

Universidad del Rosario



How can sustainability impact Corporate Brand Equity?

Homologación Trabajo de Grado

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Glossary

Brand Equity: According to Aaker's, brand equity is the group of assets or elements that the customers associate with the brand. It can be the name, design, logo or symbol. This group of components might increase or decrease customer's value and perception.

Sustainable Marketing: "It is the method of making, communicating, and giving value to the clients to improve the natural and human capital. According to Gordon, it "seeks a solution in which commercial goods can be marketed in a responsible way that does not adversely impact upon sustainability". (Gordon, 2011, P. 147).

Abstract

In recent times, the awareness of companies for implementing environmental initiatives has become an important management topic. It has increased the need to study and investigate corporate environmentalism's different consequences and effects in companies. Nevertheless, previous studies have not investigated the consequences of pro-environmental initiatives in firms' brand value. Therefore, the present study focuses on providing broader insights on how corporate environmentalism allows industrial companies to achieve a higher brand value performance by implementing and considering three areas of corporate environmentalism: environmental innovation, emission reduction, and reduction in using natural resources.

The results have demonstrated that industrial companies that engage in environmental innovation reduce their use of natural resources and reduce their emissions will reward a greater brand value. Mainly, the two variables that have a higher positive impact on the brand value are environmental innovation and the reduction of using natural resources. In the case of the variable emission reduction is the one with the least contribution to brand value.

Key Words: Sustainability, brand value, environmental innovation, pollution prevention, sustainable development and product stewardship.

Resumen

En los últimos tiempos, la preocupación de las empresas para aplicar iniciativas medioambientales se ha convertido en un tema importante de gestión. Ha aumentado la necesidad de estudiar e investigar las diferentes consecuencias y efectos del ambientalismo corporativo. Sin embargo, los estudios anteriores no han investigado las consecuencias de las iniciativas proambientales en el valor de la marca de las empresas. Por lo tanto, el presente estudio se centra en proporcionar una visión más amplia sobre cómo el ecologismo corporativo permite a las empresas industriales lograr un mayor rendimiento del valor de la marca mediante la aplicación y la consideración de tres áreas del ambientalismo corporativo: la innovación ambiental, la reducción de las emisiones y la reducción del uso de los recursos naturales.

Los resultados han demostrado que las empresas industriales que se dedican a la innovación medioambiental, reducen el uso de recursos naturales y reducen sus emisiones, obtendrán un mayor valor de marca. Principalmente, las dos variables que tienen un mayor impacto positivo en el valor de la marca son la innovación medioambiental y la reducción del uso de recursos naturales. En el caso de la variable reducción de emisiones es la que menos contribuye al valor de marca.

Palabras clave: Sostenibilidad, valor de marca, innovación medioambiental, prevención de la contaminación, desarrollo sostenible y gestión de product

1. Introduction

Nowadays, the importance of environmental protection and preservation is taking more relevance for customers since, as Gordon established in 2011, our natural resources should be cared for and preserved. Currently, this sustainable approach is becoming an important factor in determining the strength of the companies within the market. Therefore, managers and marketing analysts need to understand better how sustainability practices can impact the company's brand equity to analyze the new marketing strategies that companies should consider in their upcoming strategic and marketing decisions.

Customers are becoming more aware of sustainable development. For them, the way companies produce and develop their daily activities and processes can be considered during the buying decision process. Therefore, companies need to understand how customers change their perception or value of a specific brand when they decide to use strategies that generate positive impacts on the environment. This analysis will allow the companies to increase their knowledge and tools in the sustainability field with the idea of implementing new marketing tools and strategies to get to new customers and improve customer perception and loyalty.

The awareness of the preservation of natural resources has increased gradually during the past years by taking into account the limitation of natural resources. Thus, the human being has taken a responsibility to take care of the environment and nature by reducing pollution. The negative impacts of our daily activities or actions in the world, but this responsibility shouldn't be just on customer's hands, Fuller (1999) affirm that also companies

must share this obligation by aligning its strategic goals with those of its customers' objectives, so then, managers will be able to attend and satisfy the market needs and preferences.

1.1 Business Problem

The constant increase in pollution is becoming one of the most important problems worldwide. Currently, we are going through several climate crises. In the case of the atmospheric contamination according to the statistics given by National Geographic more than 90% of global population breaths polluted air even the World Health Organization (WHO) confirmed that this might cause the death of 6,5 people in one-year due human being needs to breath clean and pure air because if it doesn't this can trigger on strokes, lung cancer, cardiovascular diseases, etc. So the atmospheric contamination is affecting people's health, and customers are becoming aware of it.

Another type of pollution that we face right now is thermal contamination. One of its most important consequences is climate change which triggers ice melting, global warming and floods. As a reference, we can check what is happening in Canada and the United States, where since last June, both countries are going through a heatwave and temperatures are above 49,6°, causing more than 78 forest fires and river overflows, which led to the death of 500 people in two weeks days, these unfortunate numbers are a clear example of the reality of climate change.

According to Natalie Hassel, a meteorologist from the Canadian Ministry of Environment and Climate Change, climate change is not a future thing is our reality now. We must be prepared for more events like the one in Canada. This statement should be considered a clear warning for what we can face in the upcoming months if we do not start giving importance to sustainability practices.

We have one more example of a recent climate crisis in Germany and Belgium; during the last summer, in July, these countries were going through floods never seen before in those zones causing the deaths of 133 (to date) and the disappearance of more than 1000 people what triggered this phenomenon was the unstoppable rains that caused the rivers to overflow their banks. This unfortunate event adds to those summarized above. It shows us the current chaos and discomfort of the environment and that it is becoming more challenging to live with it and handle it every time.

Daniel Swain, a climate scientist from the University of California in Los Angeles, expressed that these phenomena are part of a global patron, which means that those are no longer isolated facts but actually “the unusual weather is becoming very usual” (Swain, D. 2021). He added that every meteorological extreme is going to be more extreme now.

These past events are proof of the importance of implementing sustainability practices in customers’ minds. Sustainable development has become an imperative and not just for them recently, we have seen that International Organizations such as the World Trade Organization and United Nations are concerned about it and are opting for implementing some sustainability practices in their agendas and planning development, which means that is becoming a priority

for them, they have seen that the sustainable development is required to tackle the global pollution.

In the World Trade Organization case, this entity has declared and established that sustainability practices will be considered one of the organization's main principles. This shows that it is possible to produce and to have economic development sustainably. One important topic in its framework refers to how we consume goods and services; the new practices should lead to more responsible consumption and production. Therefore, sustainable development for companies is going to be a priority in their strategies.

1.2 Objectives

1.2.1 Overall objective.

- Analyzing how companies' brand value change when these firms decide to implement and adopt sustainability practices and corporate environmentalism initiatives in their marketing strategies by considering the secondary sources as the existing literature related to it.

1.2.2 Specific Objectives.

- According to the literature review chosen for this research, knowing the best corporate environmentalism practices for the companies.
- Investigate to know the positive or negative impacts of sustainability practices on firms' brand' value.
- Understanding which are the most important practices for the customers related to sustainability and corporate environmentalism.

2. Literature Review

2.1 What is Sustainability?

According to Martin and Schouten (2012), sustainability is the ability any system owns to renew itself permanently. They affirm that every natural system can operate in this way. Sustainability has been a complicated thing to achieve for human beings. The concept considers the way we should live in harmony with the natural environment around us by protecting it from pollution and damage. Therefore, as a society, we are responsible for using our natural resources responsibly, without exceeding its renewal capacities and without limiting its access to future generations.

We produce in a sustainable way when we produce our goods and services in a rhythm in which we don't use up the natural resources, and we don't produce more pollutants than the environment can absorb. To better understand the concept, we can start by defining the three

pillars of sustainability that have been defined by the World Summit on Social Development in 2005. This research will present a greater focus on the pillar, which is environmental sustainability.

2.1.1 Economic development: the market has become very demanding. It is becoming increasingly consuming every time, so now people require more resources to satisfy customers' needs. This is one of the main reasons we should control what we consume. In some cases, people can argue that this concept can affect and stop economic development and, by consequence, employability and jobs, but there is always a way to incentivize and motivate companies to implement sustainability guidelines in their marketing process and practices. Therefore, it is important to re-think economic development in this area because it should give customers what they need without compromising or limiting the quality of life or damaging the environment.

2.1.2 Social development: it is essential to consider the importance of protecting people's health from the pollution caused by businesses or companies' activities. In the majority of the developed countries, there are several laws and regulations to prioritize the people's health and wellness to ensure the protection of these fundamental rights. Another significant issue is education; it teaches people about environmental sustainability practices to incentivize them to participate in environmental protection process.

2.1.3 Environmental sustainability: it is based on the way we should protect the sustainability of our resources, integrity, ecosystems and air quality, and the study of some important factors and elements related to the environment.

