

# Sustainability a Business Approach Case: The non-alcoholic Beverage Industry

Brian Ben
LAB University of Applied Sciences
International Business
2021

#### **Abstract**

Author(s)	Publication type	Completion year
Ben, Brian	Thesis, LAB	2021
	Number of pages	
	70	
Title of the thesis	1	

Sustainability a Business Approach
Case: The non-alcoholic Beverage Industry

Degree and field of study

International Business

Name of the thesis supervisor

Sari Jokimies

#### Abstract

The thesis work studied the connection between sustainability and profitability of a business enterprise.

To approach the answer to the research question, the thesis report focused on the non-alcoholic beverage industry with its three leading companies to provide a more tangible practical implication. Thus, these companies have an exceptional market position regarding resources available, brand recognition, and influence as global employers, so their sustainability efforts significantly impact the economy, society, and environment. Moreover, the work reviewed the term sustainability from the three-pillar model and specialized in analyzing corporate sustainability. In order to provide a well-rounded research result, a survey for consumer buying behavior was conducted to study the influence of consumers on beverage businesses.

To conclude, the report shows that sustainability is not only a risk for businesses but a huge opportunity to build a resilient brand and robust business operations, leading to more profitability.

#### Keywords

Sustainability, Beverage Industry, Coca-Cola, PepsiCo, Nestlé, Corporate Sustainability

## Contents

1	Intr	oduc	tion	1
2	Ou	tlining	gs	3
	2.1	Obj	ective	3
	2.2	Res	earch Question	3
	2.3	Deli	mitations	3
3	Res	searc	h Methodology	5
4	Sus	staina	ability	7
	4.1	Dev	relopment	7
	4.2	Cha	ıllenges	8
	4.2	.1	Social	8
	4.2	.2	Environment	. 12
	4.2	.3	Economic	. 18
	4.3	The	ESG Principle	. 21
	4.4	Valu	ue Creation by Corporate Sustainability	. 24
	4.4	.1	Old versus New Thinking	. 24
	4.4.2		The right Leadership	. 25
	4.4	.3	Business Model	. 28
	4.4	.4	Investor Perspective	. 30
	4.5	Sus	tainability in the Supply Chain	. 31
5	Bev	/erag	e Industry	. 36
	5.1	The	Shell Industry: CPG	. 36
	5.2	Nor	n-alcoholic Beverage Industry	. 37
6	The	e lead	lers in the beverage industry	. 40
	6.1	Coc	a-Cola	. 40
	6.2	Pep	siCo	. 45
	6.3	Nes	tlé	. 49
	6.4	Rev	riew and Summary	. 55
7	Coi	nsum	er perspective	. 57
	7.1	Intro	oduction	. 57
	7.2	Sur	vey Analysis	. 57
	7.2	.1	Methods of the survey	. 57
	7.2	.2	Status quo	. 58

	7.2.3	Consumer behavior	. 59
	7.2.4	Products	. 60
	7.2.5	Brands and companies	. 62
	7.2.6	Summary	. 63
8	Conclus	sion	. 65
Re	ferences		. 66

# Appendices

Appendix 1. Survey sustainability and beverages

Appendix 2. Answers and summary of the survey

#### 1 Introduction

The following report deals with the term (corporate) sustainability, focusing on the non-alcoholic beverage industry with its three most prominent leaders.

Humanity took a long time before first thinking about sustainability or similar terms. The way of living and ruling the planet caused a dreadful development that now needs severe actions to ensure the survival of the earth and future human generations. With the steadily growing population subsequently, consumption and needs are increasing simultaneously. To meet those needs, it takes resources. In general, there are two types of resources: renewable resources like water, forests, or fish stocks, and on the other hand, non-renewable resources such as fossils or minerals that are yet crucial for the industry and vital to meet the population's needs. However, by bad practices in managing those resources, even renewable resources could become non-renewable. The tremendous need for consumption directly affects businesses' behavior that uses somewhat worse methods to gather resources, not considering possible extinction of species, pollution of the environment, deforestation, increasing ozone holes, carbonate emissions, just to name a few of those adverse effects. (Attfield 2015, 81-83.)

Nevertheless, it is not only the guilt of companies and the industry. Governments failed to see the problems and often are not able to take the proper measurements. Besides that, consumers are to blame because of the bottom line. One could say the industry is just responding to individuals asking for a specific product for specific conditions. (Attfield 2015, 185,189.) Even so, global organizations, whether they are NGOs or companies like those featured in this report, contain immense potential with innovations and implementation of sustainability efforts to turn the direction towards human life that does not compromise the future on earth.

The beverage industry plays a significant role in changing the consumer behavior, reducing the environmental footprint, and at the bottom line ensuring a sustainable future. The industry employs millions of people, feeds billions, and therefore, the industry's global leaders have the resources and international influence to reach out to almost every human in the world.

For this reason, it is essential to understand sustainability from a business perspective. To review and visualize the emerging importance of sustainability in their business operations, making assumptions on the financial benefits and of long-term best sustainable practices, will take the reader to an advanced horizon of knowledge.

Subsequently, finding ways to utilize sustainable business practices is essential for humanity and worth being researched.

## 2 Outlinings

## 2.1 Objective

The thesis aims to analyze the relationship between sustainability and the implementation in a business enterprise specializing on leading companies in the beverage industry.

To follow this objective the thesis will provide a comprehensive overview of the term sustainability and its development. First and foremost, the paper focuses on the business approach towards sustainability with the practical example of comparing three leading companies in the beverage industry. It should give a detailed insight into strategies for corporate sustainability and how companies approach the topic. However, it will also describe why sustainability is essential for companies and why humanity is in a precarious situation. Afterward, the empirical research should complete the whole framework of the topic covering the consumer perspective.

#### 2.2 Research Question

This way of structuring enables the thesis report to answer the research question on "How sustainability affects a companies' success" from a business perspective in a disruptive world and gives the reader insights into modern sustainability principles and those leading enterprises' efforts. The research question is chosen because it is essential to understand sustainability from a business perspective since companies and especially global leaders, like those featured in this report, have the expertise and the capacity to make a huge difference. Subsequently, finding ways to utilize sustainable business practices is vital for humanity and worth being researched.

#### 2.3 Delimitations

Delimitations of the report are the scope that is focused on the earlier mentioned business perspective, and because of the chosen Case (Beverage Industry), efforts to sustainable business practices and strategies are different from other industries. For example, critical efforts might be water consumption and packaging,

whereas the automotive industry deals with carbonate-related challenges. By reviewing the companies' efforts and sustainability strategies, the report will leave out any criticism on business operations. Furthermore, the thesis' empirical part cannot cover all groups in society with different ages, nationalities and racial backgrounds. The empirical research will be conducted in Germany, therefore it may reflect a limited national perspective. Moreover it has a narrow focus on consumer behavior regarding their attitude towards sustainability and leaves out in-depth psychological background theory. Additionally featured age groups are people at younger ages e.g. students, and another group of middle-age adults working for a company.

## 3 Research Methodology

Even though it is not simple to include every aspect in a sufficient definition for academic working, a possible approach is to focus on the processes combined in the word research. In consequence, a possible definition could be:

The process of arriving at dependable solutions to problems through a planned and systematic collection, analysis, and interpretation of data (Godwill 2015, 4).

Research and the aspiration of humankind to find the truth, explaining the unknown, and acquiring new knowledge is a fundamental feature of human nature. Thus, it has a key role in academic work as it:

- provides solutions to unsolved problems
- features creativity and enables new discoveries
- creates value for the society
- provides a research degree to the author and resolves in respect and honor (Godwill 2015, 4-5.)

This report is meant to answer the recently formulated research questions by employing the following profound research methods. The majority of the report will consist of non-metric data, also called qualitative data. Qualitative data can be categorized into two different scales of measurement. First, the nominal scale, which refers to an unbiased description of situations without mathematical influence. In comparison, the ordinal scale emphasizes a certain order of collected data, where one is greater than the other. In other words, it enables the categorization of variables and their specific magnitude.

Nevertheless, besides qualitative data, a considerable amount of data is considered as quantitative data. Likewise qualitative data, metric (quantitative) data is also divided into two different scales expressing information numerically. On the one hand, the interval scale and, on the other hand, the ratio scale. The major difference between both is the use of mathematical operations. The interval scale is reviewing data like, for instance, Fahrenheit or Celcius for informing about temperature. Conversely, the ratio scale is used to put different numerical data in relation

by using mathematical operations. For instance, an economics journal could inform about a company's revenues being twenty percent higher than the industry average. This implies that the reader will use mathematical operations to understand the information given. (Godwill 2015, 75-78.)

According to the data collection, the report uses secondary data since sustainability got more and more attention during the last decade, it is now one of the highest researched vibrant topics in business. That means the analyses include data from books, journals, articles, reports, or magazines.

The empirical part of the thesis includes a survey, gathering primary data that is being used to cover the consumer perspectives towards sustainability and non-alcoholic beverage companies. (Godwill 2015, 79-81.)

Questionnaires are a helpful way to collect data that is difficult to acquire, and its scarcity makes it hard to find relevant information in common literature. To reach sufficient results, the questionnaire should follow a few guidelines:

- Questionnaires should use simple and comprehensive language.
- Specification is needed to achieve a common understanding of what response is expected.
- The scope of answers should be matching with the respondent.
- Questions have to be introduced with the same administration.

Moreover, questionnaires are divided into interviewer-administered questionnaires and self-administered questionnaires. In this report, self-administered questionnaires are used since the searched information will be about consumption behavior and opinions on simple questions that are valuable in answering the research question. Possible types of questions are open questions, closed questions, and summary questions. The amount and share of each of those types have to be evaluated after further progress during the thesis writing process. (Godwill 2015, 82-85.)

## 4 Sustainability

## 4.1 Development

In one of the most cited and popular reports from the World Commission on Environment and Development (WCED) published in 1987, commonly known as the Brundtland report entitled "Our common future," the definition of sustainability is described by a new term called sustainable development, which is defined as the development that meets the needs of the present without compromising the ability of future generations to meet their own needs. (WCED 1987.)

In traditional consensus, the term sustainability contains three different perspectives. In that sense, environmental, social, and ecological actions are taken to ensure equality in wealth, happiness, and freedom for future generations (Meadowcroft.). In other words, People, Planet, Profit the three-bottom-line principle (Hedstrom 2018, 22). Another way to understand sustainability suggests the opposite part's approach so that sustainability is understood as the counterpart of shortterm, wasteful, and self-centered or egocentric behaviors. However, during the last decade, sustainability was used in several different forms. Sustainable yield, sustainable society, and sustainable development are terms that perennially find their way to modern literature. Sustainable yield focuses on the sustainable way of using the earth's resources speaking of fishing, forestation, mining, and farming. Subsequently, a sustainable society is defined as the community of humans that understood what measure and what frame of actions are suitable for living within the environmental boundaries. Last but not least the Sustainable development takes all three perspectives mentioned above into consideration in order to make the right decisions. Even so, the term sustainable development is often misinterpreted because the weighting in the original sense has to be equal. Nonetheless, it is prevalent to see debates emphasizing one of these perspectives exclusively. (Meadowcroft.)

The discussed form of sustainability focused on in this report is the principle of the modern term ESG (Environment, Social, Governance) that is the anker point of this paper. Nevertheless, that is not enough because it misses an integral part, as Hedstrom suggests. The strategic aspects connected with risk management are

still missing in this principle. (Hedstrom 2018, 22-23.) That is why today's debates deal with integrating sustainability efforts throughout the whole value chain. (Hedstrom 2018, 24-25.)

## 4.2 Challenges

This chapter analyses the most significant challenges concerning sustainability divided into three main parts Economic, Social and Environmental aspects according to the traditional consensus of sustainability. Once more, it points out that sustainability is a complex topic with different perspectives that has to be met with collected forces of individuals, governments, and the economy. Most of the issues discussed in the following paragraphs are already well known for a long time. Nevertheless, they are still present and even more dangerous than ever before. The following should help to understand why we as humans have to work for a sustainable future, considering challenges in broad perspectives that truly endanger future generations.

#### 4.2.1 Social

Most of the issues discussed in the following paragraphs are already well known for a long time. Nevertheless, they are still present and even more dangerous than ever before. This chapter should help to understand why we as humans have to work for a sustainable future, considering challenges in broad perspectives that truly endanger future generations.

From the social perspective, sustainability contains various aspects that need further actions and reveal significant concerns. Including housing and increasing urbanization, sufficient health care coverage that is also closely connected to equal access to those services, food security, and lastly, sustainable energy supply. Those topics stand contrary to the rising population, requiring more resources, energy, and space. (WCED 1987, 16-17.)

Poverty and equal access to resources are still on the agenda. It remains the job of governments to secure education on how to manage the equal allocation of resources. (WCED 1987, 16-17.) Furthermore, governments are working out long-term plans to pursue demographic goals to improve for example, the confidence in

family planning on social, cultural as well as economic points of view. Subsequently, access to education, contraceptives, and services of that kind are vital, especially to secure women's fundamental human right of self-determination. (WCED 1987, 16-17.)

The population of the earth is expected to peek at 9.2 billion people in 2050. That makes roughly 2.2 billion more than today. Moreover, urbanization is expected to accelerate and reach 70% by 2050 further. The population living in urban areas will likely increase by 2.8 billion, whereas those in rural areas could see a decrease of 0.6 billion. This development can lead to an increasing gap in society, rising pollution in urban areas, and decreasing air quality due to higher carbon emissions in those areas. (UN-DESA 2012, 5.)

The already mentioned poverty is still affecting 240 million people that have no access to improved water and 1.4 billion people without basic sanitation. Furthermore, 1.8 billion people are expected to remain without access to modern energy supply for cooking and heating. Last but not least, improving access and implementation to primary and secondary education is essential to thriving a mutual understanding of social sustainability. (UN-DESA 2012, 5.)

#### COVID19 and the "Pandemials"

The next paragraph takes a trip to a challenge that extends is yet not known. At the time of creating this report, the COVID-19 pandemic has now lasted over one year, and the first studies were established accounting for the damage the pandemic has caused. The following example summarizes the mentioned points in ongoing severe development. The World Economic Forum writes about "Pandemials" in their newest Global Risk Report published 2021. "Pandemials" describes a group of young adults ages 15-24 that now face their second global crisis. After 2008 with the collapse of the Lehman Brothers, they now see themself captured in a pandemic that the world has never seen before.

Environmental destruction, inequality in the economic sense, towards gender and also ethnically, increasing violence, and the social disruption partly driven by the digital tech transformation of this century are major concerns for this generation. On the one hand, this development promoted new possibilities for some youths

but, on the other hand, left the majority of the workforce in an ice age of unemployment behind. Fiscal policies failed to address those specific generations, narrowing their independence, right of self-determination, chances for investment, and mobility. Before the pandemic, roughly two-thirds of the global poorest were youths and children; undoubtedly, that the pandemic has even increased this problem. (UN-DESA 2012, 40-43.)

Furthermore, the disparity between different geographical regions continues to rise along with the pandemic. The youth in developing regions of the world such as Africa are increasing whereas regions like Europe and Southeast Asia are declining to emerge the demographic problem in those regions. The pandemic hit the disadvantaged and weakest of society the most, clearly shown by looking at education. During the COVID pandemic, 80% of global students were partly out of school. When governments and institutions implemented measures to restart teaching remotely via the internet, radio, or television, 30% could not participate in the lectures and teaching anymore. Moreover, explicitly designed services to catch up on missed time in school were primarily accessible by youth from upper-class income households. Studies also conduct that one missed semester during the age of 18-20 years could lead to a potential loss of 2% of future income. Who was left behind are those who probably needed these services at most. Economically the pandemic supported an ongoing trend that initially skyrocketed with the fiscal crisis in 2008. A gig economy emerged and, unfortunately, found much empathy in the industry. Many young workers were forced into short-term, low-paid, and high-risk jobs. Looking at Figure 1, a vast number of young workers are employed in the secondary sector, including manufacturing and wholesale/retail, which are the sectors affected at first and in a high manner. The total amount of young people unemployed, out of school or university, and not in training (NEET) accounted for 21% and is likely expected to rise during this year. (UN-DESA 2012, 39-46.)

