White Paper, 11.03.2022

Personalization Strategies based on Zero Party data reduce carbon footprint and help e-commerce combat climate change

Objective: Demonstrate how zero-party data focused strategies can help E-commerce companies to reduce the carbon footprint

Abstract: In a recent market research SALESmanago concluded that using highly personalized marketing strategies in eCommerce based on Zero Party Data, data about preferences left voluntarily by customers have high potential to combat this existential threat. A major advantage comes from its high efficiency and accuracy. We have described 7 scenarios, in which conscious utilization of zero-party data leads to reduction of Online Business carbon footprint by enabling more sustainable strategies in production, logistics, marketing, packaging, delivery, process management.

Customers declare abandonment of unsustainable brands

Recently, **Dentsu and Microsoft (Dentsu 2021)** conducted a worldwide research project[1], surveying over 24,000 people from 19 countries, to understand consumer perceptions of sustainable business.

The results:

- First, 86% of the study participants responded that they were concerned about climate change. In comparison, consumers revealed a similar level of concern about the pandemic (85%), the health of their friends and family (79%), and the cost of living in their area (76%). Clearly, consumers feel that climate change affects them personally.
- 88% of the respondents stated that they would make a sustainable purchase when able.
- 87% of those surveyed said they want to do more to combat climate change.
- 87% said they would be willing to change services and the products they purchase to combat climate change.

[1] Dentsu (2021), *The rise of sustainable media*, Media/CARAT/dentsu/iPROSPECT

- 81% of respondents in North America say they would stop using or buying products if they found out these products hurt the environment.

The results of the research remains in corresponds with overwhelming body of evidence, coming from various research in the span of recent years.

An independent study commissioned by **SmartestEnergy**[2] reveals that consumers are increasingly favoring brands with a commitment to environmental sustainability.
The study reveals that:

- 4 out of 5 people describe themselves as likely to choose a brand with a positive approach to environmental sustainability.
- 90% of people agree that it is vital that society becomes more energy-conscious.

According to the the study Meet the 2020 consumers driving change[3] **conducted by IBM (2020)**:

- 57% of consumers are willing to change their purchasing habits to help reduce negative environmental impact.
- 71% of those surveyed who indicated that traceability is very important are willing to pay a premium for brands that provide it.

This means that consumers are likely to trace the company's Scope 3 carbon footprint.

A major study in this topic was conducted with COP26, the 2021 United Nations Climate Change Conference. The Global Sustainability Study 2021[4], conducted by global strategy and pricing consultancy **Simon-Kucher & Partners (2021)**, reveals significant global paradigm shifts in how consumers view sustainability and the associated generational differences in willingness to pay for sustainable products and services. The study was conducted in 17 countries, on more than 10,000 people.

- Globally, 85% of people indicate that they have shifted their purchase behavior towards being more sustainable in the past five years.

The results vary across generations:

- 32% for Millennials have significantly changed their behavior towards being more sustainable
- One third of Millennials will choose a sustainable alternative when available

[2] SmartestEnergy, *Sustainability Matters. Consumer Research Report*
[3] IBM Institute for Business Value (2020), *Meet the 2020 consumers driving change,* IBM, in association with National Retail Federation
[4] Shika, J., Hagenbeek, O., Shorgen, B. (2021), *The Global Sustainability Study: What Role do Consumers Play in a Sustainable Future?,* Simon Kucher & Partners

- 24-29% of older generations will choose the same

The paradigm shift is clearly reflected in Google searches for sustainable products in the 'shopping' category. An Eco-wakening[5], study conducted by **The Economist (2021)** reveals, that:

- The popularity of Google searches for sustainable goods increased by 71% between 2016 and 2020

In addition to this:

- 66% of all respondents (and 75% of millennial respondents) said that they consider sustainability when making a purchase

and, what seems to be very important for business:

- 65% of consumers believe that when it comes to driving positive social change, brands bear as much responsibility as governments

E-commerce struggles with bad press in the sustainability area

Despite the research, like this one from MIT[6], proving that e-commerce leads to 36% fewer emissions than traditional retail, the general public attributes much of the climate change to the recent E-commerce growth, resulting in higher delivery frequency[7]. To maintain and expand the customer base, E-commerce entities must take this increased environmental sensitivity of their customers into consideration.

General Solution: In addition to traditional climate change combat topics, i.e. ecological packaging, CO2 footprint reduction can be achieved by focusing on zero-party data utilization.