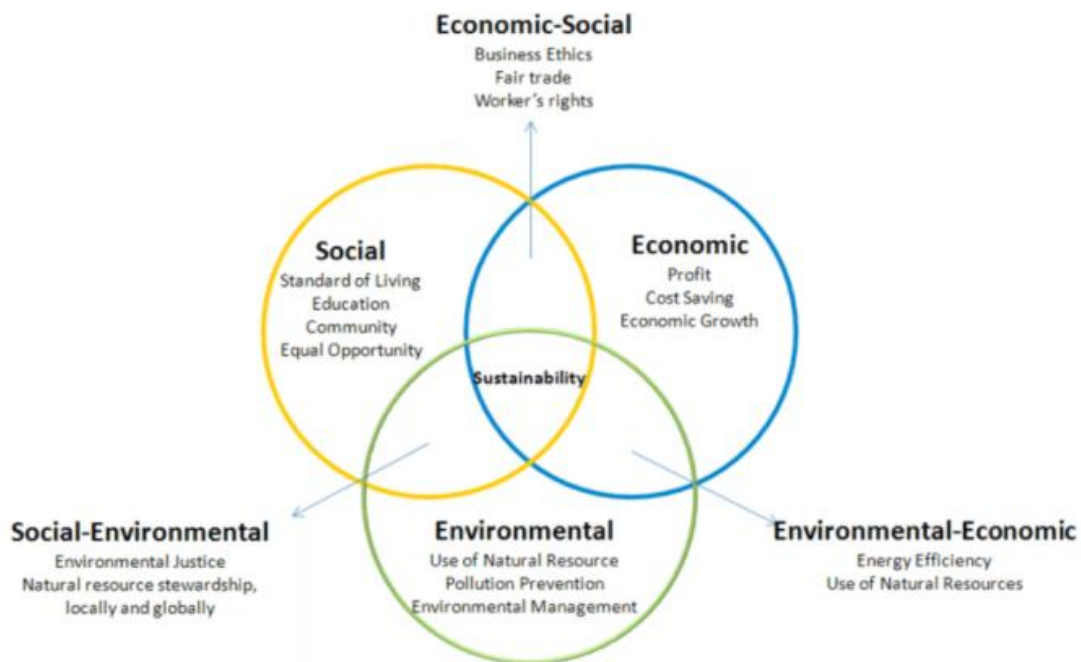


Figure 1. Three Spheres of sustainability. Source: Brundtland Elements of Sustainability.

In this concept, it is essential to keep in mind some practices to protect the environment. These are: recycling, reducing the use of vehicles, turning off the electronic devices that are not in use. Of course, we all know that we should be applying these practices to our daily lives, but the truth is that we forget to do it because it demands more time and effort, but it is crucial to start implementing them in our everyday lives. In some cases, we receive some incentives

from the governments to implement sustainable practices; for example, there are incentives for using alternative energy, buying electric cars, etc.

In addition, it is vital to highlight the role of technology in achieving a sustainable world and greener future. Therefore, it is fundamental to develop green technology and biotechnology. It is also essential to consider and protect the environment from the damages that some existing technologies might generate in the future.

Sustainability is important for companies because, according to Kim (2014), adopting sustainable practices improves the trust, corporate reputation, and satisfaction of the customers. Thus, satisfaction can impact the potential purchase thoughts, their loyalty, and the publicity made by customers. Furthermore, Lai et Al., (2010) affirm a direct relationship between sustainability and the positive impacts on brand equity and performance. In addition, sustainability is becoming an important topic. Thus, the companies that decide to focus their strategies on this approach will be receiving benefits from the market and customers, and long-term customers will commit. They will become active collaborators by taking care of the environment and resources.

- Economic Growth and Environmental sustainability.
- Environmental regulations.

2.2 Primary goals of sustainability

The primary goals of sustainability were established by the United Nations Conference on Sustainable Development in 2012; some of them are:

- The reduction and end of hunger and poverty.
- Sustainable economic growth that incentives economic development and employability.
- Higher standards of education about water quality and sanitation.
- Tackling the negative impacts of climate change, pollution, and other factors affecting people's health and lives.
- Defending and promoting the rights that nature has on the environment.
- Reducing the pollutants products and business practices.

2.3 History of Sustainability

Historically, the human being has been a dissatisfied consumer with unlimited needs of any kinds of resources; he never gets enough and never is full, he has gotten used to using up the resources around him, and when there are no more resources to consume in his zone, he easily moves to another geographical territory to consume and use up whatever he finds, that's how he ends up with everything he finds in his way without replacing the resources that he has consumed.

The humans' inability to take care of the resources and the constant unsustainable practices triggered the collapse of several societies by altering the balance of nature and the ecosystems. Over time some philosophies start expressing dismay about the use of resources, the overpopulation, and the sustainability of current practices in the long term. Still, they did not listen at their time. Until the 20th century, society started to think about the negative impacts of our bad practices in the environment. It was there when environmental damage, pollution, and other sustainable issues became an important topic.

With the creation of the United Nations after World War II in 1945, sustainable development started to be considered and promoted as an essential topic of human culture and science. In addition, it was established the science of climate change, and during the 1980s, some issues as the destruction of the ozone layer and the greenhouse impacts started to be discussed and taken into account. Then, we started the concerns about finite resources and how we should tackle this issue by moving to renewable power methods. Finally, we began to consider sustainability and the environmental movement as important economic and scientific topics.

2.4 What is Brand Equity?

According to Keller (2006), a brand is any name, design or symbol that allows the customers to differentiate and identify the goods and services of one specific company from the ones of the competence. As Gregory (2001) affirms in his book branding across borders: A guide

to global brand marketing, the brand is one of the most important assets for a company.

Furthermore, brand equity “deals with the value, usually defined in economic terms, of a brand beyond the physical assets associated with its manufacture or provision” (Aaker and Biel, 1993)

To sum up, Aaker’s (1993) affirmation, brand equity is the group of assets or elements that the customers associate with the brand. Although it can be the name, design, logo or symbol, this group of components might increase or decrease customer’s value and perception.

In industrial firms, Baumgarth, Binckebanck, Biedenbach, Lynch and Chernatony (2007) have proven the sales force's behaviour and actions, the product quality, and marketing strategies as the promotions can affect the brand value. In addition, Gupta (2008) affirms that the industrial firms committed to collaborative relationships have a higher brand value perception for the customers to the ones that prefer to continue with their strategies by is their own.

Analyzing the Giakoumaki (2006) and Wang (2014) findings of the factors that impact the brand value of the industrial firms, it is very important the functional advantage; in the case of the services the solution advantage; in the case of the CRM, it is important the analytical advantage in CRM; for the communication, it is relevant the omnichannel advantage, and for the resource sharing of the industrial firms these should consider the symbolic advantage in publicity and network advantage.

To better understand the brand value concept, we can analyze the brand knowledge conceptualization, which is a vital topic to measure the brand equity of the customer- based that it can be defined by taking into account the brand image and brand awareness. In the brand image, it is an association of different topics as the beliefs, ideas and impressions that the

customers hold in their minds based on the interactions. Regarding brand awareness, for Keller, it is how customers recognize and differentiate the brand taking into account the brand name. Logo, symbol, and other kinds of associations in their minds. In the case of industrial firms, Biedenbach and Marell (2010) found that the customer experience can impact the brand awareness of industrial brands.

2.5 Sustainable Marketing

It is the method of making, communicating, and giving value to the clients to improve the natural and human capital. According to Gordon, it “seeks a solution in which commercial goods can be marketed responsibly that does not adversely impact sustainability”. (Gordon, 2011, P. 147).

When companies want to achieve sustainable marketing approaches, they might consider applying green marketing, social marketing and critical marketing concepts. To better understand the concepts, we can start by defining green marketing, which is focused on managing and distributing more sustainable services and products to acquire sustainability efforts in its marketing and business strategies.

In the case of social marketing, this one considers upstream and downstream strategies to promote sustainable practices and behaviour. Finally, in the last point, critical marketing focuses on the control and innovation of the markets to emphasize sustainability; the approach criticizes

some of the most important capitalist institutions to create a more sustainable marketing discipline.

2.6 Brand Equity and Sustainability Progress

Lehner & Halliday., (2014) affirmed that sustainable development is one of the paths for those companies and or customers that want to improve their production process or consumption habits. In the customer's case, they have the power to choose the kind of products they prefer to buy; that's how recent studies have shown that customers choose sustainable products over non-sustainable ones. For example, according to a Nielsen's study named "How and Why Sustainability is Gaining Momentum with Customers", the customers went for those products that were defined as sustainable.

To carry out the mentioned study, Nielsen decided to choose three products considered Consumer Package Goods to compare the average sales growth rates between products defined as sustainable and non-sustainable. The three selected products were chocolate, coffee and bath products; consequently, for 52 weeks, the products that showed sustainable specifications had higher sales rates. In sustainable chocolate, this one had 2% more growth, the coffee 11% more and the bath products 13% more growth. In the end, the study concludes that customers want sustainable products from sustainable companies" (Nielsen, How and Why Sustainability is Gaining Momentum with Customers)

In the case of the companies, it depends on customers' preferences. The customers are the ones who choose the kind of product that the companies must offer; thus, the managers' work is to pay attention to what the market is demanding. Therefore, according to Nielsen's study, the current unmet needs of the customer are the best strategy to win a portion in the market. Thus, companies should align their business strategy to sustainability customer needs to certify "a market win for your brand" (Nielsen, How and Why Sustainability is Gaining Momentum with Customers).

