SDG'S AND ZERO EMISSION VISION IN INDONESIA: IMPLEMENTATION OF GREEN MARKETING AND 'GREEN' DIRECT MARKETING CAMPAIGN OPPORTUNITIES BASED ON POPULATION DATABASE

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ABSTRACT

This study was conducted in Indonesia to achieve Zero Emissions and SDG'S by increasing public awareness as consumers of big data-based direct marketing campaign opportunities with a Green Marketing approach. Researchers used qualitative research methods with a descriptive design. The data collection technique was carried out in a triangulation (combined) manner, and the data analysis was inductive. The data source used in this research is secondary data with documentation from reputable scientific journals, official news, and reports. Data analysis in this study used Miles and Huberman's interactive data analysis model, namely data reduction, data presentation, and conclusion drawing/verification. The observations show that the trend of green marketing in Indonesia has been implemented, both from the production side (corporations) and the consumption side (consumers). However, the results are still far from the zero-emission target. Marketers' understanding and knowledge indicate that consumers' green consumption behavior should focus on increasing appropriate communication about the benefits of green consumption among consumers. It is characterized by the Achievement of Household Waste Management Performance which is the most significant contribution showing that green consumer behavior is still low. Through green communication and promotions, marketers and policymakers will be able to emphasize the benefits of practicing GCB among consumers. Normatively, the government can supervise products that claim to be environmentally friendly in the spirit of achieving sustainable production and consumption activities. In addition, the government can make Population Data linked to cellphone SIM card numbers and connected to other social media applications to become databases in implementing green marketing in the sense of building green consumer behavior through green campaigns.

Keywords: Direct Marketing Campaign, Green Marketing, Big Data, Sustainability.

INTRODUCTION

According to the International Energy Agency (IEA), in 2021, carbon emissions on a global scale will reach 36.3 gigatonnes of CO2 and become the highest record in history. Global carbon emissions are contributed most by burning coal and natural gas. In addition, CO2 emissions come from land use and forestry fires. (Carbon Brief, 2022) analyzes the most significant contributors to increased CO2 emissions, namely the United States contributing 20 percent, China (11 percent), Russia (7 percent), Brazil (5 percent), and Indonesia (4

percent). Indonesia has committed to reducing emissions through the Nationally Determined Contribution (NDC) document. Indonesia will be able to reduce carbon emissions by 29% using independent efforts or reduce CO2 by 41% with world support until 2030, which includes forestry (17.2%), energy (11%), agriculture (0.32%), industry (0.10%), and waste (0.38%). As for adaptation, Indonesia's commitment includes increasing economic resilience, social security, livelihoods, and ecosystem and landscape resilience (Sustainability Research Institute, 2022).

The World Economic Forum (WEF) predicts that by 2050, more plastic will be in the oceans than fish (Evans et al., 2017). The amount of plastic produced globally has tripled to 1.124 billion tons (Lacy & Rutqvist, 2015). Indonesia is the second largest country contributing plastic waste to the sea after China (Jambeck et al., 2015). The waste problem in Indonesia is still experiencing polemics. The amount and type of waste continue to increase along with population growth and technological advances. However, steps for waste management solutions still need to catch up. It is evidenced by the annual waste production of 67.8 million tonnes. The Ministry of Environment and Forestry explained that in 2019 waste in Indonesia reached 68 million tons. In the 21st UNFCCC 2015 in Paris, Indonesia is committed to reducing greenhouse gas (GHG) emissions and targeting 29% through business as usual in 2030. It can reach 41% if it gets international assistance which will later contribute to achieving the United Nations 2030 Sustainable Development Goals (SDGs).