Basic definitions:

Zero-party data is the information explicitly given by the customers, which they proactively and voluntarily share.

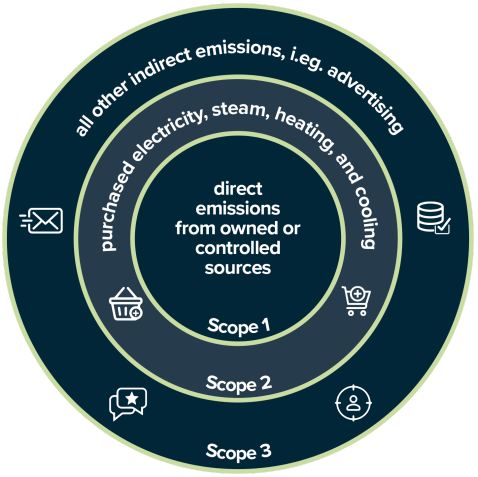
[5] The Economist Intelligence Unit Limited (2021), *An Eco-wakening, Measuring global awareness, engagement and action for nauture*, The Economist
[6] Prologis Research (2021) *Logistics Real Estate and E-Commerce lower the carbon footprint of Retail,* Prologis
[7] Hidayatano A., Destyanto, A, Fadhi, M. (2019), *Model Conceptualization on E-Commerce Growth Impact to Emissions Generated from Urban Logistics Transportation: A Case Study of Jakarta,* Energy Procedia

It differs from the most widely used source of information in E-commerce, **first-party data**. This is a piece of consumer information, the company gathers directly from its own sources and channels. It is because it provides companies with explicit consumer preferences rather than implicit ones.

It is also much more accurate and precise than **third-party data**. This is information accumulated by many sources across the Internet gathered by a data company with no direct connection to the consumer. It is then sold or rented to an E-commerce company. In this case, information about customers is not only implicit but also comes aggregated and depicts not individuals but generalized groups.

Greenhouse gas (GHG) emissions are categorized into three groups, or "**Scopes,"** by the most widely used international accounting tool, the Greenhouse Gas Protocol.

- Scope 1 covers direct emissions from owned or controlled sources.
- Scope 2 covers indirect emissions from the generation of purchased electricity, steam, heating, and cooling consumed by the reporting company.
- Scope 3 includes all other indirect emissions that occur in a company's value chain.



Benefits:

All kinds of data used in E-commerce require energy in order to be stored, sent, and processed However, only zero-party data have the potential to pay its environmental debt, and even turn E-commerce into ECOmmerce.

The introduction of zero-party data strategies may lead to a **significant reduction of carbon footprint**, coming from the global growth of eCommerce, especially in the area of logistics (shortening the supply chain leading to reducing emissions) and production (ability to reduce waste by super-lean production). It's because collecting extremely precise product preference data directly from the customers leads to manufacturing and ordering only the products, for which the demand actually exists. Therefore, zero-party data is more than a

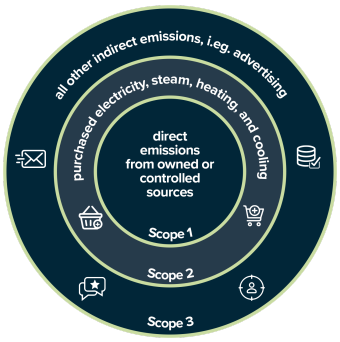
sales-increasing tool. It constitutes a foundation for a comprehensive data-driven strategy, operational across the whole company's value chain. In most of the 7 described scenarios,

reducing carbon footprint comes from reducing waste. Therefore, **zero-party data strategies are also cost-effective.**

Specific Solutions:

1. Zero-party data makes lean manufacturing superlean

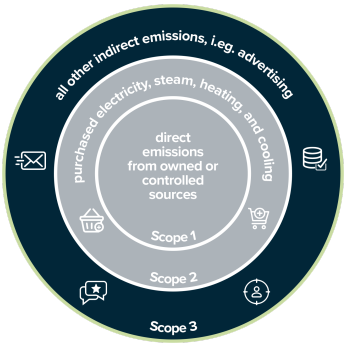
Zero-party data massively impacts production, because it enables companies to manufacture or order only these products, for which there actually exists a real market demand.