Companies that don't implement sustainable practices in their strategies are losing opportunities. According to a report that Unilever carried out in 2017, there is a market opportunity of €966 billion for those brands that provide sustainable goods.

Nowadays, customers are willing to pay more for sustainable products; 46% of customers affirm that it is important to help the environment. For instance, they want to buy from sustainable companies. In 2020 the Global Web Index surveyed its users, asking the following question: Which of the following would you rather do? The options were:

- Pay more for an eco-friendly product.
- Pay less for a non-eco-friendly version.

Most consumers would pay more for eco-friendly products

% of internet users who said they would rather do the following

- pay more for an eco-friendly product
- pay less for a non eco-friendly version

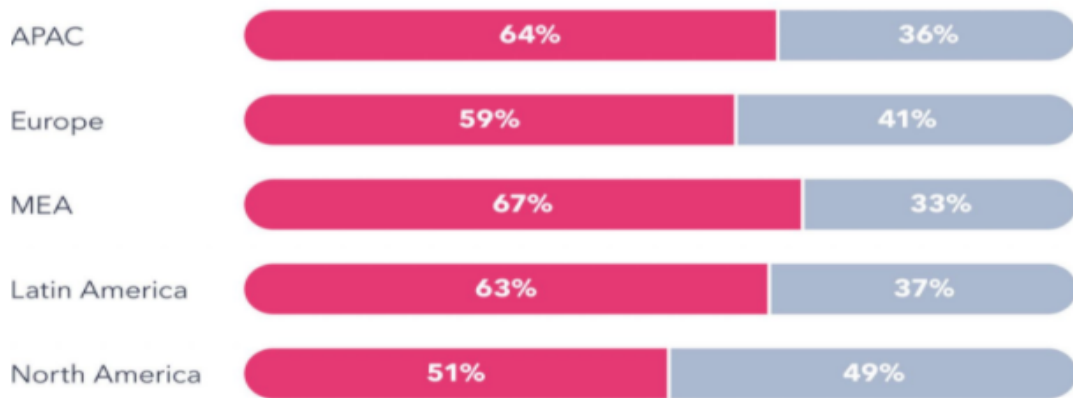


Figure 2. Which of the following would you rather do? Source: Global Web Index 2020.

In the figure above, we can see that the geographical locations where people are more willing to pay for a sustainable product are in the Middle East and Africa with 67% of people willing to do it, in the second place we have the Asia Pacific with a 59% of customers who prefer to pay more and in the last place we have North America with a 51% of people up to do it.

In addition, the graphic let us see that in middle-income economies, the willingness to pay for a sustainable product tend to be higher than in others. We can attribute this to the fact that the consequences of environmental disasters can feel closer in those economies.

Another advantage that sustainable development provides to companies is to lead them to the desired competitive edge. Simpson (2017) affirms that brand success depends on the

reputation and perception that the market has on this one. Therefore, taking into account that the customers are becoming increasingly aware and getting involved in environmental initiatives, it might be more important for the companies to implement these sustainable initiatives than the quality of the product itself. Different studies have shown that companies that implement sustainable development receive better support from their stakeholders and create a stronger relationship with them since their corporate image is more solid.

In addition, Peattie (2001) affirms that companies choose to implement sustainable practices because this allows them to reduce costs, improve their company image, and reduce environmental pollution and impact. As a result, the sustainability concept has evolved in the last years and has been incorporated into the marketing field in 3 different stages. The first stage was ecological marketing, the next one the environmental marketing and the last one was sustainable marketing.

In the first stage, we have the first age of green marketing, which “is based on reducing the dependency of damaging products and finding alternative solutions” (Peattie, 2001). The second stage refers to reducing environmental damage and satisfying the customers' needs demanding more sustainable products. This gives the companies a competitive advantage. Finally, in the last stage, it is sustainable marketing, where the objective is to contribute to having a more sustainable economy due companies want to assume responsibility for sustainable development. Over time companies are finding more ways to be sustainable to create a competitive advantage.

2.7 Building an effective environmental sustainability strategy

Every company should identify the kind of strategy that fits better to their characteristics and the market portion they belong to because there are different strategies. According to Ginsberg and Bloom, we have four different environmental strategies that companies can implement. These are lean green, defensive green, shaded green and the last one is the extreme green.

The first one is the lean green strategy, which refers to when a company is interested in finding a competitive strategy by reducing waste and costs or improving efficiencies by implementing pro-environmental activities; these companies don't focus on promoting or publishing their green activities due to the fear of being asked increase their standards. This strategy is looking for long term solutions and being prevented in its operations regarding the environmental contamination thus, they prefer to comply with the regulations.

One company example of this strategy is Coca Cola; the company has invested in recycling activities and package changes to make a more eco-friendly product. For example, the company introduced a PET Bottle which reduces the carbon production a 25%, reduced water inefficiencies a 20%, invested more than \$300 million in recycled plants, in 2020 invested \$100m in Green Plant Building in China but actually, the company doesn't focus on promoting theses environmental strategies.



The second strategy is the defensive green this strategy is implemented by companies when they need to prevent a critique, a crisis or potential problem or even when they need to protect themselves from a competitor's attack by using this strategy; companies try to improve their brand image and reduce the damage of its operations due they know that the green market is essential and they don't want to lose it for completely hence, they make the necessary improvements meet the market expectations. However, they don't do an aggressive promotion of their environmental initiatives since these are temporary.

Gap is considered a defensive green company because they have promoted waste reduction policies but just on their website. In addition, the brand has been involved in criticism from activist.

The following strategy is shaded green; these companies prefer to invest in long term environmental initiatives to create a competitive advantage that allows them to differentiate themselves as a green companies. Still, they can earn more money by promoting other attributes related to it as tangible benefits.

One example of this strategy can be reflected in Toyota's strategy in 2020 when they launched the Toyota Prius, which reduced air pollution. Still, instead of promoting its environmental attributes, they advertised it for its fuel efficiency since this for customers meant a cost reduction in the fuel.

The fourth and last strategy is extreme green. In this case it is necessary to integrate environmental solutions into the company. Usually, these environmental practices have been present in the company since the first day. Some of these practices are the manufacturing for the environment and total quality environment due to these companies focusing on sustainability. But, unfortunately, few companies have adopted this strategy.

One example of this strategy is Honest Tea; the brand focuses on social responsibility and sustainability. It is present in all the company's activities, including packaging, ingredients, manufacturing, etc.

The following figure shows that companies that are closer to develop differentiability on greenness and substantiality of green markets are the ones that implement the extreme green strategy. Still, in the other hand, the lean green companies are further away from developing a green marketing strategy.

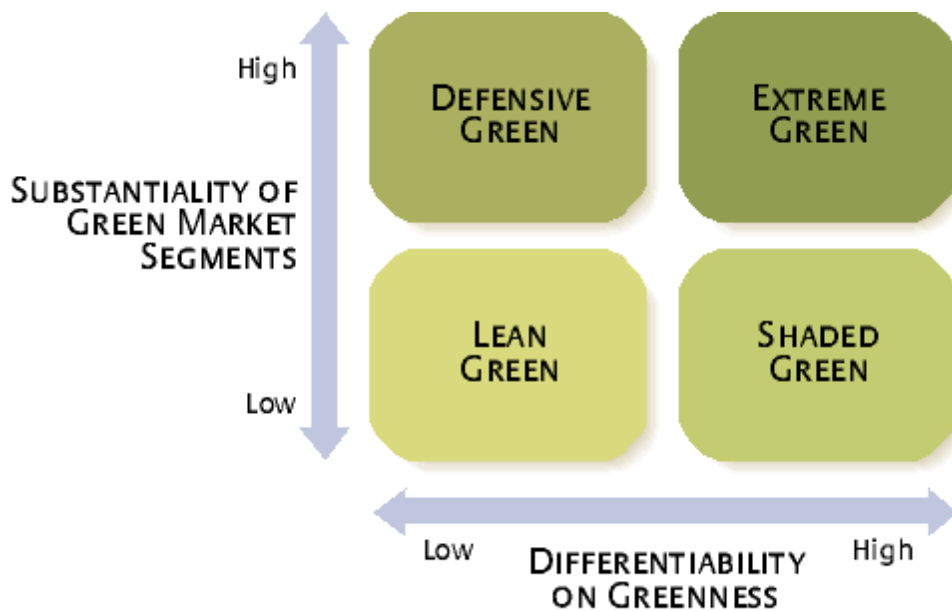


Figure 3. The Green Marketing Strategy Matrix. Source: Ginsberg & Bloom (2014).

2.8 Using the Primary Marketing-Mix Tools in Green Strategy

To have a better understanding of the differences among the sustainability strategies, it is helpful to refer to the 4 Ps of the Marketing Mix, where it is essential to verify the way the

companies involve the different elements as the product, price, place or promotion in their strategies

In the case of the lean green strategy, their sustainability focus is related to the product. This can be the design or manufacturing of it. The green defensive process frequently involves promoting its sustainable activities, and in a second stage, some of them look for sustainability approaches on the product. The third case is the shaded green, where companies focus on environmental products, then in the promotion of them and the last stage, they focus on the price, where cost efficiencies can be acquired. The fourth strategy is the extreme green in this one. The company involves the four Marketing Mix elements, even the place due to the distribution systems, and the retailers are chosen by considering their sustainable practices. In the end, sustainability is the core of the companies that implement sustainability strategies. The following table explains the different Marketing Mix elements that every sustainability strategy involves.

