

Case Analysis of Coca-Cola's Sustainability

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Abstract. This paper analyzes Coca-Cola's sustainability status and efforts based on three models: the Triple Bottom Line, the Phrase Model and Carroll's Pyramid. Sustainability is a globally common concern, and Coca-Cola is actively involved by integrating sustainability into its corporate strategy. This paper lists and analyzes various ways Coca-Cola has contributed to sustainability, both inside and outside the company. These examples are related to employees, economic, environmental, legal, ethical, and philanthropic aspects. Based on a comprehensive sustainability analysis of Coca-Cola using the three models, the paper concludes that Coca-Cola primarily meets the requirements of the Triple Bottom Line and Carroll's CSR Pyramid model for corporate sustainability. The company is currently in the second wave of the Phrase Model and is gradually working towards the third wave.

Keywords: Sustainability; CSR; Triple Bottom Line; Carroll's Pyramid; Phrase Model; Coca-Cola.

1. Introduction

Coca-Cola was invented in 1886 by accident with carbonated water and soda by a doctor, John Pemberton. Since then, the Coca-Cola label has been named and is still in use today. Through continuous efforts to provide consumers with high-quality beverages, the production of targeted new products for different consumer groups and the use of different creative marketing plans in the global, the Coca-Cola company has become a leader in the production, manufacture, and distribution of soft drinks [1]. Until today, the Coca-Cola Company has more than 700,000 employees in 200 countries around the world with a market share of 48%, ranking first in the beverage industry. With the increasing popularity of the Coca-Cola brand, the Coca-Cola Company has developed more than 400 brands such as water, juice, tea, coffee, carbonated drinks, and sports drinks. Additionally, the annual sales of more than 20 brands can be up to one billion US dollars.

However, behind the huge sales, many environmental-related issues emerge. With the global emphasis on sustainability, Coca-Cola, as a multinational company with significant influence, must transform into sustainable development. This paper analyzes the sustainability of the Coca-Cola Company based on three important sustainability models, the Triple Bottom Line, the Phrase Model, and Carroll's Pyramid of CSR. The following sections focus on Coca-Cola's sustainability status, efforts, and shortcomings from multiple perspectives, considering the company's strategies and actions.

2. The Analysis of Coca-Cola's Sustainability based on the Triple Bottom Line

2.1 Introduction of Triple Bottom Line

The triple bottom line was proposed by John Elkington in the late-mid 1990s. Its emergence defines a standard for organizational sustainability. Meanwhile, it has become an important tool in support of the Sustainable Development Goals. The triple bottom line is a comprehensive concept and is more similar to an accounting framework [2]. Unlike the traditional framework, the bottom line describes the need for an organization to ensure economic prosperity, environmental quality, and social equity. It both pays attention to the planet and humans. For the economic line, it emphasizes whether an organization can generate economic value to ensure its future development and prosperity.

For the environmental line, it refers to an organization's inability to engage in practices that harm the interests of future generations. In addition, it involves efficient energy use, reducing harmful gas emissions and so on. For the social line, it emphasizes that an organization's business practices should give back to society for positive social impact and help its sustainable development. More and more research reports prove that social responsibility plays a vital role in the sustainable development of enterprises [3]. Therefore, if a company lead sustainable development as its goal, it should meet three triple bottom lines of profit, people, and the planet.

2.2 Three Aspects of Triple Bottom Line

From the perspective of profit, Coca-Cola has been using large-scale and automatic production to reduce its labor costs. For example, Coca-Cola China entered a strategic partnership with Siemens to develop an MIS system, allowing real-time monitoring and data collection during the beverage production process. In addition, the Coca-Cola Company has adopted an automated visual inspection system. This system automatically collects images and data of the bottles so that problematic products can be detected [4]. Since Coca-Cola beverages are mainly composed of sugar, there is no material cost pressure. Also, Coca-Cola's sales profit has grown in recent years. According to the data, Coca-Cola's revenue in 2021 reached 38.66 billion dollars, a year-on-year increase of 17%. Coca-Cola's market share in the soft drink industry reached 40% [5]. Moreover, Coca-Cola is also expanding and creating new brands to reduce profit risk. Only by approaching the market more proactively and creating more unique products can the brand and the foundation of the company be consolidated [5].