From the type of waste, organic waste still contributes 60% in Indonesia, followed by 14% plastic waste. Indonesia also has a sizable amount of food waste, with an annual production of 23 to 48 million tons (Clementine. O, 2021). It can lead to an increase in greenhouse gases, land waste, clean water, and energy. In addition, the methane gas produced can increase the production of greenhouse gases far more dangerous than CO2 and chlorofluorocarbons (CFCs) and cause an increase in the effects of climate change and global warming, which threaten human life on earth. Another serious threat to environmental and human sustainability is plastic waste. More than 5 million tons of plastic waste are generated worldwide, but only 25% can be recycled. Seas and rivers become estuaries for plastic waste, which eventually damages soil fertility, causes water pollution, and microplastics that enter the human body. Added to this is the problem of B3 waste (Hazardous and Toxic Materials), both generated from industrial and domestic activities. The abundance of B3 waste can cause poisoning, damage to the nervous system, cardiovascular system, digestive system, respiratory system, skin diseases, congenital disabilities, and death in humans. The environment can interfere with the reproductive process and endanger plant and animal populations by destroying habitats. Advances in information technology have led to an accumulation of digital waste, contributing to carbon emissions equivalent to 3.7% of global carbon emissions originating from absorbing energy and distributing devices. In addition, the fast fashion trend also causes losses in animal extinction because some of the materials come from animal skins. Waste polyester that decomposes into microfibres mostly ends up in the sea and accounts for more than 50 billion tonnes per year (Lacy & Rutqvist, 2015).

Integrating economic and environmental development is very important to be implemented immediately. Therefore, the green economy paradigm needs to be put forward by the government and stakeholders in the management and utilization of natural resources to prevent environmental damage and to realize just and sustainable management and utilization of natural resources. The United Nations Conference on Environment and Development (UNCED) focuses on integrating environmental protection with economic development to achieve sustainable development. Businesses and industries must be essential in realizing sustainable development (Climate Transparency, 2020). Environmental damage is also caused by rapid economic growth and encourages excessive exploitation of natural resources by corporations and consumption by individual households. The company is not only a business entity that only thinks about profit; in the context of sustainability, it is necessary to have sensitivity to social and environmental issues (Narula & Desire, 2016). Climate change, environmental issues, and social issues will challenge corporate leaders to take efficient and

comprehensive decisions with a priority to be based on the principle of protecting the environment rather than business profitability.

In order to realize Net Zero Emissions, apart from producing environmentally friendly products and choosing environmentally friendly markets, an understanding of the 'Green Environment' must be integrated into the corporate culture. The company forms a marketing strategy to increase consumer awareness of being environmentally friendly by adopting green policies in pricing, promotion, product features, and distribution activities.

As one of the business areas, marketing has a role in providing solutions to the world's environmental problems and realizing sustainable development (Narula & Desore, 2016). Environmental damage in recent years has led marketers to recognize the need for and value of green marketing. Therefore, marketing must contribute to dealing with environmental problems facing the world today to achieve sustainable development.

Consumers, as the main actors of consumption, are responsible for environmental damage issues (Narula & Desore, 2016). Consumer groups who have environmentally conscious behavior can help solve environmental problems by contributing to actions to solve environmental problems by carrying out green consumption (Fitri & Simanjuntak, 2022). Consumer awareness about environmentally friendly products and the use of environmentally friendly products cannot be formed without deep concern for the environment in society. This form of consumer behavior to protect the universe is called green consumer behavior. Green consumer behavior is expected to become a lifestyle owned by consumers that will create a balance so that nature and its living things can live in prosperity.

With the development of IT, marketing has long relied on using data (which is vast and infinitely available) to generate insights about customer needs. Companies can adopt direct marketing strategies. That makes it possible to identify potential customers of products, services, and ideas and establish personal communication (direct contact) with each potential buyer, especially segmented ones, to promote products, services, and ideas and retain them. Direct marketing and customer databases can be used for trend analysis, segmentation into different groups, and value analysis (Tapp et al., 2004). Using the correct market information to produce better products and services and through direct marketing helps develop long-term customer relationships to increase customer loyalty for customer acquisition and retention. This includes efforts to build awareness of changes in consumer behavior from a consumption culture to consumers who care about the environment or encourage green consumption.

LITERATURE REVIEW

Sustainability and Green Customer Behavior

Sustainable development requires "sustainable marketing," namely marketing efforts that are competitively sustainable and ecologically sustainable (Polonsky et al., 1997). Most economic activities are triggered by marketing processes that offer and stimulate consumption to satisfy human needs and wants. However, the vital role of marketing in development will only be appreciated when, through sustainable marketing, it meets the needs of the present without compromising the ability of future generations to meet their own needs. Green marketing is a broader concept that can be applied to consumer and industrial goods and services (Polonsky, 1994) (Kinoti, 2011).