	Product	Price	Place	Promotion
LEAN	X			
DEFENSIVE	X			X
SHADED	X	X		X
EXTREME	X	X	X	X

Figure 4. Using the Primary Marketing-Mix Tools in Green Strategy. Source: MITSloan

Management Review

2.9 Environmental Sustainability Practices

Environmental sustainability is based on the responsibility that all human beings must have to protect natural resources and conserve the ecosystems to preserve our health and well-being. But, unfortunately, we are not aware of the negative consequences that our current actions to satisfy our needs might trigger in the long term. Still, the idea is to start paying more attention to it because we cannot limit the right of future generations to develop themselves in a clean environment; thus, sustainability practices should be essential to every person and society agent.

There are different kinds of sustainability practices. Therefore, there's not a specific recipe that companies should follow to have sustainable development, but the variation and combination of these are key to achieve the sustainable goal. For Visser's (2011), the strategic goal of environmental integrity is based on sustainable ecosystems and the indicators to measure it is three, as follows:

- The first one is ecosystem protection: focuses on biodiversity conservation and ecosystem restoration.
- - The second indicator is renewable resources, which refers to mitigating climate change using renewable materials and energy.
- The last indicator is zero-waste production: aims to waste elimination.

Visser (2011) affirms that environmental integrity is not just about reducing the damage but instead should aim at keeping and improving ecosystem sustainability changing our current practices due our past actions have led us to lose the third part of the planet biodiversity since the 1970 according to the WWF's Living Planet Index.

2.10 Post-pandemic effect on sustainability

The latest months have been a continuous challenge around the world due to the current pandemic crisis. As a result we have seen that some priorities have changed as well as our lifestyles and life perspectives. Moreover, this scenario has impacted public health, international economies, and apparently, we give importance to sustainability practices.

According to a survey driven by GlobalWebIndex in 20 countries, 56% of the surveyed affirmed that as a pandemic's consequence, they are giving more importance to sustainability regarding one the followings aspects: reducing the use of single-use plastics, reducing carbon footprints, or companies behaving more sustainability.

The sample took into account people from 16 to 64 years old, which means 4 different generations the generation Z (people born from 1994-2010), the Millennials (people born from 1981-1993), Gen X (people 1969-1980) and the Baby Boomers (people born from 1949-1968) and results showed that younger generations are the ones who are giving more importance to the environment and sustainability after the pandemic. The survey showed that 79% of people from Gen Z are giving more importance to the companies behaving more sustainably, 75% are more into reducing single-use plastic consumption, and 73% are more concerned about reducing environmental impact after the pandemic.

In the global results, we have:

- 3 out of 4 people affirmed that it'll be more important for the companies to be sustainable due to the pandemic now.
- 2 out of every 3 people consider that now it'll be more important to minimize or reduce the personal use of single-use plastic.
- 7 in 10 think that will be more important to reduce the carbon footprint impact.

Younger generations are most concerned about sustainability in a post-COVID world

% of internet users in each generation who say the following is a little or a lot more important after COVID-19



Question: Has the importance of any of these things changed for you, because of coronavirus? - Companies behaving in more sustainable/eco-friendly ways | Reducing how much single-use plastic I use | Reducing my carbon footprint/impact on the environment **Source:** GlobalWebIndex Custom Research, May 19-26 2020
Base: 17,149 internet users aged 16-64

Figure 5. Has the importance of any of these things changed for you because of Covid-19?. Source: GlobalWebIndex.

In the last figure, it's explained that young people have preferences for sustainable companies and products. Hence, managers should take that into account when planning the

upcoming and future strategies and the goals that should aim at achieving to be outstanding in the market, over time this tendency is going to increase and have more importance in the market; hence, companies that don't implement sustainable initiatives should be prepared to lose their part in the changing market due this tendency is increasing more over time.

3. Methodology:

3.1 Data Sources and Sample

To carry out the investigation, it will be necessary to collect information from multiple sources, mainly secondary ones as academic articles, others the main reference article in this research is “Corporate environmentalism and brand value: A natural resource-based perspective” written by Mahabubur Rahman, M. Ángeles Rodríguez-Serrano, and Anisur R. Faroquec, in the mentioned study the authors collected data from secondary sources as Interbrand's brand valuation that takes into account financial and customer's perspective. Moreover, the Thomson Reuters Eikon Database and Compustat databases were consulted with the aim of doing a previous analysis of the chosen explanatory variables of the investigation. These are: the outcome variable, the explanatory variable and the control variable, which are related to environmentalism. The main goal of these variables is to understand better the environmental performance of the industrial companies, which is the sample in the current study.

In the previous study, the authors defined the outcome variable and three explanatory variables. The authors designed the brand value as the outcome variable, where the valuation was gotten from Interbrand. And in the case of the explanatory variables, they selected the environmental innovation score, emission reduction score and resource use obtained from the Thomson Reuters Eikons database; the operationalization ranges were from 0 to 100. In the last case, for the control variables, the chosen characteristics were the firm size, capital intensity, net income from Compustat and the operationalization measure was the natural log of total assets, invested capital/ number of employees and the net income consecutively.

Table 1. Data sources and operationalization of variables. Source: Corporate environmentalism and brand value: A natural resource-based perspective.

Types of variables	Variable	Operationalization	Data Source
Outcome variable	Brand value	Yearly dollar value of corporate brand	Interbrand
Explanatory variables	Environmental innovation	Ranges from 0 to 100	Thomson Reuters Eikon database
	Emission reduction	Ranges from 0 to 100	Thomson Reuters Eikon database
	Resource use	Ranges from 0 to 100	Thomson Reuters Eikon database
Control variables	Firm size	Natural log of total assets	Compustat
	Capital intensity	Invested capital/number of employees	Compustat
	Net income	Net income	Compustat

The authors validated the different hypotheses already formulated using statistical analysis as the descriptive statistics and correlation matrix to continue the investigation. The statistical analysis calculated the mean, standard deviation, minimum value, maximum value, variance inflation factors. To go deeper in the analysis, the squared simple correlations, squared partial correlations and squared semi -partial correlations were calculated.

3.2 Model Specification

The authors to have a better estimation of the relationship between corporate environmentalism and the outcome variable, brand value will have the next specifications

$$\begin{aligned}
 Brand\ Value_{it} = & \beta + \alpha_0 Brand\ Value_{it-1} \\
 & + \alpha_1 Environmental\ innovation_{it} \\
 & + \alpha_2 Environmental\ Reduction_{it} \\
 & + \alpha_3 Environmental\ Use_{it} \\
 & + \alpha_4 Firm\ Size_{it} + \alpha_5 Capital\ intensity_{it} \\
 & + \alpha_6 Net\ income_{it} + ni + \varepsilon_{it}
 \end{aligned}$$

3.3 Endogeneity and model estimation method

For the research, the authors investigate endogeneity since it is a useful tool to study the relationship between the cause and effect of the different variables. Therefore, they conducted a Durbin-Wu-Hausman (DWH) test to detect the endogenous variables of the investigation. As a result, the test confirmed that the variable Net Income has endogeneity, the obtained result (Net Income: $Chi^2_{Durbin - Wu - Hausman\ test} = 33.846p - value = 0.0000$).

Thus, the Net Income variable was designed as the endogenous regressor in the model, which means that the Net income “is correlated with, or has non-zero covariance with, the random error term” (Abbott., 2007). In the case of the other variables, these were designed as

exogenous, which means “uncorrelated with, or has zero covariance with, the random error term” (Abott, 2007).

In the research, the authors estimated the coefficient variables through the assumption of instrumental variables. Therefore, the chosen technique was the dynamic panel data method called the generalized method of moments (system GMM) to understand better the two variables, corporate environmentalism and brand value.

According to the authors, the reasons why the GMM estimation model fits better in this research are: in the first place because the study includes an endogenous variable. In the second place, the brand value variable of the industrial firms might be given by the influence of its past values. Thus, an autoregressive model is needed, and the system GMM is very useful for the autoregressive model.

In the third case, the system GMM doesn't need any other sources due the instrumental variables are obtained from the endogenous variables. Thus, the GMM is specified as a system of equations.

3.4 Descriptive Statistics and Correlation Matrix

The authors calculated the descriptive statistics (Table 2) of the variables. They estimated the correlation matrix to find multicollinearity, which means “the occurrence of high intercorrelations among two or more independent variables in a multiple regression model”

(Scott, 2021). In other words, the objective is to find the level of multicollinearity among the different variables. In addition, the authors calculated the variance inflation factors (VIF), which for the present study ranged from 1.23 to 3.01; this result is lower, indicating that the independent variable is lowly collinear with the different variables in the model.

Table 2. Descriptive Statistics. Source: Corporate environmentalism and brand value: A natural resource-based perspective.