Economic sector	Impact of crisis on economic output	Share in global youth unemployment (%)	
Wholesale and retail; repair of motor vehicles and motorcyles	High	17.5	
Manufacturing	High	13.8	
Real estate	High	3.8	
Accommodation and food services	High	6.6	
Transport, storage and communication	Medium-high	4.9	
Arts, entertainment and recreation, and other services	Medium-high	6.6	
Mining and quarrying	Medium	0.7	
Financial and insurance services	Medium	1.1	
Construction	Medium	7.7	
Agriculture, forestry and fishing	Medium-low	28.9	
Utilities	Low	0.5	
Public administration and defence; compulsory social security	Low	2	
Human health and social work activities	Low	2.7	
Education	Low	3.1	
Source: ILO. 2020. ILO Monitor: COVID-19 and the world of work. Fourth edition. 27 May 2020. International Labour Organization. p. 2. https://www.ilo.org/wcmsp5/groups/public/dgreports/dcomm/documents/briefingnote/wcms_745963.pdf  Note: Impact ratings are based on the ILO's assessment of real-time and financial data (see the second edition of the ILO Monitor, released on 7 April 2020), ILOSTAT baseline data on sectoral distribution of employment (ISIC Rev. 4) and ILO Harmonized Microdata.			

Figure 1: Global Estimates of Youth Employment in Hard-Hit COVID-19 Sectors (WEF 2021, 43)

To conclude, in terms of social challenges, multiple battlegrounds mainly require governmental intervening. As the case example of COVID-19 shows impressively, many factors caused these severe trends, and they are yet not simple to stop by marginalized decisions. It needs joint global collaborative decisions that are designed to address specific problems and are not made to general as seen with fiscal policies that totally missed the younger generations. Nevertheless, with enough

research at the point and expertise implemented in decision-making functions, finding sustainable solutions for these problems is possible.

#### 4.2.2 Environment

Most likely, the first thing that comes to mind thinking about sustainability is the environmental part. For a good reason because in that regard, severe developments have been noted in the recent decades. To visualize these challenges, the DAU (dynamic-as-usual) model is used again to give a precise outlook on what will happen if no significant changes are made. Starting off with the Water scarcity that will continue to worsen, OECD countries most likely managed to control the groundwater supply and quality. Almost half of the world population might face water supply issues, resulting from the location at river basins and the ongoing exploitation of groundwater. The last point is also part of the criticism about large enterprises like the later discussed companies Nestlé, PepsiCo, and Coca-Cola. All that widens the gap between industrialized countries and developing countries, supporting the growing disparities between those regions.

The next point is the continuing air pollution that is caused by increasing urbanization. The DAU model believes that many Cities will exceed the acceptable health standards of the number of harmful substances in the air. Despite that SO2 emissions could increase by 90% and NOX emissions by 50%.

Deforestation and Agriculture emerge as a significant challenge in the future. Land for agricultural usage is increasing, and on the other side, forests are chopped down to provide this space. This problem is already well-considered, and even the DAU model sees an accelerated decline in the deforestation rate from 2030 on. Nevertheless, changes could have come too late since deforestation with even decreasing rates most likely destroyed all primary forests until 2050.

GHG emission and global warming are yet missing sufficient measures to be able to stop increasing temperatures. Instead, GHG emissions are likely to almost double 83 GtCO2 by 2050, caused by strong growing economies.

Furthermore, the survival of the majority of fish stocks is in danger. Continuing overfishing above the sustainable yield seriously threaten many species living in the ocean. As a consequence of global warming and therefore ocean warming and

destruction of coral reefs, wild fang could be replaced by aquaculture-based fisheries. (UN-DESA 2012, 9.)

Among all these concerning threats that could reasonably affect about 1 billion people's lives, there is also light at the end of the tunnel. Natural Climate Solutions (NCS) are an increasing trend that might provide appropriate approaches to managing ecological challenges. *Natural climate solutions (NCS) are "conservation, restoration and improved land management actions that increase carbon storage and/or avoid greenhouse gas emissions" (WEF 2021a, 6).* 

To conclude, NCS emphasizes the importance of ecological challenges and conducts the other two perspectives in that solution.

Many climate mitigation programs are lagging financial reasonability. With relatively low costs, NCS also enables co-benefits such as safeguarding biodiversity or providing jobs in local communities. These NCS trends lead to a rising Net-Zero Commitment within the industry, and these NCS trends lead to a rising Net-Zero commitment within the industry. Larry Fink, CEO of BlackRock, one of the biggest Asset Management Fonds, with approximately \$8 trillion under management said that every government, company, and shareholder must confront climate change (WEF 2021a, 8), since that letter in 2020 Net-Zero commitments have almost doubled with more than 700 of the largest participating companies of the world.

Among those Companies that generously invested in implementing Net-Zero goals is Nestlé who is engaging in fighting deforestation and supporting the restoration of forests in Ghana and Côte d'Ivoire. PepsiCo is explicitly committed to NCS, which means helping farmers and growers as they are the first part of the value chain that can significantly affect the forest, soil, and landscape. Other global companies committed to NCS are, for example, Amazon or Microsoft from the Tech branch who also allocated large amounts of resources into Net-Zero goals. (WEF 2021a, 6-8.)

The importance of NCS is even more evident, looking at Figure 2. Whether the NCS emphasizes avoiding limiting factors like emissions or deforestation or supporting replenishment or sequestration of groundwater or reforestation. McKinsey suggests that NCS could account for a 30% reduction of Net emission relative to 2019 levels. (WEF 2021a, 10-11.)

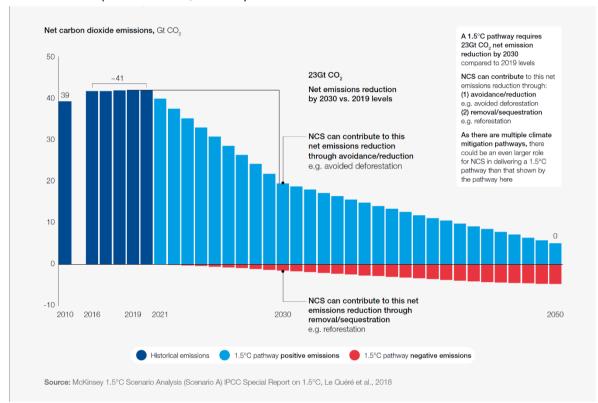


Figure 2. A 1,5°C pathway requires 23Gt CO2 net emission reduction by 2030 compared to 2019 levels (WEF 2021a, 11)

That being said, NCS could conduct a crucial part towards reaching the 1,5°C pathway and limiting global warming well below 2°C where ongoing trends would aim.

Apart from the obvious advantages of investing in NCS, numerous Co-Benefits further attract the industry and governments to engage in NCS. Those co-benefits cover significant environmental issues. The Woodwell Climate Research Center found out that among those co-benefits are soil health, reducing carbon emissions, restoring biodiversity, and managing water quality. Furthermore, it could account for an essential part of closing the gap between developing regions of the world (eg. global south) by enabling more resilient rural development programs. Figure 3 shows a comprehensive overview of what the environmental co-benefits really cover to make a range of co-benefits even more transparent. Unfortunately, by

now, there is a financial gap between the invested money and what is needed to achieve sustainable development in those fields. Estimations believe that this gap covers roughly \$800 billion per year, which is a critical task in the next decade. (WEF 2021a,15.)

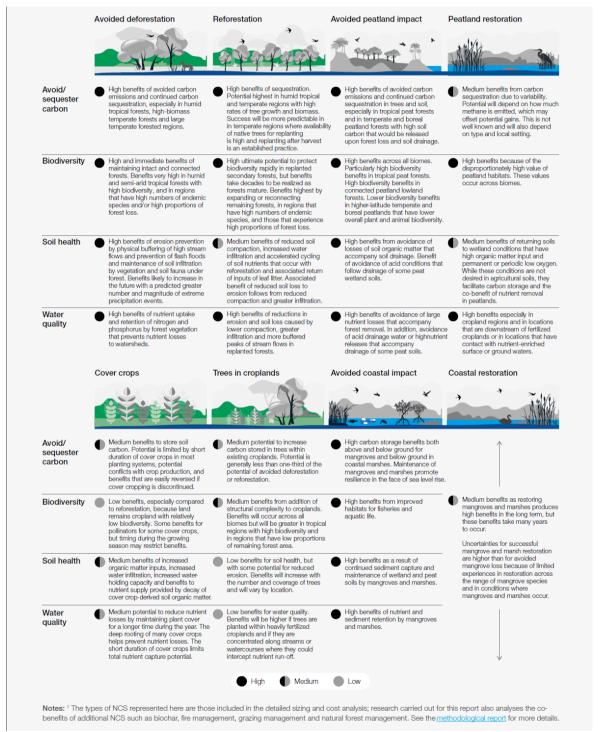


Figure 3. The environmental co-benefits of NCS (WEF 2021a, 17)

#### Unlocking the full potential of NCS

The following paragraph gives a short summary of the process on how to unlock NCS successfully and sustainably. In the research paper of the WEF the 6-action plan (Figure 4) is introduced. The plan includes:

- 1. Defining net zero and corporate claims.
- 2. Highlight good practice for supply.
- 3. Sending a demand signal.
- 4. Improving the market architecture.
- 5. Create regulatory clarity.
- 6. Build trust.
- 1. As described earlier, many companies are now claiming and addressing climate and emission issues. Nevertheless, there is no common standard for measuring the full scope of their performance, making trajectory and comparisons to other companies claiming similar progress quite hard.

One approach to such a common standard is the Carbon Credit system by which companies can compensate for their GHG emissions. Furthermore, it enables an emerging trading platform that promotes funding for developing countries and many environmental programs. However, next to the upsides, there is criticism about companies that only focus on a credit-based strategy that lacks critical (underused) emission reduction measures.

- 2. The second stage features light-house projects that can be used as blueprints for good practice within the credit system and implementing projects. Projects that help rural regions and educate and develop new human skills to achieve a sustainable future. (WEF 2021a. 20-22.)
- 3. The third action is the consolidation of the pricing within the NCS market. In recent years the market suffered low-prices resulting from an oversupply *inflated* baselines and integrity issues (WEF 2021. p.24). It needs collaborative funding programs to set the proper demand signal in order to solidify prices. This could lead to benefits for buyer and supplier, enhance motivation for further commitment, and lower costs for specific development projects. Furthermore, policymakers

might feel appealed to increase the development pipeline that subsequently enables access to more resources.

4. Part 4 addresses the theoretical structure of the market.

Starting with the key element the "currency" within the market. WEF proposes a unified carbon unit that has legitimacy and finds its way into contracts, and last but not least are complying with several requirements that help to trade because it makes evaluation of the earlier mentioned co-benefits much easier.

The next point is the transparency of transactions. Right now, buyers face significant challenges in negotiations because there is just not enough information on recent trades available. A platform where brokers and other sellers should list transactions would decrease market and price volatility and attract potential buyers.

- 5. The next point of concern is that while political agreements have been made during the last decade, those political texts miss practical implementations and measures. On the one hand, the industry needs binding targets to consider NCS in their strategic decision-making, and on the other hand, it would create pressure on those behind the average commitment to climate change.
- 6. The last part of the action plan is building trust in the system. Beyond technical issues, there has to be a common understanding of the quality and ambitions NCS are following. Collaboration with the world's developing regions is specifically key towards finding common ground in fighting climate change. Moreover, education about delimitations and potential of NCS should be well communicated so that co-

benefits are in scope and the true potential of NCS can be unlocked. (WEF 2021, 20-30.)



Figure 4. Six key actions needed to unlock natural climate solutions (WEF 2021a, 20)

#### 4.2.3 Economic

Looking ahead, the economic future holds several challenges the industry will need to face to reach a potentially sustainable future. First of all, the pure volume of the industry will grow all over the world. For example, the BRIC nations will make 40% of the world's gross product until 2050. According to a "dynamic-as-usual" (DAU) model, the average GDP per capita of those countries might triple to US\$33000, which is roughly the current level of the OECD nations today. OECD's average GDP per capita could likely double.

Nonetheless, the convergence between average incomes will accelerate further, leaving marginalized economies lagging behind. This development leaves the crucial question of whether economic growth is a must for the industry and the wealth fare of a human being. (UN-DESA 2012, p.5)

That becomes more clear looking at the traditional economy like models of Keynes and Schumpeter proposed, where money is just mediocre for exchanging goods, services calling it a real exchange economy. Compared to the modern economy called monetary economy, where banks have the ability to create more money for credits, it is a new way of how the economy works and a zero-growth strategy, as many neoclassical growth theories and supporters propose might not be feasible.

Real exchange economies relied on actual values and the principles of making savings before investment which causes a decrease in consumption and, in conclusion, results in the economy's inability to grow. (Binswanger 2009, 708-709.)

In other words, growth provided by banks that are able to "create" money for more credit capacities. This enables companies to generate profit, and that ensures the survival and growth of the enterprise itself. Assuming a zero-growth strategy, more companies would become unprofitable, and the economy would begin to stumble. (Binswanger 2021.) The best example is the ongoing corona crisis, where governmental support was vital to prevent the economy from that horrific stumbling and collapsing scenario. (Binswanger 2021.)

In a sustainability context, this raises new problems, especially those of ecological nature, because growth, as described earlier, is also connected to the consumption of energy, resources, and emissions. Binswanger admits that the growth could be unhitched from the harmful effects of innovation, technologies, and institutional measurements. At the same time, Binswanger also argues that innovations an excellent and crucial for sustainability efforts, but foremost the innovations have the intention to create value and profit for the company. It is a way of improving and greening those growth processes rather than fixing the problem (2021.)

Moreover, such international economies must meet two essential conditions. First, business practices have to be sustainable to drive an economy based on the ecosystem called earth. Second, the exchange between business partners must be somehow equal, not specifically monetary but indeed in value. In many practical cases, neither of those two conditions are met. As a result of the growing interconnection between economic and ecological relationships, developing countries struggle to implement sustainable efforts for their environment because many depend on the export of natural resources. Subsequently, they need to keep up with the price war and barely invest more money in sustainable development management. Last but not least, external capital is needed in those emerging countries, and if these foreign investments drop out, the countries have no other choice than to overuse their environment to maintain a slim reduction of poverty. (WCED 1987, 53-54.)

Surrounding all these issues is the steadily increasing energy demand in an economy that is yet not ready to turn entirely into a net-zero strategy. Going back to the DAU model, primary energy usage will increase by 80% with a share of 85% of fossil fuels, 10% renewable energy sources, and 5% nuclear power. Improvements inefficient usage and storing of energy supply will most likely not be able to meet the immense growth in energy demand. Unfortunately, forecasts believe that to secure food demand, much space for production will be gathered by deforestation and converging pastureland. In consequence, food prices are expected to grow. Not surely known is how energy security in supply will affect international relationships, but energy supply will likely be a scarce resource in some world regions. The last point yet to come is arguably the most challenging because it is about the origin of every life on earth - water. Hence, it has also a major part in this thesis report in later chapters. The allocation of water and moreover accessible water supply is at stake in the future. Increasing water demand in all industry sectors will pose significant problems in impoverished regions of the world. (UN-DESA 2012, 5-6.)

#### **COVID 19 as a Challenge for Economic Sustainability**

As in the previous Chapter 3.1.1 this passage focuses on the COVID-19 and its impact on economic sustainability. In many countries around the globe, a slow recovery finds its way to policy. Institutional leaders and governments choose between immediate fiscal support and mid-to-long-term structural fixes to support endangered businesses further, especially MSME (Micro, Small, and Medium Enterprises). The economy further and further moves into a "debt-economy" and failure rates of private loans commonly used in MSMEs are expected to increase in various countries (Brazil, India, UK). The World Economic Forum found out that the ongoing pandemic shut down approximately 20% of MSME's. This year, in the Global Risk Perception Survey, terms like "asset bubble burst" or "debt-crisis" constantly appear throughout the research.

Yes, there are similarities to what happened in 2008, the actual fiscal policymakers support "zombie" firms that hamper generating profits, and with meager interest rates and high stimuli policy, they are promoted to pay their bills with even more cheap debt. To cut a long story short, the management of "ballooning of public

debt" is a major work field for the government and the industry that is of special urgency. Urgency not only emerged throughout the explanation above, but it is also a result of governments tending to austerity because of the actual economic situation. If so, those missing motivation to invest will significantly impact large programs towards sustainability goals such as Net Zero carbon, the global reduction of emissions, stopping the climate change, facing digital threats, and last but not least, limiting the possibility for innovations that might provide new technology to achieve more sustainable efficiency. (WEF 2021, pp.63-67.)