Green marketing consists of all activities designed to generate and facilitate exchanges intended to satisfy human needs and wants so that satisfying these needs and wants occurs with minimal adverse impact on the natural environment. Green marketing refers to products and packages with one or more of the following

characteristics they are less toxic, more durable, contain reusable materials, or are made of recyclable materials. Green marketing focuses on carrying out all marketing activities while protecting the environment (Sharma, 2021).

On the other hand, sustainable development demands that future generations inherit a natural environment that is the same or better than that of the next generation (Peattie, 2016). Its demands environmental protection and improvement (Kinoti, 2011). It is responding to the challenge of advancing economic development and environmental protection because sustainable development demands that companies and academics develop or adopt green marketing and other corporate strategies. Among the key strategies are; green product strategy, logistics strategy, green price strategy, green promotion strategy, changing consumers from cultural consumption to ecologically concerned consumers, adoption of eco-marketing orientation as a business philosophy, Government intervention, life cycle inventory analysis, and cooperation for success (Kinoti, 2011). In addition to marketing strategies, changes in consumer behavior from a consumption culture to consumers who care about the environment or encourage green consumption (Sharma, 2021). Marketers today aim to redirect consumer needs to the least ecologically harmful consumption. This diversion can be achieved through market research and promotion. Environment and Sustainable development require the promotion of values that encourage consumption standards within the confines of the ecological environment. Green consumers are the driving force behind the green marketing process. They drive consumer demand, which drives the environmental performance of many products and companies (Kinoti, 2011). So, a marketer needs to identify the types of green consumers. Not all consumers have green consumption behavior and consume more sustainably and socially responsibly.

The basic idea of a sustainability-oriented CRM is to integrate economic, environmental, and social sustainability issues in the core areas of CRM, namely marketing, sales, and services (Esmaeilpour et al., 2015). As both trends (CRM and sustainability) are currently shaping business strategy, transforming operations, and driving competition, it is significant to view the two in an integrated manner. The two building blocks contribute to a comprehensive concept: Sustainability provides underlying values and strategic issues rarely discussed in CRM, which contribute to well-established processes and structures. Therefore, a sustainability-oriented CRM means considering economic, ecological, and social targets when building and maintaining long-term profitable customer relationships. More specifically, a sustainability-oriented CRM aims to increase consumer awareness of corporate sustainability issues and to attract and retain sustainability-conscious customers. Being close to customers and understanding their needs through all phases of the relationship requires efficient and effective operational CRM processes in marketing, sales, and service.

Socially conscious consumer behavior is undertaken to have a positive (or less negative) effect on others. It is concerned with issues such as labor rights and the impact of business on society. However, ethically socially responsible consumer behavior is defined as "taking into account the public consequences of one's private consumption. To understand sustainability-oriented CRM, it is also essential to distinguish it from consumer-focused sustainability concerns. Much of this concept is marketing-based and refers to the impact of marketing actions on the environment and personal and economic well-being of consumers—certain sustainability-oriented customer constructs, such as green consumption and socially conscious consumer behavior.

Regarding the ecological dimension, a green consumer is defined; as anyone whose purchasing behavior is affected by environmental concerns green consumption is related to the purchasing decisions made by consumers, based at least in part on environmental criteria. Green brand image is defined as "a set of brand perceptions in the minds of consumers related to environmental commitment and concern for n environment. Green consumer satisfaction describes fulfilling pleasant environmental needs, goals, or customer desires.

Data Mining for Direct Marketing campaigns and Green Customer Behavior

Companies are using new technologies, such as data mining and warehousing, to gain a competitive advantage. Data mining is a sophisticated data search capability that uses statistical algorithms to find patterns and deep correlations to retain potential customers and maximize customer value. Data mining plays a vital role in CRM; thus, companies can obtain customer segment definitions. One of six types of data mining models is used to solve business problems and achieve results in campaigns (Reddy, 2022).

The use of direct marketing has recently increased. Mass marking reaches the masses and, in many cases, simultaneously uses mass media such as television, radio, and newspapers to reach the broadest possible audience. On the other hand, direct marketing emphasizes a customer focus through many channels, including mail, email, telephone, and in-person. Direct marketing messages must be used with caution because their misuse, messages that are unattractive to customers or an excessive number of messages, can have the opposite desired effect, losing customers. One approach to improving direct message targeting is leveraging data, a predictive approach to identify the customers who are most likely to respond to campaigns based on demographic data and customer behavior. It can increase profits, lower marketing costs, and strengthen customer loyalty, thereby increasing return on investment, customer relations, and retention (Han, 2021).