	Obs.	Mean	SD	Min	Max	VIF
Brand value	103	29,348.5	21,032.6	3359	78,808	
Environmental innovation	110	77.4424	22.5280	22.7273	99.6282	1.23
Emission reduction	110	84.9953	13.4674	31.25	99.5968	1.48
Resource use	110	88.7600	12.1399	41.25	99.7652	1.86
Firm Size	110	11.2949	0.86834	9.80615	13.5896	3.01
Capital intensity	110	448.1461	402.150	27.6368	1652.22	2.70
Net income	110	7498.10	6234.43	-12,650	23,150	1.73

Table 3. Correlation Matrix. Source: Corporate environmentalism and brand value: A natural resource-based perspective.

	1	2	3	4	5	6	7
1 Brand value	1.0000						
2 Environmental innovation	0.3849	1.0000					
3 Emission reduction	0.2016	0.1095	1.0000				
4 Resource use	0.5408	0.3715	0.4297	1.0000			
5 Firm size	0.6118	0.3356	0.1542	0.5057	1.0000		
6 Capital intensity	0.3580	0.1839	0.3871	0.4390	0.7365	1.0000	
7 Net income	0.8024	0.3116	0.2890	0.5397	0.5653	0.4963	1.0000

4. Current study

The current study is based on the research “**corporate environmentalism and brand value: A natural resource-based perspective**”. Therefore, the present study will go through the mentioned study to have a better understanding of the impact that might have the corporate

environmentalism on the brand value of the industrial firms, which was the designed sample by the authors.

4.1 Corporate environmentalism and brand value: A natural resource-based perspective

In recent times, environmental pollution has gotten more relevance in our society, and even it has become a social concern. According to Rahman et Al., (2021), we have caused damage to 60% of the natural resources what has triggered the increase of customer concern in environmental sustainability, causing that several companies from different industries felt pressured to involve in corporate environmentalism, which means that they take into account environmental practices in their strategies.

Rahman et al., (2021) affirm that there are three main areas that industrial companies should take into account if they want to improve their brand value. These are environmental innovation, reduction of pernicious emissions and effluents and effective use of natural resources.

4.2 Creation of industrial brand value

The authors affirm that there is extensive research on the brand value in B2C markets; however, there's not the same information or data about creating brand equity in B2B markets. Furthermore, the recent studies just take into account the way the brand value is affected by the strategic use of internal resources; however, the way the external resources impact the brand value of the industrial firms is not mentioned or has not been studied. Therefore, it should be examined how the external environment can impact the brand value of the industrial firms. In other words, the way how corporate environmentalism impact the brand value of the industrial firms.

4.3 Theory and hypotheses

4.3.1 Natural Resource-based theory: A synopsis.

Firms depend on several resources to be able to carry out their daily operational activities. One of the most important resources of every industrial firm is the biophysical environment, where companies got the natural resources to transform them and distribute them in the market to gain a competitive advantage over other firms; however, it is important to remind that natural resources are scarce and limited and we cannot use them as much as we want since we would be increasing their shortage.

According to Rahman et Al., (2021), this shortage might present some opportunities for the companies that are smart enough to employ its skills on creating an advantage from this challenge. The authors mentioned the successful case of Ecocement, which is a product produced

by Taiheiyo Cement Corporation. The product is eco-friendly since it had two important positive impacts on the environment. The first one is reducing the quantity of the extracted resources, and the second one is a decreased waste that gets to the environment.

Over the past times, the companies' concern about the damage and pollution in the environment has increased. Among some reasons, the authors mentioned the established constraints to the firms for using and depending on natural resources to carry out their daily business. However, according to Rahman et al., companies can take advantage of these constraints by aligning corporate environmentalism with their corporate strategies, allowing companies to improve their reputation in the market and the brand image because people will consider them as responsible corporate citizens.

4.4 Hypotheses

The authors mention that the natural resource theory affirms that corporate environmentalism can lead industrial companies to develop a competitive advantage. This one has three main areas: pollution prevention, product stewardship, and sustainable development. Therefore, each area can lead companies to the development of competitive advantage. In addition, the adoption of corporate environmentalism strategies in the firm will improve the brand reputation of the industrial firms.

An important aspect to mention about corporate environmentalism is that one of its areas refers to the impact that can have the product of the industrial firms in the natural environment. Thus, industrial firms that care about it choose to implement marketing strategies of pro-environment products. In that case, companies can acquire environmental innovation strategies to reduce the negative effects of the products in the environment.

The responsible environmental companies implement two types of activities in their product strategies. These are the incremental and radical eco-innovation, which means to produce products and services without negative impacts on the environment. Furthermore, some industrial firms are developing products based on eco-innovation. For example, the closed loop systems, which allow to use the waste as input for new process, positively affecting the quality perception of both the product and the brand. Other industrial firms are implementing industrial packing systems to reduce the environmental impact, reduce costs and improve the perception of the product and the brand.

Environmental innovation is based on the design of eco-friendly products that are easy to disassemble to recycle some parts and avoid single-use products. It is also related to the design of pro-environment packaging, which reduces the use of damaging materials to the environment as a successful example of environmental innovation in the B2B market. The authors mention the "eco-responsible packing program", which was launched by UPS and achieved to differentiate to the company from the market and improving its brand value positioning.

There are different types of environmental initiatives, and all of them allow industrial companies to differentiate their products from their competitors in the B2B market. Furthermore, customers have a better perception of the brand when this one produce eco-friendly products.

Hence, industrial firms are creating more durable products to increase the product life cycle and minimize the need for replacement or reparation in the short term. As a reward, industrial firms win the customers' loyalty because their satisfaction increases. In the case of radical eco-innovation, this one allows companies to explore new business and opportunities. Considering all of this into account, the authors propose the first hypothesis. As follows:

H1: Corporate brand value is positively impacted by Environmental Innovation.

The second area of corporate environmentalism is pollution prevention. In this case, the industrial firms adopt these strategies by reducing the ozone-depleting substances in the environment. Therefore, pollution prevention is based on companies' skills to reduce emissions and effluents to lessen the negative impact of their daily activities.

The pro-environmental industrial companies focus on developing eco-efficient products; thus, they implement different policies of reducing emissions and waste to reduce the negative impact on the biodiversity and natural environment. Furthermore, the industrial firms with pollution prevention programs aim to reduce hazardous and non-hazardous waste and adopt several recycling policies. As a result, the industrial firms will have a better brand image in the market and a higher value of the brand.

The customers of the B2B market are willing to pay a higher price for a product that is recognized as pollution-free, which in return will cause a good impact on companies' finances. On the other hand, according to an OECD report, some buyers avoid doing business with potential partners that do not relate sustainability practices to emission reduction. Thus, industrial firms prefer to have supply chain partners to eco-friendly companies. In addition, even the

stakeholders see pro-environmental initiatives as good and successful strategies that cause industrial firms to have more investments from their shareholders and a bigger brand's growth in the short term. Based on the past information, the authors formulate the following hypothesis.

H2: The higher the emission reduction capability of a company is, the greater the corporate brand value performance will be.

The third area of corporate environmentalism is sustainability, which reduces the companies' dependency on natural resources. These kinds of companies invest in their employees' environmental management as their safety and training. Moreover, they also invest in the conservation of different resources as energy conservation and water conservation. Furthermore, they focus on green strategies for their supply chain as "the raw material extraction, green factories, green storage facilities, distribution systems, retail stores, waste disposal and recycling units" (Rahman et Al., 2021).

For implementing sustainability in business, it is required to have strategies that allow the effective use of natural resources. Thus, many industrial firms are implementing initiatives, for example, reverse logistics policy and improving the use of water and energy with the objectives of protecting the resources and the environment. Moreover, the eco-effective initiative as the water recycling improves the reputation of the industrial firms in its internal and external environment that means their suppliers, customers and employees.

Other eco-effective initiatives that offer new sustainable opportunities and markets to industrial firms are the following: renewable energy and recycling water since those initiatives

improve the market-based performance, the perception of the quality, the brand loyalty, and the brand value of the industrial companies.

Regarding the customers perspective, the ones who prefer to buy sustainable products affirm that the reasons to choose those products are, firstly, more reliable and, secondly, better quality. Furthermore, they expect to have a long-lasting relationship with the firms they support by participating in different eco-efficient programs such as green purchasing. Another important aspect for customers is the efficiency that companies have when using resources to improve sustainability. It has been demonstrated that this practice improves customer retention and makes it easier to buy the product.

Regarding the employees, industrial companies with sustainable practices in their strategies have higher possibilities to attract and keep a talented labour force; thus, it is easier for them to hire employees with the required capabilities. Thus, it will be easier for green industrial firms than the brown ones. In addition, in a sustainable company, the employees will have a positive impact on their satisfaction and creativity. Some eco-effective initiatives will impact the employee's identification and commitment in a positive way what will have. As a result, a happy employee who provides good customer service and that in the short-term will impact the customers' brand loyalty. Regarding all of this, the authors propose the following hypothesis:

H3: The higher the capability of a company to reduce the use of natural resources is, the higher the corporate brand value performance will be.

4.5 Main Findings

The authors found that the coefficient of the main explanatory variables of the study, which are environmental innovation, emission reduction and resource use are significant and positive using a significance level of 5% as follows:

In the case of the first hypothesis, the estimation was $\alpha_1=30.5665$, p- value=0.020. Therefore, taking into account the standard error, which is 0.05 the first hypothesis is supported.

- In the second case, the authors estimated as follows: $\alpha_2=65.3627$, p – value = 0.017.