In brief, the last paragraphs gave a narrow insight into sustainability's various challenges seen from different perspectives. The reality is that there is no more way around emphasizing sustainability. Furthermore, as the economic perspective shows impressively, businesses have a crucial role in taking sufficient measures to secure a steady way to an industry that is not threatening the planet.

## 4.3 The ESG Principle

As already introduced in chapter 3.1, the next part of the thesis explains a modern and commonly accepted model for sustainability in the eyes of an enterprise. Moreover, the topic is meant to provide the basis to discuss the efforts of Coca-Cola, PepsiCo, and Nestlé later on. Before getting into detail, every part of the ESG model is comprehensively summarized and described to makes entry into the subject more accessible.

Subsequently, the chapter is starting with the

#### E - Environmental Stewardship

Undoubtedly, environmental change is one of the most present and discussed topics in business, society, and politics. Arguably the primary reason why a significant part of published sustainability-focused literature is dealing with just the environmental aspects. If it the scarcity of resources, pollution, toxins, or climate change. Literature paved the way for Environmental Stewardship to find much more attention in global businesses. (Hedstrom 2018, 54.) Besides that, it has profound credibility because even though carbonate emissions decreased by 8% at the end of 2020 because of the ongoing pandemic, reaching the global aim of limiting global warming to 1,5 degrees would need the same development for the following years

to come (World Economic Forum 2021, 23-24.) Environmental Stewardship can be divided into three central elements.

- 1. environmental footprint .operations
- 2. supply chain impacts
- 3. environmental footprint products.

According to point one, C-suite executives emphasize the "zeroing" trend in managing their operations. Whether it is the sustainable gathering of resources or the well-thought choice of suppliers and goals concerning climate neutrality (net zero). There are numerous tools and measurements for managers to drive operations sustainably.

Point two is one of the most promising that holds many potential and opportunities for companies but, vice versa, many risks. The mindset changed; executives understood that they are now responsible for all emissions and effects of products to be sold throughout the whole value chain. Supplier evaluation and monitoring systems were established, and even supplier codes of conduct are standard tools for aligning strategies towards environmental goals.

The third element reshapes the core business of the enterprise; its products. Products that are not confirmed with modern sustainability measures were sorted out and left the market, whereas new technologies and products are rising. Considering the automotive industry, those development is more vibrant than ever before. The leading players like VW or Daimler adjust their budget towards electromobility, facing great examples like Tesla. (Hedstrom 2018, 57-59.)

#### S - Social Responsibility

The first thoughts concerning social responsibility among management boards were human rights and labor conditions. Today the term includes much more than that. Furthermore, fields of social responsibility can be divided into inner and outer actions. The inner organizational advancements include already mentioned human rights, but also work-life balance equality of income, diversity, and security. Outer organizational responsibilities include security for customers, business moral and ethics, human rights, and well-being of corporate citizenship. (Gull 2019, 115.)

Concluding key elements towards social responsibility three elements are focused.

- 1. own operations (Inner org.)
- 2. supply chain (Outer org.)
- 3. community investments (Outer org.).

The first element's function is to create a culture for inner organizational stakeholders that is welcoming and a "great place" to work. The toolbox of creating that kind of culture includes leadership programs, workshops, and training for sustainability but leading organizations also use wellbeing programs to enhance their companies performance.

The social supply chain is similar to the second point of environmental elements described earlier. Companies should implement a trustful and collaborative relationship with their suppliers based on performance indicators to ensure that they keep on track with the company's restrictions.

The third element includes image building intending to acquire great talent and to provide equal chances for job opportunities. (Hedstrom 2018, 65-66.)

#### G - Governance and Leadership

This part of the ESG principle is the foundation that holds everything together. If companies do not invest sufficient effort and resources on this topic, they will fail to reach their goals from a mid to long-term perspective. The Governance of a Company reveals insights to relations to various stakeholder groups, strategic direction, leadership, and the executive board. Therefore, the subject can be divided into seven key elements:

- 1. vision, mission, values
- 2. ceo leadership
- 3. the board of directors leadership
- 4. goals and metrics
- 5. culture and organization
- 6. stakeholder engagement
- 7. disclosure, reporting, and transparency (Hedstrom 2018, p.38-39.).

Especially in the American Market, those elements are of significant importance because investors are highly considering reporting the Climate-Related Financial Disclosures (TCFD), which summarizes company's effort according to those seven

elements. (Hedstrom 2018, 40.) It all starts with point 1. Having a unified vision that sets a framework and a meaning for the company is essential to dictate private actions as well as to perceive the wished external perception. Not less important is to have the right management board at the company that can transfer these values and mindsets into strategies and practical actions. Continuing with point 3, the supervisory institution for the management. This time, it has the function of evaluating the performance, risks, and opportunities of sustainability. This special oversight should enable fast adaptability to ongoing and future trends as well as to minimize shortcomings in the sustainability issues. Moreover, both mentioned groups are responsible for tracking performance via metrics or scorecards to reach earlier set goals. Point 5 discusses the environment within the company that needs to align with point 1 and also provide space for individual freedom and innovation for new ideas about sustainability. Thus closely connected to the next point, which is the communication about sustainability to external stakeholders in a constructive, productive, and helpful way to develop a sustainable business. In recent years reporting and transparent records of sustainability and especially within the supply chain rise in the level of attention. Today, companies that can use this development to their advantage have more opportunities for credibility to institutions, private investors, hedge funds, and a resilient, sustainable brand image that can significantly accelerate the business. (Hedstrom 2018, 39.)

## 4.4 Value Creation by Corporate Sustainability

This chapter takes the thought of Corporate Sustainability even further, analyzing the changing perception of ESG in the industry, looking to committed leaders, showing the theory of an ESG business model, and last but not least, reviewing the investor perspective towards ESG performance.

## 4.4.1 Old versus New Thinking

Corporate sustainability is a nascent form of the sustainability debate that focuses primarily on changing how a company understands itself. To take this thought further, a significant shift in everyday business practices has happened and is still emerging throughout the economy.

The traditional sense of corporate business has its roots a century ago. Back then, prominent economists and people in business pledged the understanding of how to drive a profitable business. Professionals like Michael Porter, Bill Henderson (Boston Consulting Group), and Fred Gluck (McKinsey), built strategies to, create value for all stakeholder groups and creating a product that suits the market demand.

Those principles that defined the markets, companies, education, and innovation have now arrived at a milestone of emerging change. Being asked about the reason for environmental problems often the economy is the first suspect in debates. First seriously noted literature was published about the millennium change, which brought real evidence and new ideas into the conversation that corporate organizations can operate profitable and do good at the same time. (McAteer 2019, 48-49.) Today this development led to profound strategies on how to structure and drive sustainability within the companies' operations. That is why leading consultancy firms like the Boston Consulting Group or McKinsey worked out detailed plans to help their customers boost their ESG performance. The rising subject of creating shared value for both business and society was also picked up by Michael Porter, who suggested aligning the economic value creation process with directly addressing challenges in society. (McAteer 2019, 49.)

The discussed "Green Growth" principle describes managers' decision-making process within companies that have the responsibility to make investments. In such a scenario, a manager would always choose the growing topic of sustainability for investments instead of more traditional investment opportunities to find solutions for energy supply, packaging, and raw material. Subsequently, those concepts exclude decisions that directly or indirectly support inequality or have a negative environmental impact. (McAteer 2019, 49-50.)

# 4.4.2 The right Leadership

The upcoming question that still needs an answer is who and how a company can make the first step towards a sustainable business portfolio. It starts with the leadership of the company. In an enterprise in the 21st century, leaders are not only defined by their adaptability and skillset to create a long-term strategy and struc-

ture for the company. Indeed they need to be great communicators within the organization and from the inside out. That unique skill set then enables them to have credibility and support from the organization behind them. (McAteer 2019, 81.)

That being said. Lenox & Chatterii believe that the new generation of c-suite managers understood the paradigm change, that the fundamental goal of truly leading enterprises goes way beyond maximizing shareholder profit. Moreover, their strategic orientation is the origin of sustainable, innovative products and services as well as a sustainable business environment. (2018, 61-65.) Nevertheless, even the most decisive leaders have to ensure that their vision and ideas on implementing sustainable operations are worth allocating well-needed resources. However, coming back to the sheer investment that needs to be made, it is often a subjective determination of the apparent risks connected to the investment. That is why McAteer describes a possible approach to managing those risks as the "demonstration project". (2019, 82) Those demonstration project aims to make the sometimes-abstract defined goals for sustainability accountable and in business sense measurable in terms of the return on investment. Bespoken projects include energy efficiency, waste reduction, material efficiency, packaging optimization, transport efficiency, and recycling or remanufacturing (McAteer 2019, 83). They can solve short-term challenges like minimizing costs and supporting the brand image, but they fail to enable full access to new market opportunities and limit innovation. (McAteer 2019, 83.)

The following part explains a 6 step plan for leaders to fully embrace sustainability in his/ her company.

1. In many cases, sustainability and its challenges have an interconnection to vibrant emotions, an excellent leader can bundle those emotions to enhance the employee's performance. That is why the first step is about defining the **role as a leader** and explaining tasks and responsibilities connected to it. If the leader can authentically communicate the new goal, he might see an acceleration of his employee motivation that can be the first crucial factor in seeing great results in the triple-bottom-line performance. Moreover, and even more important than that, for external groups, authentic and trustworthy communication is key to creating long-lasting cooperation and relationships with the stakeholders. In most cases, one

leader is not enough to develop excellent HR is vital to drive sustainable excellence. By that, leaders have to be exemplary for the other employees to benefit from coachings, mentorships, and training. Leaders can be seen as *teachers* who build a team around them that can snowball through the whole organization. In addition, the ability to see investment opportunities and to have the courage to make responsible decisions with their team is a major skill for such leaders. To catalyze ideas from the team and remove barriers for innovation are bricks to create *new value*, *leverage*, *and speed* throughout the business.

- 2. The second step is about **communicating new business goals** to motivate and encourage employees to become a real part of the journey towards sustainability. The task is to rethink the prevalent structure of business goals in a broad, high-level conversation with internal members of the company. The outcomes then need to be converted into projects, teams, and last instance metrics to make them accountable. An example of an example metrics is shown in figure 5, such a metrics helps later to communicate the companies performance in different aspects of sustainability. For example, a company could make assumptions on the part of the revenue acquired from sustainable efforts.
- **3.** Moreover, companies and their leaders have to **work out programs that point out their commitment's social effect**. In order to make this work, these programs need to be transparent and communicated clearly on a variety of media channels.
- 4. The next point is the reunion of some points mentioned above. Leaders need to train and educate their employees on the fundamental principles of Sustainable Development Goals (SDGs). They can close the gap between the skills and capacity that is already there to the required knowledge, expertise which is required to reach the committed goals. Subsequently, the more precise the set goals are, the more detailed process needs to be implemented to develop or acquire talent in the sustainability field.
- **5. & 6.** Step five and respectively 6 are **all about innovation**. In other words enabling innovation through the whole value chain. The task leaders have to solve is setting up the proper structure and environment so that every department of the company can contribute and have the right idea on creating innovation in their

specific fields. For point six, every stakeholder group is considered to bring in ideas for innovation and thus will need an even more complex system to gather and catalyze this information input. (McAteer 2019, 84-95.)

Sustainability Alignment	Definition	Boundary Conditions		
(higher is better)		Narrow	Intermediate	Broad
1. High Negative	High economic value but low social value and/or net negative environmental impact.	Definition is constrained to impact on direct company resources and assets.	Definition is extended to include all current and anticipated tier 1 business relationships.	Definition is extended to include all current and anticipated tier 1 and tier 2 business relationships.
2. Net Negative	Some positive and negative attributes, but overall net negative for social and environmental considerations.			
3. Neutral	Economic, social, and environmental values balance out.	ion is constrained to		
4. Net Positive	Overall net positive attributes for social and environmental considerations.	Definition is co		
5. High Positive	No negative attributes. High positive attributes for all three triple-bottom-line considerations.			

Figure 5. Sustainability Scoring Exercise (McAteer 2019, 87)

#### 4.4.3 Business Model

Solid and resilient companies are already working on superior business models that meet the new thriving factors that push businesses to change. Among others are rising expectations for a powerful corporate organization, growing demand in trajectory, ESG performance tracking, and ESG integrated performance investing. The Boston Consulting Group defines two factor groups that shape the sustainable business model. On the one side that catalyzes businesses' ability to create value

such as planetary boundaries, governmental restrictions, or social needs. On the other side, the factor group re-opens a broad space to create value and advantage, addressing the SDG goals and providing solutions for social and ecological problems. BCG found that a resilient, sustainable business model has to include the following features (Figure 6). To make the final and fundamental goal of value and leverage creation happen, the business model must be the intersection



between creating business and shareholder value and creating social and environmental benefits for stakeholders. Thus, it makes it possible to truly enhance ESG performance while still having a strong financial backup. (Figure 7)

Figure 6. Sustainable business model innovation ... (BCG)

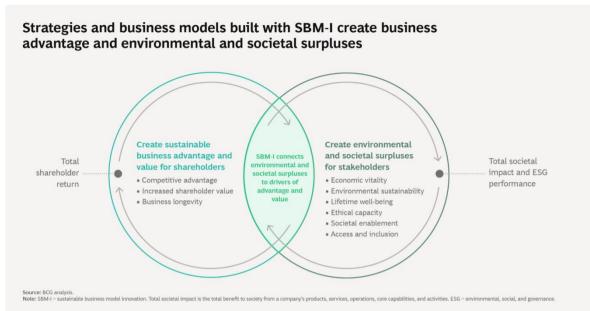


Figure 7. Strategies and business models built with SBM-I create business advantage and environmental and societal surpluses. (BCG)

## 4.4.4 Investor Perspective

Although there is no simple answer that sustainable companies at stock market perform better than others and statistically, there is no evidence of such a phenomenon. However, the term ESG is getting more and more into the frontline. The most prominent institutional asset managers recognized that climate change is not only a risk for the environment but for the economy itself. Natural disasters endanger global supply chains, customers want sustainable goods, companies have to make significant changes to meet governmental regulations. For this reason, ESG is getting more involved in substantial investment decisions. Some even argue that the monetary market slowly becomes an environmentalist. The MSCI world index includes 3000 companies in industrial and emerging countries and mirrors 85% of global market capitalization. The smaller subsidiary index called MSCI world SRI index (SRI= Socially Responsible Investing) only features companies that have excellent ESG performance. Subsequently, the total number is just about 550 companies. Nevertheless, the SRI sub-index outperformed its mother index by around 4% in 2020. This year, however, this development is not noticeable due to tech companies' relatively weak performance, which is included in the SRI index, compared to last year's tech hype. In 2012 \$14 trillion has been invested in ESG sustainable stocks, 2020 according to different assumptions, this number is likely to

pass the \$40 trillion mark. This leaves no doubts that there will be a performance premium for ESG stocks in the future. Shortly said sustainable companies will earn significant profits. (Herles 2021.) However, even if investors believe in green profits, there is always an individual risk-reward evaluation. As Lenox describes, most investment cases can be assigned to disruptive technologies. It means that these investments aim for the long-term and partly addressing such deep-going global challenges that funding capital needs exceptional patience and an Investor that can handle the trade-off between financial return and societal benefits acquired through the investment. (Lenox & Chatterii 2018, 93-94.)

## 4.5 Sustainability in the Supply Chain

This chapter deals with the Supply Chain effects on sustainability and the perception and commonly used practices in today's enterprises. Furthermore, it provides an explanation of why it is worth striving for a NET ZERO supply chain policy.

