Challenges and Solutions: A Case Study of Coca-Cola Company

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ABSTRACT

Innovation and transformation are the key points to business success. Coca-Cola is the world’s largest distributor and producer of soft drink concentrates and syrups. Starting as a beverage manufacturer and retailer in 1886 with its flagship product, Coca-Cola. The marketing strategies, innovation and transformation are embedded in different culture that led to the sustainable growth of Coca-Cola Company. Across the globe and around the clock, Coca-Cola Company never stops working to improve the world we all shared and to give people the beverage they want. Some actions need to be taken on sugar reduction as consumers are adopting healthier lifestyle and innovations in packing materials by reducing the use of plastics.

Keywords: Coca-Cola, Sustainable, Innovation, Beverage, Transformation, Marketing

INTRODUCTION

Nowadays, consumers are trending towards more health-conscious lifestyles and aware about the environmental problems. An organization should adapt to innovation and transformation, in order to be a successful organization. Across the world and around the clock, people have more concerns, awareness and knowledge come a demand for organizations to act and alter. This situation forced the organization to face even a lot of obstacles and push them to limit for never stops working to improve themselves.

The Coca-Cola Company is one of the world-famous and largest brands in beverage industry. The Coca-Cola products embedded to a wide range of people from different races, ages and cultural. Coca-Cola is well known for its worldwide popularity as its products are available over 200 countries around the world. Being a well-known trademark in the world, Coca-Cola Company are responsible to the environment and people healthy problem as consumers are adopting to a healthier lifestyle and better environment.

Across the globe and around the clock, Coca-Cola Company never stop working to give people the drinks the customers want and to improve the world we all share. The Coca-Cola Company turn their passion for consumers into the brands people love and create shared opportunity through growth. As the Coca-Cola Company operating with a growth mind set and the products presence in almost every country, they consider their risk and opportunity in the global context. That is an essential key point of transformation for Coca-Cola Company.
Many obstacles face by Coca-Cola Company and they need to fulfil their long-term vision by creating values for all people. Maximum consumption of Coca-Cola products might be harmful to health. According to World Health Organization, that people should limit their daily intake of added sugar to no more than 10% of their total energy or calorie consumption. Plastic bottle waste and water scarcity caused by Coca-Cola Company have a huge negative impact to the environment. Another challenge of Coca-Cola Company is increasing competitors in non-alcoholic beverage industries caused the company needs more innovation and transformation to beat the rivals.

In this case study, the focus is going to be on Coca-Cola’s problems and solution to solve them. We want to help Coca-Cola become a more successful company by studying the issues facing by Coca-Cola and the solutions needed to maintain its sustainability growth through innovation, transformation without damaging the environment and adopting healthier products. We do believe that although Coca-Cola is a global company and has taken many actions to sustain its growth, there is always room for improvement.

Background of Idea

Nowadays, people are paying more attention and more concerns in the healthy lifestyle. A decline in demand of Coca-Cola beverage is because of change in lifestyle of people’s eating habit and which might be the challenges faced by Coca-Cola Company. Consumers at the elder age are more concerned about health and nutrition required as a result older people increasingly focus on extending life. In the past few years, customers and health agencies have made harsh criticized in the high sugar content of non-alcoholic beverage. Due to health-conscious lifestyles and high awareness towards the environmental issues, the business strategic and business environment of carbonated soft drinks needed to change.

Health agencies claimed that the carbonated soft drinks have several drawbacks, including dehydration, high sugar intake, weight gain and calcium depletion. In the United States, there is ample evidence that weight gain and obesity rates parallel the increasing consumption of refined carbohydrate intake and, most notably, added sugars, particularly in the form of sugar sweetened beverages. (Lavie, C., Laddu, D., Arena, R., Ortega, F., Alpert, M., & Kushner, R. 2018). For example, there is 10.6g of sugar per 100ml in Coca-Cola Classic. An around 350ml serving of cola contains 140 calories, weight gain because of you consume a lot of calories than your body burns. The ingredients of sodas in Coca-Cola beverage contains of high amounts of phosphoric acid and citric acid that can wipe out the calcium from the bone leach calcium out of your teeth and cause a decline of calcium absorption. Scientific evidence in both human and animal models support the suggestion that excess sugar consumption has negative metabolic effects such dyslipidemia, a rise in inflammatory markers, weight gain, increased risk for type 2 diabetes and other alterations associated with NCDs. (Gallagher, et al. 2016).

