

# Green Marketing and Its Incidence in the Decisions of Purchase of Peruvian University Students

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## Abstract

There is a current problem that companies have when they do not know if their position declared through green marketing is effective or not, since there are no studies that prove its real impact on the young population, specifically on university students in Lima, so the research question is: how green marketing affects the purchasing decisions of university students in Lima, 2019? Before that, it is proposed as a hypothesis: green marketing positively affects the purchasing decisions of university students in Lima, 2019. The study is of an applied and explanatory type, with a non-experimental cross-sectional design. We obtained data from a sample of 622 university students from Lima, Peru, which when treated through the Pearson Chi-Square test allows us to validate the hypotheses raised.

## Keywords

Green Marketing, Purchasing Decisions, Consumer, University Students, Lima

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## 1. Introduction

We live in a time of constant changes, new tools and techniques accelerate the development of the industry day after day, the technological advances are more and more frequent and with it not only the human being, but also his environ-

ment undergoes changes. It is inevitable to come to the conclusion that the planet is degraded day after day, and that it will eventually become uninhabitable.

Many initiatives related to the care of the environment can be easily identified, whether at the local, regional, national or international level; a large part of them are aimed at raising people's awareness of environmental conservation, forming ecological awareness.

When talking about environmental pollution, the first thing that happens in our minds is the damage caused by industries, which exist precisely because of the demand that their products have for consumers, which motivates them to continue with their practices.

The environmental education has contributed to generate conscience in the population, who little by little have taken actions with respect to the protection of the environment, as for example that of preferring to acquire products that were elaborated and commercialized generating the minimum impact in the environment.

Some companies, on the other hand, aware of their environment and of this market niche, have sought to adopt environmentally friendly policies, which are communicated to this target market (green marketing).

Green marketing began to be called in the 1980s to the commercialization actions of eco-friendly products, which through diverse modifications to the offered product, internal productive process, packaging, packaging and distribution, demonstrate through responsibility, conscience and ecological sensibility their commitment with the environment, waiting for the preference of the consumer [1].

The green movement appeared precisely as a way of reacting to the negative impact that human activities have on the environment [2] [3] [4].

Today, green marketing went from being a simple activity applied by some companies to be a megatrend, which was born from the sensitivity that human beings have to their environment and the ways in which governments, companies and people are involved simultaneously.

Green marketing generates and facilitates any exchange of products while meeting human needs through care and environmental protection [5].

The vision of green marketing is not to provide products to carefree insatiable consumers, but rather to meet the needs of environmentally conscious people concerned about current world conditions.

Green marketing has two main objectives [6]:

- 1) To offer products according to the customer's needs, in terms of quality, functionality, quality, performance and price while being environmentally friendly.

- 2) To project a perception of high quality in front of the competition, communicating their environmental sensitivity with respect to the attributes of the product, which gives them a competitive advantage.

Faced with this, green marketing encourages consumers to purchase products made and marketed by companies committed to the environment and therefore

socially responsible [7] [8] [9] [10].

If we compare the proposals framed in the application of green marketing in our country, we can notice that not all companies promote it, therefore, Peru could be considered as a relatively incipient market even, however, the increase in environmental awareness in some people has led to demand for environmentally friendly products, even the trend indicates that every day there are more followers of this kind of goods and services.

Today in Peru, business consortiums are beginning to be targeted not only by institutions and organizations related to environmental care, but are also being monitored by their own consumers, who every day demand “green” goods and services, produced and distributed in environmentally friendly circumstances.

As for the decision making during the purchase, diverse authors emphasize that it is related the preference and selection of some brand, the quantity to buy and the frequency of carrying out this action, diverse authors associate it to internal factors of each person, that influence in their habits of purchase [11] [12]. These factors could be related to their culture and values [13] [14], their demographic characteristics [13], perceptual patterns [15] [16], among others.

Purchasing decisions motivated by cultural aspects and personal values are made on the basis of accumulated feelings and people’s prioritization of the various products, their possessions and their own environment [17] [18]. Values can play a predominant role in consumers’ purchasing decisions, since people tend to choose from the diversity of products offered those that are compatible with their personal values, and therefore consistent with their culture [19].

As background to this study, we can mention a previous one in which the authors who detailed in a scientific article the strategies related to green marketing used by companies worldwide, in relation to product, price, place and promotion, showing what was the result for the companies Coop Sweden, Naturaline, Ricoh, Ericsson and Carpak [20]. In turn, other authors, also details in a scientific article how the growing concern for the environment has motivated companies to develop policies that result in a reduction of their environmental impact [21]. On the other hand, it has also been detailed in another previous study, in an exploratory manner, the preferences of green consumers in a Colombian town (Aburrá Valley) [22]. In the Peruvian context, we can identify as antecedent a study carried out in the department of Puno [23], which details how the conscience of ecological type affects in the consumption of some of the products of the region Puno.