Customers are constantly exposed to different campaigns, so it is hard to get their attention by running a mass campaign. Mass marketing, which includes newspaper, radio, and television advertising, aims to reach as many people as possible and is used frequently (Viloria et al., 2020). However, the effectiveness of mass marketing has decreased due to the increasing number of companies and products. This results in high costs for the company, and the possibility of attracting customer attention is reduced. Therefore, in the marketing system, there is a shift from a mass marketing strategy to a direct marketing strategy. Through direct marketing, companies can organize specific campaigns and communicate directly with customers by leveraging massive customer databases of customer profiles, transactions, and responses to past product campaigns.

Customer Relationship Management helps in building long-term and profitable relationships with valued customers. Green Customer Behavior assists in developing business strategy and this company's approach to understanding and influencing customer behavior through meaningful communication so that customer acquisition, customer loyalty, customer retention, and customer profitability can be increased while adhering to the principles of sustainability (Do Paço et al., 2013)). The critical factor in developing a competitive GCB is understanding and analyzing customer behavior, which helps acquire and retain potential customers to maximize customer value. Data utilization helps organizations identify valuable customers and predict their future. Each GCB element can be supported by various data mining models based on the tasks performed. Data mining can be used in organizations for decision-making and forecasting that predicts future customer behavior (Tan et al., 2016).

Instead of mass campaigns, many companies focus on direct marketing campaigns as one of the steps to increase customer development and awareness to build Green Customer Behavior. The company uses available data to retain its best green customers and to identify opportunities to sell through campaigns of green services and products to customers directly.

Data mining is becoming a strategically important tool for many business organizations—analyzing data from multiple perspectives and summarizing it into valuable information. Data mining techniques facilitate the interpretation of valid data to avoid customer friction. Data mining is an effective tool for direct marketing that can improve marketing campaigns.

METHOD

This study was conducted in Indonesia to achieve Zero Emissions and SDG'S by increasing public awareness as consumers of big data-based direct marketing campaign opportunities with a Green Marketing approach. In this research, the researcher uses a qualitative research method with a descriptive design. This research method is used to describe the conditions that occur and to explore the problems that occur. Qualitative research methods are used to examine the natural conditions of objects (as opposed to experiments) where the researcher is a crucial instrument, data collection techniques are carried out in a triangulation (combined) manner, and data analysis is inductive. Qualitative research results emphasize more meaning than generalization (Moleong, 2017). Qualitative research methods are data collection in a natural setting, using natural methods, and carried out by naturally interested people or researchers. ((Moleong, 2017).

The Source of data used in this research is secondary data. Data collected in this research was used by documentation of reputable scientific journals, official news, and reports. Data analysis in this study used Miles and Huberman's interactive data analysis model, with validity and reliability using data triangulation. Data analysis includes data reduction, presentation, and conclusion drawing/verification (Miles & Huberman, 2018).

RESULTS AND DISCUSSION

Implementation of Green Marketing Towards Zero Emission in Indonesia

Net zero is a global ambition and is increasingly targeted by governments and private actors. Net zero commitments by private actors have also grown to make a sizeable contribution to tackling climate change (Ford et al., 2022). The following Companies have made net zero pledges.

Table 1 Examples of Companies Implementing Environmental Commitments in Indonesia

Company	Environmental Innovation and Commitment
IKEA	- They are utilizing recycled materials in the manufacture of its products. - Put forward the principle of sustainable living.
PT Sinar Sosro	- 3K and RL (care about quality, safety, health, and environmental friendly)
Unilever	- creating a waste bank program, managed to absorb 3,739 tons of inorganic waste, with a currency turnover of 3.8 billion rupiah
Panasonic	- Panasonic Environmental Vision 2050 - Four concepts: saving, creating, storing, and managing energy in its products.
The Body Shop	- Preserving the environment, protecting endangered habitats with natural products, and not using animal ingredients. - Developing sustainable packaging innovations.
apples	- Apple also creates a robot whose job is to recycle the waste produced by factories for the health of the natural environment. - Using a solar-powered roof for lighting even for all operational activities in the office
PT Indocement Tunggal Prakarsa Tbk	- Innovation to reduce dust emissions by replacing the Electrostatic Precipitator (EP) with a Bag Filter at Plant 10. As a result, EP technology can reduce the average emission of dust to 53.7 mg/Nm³ from the emission quality standard limit (BME), which is 70 mg/Nm³.
adidas	- Adidas teamed up with an environmental organization called Parley for The Oceans to make shoes out of plastic waste. - Making shoes from plastic waste has prevented 2,810 tons of plastic from reaching the oceans.