From the perspective of people, Coca-Cola has always insisted on improving its inclusive work environment and building a harmonious and loving community. Coca-Cola has designed various Inclusion Networks to connect groups of employees from different backgrounds but with the same interests around the world. Through this network, companies can hear and understand the ideas and voices of different communities and adopt them, thereby enhancing intimacy with their employees. In 2021, Coca-Cola was named the Best Place for Disability Inclusion. Additionally, Coca-Cola claims that by 2030, women will occupy 50% of its senior management positions. Besides, Coca-Cola provides its employees with various free medical services and physical examinations to ensure their health and safety.

From the planet's perspective, Coca-Cola is improving its technology to reduce waste. PaperBottle and PlantBottle are two good examples. Moreover, Coca-Cola is also constantly trying to use waste as a resource. In 2021, Coca-Cola provided winter jackets and scarves for venue cleaners for the Beijing 2022 Winter Olympics. 83% of the raw materials used to make the jacket come from recycled bottles and recyclable logos on every piece of clothing. The scarf is also made of PET material. This action is an excellent example to show the value of recycling and raises public awareness of sustainable packaging.

3. The Analysis of Coca-Cola's Sustainability based on the Phrase Model

3.1 Introduction of the Phrase Model

In the development process, the goals and ideas to be implemented and carried out at each stage are different. Therefore, Dunphy, Griffiths and Benn divided the phrase model of sustainability into three waves and six stages [6]. Through this model, organizations can clearly see the path they need to go through in sustainable development. This model combines environmental sustainability as well as human sustainability. It can be used to understand an organization's actions and the trajectory it has experienced in reaching its current position. In addition, it helps organizations survive as well as develop and urges them to work in the desired direction [7].

3.2 Three Waves of the Phrase Model

The first wave contains the rejection stage and the non-responsiveness stage. It means that the company refuses to take any sustainable decisions and treats its employees as cannon fodder with no

guarantee of their safety and health. Companies are also ignorant of the necessity to change [6]. Obviously, this does not belong to the stage where Coca-Cola is.

The second wave includes the compliance stage, efficiency stage and strategic proactivity stage, which are the stages Coca-Cola is going through. The compliance stage focuses on being a decent organization. In addition to ensuring a healthy and safe workplace, a responsible corporate citizen should act on society's expectations for sustainable development rather than being forced by government supervision or legal requirements. As one of the world's most polluting brands, Coca-Cola's plastic bottle pollution has always been a concern. In response to this problem, Coca-Cola has been proactively making changes in recent years. Coca-Cola launched PlantBottle in 2009, which is made from 30% plants. Therefore, it is 100% recyclable and has become the world's first recyclable plastic bottle. In 2020, Coca-Cola announced that they were creating bottles made of 100% paper to help them reduce waste. In 2021, Coca-Cola further launched a beverage bottle made of 100% plant-based plastic. The efficiency stage shows that companies do not understand how to use resources reasonably and need to increase their waste utilization rate to help realize the vision of a sustainable world [6]. Although Coca-Cola has launched PaperBottle and PlantBottle, it is still only tested in Europe rather than nationwide, which means that Coca-Cola still faces high pollution problems in other countries. The strategic proactivity stage states that sustainability has become an essential part of the company's business strategy and its potential competitive advantage. In other words, at this stage, the company is already able to achieve profitability by producing environmentally friendly and healthy items. While Coca-Cola has produced environmentally safe and healthy packaging, it has not given up on the widespread use of single-use plastic bottles. 60% of the company's income comes from Coke. However, most Coke products on the market are still packaged in plastic. Therefore, sustainability is still a pain point for Coca-Cola and cannot currently bring potential advantages to the firm.