Moreover, the beverage industry is highly competitive as more non-alcoholic beverage industries are coming into the market. The main and closest competitor of Coca-Cola Company is PepsiCo which was born 12 years after Coca-Cola. The competitive advantage of PepsiCo over Coca-Cola is Pepsi has created “complementary” or “synergistic” business lines. PepsiCo Company diversification into snack business that help the company growth in sales and revenue. It is also
tending to be very easy for the consumers to buy the products from PepsiCo because of the similar on their production, their taste and their prices. With this case, Coca-Cola Company required to have strong marketing strategies to beat the rival.

![Figure 1: Total Revenues of Coca-Cola vs PepsiCo](image)

Three million tons of plastic are used by Coca-Cola Company for packaging in a year. Large quantities of plastic products are disposed-off within the surroundings in the environment. Among these, plastic waste bottles occupy greater proportion such as mineral water bottles and beverage bottles. (Ru-Jin Zhao, Li-Ying Gong, et al. 2017). Pollution possess huge, negative impact towards natural environment because of plastic is not biodegradable, and it made from toxic compounds. Plastic waste has been eaten by marine animals causes fatal and poisoned due to plastic ingestion. Plastic ingestion by fish is also raising great concerns due to potential risks to human health, yet there is still very little information on plastic ingestion in commercial fish species, as only 7.5% have been examined. (Markic, A., Jean-Claude Gaertner, J-C., Gaertner-Mazouni, N., & A. Koelmans, A 2019). Besides, damaging land and reducing in quality of land surface are another negative impact caused by plastic pollution. It is because when plastic react with water will form harmful chemical. Although Coca-Cola Company explores many methods to solve the plastic waste problems, there are always have continuously improvements to be created. As the figure below showed, Coca-Cola is largest plastic polluter in the world.
The main ingredient of Coca-Cola Company is water. An enormous and surprising 1.9 billion consumptions of Coca-Cola products per day throughout the globe. Three hundred billion litters of water is needed for bottling plants annually to produce carbonated beverages to meet the demand of consumers. In 2018, the World Bank and the UN claimed that 36% of the global population lives in water-scarce areas in 2018. (Biswas., & Tortajada. 2019). Water scarcity is caused by high water use relative to water availability, and humankinds are the major influential forces, which is the human-driven factors of water scarcity. (Li, W., Hai, X., Han, L., Mao, J., & Tian, M. 2019).

Although such a feat is impressive in terms of logistics, the Coca-Cola Company has grown involved regarding the water usage sustainability and its implications as a result 2.8 billion people are estimated calculable in danger of involving water shortages. As global water security become more serious due to climate change, the political activists have state that the acceptability of the Coca-Cola Company’s practices.

The Central Pollution Board of India expressed that sludge from Coca-Cola factory was contaminated with high levels of cadmium, lead, and chromium. Limited resources occurred several parts of the countries like India. The groundwater supplies in India has threatened by drought, many villagers in rural areas are blaming Coca-Cola Company by aggravating the population and groundwater depletion issues. Since that point, Coca-Cola Company have taken action to alleviate this downside by undertaken a water replacement program, however once dry monsoons the water shortage continues to be a serious issue.