Company	Environmental Innovation and Commitment
Nike	- 75% of the basic materials used to make Nike products turn out to be recycled waste that is not used. - The knits found on Nike Flyknit shoes and Nike shoe soles are made from a mixture of plastic waste.
Starbucks	- Using paper cups that are environmentally friendly and easily destroyed. - Sippy cups for adults: plastic lids to replace plastic straws that can be used repeatedly.

Source: Glint, 2022

Waste Management Performance is the Achievement of Reducing and Handling Household Waste and Household-like Waste. The achievements below are the achievements in 2021 consisting of 249 regencies/cities throughout Indonesia, namely Waste Generation 31,236,412.88 (tons/year) where Waste Reduction is 15.7% or 4,904,814.88 (tons/year), Waste Management is 49.16% or 15,356,046.56 (tons/year), Managed waste of 64.86% or 20,260,861.44 (tonnes/year), and Unmanaged Waste of 35.14% or 10,975,551.44 (tons/year). From these data, waste that has yet to be managed is still relatively large.
In addition, the composition of waste based on the type of waste and the composition of waste based on the 2021 waste source is explained as follows:

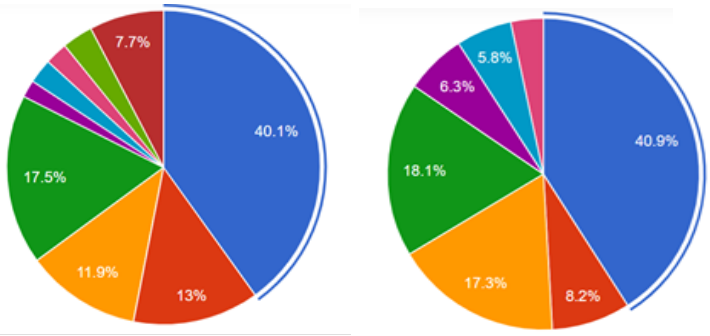

Figure 2. Graph of Waste Composition (SIPSN-KLHK RI, 2022)

Data from the National Waste Management Information System (SIPSN) of the Indonesian Ministry of Environment and Forestry (KLHK) states that the amount of waste generated in Indonesia will reach 29.8 million tons throughout 2021. Of this amount, 17.54 percent is plastic waste. The sources of waste come from households at 40.9 percent, commerce at 18.1 percent, markets at 17.3 percent, offices at 8.2 percent, public facilities at 6.3 percent, and areas at 5.8 percent. Therefore, the Ministry of Environment and Forestry stated that efforts to reduce plastic waste require contributions from various parties, including the public and the private sector. The government aims to reduce plastic waste by 70 percent by 2025. Indonesia also aims to eliminate plastic waste in the oceans by 2040. Director of Waste Management of the Ministry of Environment and Forestry Novrizal Tahar said the government had targeted 30% waste reduction and 70% waste handling by 2025. The approaches taken include limiting plastic waste and recycling inorganic waste.

Distribution of Waste Management Facilities is the distribution of waste management facilities to determine the location of TPA, TPS 3R, Garbage Banks, Compost Houses, RTRW Scale Composting, and others can be seen from the map as follows:

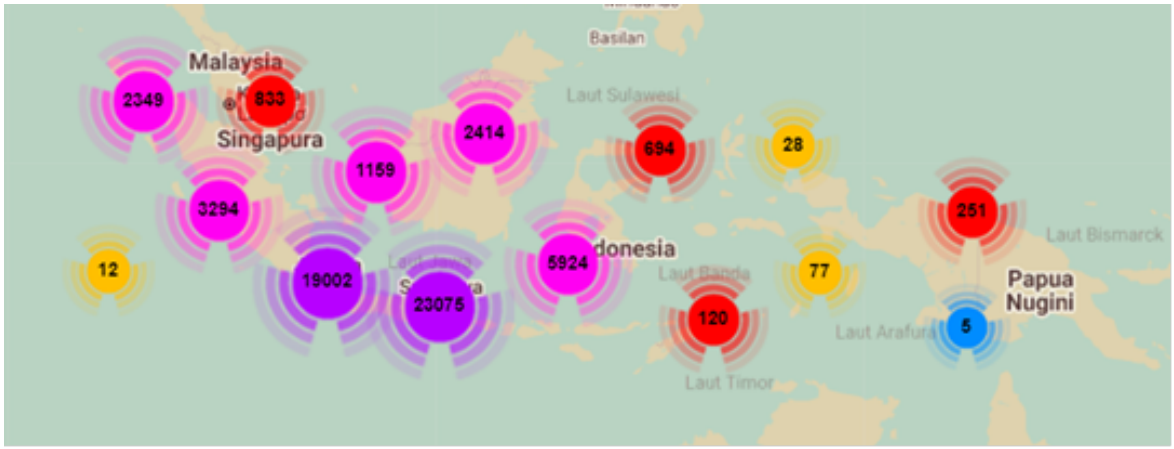

Figure 3 Distribution of Waste Management Facilities
(SIPSN-KLHK RI, 2022)

Table 2 in the Greenhouse Gas Inventory (GHG) and Monitoring, Reporting, Verification (MPV) Report

No	Name	Value/Ton CO2e
1	Energy	638,808,000
2	Forest/Land Utilization	468,425,000
3	Peat Fire	456,427,000
4	Waste	134,119,000
5	Agriculture	108,598,000
6	Product Industry/Consumption	60,175,000
7	Total	1,866,552,000

Source: (SIPSN-KLHK RI, 2022)

Indonesia produced greenhouse gas emissions of around 1.86 billion tons of carbon dioxide equivalent (CO2e) in 2019. In 2019, most of the national greenhouse gas emissions came from the energy sector, 638.8 million tons of CO2e.

The most significant emissions are forestry and other land use (FOLU) and peat fires. There are also emissions from waste, agriculture, and industrial processes and product use (IPPU), with details as shown in the graph. Cumulatively, national greenhouse gas emissions in 2019 have increased significantly compared to 2010, which amounted to only 809.9 million tonnes of CO2e.

Given these conditions, Indonesia is still facing a big challenge in meeting the Nationally Determined Contribution (NDC) target, namely the commitment to reduce greenhouse gas emissions stipulated in the Paris Agreement. Referring to the NDC, Indonesia is targeted to be able to reduce greenhouse gas emissions by 29% under a business-as-usual scenario in 2030 on its own or reduce emissions by up to 41% if it gets international support.

Greenwashing: Weak Regulation and Law Enforcement

Indonesia is bound by a commitment to sustainable development (Sustainable Development Goals/SDGs), one of which is related to sustainable consumption and production activities (sustainable consumption and production). This integrated commitment to the national development plan drawn up by the National

Development Planning Agency (Bappenas) indirectly indicates the importance of anti-greenwashing in realizing sustainable consumption and production.

Law No. 32 of 2009 concerning Environmental Protection and Management Article 68 also requires business actors to provide accurate, open, and timely information regarding environmental protection and management. They were supporting provisions in the regulation of the Minister Environment Number 2 of 2014 regarding the inclusion of the eco-label logo. This eco-label system certifies that a product, processing its raw materials up to the disposal of the rest of the product, has met environmental aspects. Other relevant regulations are contained in Article 4 point 3 of Law no. 8 of 1999 concerning Consumer Protection which outlines the fundamental rights of consumers to correct, clear and honest information regarding the conditions and guarantees of goods or services. Whereas in Article 8: also prohibits business actors from misleading consumers by stating as if the goods/services have met specific quality standards and producing and trading products and services that are not following the conditions, guarantees, or features as stated in the label, etiquette, or description of said goods and services. Perpetrators who circumvent this prohibition, as contained in Article 62 of the Consumer Protection Act, can be subject to imprisonment for a maximum of 5 years and a maximum fine of IDR 2 billion.

These rules are the only regulations that regulate public protection, specifically from greenwashing practices. It is because the discussion of greenwashing practices in Indonesia has not been widespread and has been raised in a series of policies. For this effort to be optimal, the government can issue special provisions that outline the definition and criteria for greenwashing. This clarification is needed to become the basis for consumers to complain. In the long run, the Government also needs to set standards and actively supervise products that claim to be environmentally friendly to achieve sustainable production and consumption activities. This provision also needs to be extended to the e-commerce sector for advertising. As for the community, as consumers, we must always be critical to increase knowledge and sensitivity regarding what is known as a green campaign (green marketing).