Therefore, with a 5% of significance the second hypothesis is accepted.

- In the third hypothesis, the analysis is estimated as follows $\alpha_3=174.137$, p-value=0.032 then, with a 5% significance, the third hypothesis is accepted.

The following table sums up the results of the dynamic panel data regression analysis using system GMM.

Table 4. Results of dynamic panel data System GMM. Source Corporate environmentalism and brand value: A natural resource-based perspective.

	Brand Value
Brand value (t – 1)	0.4855*** (0.0650)
Environmental innovation	30.5665* (13.1226)
Emission reduction	65.3627* (27.2851)
Resource use	174.137* (81.0255)
Firm size	6866.99*** (1053.86)
Capital intensity	–4.9399** (1.8077)
Net income	0.1827*** (0.0334)
Constant	–86109.52*** (12939.32)
WaldChi ²	3121.84***
Arellano-Bond test for AR(2) (p-value)	0.668
Hansen test (p-value)	0.943

Standard errors in parentheses. *p < 0.05; **p < 0.01, ***p < 0.001.

In the case of the first hypothesis, the authors found that the environmental innovation variable correlates with the outcome variable, which is the brand value, which means that the higher the environmental innovation is, the higher the brand value of the industrial firms will be. Thus, the companies that produce in a market eco-friendly way will have a higher brand value.

Regarding the second hypothesis, the authors affirmed that the companies that prefer to reduce the negative impact of their operational process by reducing the negative emissions, as a result, will have a higher brand value. Thus, the analysis provides enough information to affirm that the industrial companies interested in reducing the negative emissions and implementing strategies to reduce and mitigate the negative effects of their activities on the natural environment will have a higher brand value.

In the last hypothesis, the authors affirmed that the companies willing to reduce their negative impact on the natural environment by mitigating the use of resources from mother nature as a recompense these industrial companies will have a higher brand value. For instance, companies that implement strategies to reduce natural resources such as materials, energy, and water will perform better results and have a higher brand value. Therefore, the three hypotheses are accepted and supported.

The results demonstrated that bigger companies with low capital intensity and higher income would perform a better brand value regarding the control variables. The formulation of the hypothesis is the following: $\alpha_4=6866,99$, (p-value=0,000; $\alpha_5=-4.93995$, p -Value=0.006; $\alpha_6=0.18272$, p-Value=0.000.

The authors carried out a Hansen test since they found an endogenous regressor in the model. Thus, they took an instrumental variable approach for the research. The Hansen test was driven to verify the integrity of the used instruments and the moment conditions. Therefore, the obtained result was 0.94, and in this case, the P-value should be greater than 0.25. With this, it is fair to say that this result doesn't invalidate the other used tools and outcomes.

Moreover, the authors carried out an Arellano-Bond second-order auto-correlation test (AR (2)). They obtained a 0.668, which, according to the authors, means that there's no second-order serial correlation among residuals.

4.6 Additional Analysis

To better understand the significance of the three explanatory variables: environmental innovation, emission reduction and resource use to the response variable brand value, the authors estimated the following correlations as follows: the squared semi-partial correlations and squared partial correlations squared semi-partial correlations. Regarding the squared simple correlation, according to Rahman et Al., (2021), these values (one for each explanatory variable) indicate the magnitude of contribution to the dependent variable, the brand value. It is important to mention that the explanatory variables may share variability. The case of the squared semi-partial correlation gives information about what proportion of variance in the brand value results from just one explanatory variable, which means that the squared semi-partial correlation allows evaluating the importance of the unique contribution of a given explanatory variable to the total variation in the brand value as the outcome variable. On the other hand, the squared partial correlation shows the same information, but it does not reveal the total outcome variable. This, according to the authors, reveal “the proportion of the variability in the outcome variable that was left unexplained by the other variables but has been explained by the focal explanatory variable” (Rahman et Al., 2021).

Table 5. Squared simple, squared partial and squared semi partial correlations—Source Corporate environmentalism and brand value: A natural resource-based perspective.

Variables	Squared simple Corr.	Squared partial Corr.	Squared semi partial Corr.
Environmental innovation	0.1481	0.0137	0.0036
Emission reduction	0.0406	0.0034	0.0009
Resource use	0.2924	0.0137	0.0036

Rahman et Al., (2021) affirmed that the main two explanatory variables that explain the greatest impact in the brand value variable are the environmental innovation and resource use since in both cases, the result of the squared semi partial correlation was 0.0036, which means that those variables explained 0.36% of the variation of the brand value. The authors explained that in the case of the simple squared correlations at first look, it seems that the variable resource use demonstrates the most important variation in the brand value; however, the authors explained that this explanatory variable shares changeability with other variables. In the last case, the “emission reduction” variable is the one that has less variation in the outcome variable since it explains just the 0.09% of the variance in the variable, brand value.

Furthermore, the authors demonstrated in a graphical way how the outcome variable of the industrial companies changes over the sample time. Therefore, most of the industrial companies demonstrated a growing trend in their brand value even though some of the companies had fluctuations in the brand value over the period sample (Figure 6).

The authors showed the evolution over the sample period of the main explanatory variables in the brand value. They concluded that the most steady variables over time were "resource use" and "emission reduction", in the case of the variable "environmental innovation", some companies presented some variability over the sample period. (graphic 7).

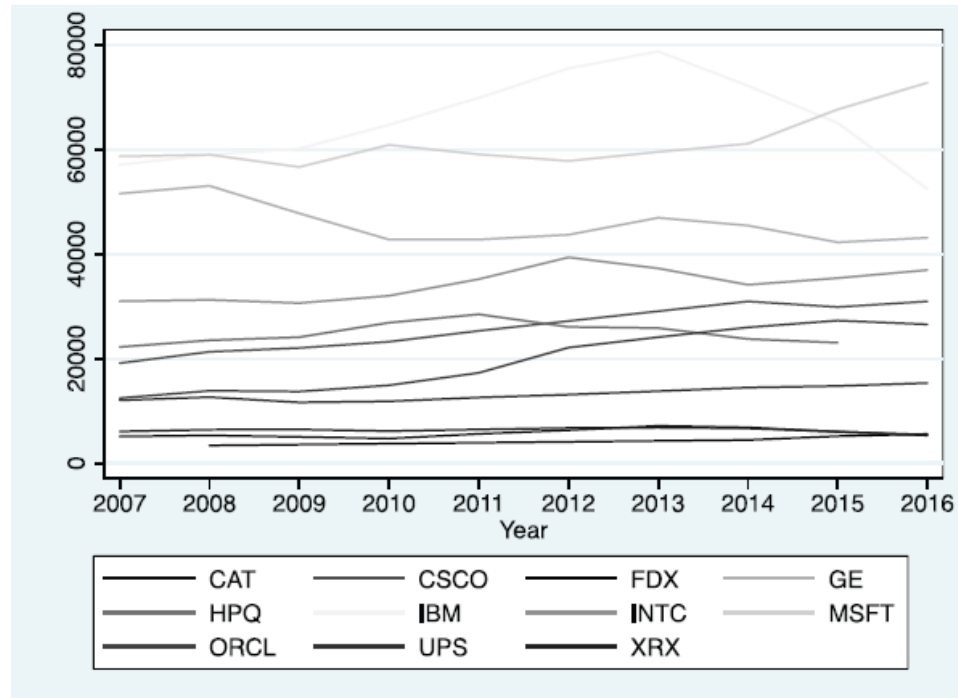


Figure 6. Evolution of Brand Value of the Sample Firms. Source: Corporate environmentalism and brand value: A natural resource-based perspective.

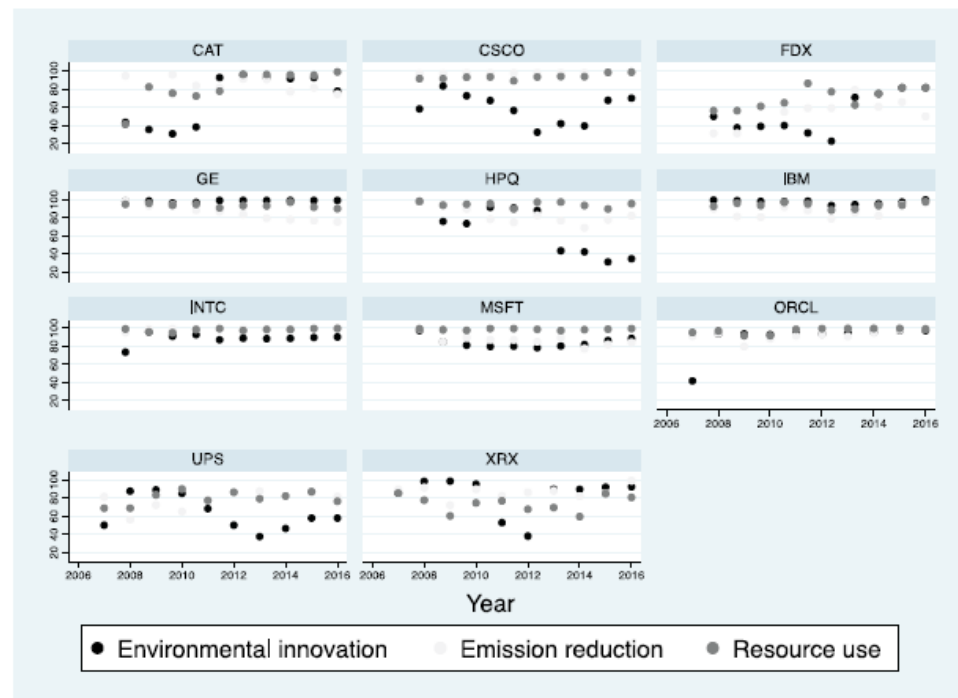


Figure 7. Evolution of Corporate Environmentalism of the samples Firms. Source: Corporate environmentalism and brand value: A natural resource-based perspective.