Justification Idea
Social environment: healthier lifestyle (sugar challenge) max consumption of Coca-Cola might be harmful to health
Sweetened drinks have transforming to the main source of calories in the people daily diet. There are many results show that taking in excessive sugar will put you in the situation of obesity than consuming fat is. Also, the disease like diabetes, heart problems or cancer have also been found that were linked to the high increase in sugar consumption around the whole world. In order for Coca-Cola Company to overcome this kind of problem, it can work on by using the following steps which are no sugar availability, position of product, smaller size of packing and shopper communication.

No Sugar Availability
Coca-Cola can design in no sugar version so that the consumers enjoy the wide array of refreshment choices. Not only Diet Coke and Coke Zero Sugar, Coca-Cola Company can develop more variety of beverage. As example like still water or sparkling water, teas or yogurt drink with low or no sugar.

Position of product
A placement of a product can be set in a key location to influence consumer behavior. By putting no sugar beverages in the key location, the chance of consumer to notice it and try to purchase it will be increase. Furthermore, by placing
no sugar Coca-Cola directly behind the handles on refrigerator, more potential that people will buy it.

**Smaller size of packing**
Next, Coca-Cola Company should improve the production of smaller size of packing like produce 150 ml of bottle drink compared to the normal size that Coca-Cola Company usually produced. In this way, consumers have the chance to choose what is suitable for them. In addition, Coco-Cola Company should make this small packing in global high availability so that everyone can enjoy this benefit.

**Shopper Communication**
Coca-Cola should hold more event sampling at every market to publicise the no sugar version of Coca Cola to consumers. Consumers have the chance to explore more new flavour and find the perfect beverage that can fulfil their requirement. In addition, this can build awareness to consumers to try on the new flavour.

**Market opportunity analysis: Increase in competition (non-alcoholic beverage industry is highly competitive)**
The non-alcoholic beverage industry is one of the fastest growing industries of this decade and it becomes more competitive compared to other industry. Undoubtedly, Pepsi is the primary competitor of Coca-Cola Company in the market. This will affect the profitability of Coca-Cola because it had to share the market with other competitors. Moreover, Coca-Cola used centralized structure, which means that the process of making decision will be long and complicated as well.

In order to solve this problem, Coca-Cola company should apply a different way of structure like decentralized structure. In this way, less people will involve in the making decision and hence will speed up the whole progress. Besides, Coca-Cola company can give power to each segment and let them make their own decision according to the demands of the customers. Diversity of product is also one of the importance things for Coca-Cola to work on. With variety of product line, Coca-Cola will able to take care all kind of preferences of every customer. Brand name of a company is also an essential thing need to be special take care of so that the reputation of Coca-Cola Company can be well known by all people.

**Plastic bottles waste**
As we know, plastic pollution is one of the biggest environmental concerns. In the world we live in, it seems that there is inevitably a large amount of plastic waste but helping to solve the problem of plastic pollution can be done by understanding the dangers of plastic pollution and taking measures to reduce waste. As the population grows, the amount of waste within world will increase, and disposable plastic products accumulate over time such as water bottles and soda cans. Aggregating plastics cannot only pollute the environment but also plants, animals or humans. Food and beverage packaging are important in our modern lifestyle because we used a lot of and different types F&B packages. However, the world's waste issues and plastic pollution have become progressively important social and environmental issues. Plastic packaging also contributes to the current waste challenge. Several companies with popular products have a responsibility to assist solve this drawback. In order to solve this problem, Coca-Cola Company can invest in the innovation of packaging that can help minimize the world's packaging waste issues.
About World without Waste

In 2018, The Coca-Cola Company announced its new vision of “No Waste of the World” by collecting and recycling every bottle or jar of its products by 2030 and increasing the amount of recycled materials used to many bottles or cans. An average of 50%; and all packaging can be 100% recycled by 2025, and our PET bottles have an average recovery of 50%. To help improve recycling, Coca-Cola redesigned and reconsidered its packaging and motivated consumers by streamlining recycling ecosystems and by identifying potential products that could be created.

“Designing our packages to reduce the amount of raw materials used and incorporating recycled and renewable content in our bottles to help drive a circular economy for our packaging is a vital part for us to operate our business in the correct way,” said Sneha Shah, Group Director, Packaging Innovation, Coca-Cola North America.