Reduction of Scope 1, 2, and 3 emissions

2. Supply chain shortening leads to emission reduction

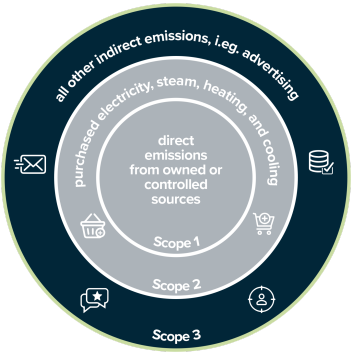
Direct-To-Consumer is an e-Commerce model that allows companies, like manufacturers or CPG brands, to bypass the traditional chain of supply - wholesaler, distributor, retailer - and go straight to the consumer. When paired with the intelligent utilization of zero-party data, the D2C model leads to close, meaningful one-to-one relations with your customers. Shortening the supply chain is by far the most effective way of reducing Scope 3 emissions - those caused by the middlemen you can't control as effectively as your own. They simply vanish along with a part of the supply chain.



Reduction of Scope 3 emissions

3. Hyperpersonalization means cleaner, "carbon conscious" marketing communication

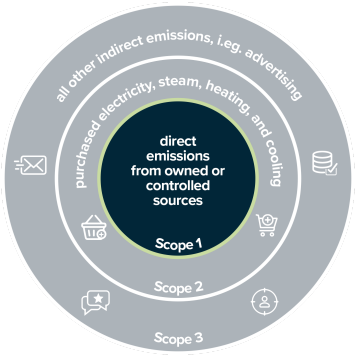
Modern Customer Data Platform provides businesses with the opportunity to generate hyperpersonalized messages for each and every eCommerce customer, taking into account their purchasing habits and preferences. All these messages go straight to actual or potential customers. No exposition will go down the drain, and no effort will be wasted. The energy cost of a digital marketing action can be drastically lowered.



Reduction of Scope 3 emissions

4. Custom packages for Customers

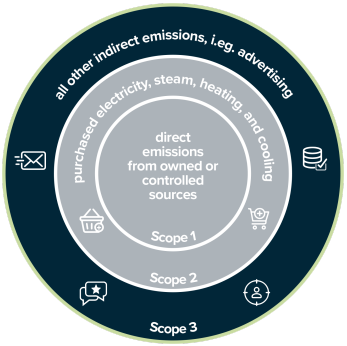
You can simply ask customers about their preferred packaging for a shipment during the checkout process by way of acquiring zero-party data! As the majority of customers seem to be highly environmentally sensitive, most will probably choose environmentally friendly packaging. This will result in a change in your own supply structure, as your company will require significantly fewer plastic materials.



Reduction of Scope 1 emissions

5. Custom delivery for eCommerce buyers

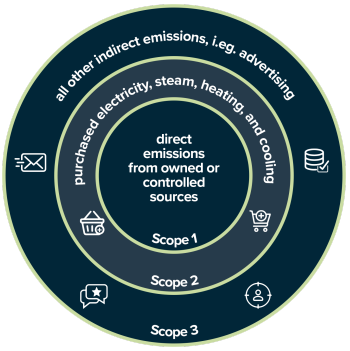
Another way to reduce a company's carbon footprint is to optimize the delivery method according to customers' preferences. As in the case of packaging, most environment-sensitive customers will choose deliveries to a parcel locker. This will result in a reduction in fuel consumption, as delivery people will not be forced to visit every address in the parcel locker area.



Reduction of Scope 3 emissions

6. Data-driven strategy: Fewer mistakes, reduced carbon footprint

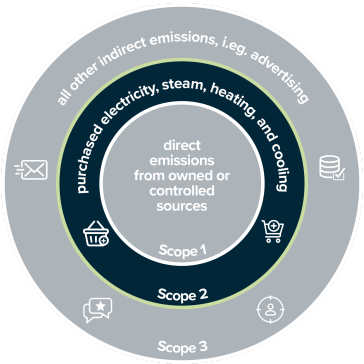
Strategies and decisions based on reliable data tend to be more robust and efficient. As every action undertaken by the company leaves an inevitable carbon print, the reduction of poor decisions and strategies will reduce the company's overall negative impact on the environment.



Reduction of Scope 1, 2, and 3 emissions

7. Unified profiles mean less redundant data and fewer operations

Creating unified, single customer profiles saves a lot of energy. In the absence of CDPs, data is often at least doubled. Storing it and conducting operations on it require electricity. Using a unified dataset enables companies to avoid redundant operations, such as enriching two separate profiles in two or more systems with the same new data.



Reduction of Scope 2 emissions

Based on the above, we believe that all eCommerce business community should put considerable effort into increasing the awareness of all players to increase the utilization of personalization strategies based on Zero Party Data.

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