It is considered a problematic reality the fact that although companies usually demonstrate their environmentalist positions through green marketing, there are no studies that prove its real effect on the young population, specifically university students in Lima, therefore, do not know if these practices really affect the purchase decisions of this market. In view of this, the following research problem was raised:

How does green marketing influence the purchasing decisions of university students in Lima, 2019?

In addition, it was pertinent to formulate the following specific problems:

- 1) In what way does green marketing influence the decisions related to the brand to be bought by university students in Lima, 2019?
- 2) In what way does green marketing influence the decisions related to the quantity to be bought by university students in Lima, 2019?
- 3) In what way does green marketing influence decisions related to the frequency of purchase by university students in Lima, 2019?

In order to do so, the following general hypothesis was put forward:

H<sub>1</sub>: Green marketing has a positive impact on the purchasing decisions of university students in Lima, 2019.

In addition, it was pertinent to formulate the following specific hypotheses:

H<sub>2</sub>: Green marketing influences the decisions related to the brand to be bought by university students in Lima, 2019.

H<sub>3</sub>: Green marketing affects decisions related to the amount to be purchased by university students in Lima, 2019.

H<sub>4</sub>: Green marketing affects decisions related to the frequency of purchase by university students in Lima, 2019.

As for the objectives of this research, it is convenient to specify that they were considered general and specific. The general objective was:

To determine how green marketing affects the purchasing decisions of university students in Lima, 2019.

The specific objectives were:

- 1) Determine how green marketing affects the decisions related to the brand to be purchased by university students in Lima, 2019.
- 2) Determine how green marketing affects decisions related to the amount to be purchased by university students in Lima, 2019.
- 3) Determine how green marketing affects decisions related to the frequency of purchase by university students in Lima, 2019.

As for the justification of the research, it proved to be justifiable in a theoretical, practical and methodological manner. Its theoretical justification is based on the fact that its purpose was to contribute to the existing knowledge related to green marketing, of which there is very little information on the incidence of its application in Latin American countries; it is expected that the fruits of this study may later be concretized in a proposal, which may then be incorporated as knowledge to the administrative sciences if the hypothesis is verified. It has practical justification because the development of the investigation helped to solve a problematic reality and through the findings strategies will be proposed that when applied will contribute to solve similar problems in other environments. Finally, a methodological justification is presented because the validated and applied instruments can be used by other researchers to continue with the development of scientific knowledge.

An important point to highlight of the project is that, because the impact of green marketing is analyzed, it is aligned with the following sustainable devel-

opment objectives proposed by the UN:

- 1) Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.
- 2) Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.
- 3) Ensuring sustainable consumption and production patterns.
- 4) Strengthen means of implementation and revitalize the global partnership for sustainable development.

## **2. Method**

### **2.1. Type of Study and Research Design**

The characteristic of research is that it is of an applied type. This type of research is based on pre-established theories [24], in this case related to green marketing, to identify all aspects related to the variables being studied, mainly those related to the impact on the purchasing decisions of university students. In addition, this research is explanatory in nature, since at the end of it will allow us to know the impact of green marketing in the purchasing decisions of university students in Lima in 2019. The research is explanatory, these types of research are oriented to the discovery of several essential laws that can account for—or explain, why there are such or such characteristics and why certain properties could be associated with each other, that is to say, it will guide us to know the incident factors and the relationship that exists between the variables [25]. In terms of design, this is of a non-experimental type, since researchers will observe what occurs naturally, without any intervention whatsoever [26]; it is also necessary to specify that it is transversal, because diverse data are collected at a single moment, at a single moment and their central purpose is to describe the variables for the subsequent analysis of their behavior at a given moment [27].

### **2.2. Population, Sample and Sampling**

The population is the set of all cases that agree with certain specifications [28], before it is convenient to indicate that the population of this study was all university students in Lima, enrolled in 2019. The researcher did not have updated statistical information of people who meet these characteristics, and estimates that were about 100,000 individuals, so the researcher used non-probability sampling which is not based on mere probability, but depends on the decision-making process of a member of the research or rather a group of researchers [28], being simple random. As for the sample, it was made up of 622 individuals who met the characteristics of the study population.

Because non-probability sampling was used, the subjects to whom the instrument was applied were selected given the convenient accessibility and proximity of the subjects to the survey staff. However, samples were collected from the north, south, east, west and center of Lima so that the results obtained could be generalized.