Group design Sneha Shah said: “To help drive packaging to achieve a circular economy, design packaging can reduce the amount of raw materials used and add recyclable and renewable ingredients to the bottle. This is an important part of our commitment to doing business in the right way.

World without Waste vision is that the next step to alleviate the plastic pollution problems with the proper approach, not just the easy method. The company and its bottling packaging partners achieved their goals five years sooner than their schedule. Coca-Cola Company uses its world marketing technique to assist the public understand what, how and where to recycle to help increasing recycling rates. Improving local recycling systems and promoting policy changes will help to solve the plastic waste problem, making it easier and easier for everyone to apply, the company will corporate with local people, government, NGOs, industry peers and consumers.

DASANI is the mainstream water brand in the United States has announced a robust pipeline sustainable packaging innovation channel to support Coca Cola's global “World No Waste” goal. By 2030, its average production of bottles and cans will reach 90%. DASANI's packaging line-up has been updated to reduce plastic waste and increase the use of recyclable and renewable materials in the United States while ensuring that all DASANI bottles continue to be fully recyclable. Innovations include:

The Coca-Cola Company’s first package the first package of Coca-Cola in the United States, made with a mix from up to 50% plant-based renewable and recycled PET materials (Plant Bottle TM and recycled PET plastic). The company's success in the past decade has been based on the addition of recycled ingredients and plant-based materials to reduce the amount of virgin PET plastic used in the bottle.

Since 2009, DASANI has been at the forefront of sustainable innovation, introducing the first fully recyclable bottle made partially from plants (Plant Bottle) In 2018, the brand continued its sustainability journey by turning the primary major water brand of DASANI Pure Fill's to debut a package-less water dispensing unit with DASANI Pure Fill.
Earlier this year, The Coca-Cola Company extended access to the Plant Bottle IP to encourage the adoption of Plant Bottle across the industry.

These non-recyclable bottles end up in landfills, are burned, or make their way through waterways to the ocean. The defects of disposable plastics are becoming more and more obvious, which highlights the requirements for solving difficulties, in part, with three methods:

1. **Smart consumer choices**
   To educate consumers about the need and practice of recycling disposable products.

2. **Easy and efficient recycling**
   Develop an infrastructure that is easy for consumers to recycle and efficient enough to make it economically viable.

3. **Breakaway from plastics**
   Encourage companies to develop alternative materials that can be used in alternative to plastics and change the mind-set around their products to not rely solely on disposable plastic containers. To help solve the existing packaging waste problem, Coca-Cola will continue to cooperate with existing partners such as the Marine Conservation/Non-Pollution Marine Alliance, the World Wildlife Fund (WWF) and the Allen MacArthur Foundation (New Plastics Economic Initiative) to support garbage disposal processing.

4. **Water scarcity and poor quality**
   Water scarcity and poor-quality issues are at the alarming rates in many places of the world because of the increasing demand by industry and it causes serious consequences in some markets. For instance, the estimation by the World Bank states that all the water supplies available in India will be exhausted in 2050 if without any technological improvement or further invention. Since 2007, Coca-Cola Company operated 24 bottling plants in India become one of the causes for water scarcity. With the issue of available water in India already in short supply, residents and regulators in India began to oppose the operation of Coca-Cola Company in bottling plants. This open oppose damages the reputation of Coca-Cola Company.

The solution for Coca-Cola Company is to make a research of a system wide water stewardship platform to solve the problems of water shortage and poor quality by achieving water neutrality. By 2020, the amount of water returned to nature and communities will equal the amounts of water used in all products and production. By using this strategy, it can assist the manufacturing to improve their efficiency to eliminate the problem of water waste and reuse of water waste in boilers, chillers and evaporators. Coca-Cola Company can cooperate with governments and NGOs to finance in building water treatment facilities, build dams and restore water. By doing this, when the water consumed during production process, an equal amount of available water is returned to the environment in large quantities or not at all.