In one of McKinsey's studies about sustainability, they asked an expert about the actual impact of sustainability measures on three core fields of management: growth, risk management, and Return on Capital. Especially in the point RoC they found that managing the impact of supply chain processes makes a good quarter of respondents said that they emphasize supply chain management at a high stake to enhance the RoC. Additionally, doubled respondents agreed that resource management, such as water, energy, and waste, is vital to RoC. (Bové et al. 2017) That is being supported by the rising number of respondents who believe that activities across these core fields will create future value for the company. At the same time, the general perception is closely connected to the specific industrial sector. In the automotive, mining, and retail industry, more than 60 percent said that they see supply chain management as a significant task to unlock potential value. (Bové et al. 2017.) In the annual third-party logistics study, theory became even more evident as they asked interviewees about the drivers for the "greening" of their supply chains, and the sobering answer is that there is no clear answer. It is a complementary set of the reason that motivates people to engage sustainability within their supply chain. The financial side is well concerned as well as public perception, such as brand image and meeting governmental regulations. Being asked about their recent commitments, a large majority reported that they

use optimization (e.g. route, load consolidation). Other activities include voluntary projects (e.g. Smartway), alternative fuels and tracking, and profound reporting systems for emissions. (Long 2020, 26.) These findings underline a common understanding of the connection between supply chain management and sustainability performance. In the recently published reports of the world economic forum, supply chains have significant leveraging effects, especially for B2B businesses as they usually have higher environmental footprints at the end-to-end value than from their own operations. Thus, companies could address complex acknowledgeable sectors in countries with which they would have difficulty reaching out. In fact, 50% of all emissions can be assigned to 8 industries (FMCG, electronics, food, fashion...), often controlled by a few global companies. Knowing that supply chains have a significant impact, the effects to end consumers are comparatively small as expectations recognize increased converted end-consumer cost of 1-4% mid-long term when encouraging a net-zero supply chain policy. However, things are not that simple operating in international supply chains concerning gathering vital data, which is necessary to set profound goals. (WEF 2021b, 6.)

Before showing how to manage even those difficulties, this chapter will focus on the GHG protocol published by the Boston Consulting Group.

The protocol includes 3 Scopes visualizing the companies footprint through its whole value chain. Scope 1 is representing all impacts resulting from its own operations. Subsequently, Scope 2 covers all emissions issued by third-party companies that sell energy sources to the company. Scope 3 is showing the upstream supply chain as well as the downstream supply chain. Upstream scope, including the procurement operations and issued transportation of complementary raw materials. On the other side the downstream scope including transport to customers and the emissions resulting from the final usage of the service or product. (WEF 2021b, 7.)

The following is a nine-step action plan dealing with an approach to handle supply chain complexity in providing transparency, accountability, and finally establishing a corporate strategy that is fundamental for a long-lasting successful partnership with suppliers.

Step1 Platform Integration

To start off the process, the featured company has to enable a common platform accessible by all partners in the supply chain. This is vital to enable comparison between global emissions that subsequently help select suitable suppliers and gives the supplier direct feedback on its performance. In the final state, the platform should be a tool to visualize the whole emission output of the product life cycle. Subsequently, it should provide the base for further amendments and decision-making. (WEF 2021b, 27.)

## Step 2 Goals

Obviously, the public communication of goals and the connected commitment to goals is essential to create the driver to acquire the knowledge and skills to convert high stake goals into practical actions. Forming groups and alliances in the industry can accelerate the motivation within the industry to address these environmental issues. Furthermore, a well-led alliance can open new funding opportunities for its members. (WEF 2021b, 28.)

## Step 3 Redesign of Products

When it comes to products, differentiation between series production and unique innovational products have to be made. Usually, it is very hard to change the entire footprint of a product in series production. Instead, a possibility is to work on the efficiency in the production process, such as energy consumption. With other products, R&D offers a broad frame of possibilities, for example, selection of raw materials, recyclability, changing production procedures, or suppliers. (WEF 2021b, 29.)

## Step 4 Value Chain

This step is primarily about the make or buy decision. Companies are increasingly in the situation to decide to choose between inbound or outbound operations, for example, through third-party logistics providers (3PL's). The answer is hidden in the strategic decision-making and vision of the company because the supply chain structure is a crucial decision for every company. Deciding to "make" might enable more resiliency in a disruptive future. (WEF 2021b, 29-30.)

## Step 5 Trajectory of Procurement Division

This step directly addresses the procurement division as it significantly impacts the company's financial performance. In order to increase the division's performance, the supplier selection should be executed by two principles: The first is to impose standards based on industry terms. Additionally, they need to be transparent and visible to tenders. The second principle is to give the suppliers the chance to set their own standards. This can lead to more commitment and motivation through more achievable goals. However, it is even more complex to keep oversight, and there is a risk that set goals might collide with the superior net-zero targets.

Despite these principles, the supply chain management should strive for strong collaboration with their supplier through workshops, education, and steady communication. In the final state, an implementation of metrics to monitor performance is indispensable for the procurement division. Moreover, it can make sense to introduce a reward system that is another motivational factor to increase suppliers' commitment. (WEF 2021b, 30.)

#### Step 6 Joint effort

There is not much to add to this header. The company should search for possibilities for co-investment to split the risk. Thus the company can also address its emissions output when operating in an industry where technology for decarbonization is still in early stages and therefore more expensive. (WEF 2021b, 32.)

#### Step 7 Engagement

This step is continuing from the first thoughts of Step 2. In many cases a good opportunity is to join sector initiatives, acquire certifications and explore political recommendations to enable accessible funding channels further. (WEF 2021b, 33.)

## Step 8 Meet buyer needs

While companies within an industry establish a green market with joint projects among value chain partners, policymakers set the playing field for beneficial economic value. The economic value can be accelerated with the number of partners included in such a green market because a more extensive ecosystem brings more assets and potential customers. (WEF 2021b, 34.)

#### 9) Governance

As conducted earlier, the supply chain is a mirror image of the company. That is the reason why a net-zero supply chain is an enormous change. Among the factors of a successful change is a well-working metric system on a transparent supplier platform where information exchange is done in real-time.

Finally, excellent governance is needed to align the core business with decarbonization to ensure the company's sustainable development. (WEF 2021b, 35.)

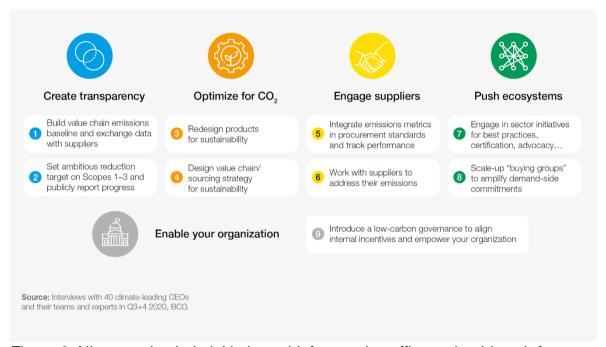


Figure 8. Nine supply-chain initiatives chief executive officers should push for (WEF 2021, 27)

# 5 Beverage Industry

## 5.1 The Shell Industry: CPG

To understand the non-alcoholic industry, the thesis will lunge a little wider framework. This chapter takes a deeper look into a case example in order to show how one of the biggest global industries faces sustainability. Moreover, it will reveal how companies act to comply with emerging requirements or drive innovation to become experts in the field.

The non-alcoholic beverage industry is embedded in the Shell industry of Consumer Packaged Goods (CPG). This holistic approach will enable the thesis to locate the impacts of the featured companies later on. CPGs are defined as *products that customers like you use almost daily and restock frequently* — These includes food, beverages, toiletries, over-the-counter drugs, and cleaning products. (Robinhood 2021.)

Therefore products can be recognized by some distinctive characteristics. To make these more visual, the example is the Coca-Cola bottle. Imagining a person who really loves a coke, this person could count a coke as a product for daily usage. Now imagine that this person could be one of the thousands having the same mindset. Subsequently, Coca-Cola would have to restock and produce their beverage frequently. At the same time, the drink has to be affordable for everyone to become a product for daily usage. Besides personal traits, the product has to be sold in high amounts and distributed in large quantities and to a wide variety of retailers. The last characteristic is that these products have a relatively low engagement. For a coke bottle, it becomes more clear comparing a buying decision between a smartphone and a bottled soft drink.

The CPG industry is highly competitive and contains enormous revenue potentials for its competitors. Nevertheless, consumers budget is limited, and shelf space is rare. Furthermore, the industry is quite resilient when it comes to global economic recessions since the products cover the customer's basic needs. Before switching to the relevant scope of the thesis, there is a quick outlook on nascent trends within the CPG industry. The first trend is the emerging trend for global companies to create high-performance in-house software. So that their R&D departments can

work continuously on the optimization and innovation of products while simultaneously enter testing and approval phases. A fast-developing field is data analytics to study consumer behavior and create personalized ads on social media platforms. Google or Amazon. Moreover, in recent years, companies have entered the directto-consumer market and saw high profitable business outlooks. That is partly caused by the significant rise of the e-commerce industry during the pandemic. Apart from that, it brings even more competition because established brands have to face these challenges to keep their margins as direct-to-consumer businesses save intermediaries' commissions. Additionally, these direct-to-consumer brands tend to use subscription-based payment models to build a quickly growing customer base. Other effects caused by the pandemic are the click and deliver business (Gorillaz or amazon prime now) or the click and collect model emerging through many grocery stores worldwide. Last but not least, and the critical point in this thesis, ESG performance is on the urgent agenda as consumers demand more transparency of the production&manufacturing, packaging, and labeling of CPGs. (Robinhood 2021.)

# 5.2 Non-alcoholic Beverage Industry

The non-alcoholic beverage industry directly prospers from the continuously growing demand resulting from steady global population growth. In the last instance, development is being noted looking at key data that evidences this growth with a steady growth rate of above 5%, peaking at an expected 11,3% this year caused by a tailwind from the corona recovery. Expectations reaching out, admitting that the industry has the potential to almost double its cumulative market revenues from 2013 (roughly \$797.886M) by 2025 approaching \$1.441.158M. (Statista 2021a; Statista 2021b.)

But what types of products are covered within the beverage industry? The market covers:

- water
- milk and diary drinks
- carbonated soft drinks (CSD)
- fruit and vegetable juices

new drinks (energy drinks, sports drinks, ready to drink teas and coffee).

Comparing these types by its sales volume, water is leading the list with 450,5 billion liters (34,9%) followed by milk and dairy drinks with 233,4 billion liters (18,1%), almost heads off with CSDs accounting for 211,9 billion liters (16,4%). The last categories lagging behind with 80,8 billion liters of juices (6,3%) and 71,6 liters of "new drinks" (5,5%) (Statista 2020, p.6-7.) NOTE: percentages exclude the alcoholic beverage industry.

Besides the various types, all of them follow the principle of taste beats the "what is good for you" rule. The flavor is the starting point of successful brands in the industry and vital to be competitive. Before finally getting to the real business of looking at the leading brands in the industry, one of the industry's major battlefields in terms of sustainability is at stake. Looking at the different packaging types being used in the industry, a significant amount of 30,7% results from PET. The second biggest packaging type are glass bottles accounting for 23,4%. Other packages include cans 18,4%, cartons 10,8% and other types 16,7%. (Statista 2020, 8.)

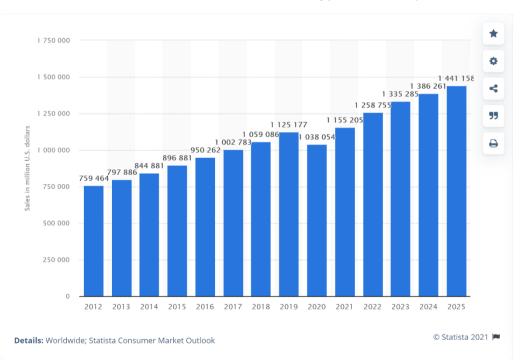


Figure 9. Worldwide non-alcoholic beverage market revenue from 2012 to 2025 (Statista 2021b)

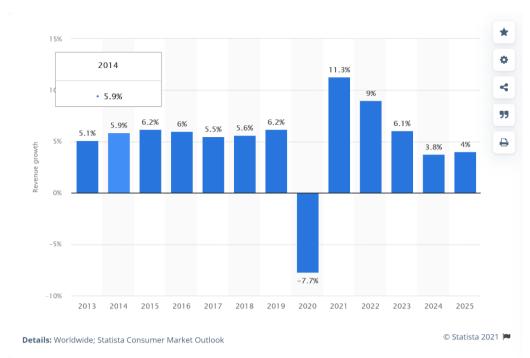


Figure 10. Revenue growth of the non-alcoholic drinks market worldwide from 2013 to 2025 (Statista 2021a)

# 6 The leaders in the beverage industry

#### 6.1 Coca-Cola

Without any doubt, the Coca-Cola Company is one of the most influential, powerful, and successful brands worldwide. The in Atlanta-based Company contains roughly 200 brands with which it earns \$33,0B net operating revenue. Within its 135 years on the market, its most robust market share shifted to Latin America with 28%, Europe, the middle east, and Africa, which also accounts for 28% total. With a market capitalization of \$235,9B the Coca-Cola system covers roughly 225 bottling partners, operating with around 900 bottling plants, having more than 700k people on the payroll, and run 30M retail customer outlets. (The Coca-Cola Company 2021, 12.) All that results in an enormous brand value of almost \$38.000M in pure brand value. Adding their subsidiaries Sprite and Fanta with another \$8.000M in brand value, Coca-Cola outpaces every other competitor by more than 100%, as the next follower is PepsiCo with almost \$19.000M brand value. (Statista 2021c.)

The operations of the Coca-Cola Company can be divided into the supply of finished goods and selling concentrates and syrups to its licensed bottling partners that add water and sweeteners prepare to package and as the final stage distribution of the finished beverages. (The Coca-Cola Company 2021, 13.)

### Water Leadership

The Coca-Cola Company (CCC for shortening) understands itself as a Forerunner in managing the water resource in its operation. It emphasizes the triple R strategy. Reduce, Recycle, and Replenish, with those guidelines, Coca-Cola wants to establish the company as a flagship operation for managing the water resources. So far, the company claims various achievements in recent years. Among those, a net reduction of 19% of total water (2,26/L to 1,84/L) within ten years. The replenishment reached more than 100% of used water in 2015 already that helped the CCC to provide access to water for more than 13.5M people.

Apart from that achievement, the company admits that 39% of the production volume was generated in countries with severe water scarcity. Subsequently, the company understood that water is essential for many vital production sites in

America and Asia. Therefore, the company evaluated water scarcity risks and established a strategy to build its flagship "water leadership" and support partners in the downstream supply chain.

The strategy of the CCC is implemented to create significant impacts on its operations and to realize ambitious goals until 2030. Their vision is to *increase water security, source ingredients and touch people's lives by improving water availability, quality, access and governance.* (The Coca-Cola Company 2021.) Being embedded into diverse goals based on a 100% replenishment policy the company commits itself to keep at least a 100% rate of global replenishment from its direct water usage caused by its operations. Thus, should enable the company to achieve superior efficiency in the water use among the operations. Moreover, it should provide opportunities to create access to water and sanitation for those who are not privileged to have stable access to clean water, focusing on women and girls. Lastly, it should help to improve and accelerate the performance according to watershed health.

In a profound analysis, the CCC found that agricultural operations account for 92% of its total water consumption. 1% for packaging, and the 7% left shared between manufacturing, distribution, and cooling&dispensing. That being said, it becomes clear that sustainable agriculture (featured later) is crucial for the overall sustainability performance for CC. (The Coca-Cola Company 2021, 20-23.)



Figure 11. 2030 Water Strategy Overview (The Coca-Cola Company 2021)

#### Sugar

Earlier in this chapter, a key success factor of the beverage industry was revealed. The Taste is crucial to establish a brand in the highly competitive industry. Taste,

especially in drinks, is closely connected to added sugar. Drinks with more sugar tend to taste better for the majority of people. However, CC is working hard to transform most of its 200 master brands by implementing several actions, including a pure reduction of added sugar, to introduce and develop smaller packaging sizes to allow the consumer to control their sugar consumption. Furthermore, they strive to cover a broad range of different drinks that benefit nutrition while still being tasty but not harmful, including famous brands like Fuze Tea, Aha Sparkling Water, or POWERADE.

To put it in numbers, health authorities worldwide suggest a slight margin of 10% of added sugar through adult's daily calories as the limit. To meet that recommendation CC built resilient brands that are either recognized as zero products or low sugar products. The CCC claims that 18 of 20 top brands are included in these groups, while 36% of their whole portfolio is considered low- or no sugar brands. (The Coca-Cola Company 2021, 26-29.)

#### Waste

In a "world without waste," CC wants to reshape its whole packaging towards 100% recyclable materials. In fact, that ambitious goal is meant to be met by 2025. In 2020 the company reported 90% of packages being fully recycled. Additionally, CC commits to use 50% of already recycled materials for their packaging by 2030, whereas in 2020, 22% recycled mixed materials and 11,5% PET plastic have been used in packaging.