In the last figure, the authors showed that in the case of the explanatory variables, the resource use and emission reduction were moderately steadier for 8 out of 11 companies of the sample. On the other hand, in the case of the variable "environmental innovation", this one was constant for 4 in 11 companies during the studied period.

In the case of the variable resource, which refers to the concept of industrial companies using natural resources to manage their production activities, the authors observed that the companies FDX, HPQ, INTC, ORCL and MSFT operate better than the other studied companies. Still, there were two companies, CAT and UPS, that showed some fluctuation. On the other hand, in the case of the missing firms, which are GE, IBM, XRX and CSCO, they demonstrated an intermediate level when comparing it to the other variables.

Regarding the variable emission reduction, the best variables that perform better were CSCO and INTC. However, GE, UPS, CAT and MSFT were slightly better in some years than other firms. On the other hand, the companies that demonstrated the worst performance compared to the other companies were IBM and ORCL. Finally, in the case of the companies with an intermediate level, the authors mentioned DDX, HPQ and XRX.

Considering the variable environmental innovation, the companies that had a better performance were GE and IBM, which means that both companies demonstrated a better ability to design eco-friendly products and services than the other industrial companies. On the other hand, UPS, FDX and CSCO had a lower level than the others.

Ultimately, the authors illustrated the link between the key explanatory variables and the outcome variable of the research brand value in a graphical way. They concluded that the relationship between the key explanatory variables and the brand value is positive, taking into account the regression analysis they did. Specifically, Rahman et Al. (2021) affirm that when industrial companies can produce environmental products, reduce negative emissions, and use natural resources, these firms will positively impact their brand value. Therefore, the authors concluded that the industrial firms that implement environmental strategies in their activities would benefit from a higher brand value in the short term.

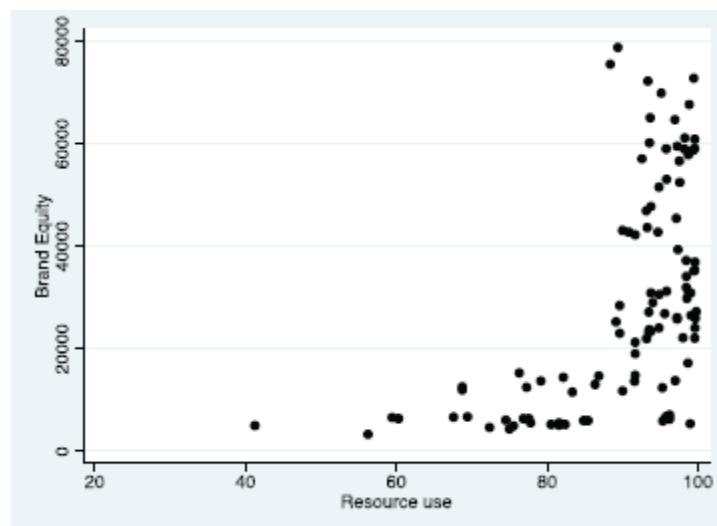
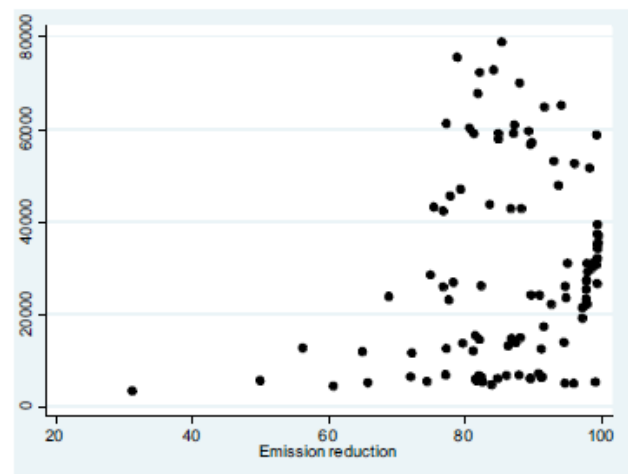
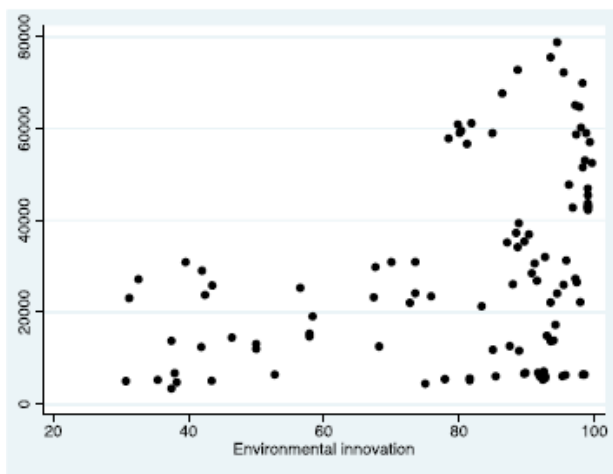


Figure 8. Relationship between the key explanatory variables and the outcome variable brand value. Source: Corporate environmentalism and brand value: A natural resource-based perspective.

5. Conclusions and Recommendations

5.1 Conclusions

The authors affirm that the industrial companies implementing environmental strategies and activities in their production and management processes will reward a higher brand value. Thus, they formulated three hypotheses related to corporate environmentalism, which took into account the following variables: environmental innovation, reduction of negative emissions and effluent, and properly use of natural resources. In other words, the authors formulated the hypotheses affirming that any industrial company that implement in a good way these three areas related to corporate environmentalism will have a higher brand value.

Rahman et Al., (2021), demonstrated the significance of the three explanatory variables for industrial companies. First, emphasizing that the market rewards companies that implement environmental practices. Hence, firms interested in improving their corporate brand value should get involved in environmental innovations such as creating and developing environmental products and services. Furthermore, the authors recommend developing internal abilities to reduce natural resource use successfully. To conclude, they also recommend that the firms reduce their contaminating emissions and effluent to the natural environment.

The authors affirm that previous studies have demonstrated that implementing corporate environmentalism practices in the firm has positive impacts on stakeholders' perceptions, such as shareholders and customers. Still, they mentioned that no other study went through the positive effects of corporate environmentalism on the firm's brand value. Hence, the study provides further insights into how pro-environmental activities allow industrial companies to achieve a better and higher brand value.

Rahman et Al., (2021), provide more insights about B2B brand value. In the first stage, they adopted an external view of an industrial firm creation of brand value since other studies focused just on the internal view of the companies. However, the authors demonstrated that the natural environment could be a source of brand value for industrial firms.

In a second stage, the authors also demonstrated that even when all the three variables of corporate environmentalism impact the brand value of any industrial company positively, the less important area for the stakeholders is the reduction of negatives emissions in the environment. On the other hand, the other two related areas to corporate environmentalism, namely, environmental innovation and the effective use of natural resources, contribute at the same level to the creation of an industrial firm's brand value. Moreover, the authors provided the first study exploring the link between pro-environmental activities and brand value since the study went through empirical evidence to prove that industrial firms that implement environmental activities in their practices will gain a competitive advantage in the market.

The research provides very interesting insights for brand managers of industrial companies who are interested in improving the brand value of their firms since the study demonstrated that the implementation of corporate environmentalism will lead any industrial

company to a higher brand value by the development of eco-friendly products and services, the reduction of natural resources including water, energy, etc. Moreover, the effective use of these resources will impact the brand value positively. Thus, managers should care about implementing internal tools and practices to improve efficiency for the treatment and use of natural resources in their daily production activities or any other processes.

In addition, managers should concern about reducing the negative and contaminating emissions and effluents into the environment. Hence, industrial firms should design and implement more eco-friendly technologies that allow them to reduce their emissions; there are several ways to reduce emissions, such as recycling.

Considering the three areas of pro-environmental activities, the ones that have more influence on the brand value are environmental innovation and efficiency in resource use. On the other hand, the emissions and effluent reduction activity has a lower impact on brand value creation. The authors focused their study on the B2B market to provide managers with a better perspective on corporate brand value improvement and creation. Since their research will allow the managers to understand how to prioritize implementing the different pro-environmental activities in their corporate strategies, the implementation of environmental innovation and the efficiency in natural-resource use will allow industrial firms to have a higher brand value.

The study was carried out taking into account just American companies since the sample was companies based on the United States; what might be a future limitation in the study when companies from different countries try to generalize the results and probably the results will have variations because of the differences in the environmental constraints, laws and regulations related with environmentalism. Therefore, the authors recommend the future studies include a

more heterogeneous sample. Thus, the upcoming analysis should consider companies from multiple countries. In addition, the authors also mentioned that the sample was composed of big companies, meaning that the results may not be the same for smaller companies.