The third wave covers the sustaining corporation stage, which is also the stage Coca-Cola is sprinting into. To achieve this stage, organizations need to actively participate in government and community cooperation to create an environment that promotes ecological balance. Every year Coca-Cola joins the community with many exhibitions to promote the importance of recyclability. So far, they have successfully held more than 70 exhibitions and attracted more than 5 million visitors. Meanwhile, Coca-Cola is constructing its wastewater management system. By collecting the water used in the manufacturing process and reclaiming it so that the wastewater can be cleaned and reused. Even if some local governments and communities do not have mandatory requirements, Coca-Cola insists on doing so. In addition, Coca-Cola continues to work with suppliers to ensure its sustainable farming vision. Also, in response to a series of operational issues brought by climate change, Coca-Cola has partnered with the World Wildlife Fund (WWF) and Business for Social Responsibility (BSR) to ensure its climate resilience.

4. The Analysis of Coca-Cola's Sustainability based on the Carroll's Pyramid of CSR

4.1 Introduction of the Carroll's Pyramid of CSR

Corporate social responsibility (CSR) has great significance and impact on a company. Enterprises hope to show their social responsibility through various measures, and consumers also wish that business organizations can bring more benefits to society [8]. With CSR activities, a company can build a positive reputation, enhance its value and promote its long-term economic development [9]. Therefore, it has been a topic that has always been widely discussed and paid attention to. Since the concept of corporate social responsibility was put forward, various corporate responsibility models have emerged. The Pyramid of Corporate Social Responsibility, proposed by Carroll in 1991, is one of the most authoritative and popular models [10]. In this model, Carroll divides CSR into four categories: economic responsibilities, legal responsibilities, ethical responsibilities, and philanthropic

responsibilities. Through this model, Carroll clearly states society's economic, legal, moral, and voluntary expectations of the organizations.

4.2 Economic Responsibility

The bottom of the pyramid is economic responsibility, which is also the primary goal of a company. Only when a company can realize its profit can it achieve sustainable development and long-term survival. Conversely, if a company is unprofitable, it cannot only fail to pay its employees, but it will also fail to return to investors. Therefore, economic responsibility is the premise and foundation for enterprises to fulfill other responsibilities [11]. Meanwhile, economic responsibility also means that the company has the responsibility to offer goods and services to customers at a reasonable price.

Coca-Cola has been a leader in the beverage industry since it was established. By analyzing the financial data of the beverage industry, Coca-Cola's profit margin can reach twice the industry average. According to Coca-Cola's 2021 business report, the company's net profit in 2021 reached \$9,771 million. Coca-Cola has excellent profit margins because of its high revenue and reasonable cost control. For example, Coca-Cola can target a strong customer base through traditional products and strong publicity inputs such as advertisements and short films. In addition, it continuously launches new products or derivative products to build new profitable points based on the needs of different groups of people. To be specific, the Coca-Cola Company launched Coke Zero to meet the requirements of fitness dieters. Besides, Coca-Cola has adopted a cost leadership strategy. It uses advanced science and technology to establish a complete supply chain system, thereby reducing production and labor costs [12]. Also, Coca-Cola fully considers the interests and needs of consumers and positions its prices as mid-to-low-end products to win a large market share. For example, 350 milliliter of mineral water costs only 1 RMB. Coca-Cola also uses the fractional pricing method. Most Coca-Cola products have prices ending in 8 or 9, giving customers the illusion of a discount or promotion in order to help the sales increase [12].

4.3 Legal Responsibility

Legal responsibility is the second level of the pyramid, which is the most crucial level. Therefore, corporate social responsibility is closely related to many fields of law [13]. Legal responsibility is mandatory for an enterprise to perform under any circumstances. Although corporate social responsibility has become a widely accepted concept, many companies have not strictly regulated and enforced their legal responsibilities. For a company, legal responsibility includes paying taxes on time, operating legally, accepting the supervision of the government, and considering the health and safety of employees.