**RESULTS AND DISCUSSIONS**

Consumption of sweetened soft drink is rising dramatically due to widespread urbanization and beverage marketing. With significant evidence supporting a positive association between consumption of sugary drinks and increased risks of obesity, diabetes, and dental diseases, public health professionals in the areas of
health promotion and disease prevention have attempted to change people’s attitude and behavior towards the consumption because the above-mentioned conditions have produced negative impact on population health and socioeconomic development. (Ford & Schubert, 2019). Max consumption of Coca-Cola might be harmful to consumers’ health. Therefore, to putting consumers first, the Coca-Cola Company explored and brought to market a new sugar alternative which keep the great tastes people love but with less sugar and fewer calories. For example, Coca-Cola Zero Sugar is one of the no-sugar drinks which launched by Coca-Cola Company. Coca-Cola Company promote their low- and no-sugar drinks heavily by making them more visible and easier to find.

Apart from that, Coca-Cola Company can offer more variety drinks with low- or no-sugar such as sparkling water, organics teas instead of Coca-Cola Zero Sugar for consumer to consume. Offering more variety choices of low- and no-sugar as well as low calories drinks may please the consumer. The more the options of the beverages, the consumer may choose their beverage more deliberately. Product positioning is also important to prompt a consumer to make their choice to serve a product. For example, the Coca-Cola Company can place their low- and no-sugar as well as low calories beverages directly behind the handles on self-serve coolers. Placing the beverages at more visible place can make it easier for consumer to find.

Besides that, the Coca-Cola Company can increase their production of small packages beverages that can reduce the sugar intake of a consumer. For instance, the Coca-Cola Company can produce a new smaller pack size for its beverage that is 150 ml per can instead of normal size which is 330 ml per can. This may help the consumer to have the ability to choose the portion that is suitable for them. The smaller pack size may also make consumer more convenient. Shopper communication is a key to promote the product. The Coca-Cola Company can set up a booth inside- out the supermarket which purposely is to give the sample to the consumer. The consumer can have an opportunity to try Coca-Cola product such as Coke Zero Sugar. Giving the sample to consumer to try may help lifting the confidence of a consumer. After the consumer had tried the product, he or she will purchase the product which he or she like.

The market of non-alcoholic beverage is growing up very fast in the recent year. Different brands of non-alcoholic beverage had become competitor to one another brand. For example, Pepsi had become one of the competitors to Coca-Cola Company. The product sell by Coca-Cola and PepsiCo are almost the same. Pepsi may affect the sales of the Coca-Cola as the consumer may change their desire of beverages to Pepsi. Therefore, the Coca-Cola Company should expand their footprint in the global market and innovate newer product. Coca-Cola Company should make a better understanding of the local and global communities to maintain its leading position in the global soft drinks market. Coca-Cola should adopt a more decentralized structure to allow different market segments to make decision based on the demand of consumer. A better understanding the needs, wants and demands of the global people and framed its product to satisfy consumer may increase the sales of the Coca-Cola. For instance, the Coca-Cola Company can reduce the content of sugar in the beverage without sacrificing the taste of the beverage at the same time.

In addition, Coca-Cola Company has a very strong brand reputation and experience in this sector, therefore, the company can use this as a chance to make its brand
and logo more well known. For instance, the Coca-Cola Company can promote their new product which is low- or no- sugar beverage widely in local and global market. The Coca-Cola Company can spend more in advertising their product. Spending more money in advertising to promote the product may increase its profitability as well as it can also successfully introduce the new products into the marketplace.

For water scarcity and poor-quality issues, Coca-Cola Company can apply the idea by corporation with the relevant government and NGO to make some investment on reduction water waste. Coca-Cola Company can play a unique role and different capabilities to alleviate water scarcity issue when they corporate with the government. By this way, a huge impact is made to the society because of the global corporation. A system-wide water stewardship platform needed the corporation of each other to achieve a best performance. Coca-Cola Company can collaborate on leading technologies to provide operational efficiencies that have positive environmental and ROI benefits.