Follow-up Study: Improving Green Customer Behavior (Public) Through Utilization of Population Data Base

Marketers' understanding and knowledge in the Indonesian context show that consumers' green consumption behavior must focus on increasing appropriate communication about the benefits of green consumption among consumers. Through green communication and promotions, marketers and policymakers will be able to emphasize the benefits of practicing GCB among consumers. As a result, more and more consumers are aware of the consequences of not practicing GCB and are willing to change their consumption behavior towards more sustainable consumption practices. Globalization, technology, and economic growth have led to significant consumer consumption behavior changes worldwide. Consumer attitudes are changing due to the technology-driven sharing economy. Environmental issues have become a significant focus among consumers, academics and practitioners. Indonesia is facing environmental problems such as air pollution, water pollution, deforestation, hazardous waste, and household waste Consumption brings environmental damage and threatens people's health and welfare. Excessive consumption can have a significant impact on the environment. Therefore, sustainable consumption practices emerged among consumers, and research has focused on this issue for nearly half a decade. To ensure the success of sustainable consumption and sustainable development, all stakeholders must make joint efforts (Utami, 2020). Consumption causes environmental degradation, such as pollution and climate change. Consumption of consumer goods and services has contributed to severe environmental problems. In general, environmental problems occur due to consuming various products such as food and beverages, construction and maintenance, domestic energy use, transportation, water, and electronic products among consumers. One of the leading causes of environmental problems is consumerism (Young et al., 2010). Excessive consumption can adversely affect

people's sustainable lives. Green consumerism refers to consumers' preference for environmentally friendly products and services. This environmentally friendly consumption considers the impact of consumption on the environment.

Many countries have taken steps toward this type of consumption for several decades. Green products significantly contribute to the betterment of society and the environment. The increasing trend of green consumerism among consumers helps reduce the negative impact of consumption on the environment (Narula & Desore, 2016). Thus, GCB can lead to better marketing strategies to promote green products and better initiatives to educate consumers to practice GCB among consumers.

Consumers as citizens are, of course, accumulated through systematic population data. The population includes the size, structure, and distribution and how the population changes over time due to births, deaths, migration, and aging. Population analysis can refer to society as a whole or certain groups based on criteria such as education, nationality, religion, or ethnicity. Thus, population data is all representations of population data in official and unofficial forms issued by population registration bodies (government and non-government), in various forms, including numbers, graphics, pictures, and others. An up-to-date and accurate Population Database will significantly support government planning, development, and community activities. The population database is updated so that the results of the update can be used optimally. In general, population data is used for various development planning purposes, namely for national development planning, education planning, health planning, workforce planning, and alleviating people from poverty, and can be used as data for direct marketing campaigns. The database in the SIAK (Population Administration Information System) uses the NIK (Population Identification Number) as the identifier for each record in all its components. The NIK is connected to a mobile phone SIM card number and can also be connected to other social media applications. So that the database has the opportunity to become a database for implementing green marketing in the sense of building green consumer behavior through green campaigns (Kennedy, 2018; Kostadinova, 2016).

CONCLUSION

The observations show that the trend of green marketing in Indonesia has been implemented, both from the production side (corporations) and the consumption side (consumers). However, the results are still far from the zero-emission target. Marketers' understanding and knowledge in the Indonesian context show that consumers' green consumption behavior must focus on increasing appropriate communication about the benefits of green consumption among consumers.

The achievement of Waste Management Performance, where Household Waste is the most significant contribution, shows that green consumer behavior is still low. Through green communication and promotions, marketers and policymakers will be able to emphasize the benefits of practicing GCB among consumers.

Normatively, the government can issue special provisions, set standards, and actively supervise products that claim to be environmentally friendly in the spirit of achieving sustainable production and consumption activities. This provision also needs to be extended to the e-commerce sector for advertising. As for the community, as consumers, we must always be critical to increase knowledge and sensitivity regarding what is known as a green campaign (green marketing).

Population data linked to cellphone SIM card numbers and connected to other social media applications can become databases in the implementation of green marketing to build green consumer behavior through green campaigns.

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