Lastly, the researchers studied the direct and short-term effect of corporate environmentalism activities on industrial firm's brand value. Nonetheless, it is important to mention that the brand value may be impacted positively or negatively by other internal and external factors; thus, authors recommend that future studies include more contingency variables related to the specific firms and industries to study the link among the sample variables.

5.2 Recommendations

Nowadays, the market is becoming greener and demanding more eco-friendly products and services. As a result, managers from industrial firms have seen the need to implement pro-environmental activities related to corporate environmentalism to improve brand value.

Therefore, in implementing sustainability practices, industrial companies should consider the areas of corporate environmentalism examined by Rahman et Al., (2021). These are product stewardship, pollution prevention, and sustainable development since each one leads industrial firms to achieve a competitive advantage.

In addition, managers of industrial firms should adopt and implement pro-environmental activities in their production and operational strategies to fulfil the requirements of corporate

environmentalism and achieve a competitive advantage. Hence, they should focus on the three pro-environmental variables that will positively impact the corporate brand value. In the first case, it is recommendable to adopt environmental innovation activities, which refers to the capability to innovate the products and services of the industrial companies that reduce the negative effects on the environment. The recommendation for managers is to adopt practices that allow re-using the waste for new products, implement industrial packaging systems, develop products that are easy to re-use and design, etc.

In the second case, managers should reduce their contaminating emissions and effluents. Thus, they should improve their ability to reduce the negative impact of their production activities on the natural environment by reducing their emissions and effluents. They can adopt different pollution prevention programs and policies to have better levels of total CO₂ emissions and reduce toxic waste.

In the third case, managers should consider reevaluating their use of resources, reducing their use and dependency on natural resources. For instance, they can invest in different initiatives such as water conservation, environmental management and employee training, etc.

To sum up, managers can consider three variables into their strategies that will enhance their corporate brand value; these are environmental innovation, emission reduction and resource use. It is important to mention that two variables will have a higher impact on the corporate brand value. Thus, managers should pay special attention to environmental innovation and resource use since Rahman et Al., (2021) demonstrated that both variables positively affect an industrial firm's brand value. On the other hand, regarding the variable emission reduction, its impact is lower compared to the others two.

6. Limitations and Future Directions

6.1 Limitations

The founded limitations to carry out the research were the lack of empirical and theoretical studies or information related to how corporate environmentalism activities can impact the brand value of the firms. Considering that the existing literature is mostly focused on the way the stakeholders value corporate environmentalism, there are no studies that refer to how those activities impact the brand value; for instance, it was necessary to provide more insights about it.

In addition, previous studies refer to Corporate Social Responsibility (CSR) activities. Still, there's no research about corporate environmentalism activities in industrial firms and given that every time more companies are interested in implementing environmental strategies in their production processes, it is important to understand the effect that those practices may have on an industrial firm's brand value since some previous studies refer to the B2C market this study focused on the study of the B2B market.

Furthermore, it has always been considered the internal resources that companies have to achieve competitive advantages. Still, the external resources that industrial firms can implement or transform to enhance brand value haven't been mentioned. Therefore, it has not considered the external view opportunities that the natural environment might provide to the industrial firms.

It is important to consider the current study's limitations since the sample was based on American companies; generalizing the results to companies from different countries may be a restriction. Thus, if they are interested in implementing the study's findings, broader research should be done. In addition, the sample included just big industrial companies, which can be a limitation when generalizing the results to smaller.

6.2 Future Directions

For future studies, it is important to consider the limitations of the current research since it is not recommendable to generalize the results to small companies from different countries to the United States because the sample of the current study is based on American big industrial companies. Hence, the interested ones should consider a bigger sample regarding the geographical location and the firm size. Furthermore, due to the importance of the topic in creating the industrial firm's brand value, it is important to keep digging into the subject. Over time the market is giving more importance to sustainable marketing and becoming more aware of corporate environmentalism practices. Therefore, managers interested in improving their companies brand value should know how to implement the corporate environmentalism practices in their production and strategical processes.

It is important to mention that more and more big companies are committing to adopt these sustainable practices, for example, Zara announced that it will work to have fabrics 100%

sustainable by 2025, which means that industrial companies are committing to adopt sustainable practices to satisfy the market needs with the goal of improving their brand value.

It is expected to see an important change in the short term since green consumerism is becoming an important initiative. In fact, according to a survey carried out by GWI Core in 2021, people are more optimistic about the environment in the short term. Even after the pandemic, the environmental optimism increased from the surveyed people. The 44% consider that the market will get better in the upcoming six months. Moreover, that implicates that the awareness of environmental initiatives is increasing. The fact that people are willing to pay an extra cost for buying eco-environmental products and services is proof of that.

According to an online survey carried out by GWI Zeitgeist (2021), the market's preferences are based on environmental products and services. Therefore, the market demands less contaminated packaging, eco-innovative products, sustainable policies and programs; the survey results are in the following figure.

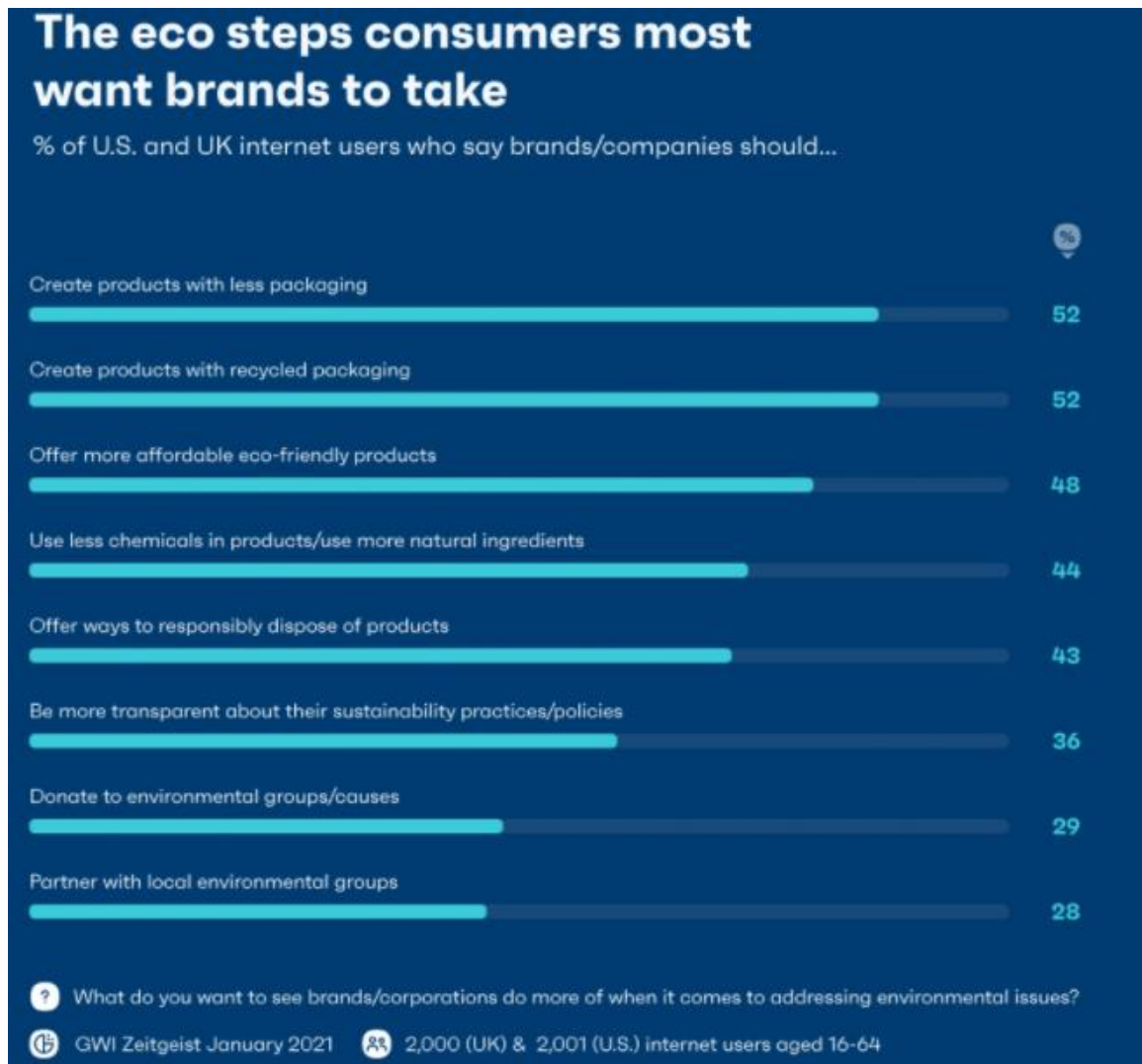


Figure 9. What do you want to see brands/corporations do more of when addressing environmental issues? Source: GWI Zeitgeist.

According to the results, customers' main sustainable requirements are products with less packaging and recycled ones and affordable eco-environmental products. In the other case, according to the survey, the least important sustainable initiatives are donating to environmental groups and partnering with environmental groups, where just 28% of the surveyed chose this strategy.

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