In order to reach these ambitious goals, the company has to be innovative and address its most often used package material - PET plastic. CC assumes that roughly 30% of total sales offers at least one 100% PET plastic using brand. Among the most notable highlights for innovative packaging solutions was a labelless 100% r-PET bottle for one of CC's nutrition brands that benefit sorting and the recycling process. In the packaging mix, CC uses various materials a quarter consisting of aluminum and steel, 45% PET plastic, and 11% refillable glass & pet plastic. The remaining part is a shared mix accounting for 4,4% consisting of cartons and juice boxes, non-refillable glass, and pouches.

Since bottling companies mostly manage the packaging business of Coca-Cola, addressing its partners to realize its climate goals is a crucial part of CC's agenda.

The CCC built resilient partnerships worldwide to realize many different projects that range in the ESG environment. Collective and collaborative actions are therefore substantial to create value for internal and also external stakeholders. With the commitment in the U.S. plastics pact 2020, CC is now part of a joint organization that has the power to impact and set legislation for new standards in recycling and packaging. (The Coca-Cola Company 2021, 30-32;34.)

#### Climate

Coca-Cola wants to become net zero in 2050, navigating through mid-term with a 25% GHG reduction target by 2030. The targets derived from global authorities and scientists recommending a 1,5-degree pathway to mitigate global warming. In chapter 3.5, supply chains and their impact were analyzed, and now there is practical proof that managing the supply chain is vital to reduce a companies carbon footprint. Within the supply chain, Cooling and dispensing account for around one-third of the total emissions. Another third comes from packaging processes and 20% from ingredients (e.g. agriculture), and 20% from manufacturing and distribution. Targeting the reduction of carbon emissions needs innovation, efficient processes, alternative fuels, and, most importantly, engagement.

That is why must get aligned with the companies commitment. In order to keep suppliers engaged, CC required 149 key suppliers to report to CDP (a non-profit global disclosure system), advancing sustainability goals. (The Coca-Cola Company 2021, 35-37;39.)

### **Agriculture**

To address the most important part of the CC supply chain, the company introduced its new strategy called Principles of Sustainable Agriculture (PSA). It is built to create a connection between many challenges, including climate, water resources, human rights, and women empowerment. The CCC works to create a long-term collaborative partnership with its partners and suppliers to drive the new agricultural strategy. CC claims that 56% of its ingredients were sourced sustainable in 2020, making a 2% growth compared to the previous year. However, the main focus is on growing crops in a sustainable and benefitting way for all partners. CC emphasizes close cooperation with WWF and other institutional expertise to create profound knowledge about resources and risks embedded in the

supply chain. In that regard, CC conducted many studies on crucial resources like sugar cane for setting up projects and create transparency in inherent and emerging risks of farming these resources. Moreover, for CC, partnership means enhancing the overall transparency of the ingredients being consumed in the supply chain. The excellence CC sets for itself in reporting their performance should encourage all stakeholders to increase the commitments towards crucial ingredients like cane sugar, corn, and orange juice. (The Coca-Cola Company 2021, 40-41.)

## **Communities and People**

Being the most valuable brand in the industry, CC is well aware that its operations affect hundred of millions of people worldwide. With the Coca-Cola Foundation, the company can look back on successful investment programs that aimed to improve people's lives. Simultaneously, governance excellence is vital to ensure sustainable growth, and with that, CC decided to decrease its positions worldwide. Instead of improving and growing its company network, especially in the face of the pandemic, it is part of a new organizational structure. For a company with 80.300 employees in its core business and over 700k, including the supply chain partners tracking the performance and focusing on detailed compliance is realized through regular audits held with supply chain partners. Partners are encouraged to follow CC's Supplier guiding Principles (SGPs) that are closely connected to the companies Human Rights Policy. With 2279 audits conducted in 2020, the company engaged in respecting human rights by evaluating risks for communities and people, focusing on child labor, forced labor, and land rights. Whenever risks were identified CC directly to fix these issues with collective support from stakeholders and SC partners. (The Coca-Cola Company 2021, 44-45)

Finally, enabling women was one of the fundamental parts of the CC- Foundation in 2020. The company was excited to announce that the goal set in 2010, "global initiative to enable the economic empowerment of five million women entrepreneurs by the end of 2020." was exceeded with six million women with economic independence. (The Coca-Cola Company 2021, 46.)

In 2020 the overall spend of the CC foundation resulted in \$139,1M with a 40% share of Covid-19 contributions and \$4,7M spend on social justice projects that aim to improve diversity, equity, inclusion, and racial equality (+\$800M spent in

overall company investments). That makes 1,9% of operating income invested in social regards and a total spend of more than \$1,2B since its foundation in 1984. (The Coca-Cola Company 2021, 50;53.)

## 6.2 PepsiCo

PepsiCo is the second largest beverage brand worldwide. However, its product portfolio also includes snacks and other everyday nutrition. Accounting for all its brands, PepsiCo claims a total brand value of \$23 billion. Those conglomerated brands were able to generate net revenue of more than \$70 billion in 2020. Operating and selling their products in more than 200 countries and territories, PepsiCo is also responsible for more than 290k employees. (PepsiCo 2021.) Among their Top Brands are Pepsi Cola, Lays, Mountain Dew, Lipton, Stacy's, Mirinda, or Gatorade. (PepsiCo n.d.)

Formulating 2030 goals, PepsiCo wants to enhance farming practices on seven million acres, eliminate 3 million tons of GHG emission, positively impact the livelihoods of more than 250k people in the agricultural scope of the value chain. Last but not least, a crucial part of their ambitions is the sustainable sourcing of their ingredients.

Strategy wise PepsiCo focuses on six elementary stages. Agriculture, Water, Product, Packaging, Climate, and People. With that, the company promises an integrated approach to sustainability covering the whole value chain. (PepsiCo 2021.)

## **Agriculture**

PepsiCo acknowledges the importance of agricultural commitment to its strategic outlook and business operations. With 60 origin countries of their crops and over 100000 jobs connected to it, the Company announced a new Agriculture Strategy that is focused on the realization of impactful projects starting at the roots.

In brief, the company could turn 100% of directly sourced crops sustainable in 28 countries. Moreover, 100% of their sourced cane sugar is bonsucro certified. Additionally, they are barely missing out on using only certified palm oil (99%).

Programs that led to these achievements are focused on circular farming (1), implementing new technologies (2), and reaching out to people with global partnerships(3).

- 1. Circular farming contains numerous measures to reduce the total carbon emission output of farming, focusing on restoring biodiversity and sequestration of soil. Examples are implementing high-quality fertilizers that have a low carbon impact and help the soil surface regenerate. Furthermore, PepsiCo provides support to its farmers in planting cover crops that account for biodiversity.
- 2. In PepsiCo's Next Generation Farming program built a network of demo farms that promote best practice farming and spread the mindset of more productive and, at the same time, sustainable farms to local communities. Those demo farms are then used to implement state-of-the-art agriculture technology such as iCrop 2.0 in Spain, enabling farmers to increase their water irrigation accuracy from 48% to 92%.
- 3. To create a more diverse, resilient farm management PepsiCo emphasizes global partnerships such as the cooperation with the U.S. Agency for International Development that raised \$20 million for inclusive food and beverage industry by women-owned and women-led enterprises within PepsiCo suppliers. Just as CC, PepsiCo has its own Foundation that realizes many projects worldwide. One of their recent projects called "She Feeds the World" helps women in developing countries like Peru, Egypt, or Uganda with education and economic support to increase their yields, subsequently their income, and finally family nutrition. (PepsiCo 2021a.)

#### Water

PepsiCo highlights its good practice when it comes to water policies and its adoptions with key partners. Their major partner in this field is the Nature Conservancy, with which they operate on scientific base targets to work on solutions for protecting, conserving, and replenish freshwater sources.

In brief, PepsiCo was able to replenish 3,2 billion liters of water into local watersheds. They increased their overall operations water usage efficiency by 15% and 14% in agricultural usage while delivering safe water to more than 55 million people worldwide.

One exemplary project is the circular water project at the plant in Sabritas Vallejo. One of the plant's tasks is monitoring and optimizing the water consumption in the potato slicing process. With a high complex bioreactor membrane, the system can reuse a vast amount of water that is already processed on drinking water standards.

PepsiCo's biggest innovation is called burst rinsing and is expected to save up to 8 million gallons of water a year. It is all about when the nozzles stop to spray syrup into the tanks within the flavor changeover process. As the name suggests, the nozzles are activated in preassigned intervals that secure quality standards, increase productivity, and, most importantly, save a large amount of water. (Pepsi 2021b.)

## **Packaging**

In terms of packaging PepsiCo follows the Reduce, recycle and Reinvent principle. It suggests that a circular future, especially with the focus on plastics, will need reduction of those packaging materials, the usage of recyclable materials, and investments in research and development to find new ways and types of packaging.

This is also reviewed in the recent accomplishments of the company. 2020 PepsiCo claims that 87% of its packaging material is recyclable, compostable or biodegradable (RCB). Additionally, the PepsiCo Foundation invested more than \$65M in new initiatives that accelerate recycling and waste collection. In that regard, PepsiCo announced that 22 of their flagship brands offer 100% rPET packaging.

With the cooperation with the soda stream, the company offered a sustainable alternative for flavored sparkling water. The resulted reduction of single-use plastics is estimated with around 78billlion bottles until 2025. (PepsiCo 2021c.)

### **Product**

Likewise, CC PepsiCo is also participating in the food beverage business therefore, their efforts range much broader than CC's. However, measures regarding the beverage division PepsiCo rely on added sugar reduction to make their brands healthier. Among these reinvented brands are Gatorade juice, Evolve, Naked Lean, and Driftwell.

PepsiCo recognized the changing consumer behaviors as more and more people consider a healthy lifestyle with a low environmental impact as convenient and worth the extra penny. As before also in this part of their sustainability commitment, Pepsi trusts the strong collaborative partnership with "Partnership for a healthier America". In the so-called "better for you options" Pepsi emphasizes ambitious targets to reduce added sugars, sodium, and saturated fat in their leading brands. (Pepsi 2021d.)

#### Climate

The next focus area is the topic climate, and it catalyzes a lot of the mentioned actions from above.

To mitigate climate change and drive decarbonization, PepsiCo follows a joint collaborative strategy that includes partners and suppliers, which means integrating those in its operations. In that scope, PepsiCo sees many opportunities laying in the optimization of sustainable agriculture and best practice farming. To make the approach towards a circular economy complete, they also work on reducing virgin plastic and launched rPET bottles in crucial brands. Moreover, the development of innovative solutions for transportation and distribution of their products with the consideration of alternative fuels and electricity plays a major role in the long-term scope of the company.

So far, the company has reached 100% "green" electricity for its us operations and in some European markets and has already announced plans to expand renewable electricity globally. With their Net-Zero ambitions until 2040 (2050 Paris agreement), the company estimates that it will reduce its total GHG emissions by 40% throughout the value chain by 2030. In recent progress, PepsiCo can show a 5% reduction of the total supply chain emissions across the value chain. (PepsiCo 2021e.)

### People

With a strong commitment to Diversity, Equity, and Inclusion, PepsiCo, in cooperation with its Foundation, enable and secure equal opportunities for humans worldwide. \$570M were raised by the PepsiCo Foundation and the core business to support Black and Hispanic businesses and communities in the next five years. To further accelerate the global acceptance of women working, PepsiCo sets an example as their pay-gap between women and men is communicated with 1% in 71 countries that make up more than 99% of the salary cap. Moreover, the management is presented with 41% of women.

Since the Pandemic had significantly affected many communities and families worldwide, the PepsiCo Foundation invested more than \$71M to compensate those affected by COVID-19 in 2020.

To pick one of the various projects of PepsiCo, they engaged with FUNDES in 2016 to support women in Latin America, providing coaching, education, further employment and opportunities to build successful companies. Being implemented in eight countries, including leading emerging markets like Brazil and Argentina, the program aims to empower more than 12000 women. The program has shown massive success as 65% percent of those who finished the program (7400 total) reported increased sales performance, 71% were able to elevate their social media performance, and three-quarters said they found promising entrepreneurial opportunities. (PepsiCo 2021f.)

#### 6.3 Nestlé

Originally started as an Anglo-Swiss condensed milk company, Nestlé emerged as one of the largest companies worldwide. (Nestlé n.d.) Its product mix ranges from food and beverages of all kinds to self-care products and services, and also, a variety of Nestlé's brands represents petcare products. (Nestlé n.d.a)

Among the 2000 brands serving Nestlé, there is a division of beverage brands, including names like St.Pellegrino and Nestlé Pure Life as bottled water brands. Dairy beverages include Carnation, Coffee-Mate, La Laitière, and Nido. At the same time, the category Drinks include the brands Milo, Nesquick, and Nestea. (Nestlé n.d.a)

The largest of its beverage categories is the Coffee division, with the global Nescafé brand worth \$6185M making it the 4th valuable non-alcoholic beverage brand worldwide. (Statista 2021c.)

To further accelerate their coffee division, Nestlé closed a licensing deal with the NYSE-listed Starbucks Corporation that widens its product variety and increases nestlé's brand reputation and innovation in terms of sustainability. Adding Starbucks to the biggest Coffee retailer in the world unlocks enormous potential for future growth. (Nestlé 2018.)

So far, this global coffee alliance lead to an expansion of the Starbucks brand across 79 markets. Recently both companies reported their ambitions to further expand their Ready-to-Drink (RTD) coffee beverages in selected markets in Southeast Asia, Oceania, and Latin America. Recapping the partnership's financial performance David Rennie (Head of Nestlé Coffee Brands), said that with organic double-digit growth from 2019 to 2020, Starbucks products reached CHF 2.7B in net revenues. (Nestlé 2021.)

Nestlé is part of the business for 2030 program launched and hosted by the United States Council for International Business. This program is embedded in the often implemented 2030 Development Agenda and Sustainable Development Goals. (Business for 2030 n.d.) Thus, Nestlé defined their commitment towards 2030 by selecting three main focus areas.

First is the commitment to individuals and families with the target to support 50million children by increasing their health. Secondly, Nestlé wants to improve 30 million livelihoods in communities directly connected to Nestlé business operations. Last but not least, Nestlé joins the Zero commitment agenda for a safer planet. To realize these ambitious goals, Nestlé follows its Creating Shared Value (CSV) strategy. (Nestlé n.d.b)

**Disclaimer**: For the reason of these works scope being reviewing beverage companies, further examples for Nestlé's commitment will exclude those related to other businesses than beverage operations.

#### **Children and Families**

To fulfill the aim of increasing the living standards of children, Nestlé rolled out more than 4000 nutritious products helping children and families making better choices in their nutrition. The guidelines are reducing sugars, sodium, and saturated fat and simultaneously, add positive nutrients and micronutrients.

One example is the launch of a plant-based version of Nesquicks RTD chocolate drink in Europe. Certified by the Vegan Society and made from natural ingredients, including oats, peas, and sustainably sourced cacao, "Nesquick GO vegetal" exemplifies Nestlé's ambition to provide innovative, and healthy products. (Nestlé 2021a, 10-11.)

Furthermore, guiding their consumers to a more healthier lifestyle is a critical part of Nestlés strategy. By launching the Nestlé portion guidance initiative, the company wants to educate and coach its consumers by providing pre-portioned products, suitable packaging sizes, recipes printed on packaging in connection with the pack design. NesQino is the perfect example of this principle. It offers personalized superfood drinks to its customers with recommendations on individual portions. With the in-app integration, customers can further explore recipes and ingredients. The specially designed cup then blends all ingredients, and the customer can decide whether to warm the drink or to drink it cold. (Nestlé 2021a, 18.)

#### Communities

With the aim to reach its target of having a positive impact on 30 million livelihoods, Nestlé relies on three main focus areas: Agripreneurship, Entrepreneurship, and Diverse, Equal and Safe Employment. (Business for 2030 n.d.)

## Agripreneurship

Sourcing more than 70% of its raw materials in the region, farmers play a vital role in Nestlé's value chain in Central and West Africa (Sustainable Brands 2018).

Whereas in many industries, youth and young generations ensure development and innovation, the agriculture lacks a young workforce, and those entering farming face insecurity in job relations and often little to no social protection. (Sustainable Brands 2018.) Additionally, official institutions indicate that a vast significant amount of people aged 15-35 in Africa are currently unemployed.