### 2.3. Data Collection Techniques and Instruments

The technique to apply was survey and the instrument was the questionnaire. This questionnaire was related to specific aspects of the research containing questions related to green marketing and purchasing decisions. The answer alternatives will be distributed on a Likert scale, with 5 levels.

The instrument was subjected to expert judgement in order to evaluate its validity, which was positive.

As for reliability, Guttman Split-Half Coefficient was applied (see **Table 1**), which offers a general reliability coefficient, and two specific ones (one for each half). Testing Guttman Split-Half Coefficient results in 0.832, which is highly reliable evidence.

The researchers worked together with two (02) people hired for data collection, who collected information from outside various universities located in Lima.

### 3. Results

Pearson Chi-Square test was used in order to validate the hypotheses put forward above, the program used for data processing was SPSS 26.

As for  $H_1$ : Green marketing has a positive impact on the purchasing decisions of university students in Lima, 2019; the results are displayed in **Table 2**.

The value of the test statistic is 381.157. The degree of freedom is 120; since the p-value (0.004) is less than our chosen significance level  $\alpha = 0.05$ , we can conclude that there is an association between green marketing and purchasing decisions of university students.

As for  $H_2$ : Green marketing influences the decisions related to the brand to be bought by university students in Lima, 2019; the results are displayed in **Table 3**.

The value of the test statistic is 273.107. The degree of freedom is 90; since the p-value (0.001) is less than our chosen significance level  $\alpha = 0.05$ , we can conclude that there is an association between green marketing and the decisions related to the brand to be bought by university students.

As for  $H_3$ : Green marketing affects decisions related to the amount to be purchased by university students in Lima, 2019; the results are displayed in **Table 4**.

The value of the test statistic is 213.107. The degree of freedom is 90; since the p-value (0.004) is less than our chosen significance level  $\alpha = 0.05$ , we can conclude that there is an association between green marketing and decision related to the amount to be purchased by university students.

As for  $H_4$ : Green marketing affects decisions related to the frequency of purchase by university students in Lima, 2019; the results are displayed in **Table 5**.

The value of the test statistic is 203.107. The degree of freedom is 120; since the p-value (0.020) is less than our chosen significance level  $\alpha = 0.05$ , we can conclude that there is an association between green marketing and decisions related to the frequency of purchase by university students.

**Table 1.** Guttman split-half coefficient.

Cronbach's Alpha	Part 1	Value	0.822
		N of items	08 <sup>a</sup>
	Part 2	Value	0.831
		N of items	07 <sup>b</sup>
Total N of items			15
Correlation Between Forms			0.819
Spearman-Brown Coefficient	Longitud igual		0.832
	Longitud desigual		0.833
Guttman Split-Half Coefficient			0.842

**Table 2.** Pearson Chi-Square test for H<sub>1</sub>: Green marketing has a positive impact on the purchasing decisions of university students in Lima, 2019.

	Value	df	Asymp. Sig (2-sided)
Pearson Chi-Square	381.157	120	0.004
Likelihood Ratio	339.160	120	0.060
Linear-by-Linear	75.545	1	0.000
N of Valid Cases	622		

**Table 3.** Pearson Chi-Square test for H<sub>2</sub>: Green marketing influences the decisions related to the brand to be bought by university students in Lima, 2019.

	Value	d	Asymp. Sig (2-sided)
Pearson Chi-Square	273.107	90	0.001
Likelihood Ratio	337.460	90	0.015
Linear-by-Linear	185.344	1	0.017
N of Valid Cases	622		

**Table 4.** Pearson Chi-Square test for H<sub>3</sub>: Green marketing affects decisions related to the amount to be purchased by university students in Lima, 2019.

	Value	d	Asymp. Sig (2-sided)
Pearson Chi-Square	213.107	90	0.004
Likelihood Ratio	217.460	90	0.035
Linear-by-Linear	36.344	1	0.002
N of Valid Cases	622		

**Table 5.** Pearson Chi-Square test for H<sub>4</sub>: Green marketing affects decisions related to the frequency of purchase by university students in Lima, 2019.

	Value	d	Asymp. Sig (2-sided)
Pearson Chi-Square	203.107	120	0.020
Likelihood Ratio	127.460	90	0.005
Linear-by-Linear	6.344	1	0.002
N of Valid Cases	622		

## 4. Conclusions

Through the statistical analysis of the data collected from 622 people, the hypotheses raised by the authors were validated.

It could be said that green marketing has a positive impact on the purchase decisions of university students in Lima, year 2019, in its “brand”, “amount” and “frequency” dimensions. Given these results, companies are suggested to develop marketing plans that consign the application of strategies that focus on environmentally friendly objectives.

## Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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