% students thought that they were attracted by the packaging of bottled water.

On the contrary, figure 3. 8(b) in KU 44% students were in view that availability was the most important factor for purchasing bottled water, 35% students were price conscious, 12% and 9% students were being attracted by promotion and Packaging respectively.

Therefore, Price for BAHRIANS is least issue than KU students because only 16% students from 100 students in BAHRIA were considering price, whereas 35% students of KU had the influencing factor of price.

### **Reasons behind influencing factors towards the purchase of bottled water**

Majority of respondents believed that availability is the major factor for influencing the purchase of bottled water. Moreover, respondents believed that out of mind, is out of sight so being on the shelves of shop would have much influence on the purc