Nestlé recognized the issues early, and with launching its farmer connect program in 2012, they want to unlock the potential of young people giving them the knowledge, skills, and entrepreneurial spirit they need to manage farms in the 21st century (Business for 2030 n.d.)

Since then, Nestlé has added the Rural Development framework that guides their approaches in rural communities, getting farms and farmers to a new level that can meet the requirements of today's needs and establish a productive and efficient environment.

This framework has set the base for Nestlé's recently launched Net Zero Roadmap to implement and emphasize regenerative farming practices. Among the priority fields are coffee and cacao farming. (Neslé 2021a, 29.)

For the coffee division, Nescafé is driving further greening of the supply chain. So far, the Company pledges to achieved 73% and 93% of the coffee used for Nescafé and Nespresso brands has been sourced sustainably. Through more than 6k training sessions in about 6.7k coffee farms in Mexico that reached 100k local farmers, reports indicate that in consequence, 39,5 million plantlets have been distributed. At the same time, almost 16k hectares of land were being reshaped according to regenerative requirements that benefit over 34k coffee farmers. (Nestle 2021a, 32.)

The brand new Nestlé Cacao Plan introduced in 2020 plans to source 100% of its cacao operations sustainably by 2025. Within the plan tackling deforestation, child labor, and ensuring responsible living income are on the agenda.

One of the piloting projects has already been launched in Côte d'Ivoire, targeting economic growth and applying good agriculture practices. Furthermore, the project is supported by a robust Child Labor Monitoring and Remediation System (CLMRS) program and planting shade trees. (Nestlé 2021a, 33.)

#### Entrepreneurship

Unlocking economic opportunities for young people that provide a perspective and account for social security is essential in various Nestlé projects.

Designed and led by Ashoka, the Social Investment Accelerator program reaches well beyond Europe supporting young people worldwide with a special focus on

underdeveloped regions. it enables young entrepreneurs with skills, mentorship, and financial aid to become sustainably successful. (Nestlé 2018a.)

Another example is the Nestlé needs YOUth initiative that intends further measures such as apprenticeships and traineeship opportunities, events to prepare young people for work, and create 20-25k job opportunities for people below 30years.

Looking ahead, Nestlé targets 2030 with a commitment to help 10 million young people fining an economic opportunity. (Nestlé 2021a, 40.)

Diverse, Equal, and Safe employment

With a profound CLMRS Nestlé set high standards in reviewing risks for child labor across its supply chain. Since 2017 Nestlé publishes a landmark report that gives a detailed insight into measures taken against child labor and challenges by implementing them. 2021 Nestlé introduces its new Human Rights Framework and a Roadmap that includes detailed targets and programs on further proceeding with scale and reach to promote fair, safe, and decent employment. (Nestlé 2021a, 34.)

With the Gender Balance Acceleration Plan that includes leadership, culture, and practices, Nestlé makes a further step in empowering women and enabling equal opportunities and conditions. The plan targets to employ 200+ women in senior executive positions (30%) by 2022. By 2020 a rate of 25,6% was reached by implementing anti-bias training, mentoring, and sponsorship programs. Additionally to inclusive people practices, an equal pay assessment process was conducted that is unbiased and only accounts for the actual economic performance of individual employees.

Healthy lifestyle choices are not important for the customers but also for Nestlé employees. The Know Your Numbers (KYNP), healthy lives, and Stress and Resilience programs enable the company to have a detailed overview of employees' health status, health risk assessment, and guidance leading to health support. The company itself claims high participation percentages, which indicates that these programs are being well implemented. (Nestlé 2021a, 42.)

#### For the planet

In its report on CSV, Nestlé defined "for the planet" as a set of three core parts being water, climate change, and environment. This sectioning should allow the company to transform key parts of their business processes to meet all stakeholders' future requirements.

#### Water

As a beverage company, Nestlé needs to take severe action. To do so, its flagship initiative, "caring for Water" addresses four impact areas that are agricultural supply chains, communities, factories, and watersheds. In that regard, the company wants to reduce freshwater withdrawals, implement strong water stewardship, and engage agricultural suppliers. Noted in Nestlé's own analysis, the beverage division is the top section in reducing water withdrawals. Whereas 2010 water withdrawals reached almost 14m³ per tonne of the product, 2020 water withdrawals decreased by around 60% to now 5,8m³ per tonne. (Nestlé 2021a, 44-45.)

A robust water stewardship requires precise and direct action to be successful. Nestlé partnered with the Water Resource Group to realize local and regional projects that aim to teach good agricultural practices, provide financial aid, and engage water stress in the involved regions. The partnership enabled investments of nearly 1 billion USD for water security. Currently, 25 projects are ongoing, and 29 opportunities are still in development. (Nestlé 2021a, 46.)

#### Climate Change

The whole company follows the recently released net-zero roadmap that suggests reaching net zero emissions by 2050 at the latest. Short to mid-term Nestlé target 2025 respectively 2030 to decrease its emissions by 20% and 50%. Regenerative agriculture, preserving forests (planting trees and ending deforestation across primary supply chains), using renewable electricity, and increasing carbon-neutral brands through acquisitions and transformation are milestones on the roadmap head towards carbon neutrality. Whereas the core brand aims for long-term results, pioneer brands like St. Pellegrino, Acqua Panna, or Nespresso set much higher targets with carbon neutrality by 2022. However, the whole beverage division of Nestlé is expected to reach carbon neutrality by 2025.

Overall, the company lacks to show of significant achievements. The company could now argue with minor projects implemented in single factories as pilot projects, but Nestlé still relies on resilient brands driving the systematic change. (Nestlé 2021a, 49-51.)

## Packaging and Waste

That issue also transfers to packaging and the reduction of waste.

Nevertheless, in 2019 Nestlé established the Nestlé Institute of packaging that is entirely in charge of developing functional, safe and environmentally sustainable packaging solutions. (Nestlé 2021a, 53.) Fundamental parts of their work will be increasing the engagement of supply chain partners, transforming Nestlé's operation into a circular economy, reducing unnecessary packaging material, and increasing renewable/ recyclable materials. Last but not least, finding innovative ways of packaging will determine a large part of the department's success. (Nestlé 2021a, 53.)

# 6.4 Review and Summary

This chapter has underlined the emerging importance of sustainable business operations. The beverage industry, as a case example and more exemplary its three leaders, recognized the enormous need to transform their business. However, in previous chapters, it became clear that the economic aspect of implementing sustainability practices has a superior priority. Therefore, what is essential, is that they see the hidden potentials and the future value that can be unlocked by running a profound sustainability strategy. Another simple reason is that in order to stay competitive, those companies reserve many resources to meet and extend governmental regulations on sustainability issues.

Furthermore, three main focus areas can be noted during the analyses of Coca-Cola, PepsiCo, and Nestlé:

- finance and governance
- own operations
- projects.

All areas combine the various reasons for shifting to sustainable businesses, which are increasing the brand image, meeting stakeholder interest, and making the company attractive on stock markets as every reviewed company is listed on stock markets. Last is especially important to acknowledge the fact found in chapter 4.4.4 that investment in companies following ESG-principles and strategies are increasing and will accelerate even further in the future. Additionally, the performance of core operations can benefit from ESG-measurements. By introducing innovative technologies and projects, companies will be able to increase the efficiency of their operations, and cost savings will enable companies to create even more value and become more profitable on the bottom line. By moving closer to a circular economy companies try to mitigate climate-change-related risks to their operations while gradually building a competitive advantage by establishing resilient supply chains and strong brands in the market.

# 7 Consumer perspective

#### 7.1 Introduction

The last main chapter of the thesis discusses the demand side of sustainability within the beverage industry. The thesis conducts new research with consumers analyzing the psychological and economic aspect of consumer behavior.

During this report, the focus was on ESG strategies, projects, and theories aiming to create shared value in all three perspectives. The following will review a totally different part of the beverage industry. Anyhow, it is fundamental to talk about the consumers' perspective to determine if sustainable businesses are more successful than others. It is even more important to realize that the featured products are CPG and are mostly bought on a daily basis. Beverages account for a significant part of the total domestic consumption while having one of the worst ecological footprints. The organic beverage market is expected to reach almost \$182 million, making it an emerging risk but at the same time an excellent opportunity for companies to acquire new market shares and consumer segments. To do so, they must have profound knowledge about their consumers buying behavior and need to predict buying trends. However, analyzing consumer behavior is not as simple as it seems. Companies have to apply a holistic approach covering many factors to acquire reliable results. These factors can be manifold, including stereotypes, different types of education that may cause misunderstandings, social and geographical backgrounds, economic possibilities. Some even review deep psychological aspects such as moral attitudes, social pressure, desires, and habits. (Rodriguez-Sanchez & Sellers-Rubio 2020, 1-3.)

# 7.2 Survey Analysis

# 7.2.1 Methods of the survey

Since the consumer perspective on sustainability does not find much relevance in today's literature, the following empirical research conducts questions related to chapter six's focal points, which compared the companies' different approaches and key efforts on sustainability. That way, the survey connects the theory with the data collected from the survey. Among these questions, 71 participants answered

open questions, with ratings (e.g. 1-5 & 1-10), and multiple-choice questions, giving them full width off expressing their opinions on questioned matters. The vast majority 75% of participants, are working, while 21% are studying, and the rest are in a trainee relationship. According to gender, two-thirds of participants are women, and one-third are men. The age profile of the survey is a mixture of young adults aged 20-35, accounting for almost 60%, middle-aged adults 36-50, roughly 20% the same amount as an older generation with +50 years of age. Completing is a minority of one participant being younger than 20 years. The implementation of the quantitative research is managed by using the google forms tool to establish primary charts, diagrams, and summarize answers. While this tool makes the approval of the hypothesis simple, it provides clear answers to instinctive questions as well as knowledge questions.

The survey analysis should further approve the following hypothesis, formulated according to the results of previous chapters. "A prominent trend in consumer behavior is sustainability, which is why companies cannot allow themselves to miss the 'trend'". This is done by looking at the main focus points: reviewing the status quo, consumer behavior, products, and brands and companies. Finally, the summary brings the thesis ultimately closer to answer the research question, which is to study how sustainability affects a companies success.

# 7.2.2 Status quo

The status quo of the consumers suggests that the general understanding of the importance of sustainable buying behavior is already nascent, as more than 50% guessed that the value of sustainable products in their buying account for 20-50% of the total value of the purchase. That is being supported by another rare 50% answering that sustainability has higher importance in their purchase.

When it comes to initial factors that determine the buying decision of beverages, a majority of +80% of surveyed agree that taste is the superior factor influencing the buying decision. This was followed by 38%, giving "price" the second place and sustainability the third place, with almost one-quarter of respondents voting. As a brand-focused industry, just 12,7% of the respondents claimed that they value the brand while making the buying decision, contrary to many global companies' marketing campaigns claiming strong customer relationships. Answering the question

of whether surveyed would describe their buying behavior as sustainable, 30% agreed, and 40% said that their buying behavior is not sustainable, but they are willing to change their purchasing in the near future.

### 7.2.3 Consumer behavior

Moving to the behavioral part of the survey, 55 respondents said that they are willing to change their behavior and financially, with three-quarters willing to pay at least 5% price premium and 46% of those even up to 10%. However, companies experience difficulties communicating that price premium as 70% of respondents connect a higher price with a brand-related margin, whereas only 19% relate a higher price to sustainable beverages.

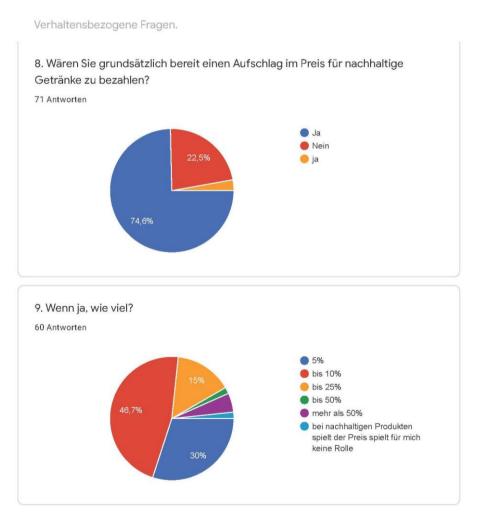


Figure 12. Appendix 2. Questions nr.: 8.&9. Survey – Price Premium

Nevertheless, respondents would switch to sustainable products almost every time if factors like taste and price were the same. Considering that there is a common

misunderstanding between the terms organic and local products (Rodriguez-Sanchez & Sellers-Rubio 2020, 4-5), respondents were very clear in choosing local products as almost 90% voted for rather than organic products. Not relevant for the customer buying decision is the effect to others when buying sustainable products. The respondents came to a majority of 91,3% saying that they are not buying sustainable products to improve their image to strangers or fellow people.

### 7.2.4 Products

Moving on to the section regarding products. Companies in the nutrition and beverage industry often work hard to get certified or to join certain alliances. Thus, they proudly present on their product labels. The first part of product questions aimed to find out how relevant these certifications are and how valuable the information on product labels is. The majority (66,2%) of respondents answered that they do not care about certificates on product labels as 15,5% said that they do care and 18,3% answered "only on specific products". On the follow-up question, what kind of drinks that would be the three categories that came out on top are vegetable and fruit juices (50%), water (42,3%), milk(38,5%). Less important are the category "new drink" and soft drinks. Furthermore, respondents were asked how they would value the information given on beverage labels. On a scale from 1-5, the participants were uncertain as 62% answered with 3 and 20% 4-5 whereas 18% answered 1-2. Coming up next is a question about the importance of the ingredients of beverages. It became clear that consumers do care about significant ingredients such as sugars, saturated fats, and caffeine. On a scale from

1-10, 62% of respondents can be located in the range of 6-10, whereas 23,6% answered 9-10 and 29% 7-8.

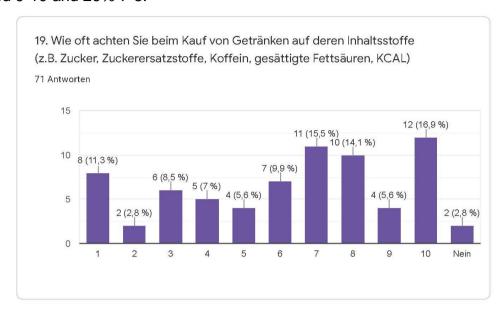


Figure 13. Appendix 2. Question nr.: 19 Survey – Ingredients of beverages

Before moving to packaging, respondents faced questions concerning the term "Fair-trade" and their understanding. Many participants were able to describe the term correctly, with Fair-Trade being defined as an initiative for small farmers and wage workers in the South, who have been restrained in their economic and/or social development by the conditions of trade (Rodriguez-Sanchez & Sellers-Rubio 2020, 5.) A large number of respondents additionally agreed that the Fair-Trade initiative is fundamentally a good idea. However, there was also some criticism about the practical implementation of fair trade and the relation to local farmers. Some respondents answered that from the original intention to achieve equal possibilities for small and mediocre farmers, the trend shifted towards a favor for "fairtrade farmers" e.g. farmers that a subsidized by the initiative. In detail, they argued that local farmers could not reach equal prices with the fair trade farmers so that supermarkets barely want to buy ,, one liter of milk for one more euro" suggesting that the end consumer is also inelastic according to the price. This finding matches the data from a previously stated question on choosing local or organic products. (89% local products over organic) However, as Rodriguez-Sanchez & Sellers Rubio suggests, it is not that clear to determine the true behavior of consumers in that regard because there is the case where people have to decide between an organic and sustainable product from south America and a non-organic local product. The issue is that the common thinking is that local 'products are organic', which is not always the case, but its perception in society tends to be better comparing it to foreign goods. What really is the more sustainable and, in some cases, the healthier option is left on the track.

For companies, the packaging is a no-brainer when talking about transforming the business within the beverage industry into a circular economy. But how important is it for the actual consumer? Long story short, very important. When asked about the importance of recyclability of the various packages, more than 70% answered 4-5 on a scale from 1 to 5, where 5 is essential and 1 is irrelevant. While glass is the favorite type of package (72%) amongst the respondents, the majority value functionality of the package still as the highest feature of the package.