First, according to health authorities, added sugars in beverages should not exceed 10% of total calories. Therefore, Coca-Cola is taking action to reduce the percentage of sugar content. Today, Coca-Cola's top 20 beverage brands have low or no sugar options. By 2020, the Coca-Cola Company has successfully participated in nearly 40 sugar reduction programs around the world to meet consumer and government expectations. Coca-Cola is also the first company to do 100% disclosure of the ingredients of its products. The Coca-Cola Company first introduced SmartLabel technology on its packaging in 2016 and installed QR codes on over 2,000 products in the US in 2020. By scanning the code, customers can better understand the product ingredients.

Second, The Coca-Cola Company complies with all quality and food safety laws and regulations. The Coca-Cola Company has strong food quality and safety standards. Not only are the most stringent standards adhered to during the sourcing process, but suppliers are also required to use qualified ingredients. In addition, Coca-Cola requires that all their distribution markets need to store, transport and handle products in a safe manner. Through Coca-Cola's stringent guidelines, supplier management and supply chain supervision, it could meet internationally recognized food safety standards.

Third, Coca-Cola maximizes the rights and safety of every employee. Coca-Cola has established a safety system to ensure that health and safety responsibilities throughout its operations meet

government policies, standards, and requirements. In addition, The Coca-Cola Company has developed comprehensive policies, principles, and procedures to ensure that human rights are respected and promoted by identifying and addressing any gaps across the business and supply chain.

4.4 Ethical Responsibility

Ethical responsibility means doing the right thing, being fair and avoiding harm. Unlike the two levels mentioned above, ethics is not a law, and companies are not obligated to obey it [11]. However, as public interest in globalization and sustainability deepens and some NGOs question the role of corporations in society, large and influential companies need to address those challenges regarding sustainability [14]. For example, Coca-Cola's plastic packaging huge pollutes the environment. Therefore, Coca-Cola needs to take this ethical responsibility for the sake of its stakeholders.

Coca-Cola Company launched a sustainable packaging strategy called "World Without Waste". The company has been named the world's largest plastic polluter four times by a non-governmental organization called "Break Free from Plastic". To solve the plastic pollution issue, the company collaborates with bottle partners to design and manufacture recyclable and renewable packaging. By 2025, the company's packaging will be 100% recyclable worldwide. By 2030, Coca-Cola plans to use more than 50% of recycled materials in packaging production. Coca-Cola Company is also reducing its carbon footprint by increasing the use of recycled plastic (rPET). In addition, Coca-Cola is actively working with governments, experts, and nonprofit organizations to support sustainable innovation in the packaging supply chain and work toward reducing marine pollution. Besides, Coca-Cola Company does not ignore the importance of consumers. The company encourages consumers to recycle through a variety of recyclable education, such as consumer campaigns and on-pack messaging. Therefore, the company seriously treat the issue of plastic pollution and has made some progress in creating a healthier environment.

Climate change is also a global environmental concern. Coca-Cola Company calculated greenhouse gas emissions across its total value chain using 2010 as a baseline. The company's Science Based Target plans to reduce greenhouse gas emissions by 25 percent from the total value chain by 2030, regardless of volume increases. This change reflects the company's commitment to reducing emissions. Additionally, Coca-Cola Company regularly reviews and discusses climate change-related risks with its leadership, considering the Task Force's recommendations on Climate-Related Financial Disclosures. The company's execution of its climate-related corporate strategy spans the entire business, with all functions actively managing and monitoring risks throughout the year and being accountable to the environment and stakeholders.

It is stated that a company would be more sustainable if it behaves ethically and is accountable for its strategies and decisions [15]. This will also give the company reputational advantages, increasing the value of the company. At the same time, the solution to sustainability-related issues and the increase in reputation is a win-win situation for the Coca-Cola Company. The company's focus on the environment is a manifestation of ethics and the commitment to CSR.

4.5 Philanthropic Responsibility

Philanthropic responsibility is the highest level of the four responsibilities. It means a company should uphold its values and give back to society. For example, the company benefits from the community by using natural resources, which also cause pollution, so it should give back to the community [11]. Coca-Cola Company believes that sustainability is the core of the company's growth and depends on the long-term value created by the company [16]. Therefore, Coca-Cola has made a lot of efforts to treat philanthropy as part of building sustainable communities.