The risks for Coca-Cola Company to apply these ideas are increase cost of production, getting unexpected results when applied these ideas reputation risk. For producing a less sugar beverage and reduce plastic waste needed a lot of money to investigate the methods and innovation. Unexpected financial loss occurred when failed in some investigations. When Coca-Cola Company introduced a new product or service, there may be an unexpected result for instances the products do not accept by market and consumers. Reputation risk is everything for a company. It will affect the revenue of company and customers’ options. If the problems of plastic waste and water scarcity are continuing even though Coca-Cola Company have taken actions, the reputation of company will be affected.

CONCLUSIONS

The problems faced by Coca-Cola Company are high sugar harmful to health, increase in competitors, plastic bottle waste and water scarcity. These issues will lead to many negative impacts to social and natural environment. By consuming high sugar beverages and plastic bottle will detrimental consumers health and destroy the environment. Increase in competitors will cause the sales of Coca-Cola Company drop and the market share decrease. Actions need to be taken by Coca-Cola Company to retain and improve their revenue and reputation.

Firstly, recommendation for Coca-Cola Company to solve the problems is technology upgrade in frequent way. The company needs to replace the old technology with the new technology to ensure greater efficiency and improve the productivities. Since the technology evolves so rapidly, Coca-Cola Company require to keep track for the revolution of technology to ensure the issues of plastic bottle waste and water scarcity are solved by the correct and effective way. For instance, the challenges of water scarcity have many technology methods to alleviate the issue, but Coca-Cola Company require upgrading technology for better result.

The following recommendation for Coca-Cola Company is increasing commitment to social, community and environment when applied these ideas. The commitment shows by Coca-Cola Company might improve the reputation of company and gain respect from society. Hence, Coca-Cola Company has one more competitor advantage to beat the rivals. Keep pace with current issues is extremely important because it present the consumers’ voices. Coca-Cola Company require taking
attention about the environment pollution and the changes of lifestyle by reducing plastic bottle waste, water scarcity and high sugar problem. For example, Coca-Cola Company might move forward with commitment to be an industry leader in the health, environment protection and sustainability arena.

Coca-Cola is an outstanding brand in the world. Excellent market strategies and awesome innovation capacity make it remain in top position of beverage field. However, there are still a lot of obstacles and improvement such as the labels of "junk food", the issues of contribute a huge plastic pollution and the problem of deteriorating water shortages. Coca-Cola Company should develop more method that is effective and refer the suggestions from others to eliminate these images and maintain stainability.

REFERENCES

Aimee Lutkin. (2019). Coca-Cola Is Looking For Someone To Solve Their Sugar Problem For $1 Million. Retrieved from https://www.greenmatters.com/food/2017/08/15/2srX82/coca-cola-sugar-problem-for-1-million

Alex Renton. (2019, January). Coca-Cola's sugar problem. Retrieved from https://www.theguardian.com/lifeandstyle/wordofmouth/2013/jan/18/coca-cola-sugar-problem

Biswas, A, K., & Tortajada, C., (2019). Water crisis and water wars: myths and realities.

International Journal of Water Resources Development, 35(5): 727-731. DOI: 10.1080/07900627.2019.1636502

Bruno Pietracci. (2019, September). 5 ways Coca-Cola is cleaning up its plastic footprint in Africa. Retrieved from https://www.weforum.org/agenda/2019/09/coca-cola-coke-cleaning-up-plastic-recycling/

Christina Parthenidou. (2019, April). Coca-Cola on watch after PepsiCo’s earnings beat

– Stock Market News. Retrieved from https://www.xm.com/coca-cola-on-watch-after-pepsicos-earnings-beat-stock-market-news-100254

Earth Talk. (2019, July). Coca-Cola Charged With Groundwater Depletion and Pollution in India. Retrieved from https://www.thoughtco.com/coca-cola-groundwater-depletion-in-india-1204204