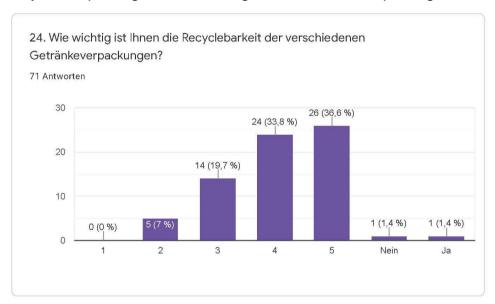


Figure 14. Appendix 2. Question nr.: 24 Survey – recyclability of beverage packages

# 7.2.5 Brands and companies

During this paper, some of the world's strongest brands are analyzed. This part of the survey studies the connection, recognition, and importance of the brand itself for customers. According to the results, almost 80% of respondents admit that they buy products from either Coca-Cola, PepsiCo, or Nestlé. Over 60% answered that they buy these products monthly to weekly, which is quite conservative for the

CPG/FMCG industry. Facing the question of which of these brands is their favorite, 63% said they like Coca-Cola the most, followed by 22,5% who said that they like neither of them and only marginal numbers of people voting for Nestlé or PepsiCo. This result is important looking ahead to the following questions, as the respondents had to match subsidiary brands to Coca-Cola and co. When it comes to knowledge about secondary brands, the respondents are not sure which brand belongs to a specific company. With the secondary brands of Coca-Cola, just barely one-third of the respondents could find the correct match, which was the same result as with Nestle's subsidiary brands. The worst brand recognition was PepsiCo, where a rare 20% of participants knew the right match. Last but not least, the participants had to decide which of the featured brands is the most sustainable. Half of the respondents ranked Coca-Cola as number one, 28,2% said PepsiCo is the most sustainable brand, and 22% voted for Nestlé making Nestlé third place. Thus, the last question addressed the companies' communication about their sustainability efforts via social media, advertising, website, press, and reporting. Unfortunately for the companies, 40% of respondents rated the communication between 1-2 (1 = bad, 5 = good). Many of the participants were uncertain as 37 (52%) rated the communication with 3.

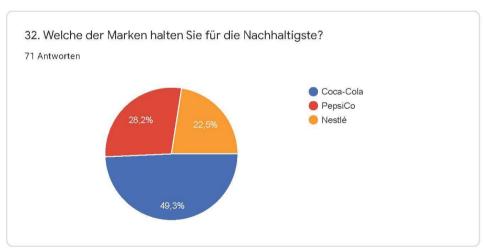


Figure 15. Appendix 2. Question Nr. 32 Survey – Most sustainable brand

# 7.2.6 Summary

The survey approves the hypothesis and shows that the value and perception of sustainability are relatively high, and the survey also cautiously hints towards an emerging trend in consumer buying behavior. However, the survey also suggests

that there are fixed factors like the taste of products that have to be considered by beverage companies when implementing product innovations. For those product innovations, companies are backed with a great willingness for a transparent price premium for sustainable & healthy (clean) products. However, companies face significant problems in communicating that price premium as consumers were critical about high prices and how companies are communicating their sustainability efforts in general. Although brand-related topics saw split results in the impact on consumer buying decisions, it is significantly important for market coverage and image building. In the surveyed german market, Coca-Cola outpaced its fellow competitors while consumers lacked knowledge about subsidiary brands.

## 8 Conclusion

The thesis aimed to examine the importance of corporate sustainability for a company's success in the beverage industry. The thesis results show that leading companies (Coca-Cola, PespiCo, Nestlé) did a great job in understanding consumer needs and shifting their operations towards a circular economy. But not only that, but they also noted their influence and view sustainability and the, for example, the 2030 Agenda as a business opportunity for value creation and to build a powerful market position. That being said, amongst the vast challenges that integrating a three perspective sustainability brings (Investments, divestment, human resource risks, marketing costs), there is a major upside for businesses.

Subsequently, the upside has a vital impact on the companies success and profitability, enabling the business to emerge to new markets, finding the sweet spot in consumer needs, reducing production costs through innovative agri-technology and core operations, and last but not least, they can ensure the attractivity on stock markets which ensures their competitiveness on the bottom line.

To conclude, the thesis confirms the emerging importance of sustainability in the economy. The beverage industry featuring big companies like those in this report took crucial steps to achieve Net-Zero mid-term, aligning their core operations towards SDG 2030. Finally, as many resources and capital are invested in projects and measurements aiming for precisely that (corporate sustainability to achieve Net-zero), it is indeed a decisive factor for a beverage company's long-term success.

#### References

Attfield, R. 2015. The Ethics of the Global Environment. Second Edition. Edinburgh: Edinburgh University Press. DOI:10.3366/j.ctt1g09wwm.15.

Binswanger, M. 2009. Is there a growth imperative in capitalist economies? A circular flow perspective. Journal of post Keynesian economics. Edition 31 (4), pp.707-727. DOI:10.2753/PKE0160-3477310410

Binswanger, M. 2021. Systemfrage Kapitalismus: Abriss oder Sanierung?. Beyond the Obvious podcast, Spotify-Podcasts. Retrieved on 29 March 2021. Available at https://open.spotify.com/episode/4uw4k3DzblgjdEaPbf-weNQ?si=414366c7fbea40ef. (translated from German)

Boston Consulting Group. Sustainability. Retrieved on 8 July 2021. Available at https://www.bcg.com/capabilities/social-impact-sustainability/approach-to-sustainability

Bové, A.T. & D'Herde, D. & Swartz, S. 2017. McKinsey Survey. Sustainability's deepening imprint. Retrieved on 8 July 2021. Available at https://www.mckinsey.com/business-functions/sustainability/our-insights/sustainabilitys-deepening-imprint

Business for 2030. n.d. Nestlé. Retrieved on 7 August 2021. Available at http://www.businessfor2030.org/nestle.

Gull, M. 2020. Corporate challenge and sustainability in the 21st century. Oakville, Ontario: Society Publishing.

Godwill, E.A. 2015. Fundamentals of research Methodology: A Holistic Guide for Research Completion, Management, Validation and Ethics. New York: Nova Science publishers, Incorporated.

Hedstrom, G.S. 2018. Sustainability. First Edition. De Gruyter.

Herles, B. 2021. "Öko Geld" – Secondhand-Boom und der Renditefaktor Umweltschutz. Ohne Aktien wird schwer – tägliche börsen-news. OMR. Spotify-Podcasts. Retrieved on 8 July 2021. Available at https://open.spotify.com/episode/1ckzxzcPEToK9e3uqXT925?si=7e2ceea0362f4615. (translated from German)

Lenox, M. & Chatterji, A. 2020. Can Business Save the Earth?: Innovating Our Way to Sustainability. [Online]. Stanford, CA: Stanford University Press,.

Long, M. 2020. 2020 Third-Party Logistics Study – The State of logistics Outsourcing.

McAteer, P. 2019. Sustainability is the new advantage: leadership, change, and the future of business. London, UK: Anthem Press.

Meadowcroft, J. Sustainability. Retrieved on 29 March 2021. Available at https://www.britannica.com/science/sustainability.

Nestlé n.d. The Nestlé company history. Retrieved on 7 August 2021. Available at https://www.nestle.com/aboutus/history/nestle-company-history?\_\_cf\_chl\_jschl\_tk\_\_=pmd\_50bbae24fef230b65b960e5b9c4f1a9298c77d43-1628320091-0-gqNtZGzNAiKjcnBszQIO.

Nestlé n.d.a. We are the Good food, Good life company. Retrieved on 7 August 2021. Available at https://www.nestle.com/brands.

Nestlé n.d.b. Creating Shared Value: The case for good. Retrieved on 7 August 2021. Available at https://www.nestle.com/csv.

Nestlé 2018. Nestlé and Starbucks close deal for the perpetual global license of Starbucks Consumer packaged Goods and Foodservice products. Press Release from 28 August 2018. Retrieved on 7 August 2021. Available at https://www.nestle.com/media/pressreleases/allpressreleases/nestle-starbucks-close-deal-consumer-packaged-goods-foodservice-products.

Nestlé 2018a. A Social Investment Accelerator programme to boost young entrepreneurship. Retrieved on 7 August 2021. Available at https://www.nestle.com/media/news/social-investment-accelerator-programme-young-entrepreneurship.

Nestlé 2021. Nestlé and Starbucks to bring Ready-to-Drink coffee beverages to Southeast Asia, Oceania and Latin America. Press Release from July 26 2021. Retrieved on 7 August 2021. Available at https://www.nestle.com/media/pressreleases/allpressreleases/starbucks-rtd-coffee-beverages-southeast-asia-oceania-latin-america.

Nestlé 2021a. Creating Shared Value and Sustainability Report 2020. Retrieved on 7 August 2021. Available at https://www.nestle.com/sites/default/files/2021-03/creating-shared-value-report-2020-en.pdf.

Pepsi n.d. Product Information. Retrieved on 7 August 2021. Available at https://www.pepsico.com/brands/product-information.

Pepsi 2021. Our Strategy. Retrieved on 7 August 2021. Available at https://www.pepsico.com/sustainability-report/strategy.

Pepsi 2021a. Agriculture. Retrieved on 7 August 2021. Available at https://www.pepsico.com/sustainability-report/agriculture.

Pepsi 2021b. Water. Retrieved on 7 August 2021. Available at https://www.pepsico.com/sustainability-report/water.

Pepsi 2021c. Packaging. Retrieved on 7 August 2021. Available at https://www.pepsico.com/sustainability-report/packaging.

Pepsi 2021d. Product. Retrieved on 7 August 2021. Available at https://www.pepsico.com/sustainability-report/product.

Pepsi 2021e. Climate. Retrieved on 7 August 2021. Available at https://www.pepsico.com/sustainability-report/climate.

Pepsi 2021f. People. Retrieved on 7 August 2021. Available at https://www.pepsico.com/sustainability-report/people.

Robinhood 2021. What are Consumer Packaged Goods (CPG)?. Retrieved on 26 July 2021. Available at https://learn.robinhood.com/articles/39HLw9ZgBwhIHD6KdCCj0R/what-are-consumer-packaged-goods-cpg/.

Rodriguez-Sanchez, C. & Sellers-Rubio, R. 2020. Sustainability in the Beverage Industry: A Research Agenda from the Demand Side. Sustainability 2021, 13, 186. Retrieved on 24 August 2021. Available at https://dx.doi.org/10.3390/su13010186.

Statista 2020. Non-alcoholic beverages and soft drinks worldwide. Dossier. Retrieved on 26 July 2021. Available at https://www-statista-com.ezproxy.saimia.fi/study/10631/nonalcoholic-beverages-and-soft-drinks-world-wide-statista-dossier/.

Statista 2021a. Revenue growth of the non-alcoholic drinks market worldwide from 2013 to 2025. Retrieved on 26 July 2021. Available at https://www-statista-com.ezproxy.saimia.fi/forecasts/1244604/non-alcoholic-drinks-market-global-market-value-revenue-growth.

Statista 2021b. Worldwide non-alcoholic beverage market revenue from 2012 to 2025. Retrieved on 26 July 2021. Available at https://www-statista-com.ezproxy.saimia.fi/forecasts/1206691/market-value-non-alcoholic-beverages-worldwide.

Statista 2021c. Brand value of the most valuable non-alcoholic beverage brands worldwide as of 2020. Retrieved on 26 July 2021. Available at https://www-statista-com.ezproxy.saimia.fi/statistics/603922/brand-value-non-alcoholic-beverage-brands-worldwide/.

Sustainable Brands 2018. International Youth Day: How Nestlé Offers Economic Opportunities to Youth in Central & West Africa. Retrieved on 7 August 2021. Available at https://sustainablebrands.com/read/press-release/international-youth-day-how-nestle-offers-economic-opportunities-to-youth-in-central-west-africa.

The Coca-Cola Company 2021. 2020 Business & Environmental, Social and Governance Report. Retrieved on 26 July 2021. Available at https://d1io3yog0oux5.cloudfront.net/cocacolacompany/files/pages/cocacolacompany/db/711/description/coca-cola-business-environmental-social-governance-report-2020.pdf.

UN-DESA. 2012. Back to Our Common Future. Sustainable Development in the 21st century (SD21) project – summary for policymakers. Retrieved on 23 May 2021. Available at https://sustainabledevelopment.un.org/content/documents/UN-DESA\_Back\_Common\_Future\_En.pdf

WCED 1987. Our Common Future. Retrieved on 21 May 2021. Available at https://www.are.admin.ch/are/en/home/sustainable-development/international-co-operation/2030agenda/un-\_-milestones-in-sustainable-development/1987--brund-tland-report.html

World Economic Forum. 2021. The Global Risks Report 2021. 16<sup>th</sup> Edition. Retrieved on 1 June 2021. Available at http://wef.ch/risks2021.

World Economic Forum. 2021a. Consulation: Nature and Net Zero. Retrieved on 4 June 2021. Available at http://www3.weforum.org/docs/WEF\_Consultation\_Nature\_and\_Net\_Zero\_2021.pdf

World Economic Forum. 2021b. Net-Zero Challenge: the supply chain opportunity. Retrieved on 8 July 2021 Available at www3.wefo-rum.org/docs/WEF\_Net\_Zero\_Challenge\_The\_Supply\_Chain\_Opportunity\_2021.pdf

# Appendix 1. Survey sustainability and beverages

26.10.21, 10:25

Bachelor Thesis - Brian Ben (englisch version)

# Bachelor Thesis - Brian Ben (englisch version)

The following survey is about the purchasing behavior with regarding sustainability of nonalcoholic beverages especially with the focus on Coca-Cola, PepsiCo and Nestlé.

Disclaimer: The data sets from the survey are published exclusively in the context of the publication of my bachelor thesis and are 100% anonymous. Information about your person is only necessary for the statistical collection of the results. Answering the survey will take about 5-10 minutes. Thank you for your participation!

After the evaluation, 3 Amazon vouchers worth 10€ will be raffled among the participants.

Good luck:) \* Erforderlich Personal Data 1. Gender \* Markieren Sie nur ein Oval. ) Male ) Female ) Divers 2. Age \* Markieren Sie nur ein Oval. ) <20 20-35 36-50 >50

Bachelor Thesis - Brian Ben (englisch version)

3.	Job*					
	Markieren Sie nur ein Oval.					
	Pupil Trainee/Apprentice					
	Student					
	Employee					
G	seneral Question	Questions regarding sustainability				
4.	Describe the importance of sustainability in your sl	nopping. *				
	Markieren Sie nur ein Oval.					
	1 2 3 4 5					
	not important	ortant				
5.	What is the most important factor when buying be	verages? *				
	Markieren Sie nur ein Oval.					
	Price					
	Taste					
	Brand					
	Sustainability					
	Sonstiges:					

Bachelor Thesis - Brian Ben (englisch version)

6.	Would you describe your buying behavior as being sustainable? *					
	Markieren Sie nur ein Oval.					
	Yes					
	No					
	No, but actually I would like to buy more sustainable in the future					
7.	Guess the share value (Figures in %) *	of sustainable goods in your weekly shopping cart.				
	Markieren Sie nur ein O	val.				
	0-10					
	11-20					
	21-35					
	36-50					
	51-75					
	>75					
	ehavior related	Questions regarding your decision making process and preferences during shopping.				
questions						
0	Would you be willing to					
8.		o pay a price premium for sustainable beverages? *				
	Markieren Sie nur ein O	val.				
	Yes					
	◯ No					

9.	If yes, how much? *					
	Markieren Sie nur ein Oval.					
	<u> </u>					
	up to 10%					
	up to 25%					
	up to 50%					
	more than 50%					
	with sustainable products price is not an issue for me					
10.	Would you rather buy sustainable beverages, if factors like price, taste etc. would still be the same? *					
	Markieren Sie nur ein Oval.					
	Ja					
	No					
	Only from a specific brand					
11.	A higher price of beverages is *					
	Markieren Sie nur ein Oval.					
	a sign of higher quality					
	a brand related margin					
	a sign, that products are produced sustainable					
	Sonstiges:					

12.	Negative news about sustainability practises of specific brands and products influence my buying decision. *					
	Markieren Sie nur ein Oval.					
	1 2 3 4 5					
	rather false rather true					
13.	Would you rather buy organic products (1) or products from local suppliers (2)? *					
	Markieren Sie nur ein Oval.					
	Organic products					
	Products from local suppliers  I do not see the difference between (1) and (2)					
	Tuo not see the difference between (1) and (2)					
14.	Do you feel increasingly pressured by media, social environment and supermarkets (e.g. placement of products on shelves, advertising) to buy sustainable products? *					
	Markieren Sie nur ein Oval.					
	Yes					
	No					
	On't know for sure.					
15.	Do you casually pick sustainable products just to give a good image to strangers?					
	Markieren Sie nur ein Oval.					
	Yes					
	○ No					
	Sometimes, yes!					