The Coca-Cola Foundation was established in 1984 as a voluntary initiative to manage the company's philanthropic impact on society. To date, the Foundation has donated more than \$1.4 billion to sustainable initiatives that support communities around the world. In 2021, 2 percent of the company's operating income was invested back into local communities, far exceeding the annual goal of 1 percent.

Coca-Cola has provided more than \$55 million to help vulnerable communities during COVID-19. For example, Coca-Cola Foundation has provided a \$2 million grant to Africa to help an organization called Project Last Mile increase the distribution and outreach of the COVID-19 vaccine in Africa. Coca-Cola Foundation used its strengths to provide data, strategy, logistics and technical support to the organization, including transportation, storage, supply chain and marketing. The company also partnered with Project Last Mile to distribute COVID-19 awareness collateral to promote hand washing and other preventive measures locally to avoid a spike in infections. The impact of the Coca-Cola team and Project Last Mile has extended to Latin America and India, gradually covering more areas.

Coca-Cola is committed to helping more people access safe, improved drinking water facilities, sanitation, and hygiene. According to the data from the Coca-Cola Company, 2.2 billion people lack access to clean and hygienic drinking water, 4.2 billion people are not exposed to safe sanitation, and 3 million people die yearly because of water-related diseases. Coca-Cola Foundation noticed this situation. Therefore, since 2010, Coca-Cola has worked with partners from 76 countries to deliver sustainable WASH programs. Coca-Cola stated that the program had improved the lives of more than 8.6 million people. Thus, Coca-Cola company has taken on the top tier of four levels of responsibility. It is working hard to give back to society and contribute to worldwide sustainability.

5. Conclusion

Based on the Triple Bottom Line analysis, Coca-Cola meets the requirements of profit, people, and the planet, and is committed to sustainability as a corporate strategy. The company has expanded its automated production, partnered with Siemens to develop an MIS system to monitor production data, and adopted an automated visual inspection system to detect defective products to reduce production costs and improve product quality. The company is also constantly developing new products and consolidating its brand value. As a result, Coca-Cola's sales profit is also increasing to meet the profit requirement. Coca-Cola has always insisted on building a harmonious and loving work environment. The company offers free health care coverage to its employees and is also friendly to people with disabilities and female executives. From the planet perspective, the company is committed to developing recyclable and biodegradable bottles and has provided clothing made from plastic bottles to cleaners for the 2022 Beijing Winter Olympics. Therefore, the company meets the three requirements and is doing well. However, the company still has work to do on the planet.

The Phrase Model more clearly outlines the path a company needs to follow to be sustainable. Coca-Cola is no longer in the first wave of refusing to make sustainable decisions. The above analysis proves that the company is in the second wave and is sprinting towards the third wave. Coca-Cola still has areas to strengthen in the second wave, at least in the short term, and has not yet identified its potential strengths. For example, the company still needs to improve its resource reuse and recycling rate, in addition to the strong promotion of paper and plant bottles. The company is involved in the third wave, but it is not yet able to achieve its profit motive by producing healthy, high quality and environmentally friendly products.

CSR is also an integral part of sustainable development. According to Carroll's Pyramid, Coca-Cola has four stages of responsibility to take on. The company is financially stable, complies with all food safety and quality legal responsibilities and safeguards the rights and safety of its employees. The company is not obligated to comply with ethical and philanthropic responsibilities, but Coca-Cola has taken on all these responsibilities. The company has invested in addressing plastic pollution and helping mitigate climate change by incorporating these global environmental issues into its corporate strategy to be environmentally and stakeholder responsible. In addition, the company has dedicated the Coca-Cola Foundation to philanthropy and giving back to the community. In COVID-19, the foundation has helped many countries and regions, including Africa. It has also helped more than 8.6 million people to improve their drinking water problems. Thus, the company fulfills all of Carroll's responsibilities.

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