Gallagher, C, Keogh, JB., Pedersen. E., Clifton, PM. (2016). Fructose acute effects on glucose, insulin, and triglyceride after a solid meal compared with sucralose and sucrose in a randomized crossover study. The American Journal of Clinical Nutrition, 103(6):1453–1457. doi:10.3945/ajcn.115.129866.
Jay Moye. (2019, January). A World Without Waste: Coca-Cola Announces Ambitious Sustainable Packaging Goal. Retrieved from https://www.coca-colacompany.com/stories/world-without-waste

JBArev. (2016, November). Coca-Cola and Water Scarcity: substantial progress or just another drop in the bucket? Retrieved from https://digital.hbs.edu/platform-rctom/submission/coca-cola-and-water-scarcity-substantial-progress-or-just-another-drop-in-the-bucket/

Journey Staff. (2017, December). How Coca-Cola is Helping to Reduce Sugar and Bring the Industry’s Balance Calories Initiative to Life in East Los Angeles. Retrieved from https://www.coca-colacompany.com/stories/how-coca-cola-is-helping-to-reduce-sugar-and-bring-the-industry

Lavie, C., Laddu, D., Arena, R., Ortega, F., Alpert, M., & Kushner, R. (2018). Healthy Weight and Obesity Prevention. *Journal Of The American College Of Cardiology*, 72(13), 1506-1531. DOI: 10.1016/j.jacc.2018.08.1037

Li, W., Hai, X., Han, L., Mao, J., & Tian, M. (2019). Does urbanization intensify regional water scarcity? Evidence and implications from a megaregion of China. *Journal Of Cleaner Production*, 244, 118592. DOI: 10.1016/j.jclepro.2019.118592

Liu, S., Osgood, N., Gao, Q., Xue, H., & Wang, Y. (2016). Systems simulation model for assessing the sustainability and synergistic impacts of sugar-sweetened beverages tax and revenue recycling on childhood obesity prevention. *Journal Of The Operational Research Society*, 67(5), 708-721. DOI: 10.1057/jors.2015.99

Markic, A., Gaertner, J., Gaertner-Mazouni, N., & Koelmans, A. (2019). Plastic ingestion by marine fish in the wild. *Critical Reviews In Environmental Science And Technology*, 1-41. doi: 10.1080/10643389.2019.1631990

Sonia Madaan. (n.d.). *Environmental Effects Plastic Pollution*. Retrieved from https://www.eartheclipse.com/environment/environmental-effects-plastic-pollution.html

Te, V., Ford, P., & Schubert, L. (2019). Exploring social media campaigns against sugar-sweetened beverage consumption: A systematic search. *Cogent Medicine*, 6(1). doi: 10.1080/2331205x.2019.1607432

The Coca-Cola Company. (2018, August). *Improving Our Water Efficiency*. Retrieved from https://www.coca-colacompany.com/stories/setting-a-new-goal-for-water-efficiency

The Coca-Cola Company. (2019, August): DASANI® Takes Steps to Reduce Plastic Waste Through Increased Use of Recycled Materials, Expanded Package Innovation. Retrieved from https://www.coca-colacompany.com/press-center/press-releases/dasani-takes-steps-to-reduce-plastic-waste

Trevor Nace. (2019, October). Coca-Cola Named The World’s Most Polluting Brand in
Plastic Waste Audit. Retrieved from https://www.forbes.com/sites/trevornace/2019/10/29/coca-cola-named-the-worlds-most-polluting-brand-in-plastic-waste-audit/#742efc8974e0

Zhao, R., Gong, L., Zhu, H., Liu, Q., Xu, L., Lu, L., & Yang, Q. (2017). Property of filler-loaded magnetic ferrite from plastic waste bottle used to treat municipal domestic sewage. *Environmental Technology*, 39(12), 1607-1613. DOI: 10.1080/09593330.2017.1334708