Questions regarding products

16.	Do you pay attention to certificates on beverage labels? *
	Markieren Sie nur ein Oval.
	Yes No Yes, on specific beverages
17.	Which beverages are those? (answer only if you have not answered no above) *
	Wählen Sie alle zutreffenden Antworten aus.
	Soft Drinks
	Water Milk and related beverages
	Fruit and vegetable juices
	New Drinks (Energy Drinks, Sport booster, R2D Tees and Coffees)
18.	How do you rate the information given on beverage packaging labels? $^{\star}$
	Markieren Sie nur ein Oval.
	1 2 3 4 5
	bad good
19.	How often do you pay attention to beverages ingrediants (added sugars, sugar replacements, coffein, saturated fats, KCAL)? *
	Markieren Sie nur ein Oval.
	Warner de har em ovar.
	1 2 3 4 5 6 7 8 9 10
	never always

26.10.21, 10:25

20.	What do you associate with organic products? *		
	Wählen Sie alle zutreffenden Antworten aus.		
	healthy nutrition		
	Environmental friendly		
	high priced goods		
	Sonstiges:		
0.1			
21.	Do you pay attention to fair-trade certifications? *		
	Markieren Sie nur ein Oval.		
	Yes		
	No		
	Sometimes		
22.	How do you feel about Fair-Trade? *		
22.	How do you feel about Fair-Trade? *  Wählen Sie alle zutreffenden Antworten aus.		
22.	•		
22.	Wählen Sie alle zutreffenden Antworten aus.		
22.	Wählen Sie alle zutreffenden Antworten aus.  I agree with the fundamentals I do not have an opinion about that Fair-Trade is not good		
22.	Wählen Sie alle zutreffenden Antworten aus.  I agree with the fundamentals I do not have an opinion about that Fair-Trade is not good I heard already heard negative news about fair trade a couple of times		
22.	Wählen Sie alle zutreffenden Antworten aus.  I agree with the fundamentals I do not have an opinion about that Fair-Trade is not good		
22.	Wählen Sie alle zutreffenden Antworten aus.  I agree with the fundamentals I do not have an opinion about that Fair-Trade is not good I heard already heard negative news about fair trade a couple of times		
22.	Wählen Sie alle zutreffenden Antworten aus.  I agree with the fundamentals I do not have an opinion about that Fair-Trade is not good I heard already heard negative news about fair trade a couple of times		
	Wählen Sie alle zutreffenden Antworten aus.  I agree with the fundamentals I do not have an opinion about that Fair-Trade is not good I heard already heard negative news about fair trade a couple of times I am not entirely sure what Fair-Trade means		
	Wählen Sie alle zutreffenden Antworten aus.  I agree with the fundamentals I do not have an opinion about that Fair-Trade is not good I heard already heard negative news about fair trade a couple of times I am not entirely sure what Fair-Trade means  Which beverage packaging do you prefer? *		
	Wählen Sie alle zutreffenden Antworten aus.  I agree with the fundamentals I do not have an opinion about that Fair-Trade is not good I heard already heard negative news about fair trade a couple of times I am not entirely sure what Fair-Trade means  Which beverage packaging do you prefer? *  Wählen Sie alle zutreffenden Antworten aus.		
	Wählen Sie alle zutreffenden Antworten aus.  I agree with the fundamentals I do not have an opinion about that Fair-Trade is not good I heard already heard negative news about fair trade a couple of times I am not entirely sure what Fair-Trade means  Which beverage packaging do you prefer? *  Wählen Sie alle zutreffenden Antworten aus.  Glass		
	Wählen Sie alle zutreffenden Antworten aus.  I agree with the fundamentals I do not have an opinion about that Fair-Trade is not good I heard already heard negative news about fair trade a couple of times I am not entirely sure what Fair-Trade means  Which beverage packaging do you prefer? *  Wählen Sie alle zutreffenden Antworten aus.  Glass Plastic		

24.	How important is the recyclability of the different packaging types for you? $^{\star}$									
Markieren Sie nur ein Oval.										
		1	2	3	4	5				
	not important		$\bigcirc$				important			
25.	What factors	regarc	ling be	verage	e packa	ging a	re importai	nt for you	ı? *	
	Wählen Sie alle	zutreffe	enden A	ntworte	n aus.					
	Design									
	Function (t		ain fres	hness,	ease tra	insport	ation)			
	Recyclabilit Others	ty								
		In	this part	vou will	he ask a	hout vou	r opinion and	perception i	regarding	
Brands and Companies		In this part you will be ask about your opinion and perception regarding specific brands and companies.								
	mpariics									
26. Do you buy products (beverages) from the following brands? 1. Coca-Cola PepsiCo 3. Nestlé *		nds? 1. Co	oca-Cola	2.						
Markieren Sie nur ein Oval.										
	Yes									
No										
	O l do not k	cnow.								

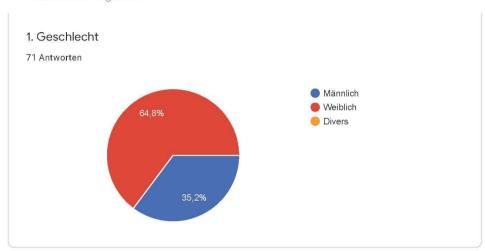
27.	How often? (roughly) (do not answer if you do not buy products)						
	Markieren Sie nur ein Oval.						
	daily three times a week once a week once a month less then above						
28.	Which brand do you prefer? (without preferations of single products) *						
	Markieren Sie nur ein Oval.						
	Coca-Cola						
	Pepsi Cola						
	Both are great  I do not like both of them						
29.	To which company do the following subsidiary brands belong to?: Aquafina, Gatorade, Bubly, Montain Dew, Lipton? *						
	Markieren Sie nur ein Oval.						
	Coca-Cola						
	PepsiCo  Nestlé						
	i do not know						

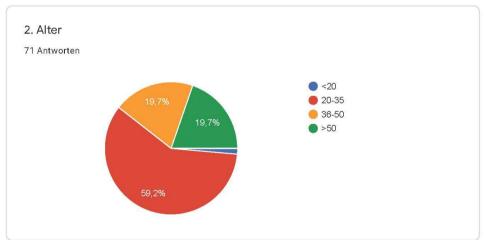
30.	To which company do the following subsidiary brands belong to?: Schweppes, Dasani, innocent, Fairlife, Costa Coffee, Fuze tea? *			
	Markieren Sie nur ein Oval.			
	Coca-Cola PepsiCo Nestlé I do not know			
31.	To which company do the following subsidiary brands belong to?: Acqua Panna, SanPellegrino, Vittel, Perrier? *  Markieren Sie nur ein Oval.			
	Coca-Cola PepsiCo Nestlé I do not know			
32.	Which of the brands is the most sutainable one in your opinion? *			
	Markieren Sie nur ein Oval.			
	Coca-Cola Pepsi-Co Nestlé			
33.	How do you rate the communication of those companies in terms of sustainable practises to outsiders? *  Markieren Sie nur ein Oval.			
	1 2 3 4 5			
	bad good			

# Appendix 2. Answers and summary of the survey

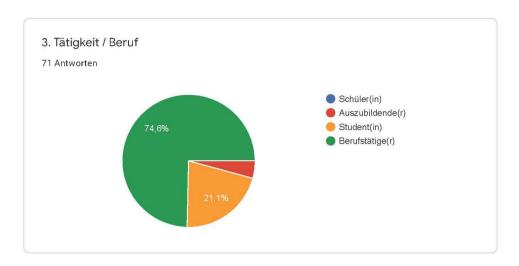
# Bachelorarbeit - Umfrage 71 Antworten Analytics veröffentlichen

Persönliche Angaben





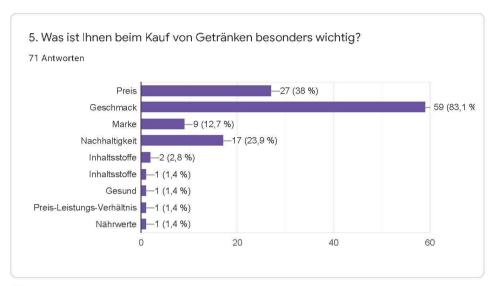




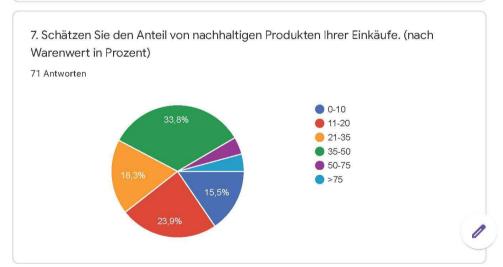
## Allgemeine Fragen





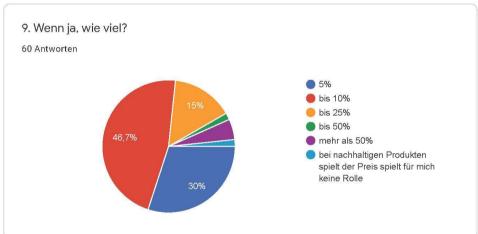




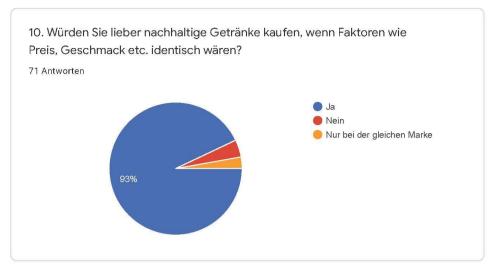


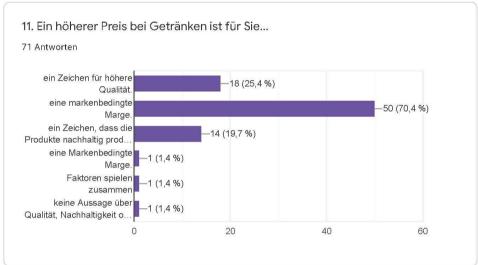
Verhaltensbezogene Fragen.



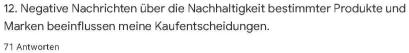


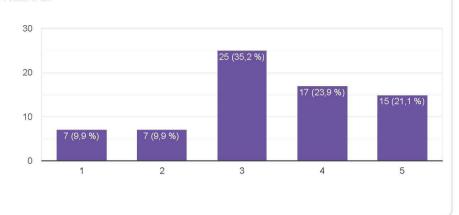


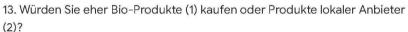


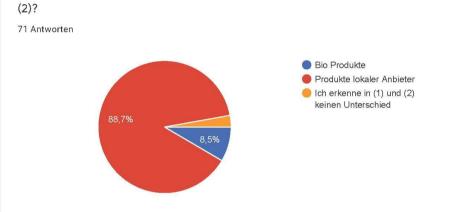




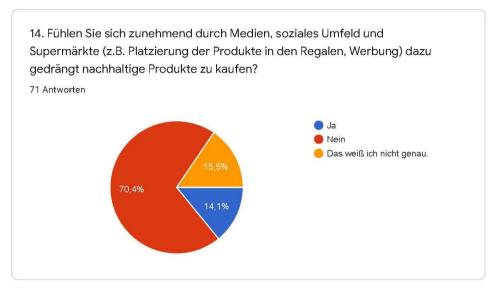


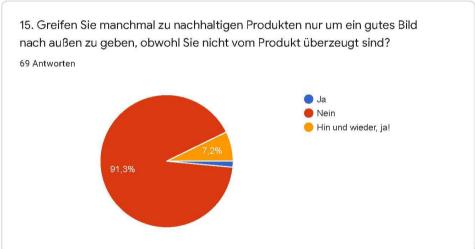








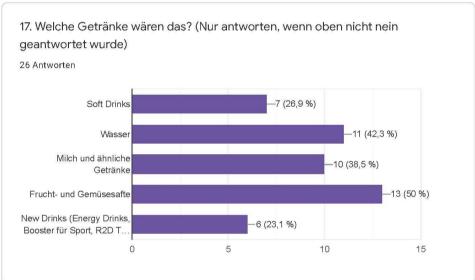




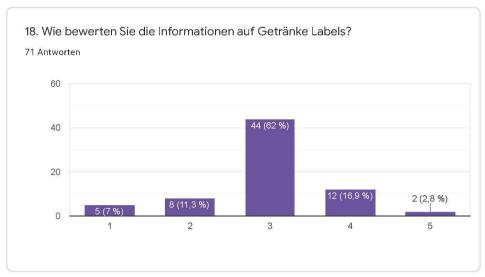
Fragen zu Produkten.

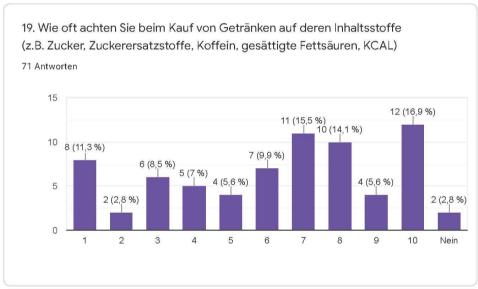


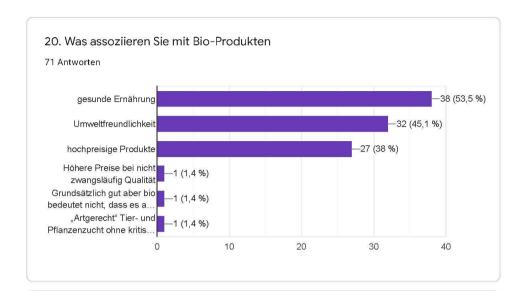












### 21. Was bedeutet "Fair-Trade" für Sie?

71 Antworten

Nein

Fair Preis für den Erzeuger

Faire Bezahlung, keine Ausbeutung der Arbeiter

Nachhaltigkeit.

Produkt wird unter guten Bedingungen hergestellt.

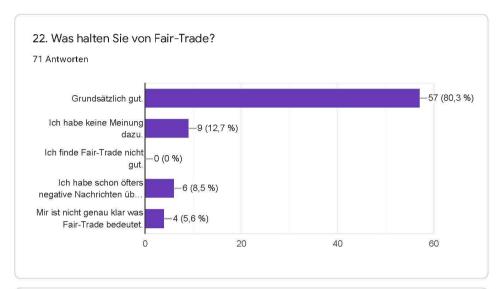
Faire Bezahlung der Arbeiter in der Produktionskette

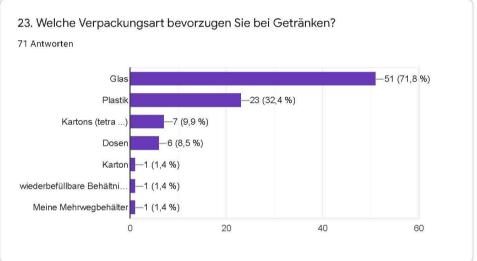
Waren die aus ökologischen und fairen Anbau stammen. Den Arbeitern in anderen Ländern wird zumindest ein fairerer Lohn bezahlt.

Faire Preise zu fairen Löhnen

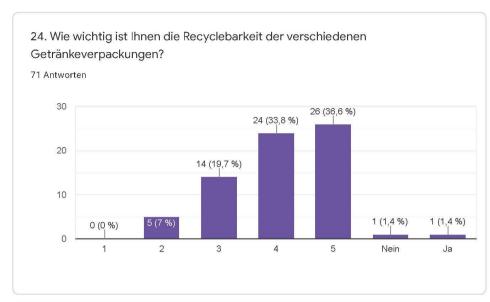
Faire Verhandlung. Hersteller\*innen bekommen unter auten Arbeitsbedingungen

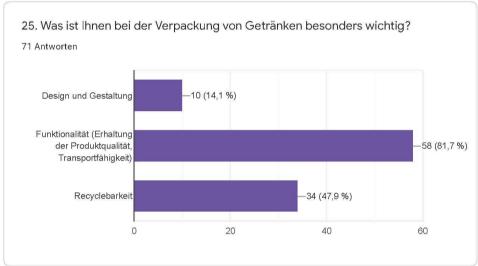












Marken und Unternehmen.



