



## Paper 8

The Influence Of Environmental Awareness In Consumer Towards Purchase Intention For Eco-Friendly Detergent Products Of DET-URGENT

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*Abstract* - Environment is an aspect of life that is largely inseparable from how human beings cultivate and nurture their lives. However, recent events have perpetuated the damage taken by the environment around the world. One of which is Indonesia, where it is projected that the effect of damage suffered by its environment could increase the probability of natural disasters of every possible kind. Simultaneously, there is also a shift in lifestyle in how the people live their livelihood. There is a surge of green products and lifestyle trends in the world, Indonesia included. Several researchers have found the connection between the awareness of how susceptible the environment is to harm and the purchase intention of green products. Det-Urgent is a company that focuses on environmentally friendly products, more specifically detergents. The company utilizes the local resources of Belimbing Wuluh as well as Lerak fruits, where they mostly rely on local farmers as the main supplier for raw materials needs. For this reason, extensive market research is absolutely necessary, because currently limited studies that specifically divulge deeply about environmentally friendly detergents are quite limited. Det-Urgent has integrated environmental awareness in their marketing strategies and with this research would like to understand better if there is a profound relationship between environmental awareness and purchase intention towards eco-friendly friendly detergents. This research will delve deeply into the relationship between environmental awareness and purchase intention towards eco-friendly friendly detergent. The method that will be utilized is a quantitative method with survey as its main data collection instrument. Furthermore, the data that have been collected would then be analyzed using the multiple regression method. Regression method would then be used to deeply study the relationship between environmental awareness and purchase intention in potential customers. The variables that would be considered are as follows, purchase intention as the dependent variable whereas for the independent variables there would be environmental awareness, subjective norm, perceived behavior and finally attitude towards the product. This is because the basis of this research is the theory of planned behavior by Icek Ajzen. The minimum required of respondents for this research is a total of 105 people, where anything below that number is considered to be insufficient and unfit for data processing. Based on the survey, there are a total of 142 respondents that fulfilled the criteria that is needed for this research. The criteria that are applied

for this research is the respondents must have a prior experience of cleaning products or detergents and they must reside within Bandung, Surabaya and Gresik. From the data that had been collected and subsequently analyzed, it is determined that environmental awareness on its own does not affect purchase intention towards eco-friendly friendly detergents. Said variable must run through an attitude towards a product first, meaning its influence is an indirect one. It can be concluded that should Det-Urgent wanted to utilize environmental awareness in their marketing strategy, they need to make sure positive attitude towards the products is shaped so that it can subsequently increase the chances of purchasing intention from potential customers.

*Keywords* - Business;EnvironmentalAwareness;Purchase Intention

## I. INTRODUCTION

The advancement of how human beings proceed with their living does not only convey positive impacts towards their livelihood but is also accompanied by overall deterioration of the environment itself (Debajit Dahal & Amrit Pal Singh, 2020). This is due to most rapid development of growth in human development necessitates the use of natural resources, which therefore could lead to unwanted repercussions ( Y.-S. Chen, Huang, Wang, & Chen, 2020; B. Kumar, Manrai, & Manrai, 2017; Haiyan Li 2020). Series of damages that range from serious pollution, harm to the ozone layer and greenhouse gasses plagued the earth and is affecting most industrialized nations on earth (Debajit Dahal & Amrit Pal Singh, 2020). This continued harm to the environment that is the pillar that supports billions of people's well being could cause significant degradation in their quality of life (Corey J. A. Bradshaw, Xingli Giam & Navjot S. Sodhi, 2010).

In Indonesia for instance, hazards to the environment are projected to affect various sectors. One of the most extreme examples is Indonesia, which is already more susceptible to drought and forest fires, and would be expected to experience a higher intensity of those two calamities as the after effect of prolonged environmental damage. On the other hand, the estimated risk of coastal flooding could escalate into 19–37% by 2030, and as the majority of its people live in low elevation coastal areas, this could detrimentally affect a lot of people. Climate modeling also explained that water scarcity is a problem

that would be exacerbated in the future, as even in 2010, it is reported that 14% of Indonesia's 453 districts had no surplus water, and this would worsen into 20% by 2030 and 31% in 2050. These are only a fraction of what extended environmental damage could cause to the livelihood of humanity (World Bank Group & Asian Development Bank, 2021).

This has led to the birth of a way that could minimize environmental harm by shifting one's own lifestyle into a more sustainable way. A person could lessen the damage to the environment through their purchasing decision (Xiaoyun Zhang & Feng Dong, 2020). The aforementioned development of such behavior has caused a significant demand on products that create less damage to the environment (Soyez, 2012; Thøgersen, de Barcellos, Perin, & Zhou, 2015; Haiyan Li, 2020). In other words, products that encompass characteristics such as non-damaging to the environment, in both its creation and usability, are commonly known as "Green Products" (Tan Booi Chen & Lau Teck Chai, 2010).

The trends of green products have been wide-spread on different types of sectors, such as food, electronics, cosmetics and other products that support the daily lives of a human being (Qi Zhang, Qihong Zhao, Xuan Zhao & Ling Tang, 2020). For example, in a survey conducted by WWF Indonesia and Nielsen Company, apparently at least 63% of Indonesians would be willing to pay for products that are safe to the environment (WWF Indonesia, 2017). In addition to that, based on a research overseen by HakuHodo Institute of Life and Living Asean (HILL Asean), 86% of Indonesians are already practicing a more environmentally conscious lifestyle, with around of 74% of citizen in Indonesia have a better inclination towards brands that are more environmentally responsible (Yasmin, 2020).

To be more specific, this phenomenon showcased by consumers is a form of purchase intention. This becomes extremely important because the intention of a consumer itself could be used to predict specific manners of actions they would undertake regarding a product or service. In addition to that, motivational factors are also important in what course of action a person would take in regards to their purchasing intention (Ajzen, 1991; Morwitz, 2012; Nathalie Pe-na-García, 2020). From this notion, there might be a link between environmental awareness towards the surge of environmentally responsible lifestyle in Indonesia.

Environmental issues as a whole alongside its effect, has become a main force of individuals and organizations to seek mitigation plans to protect and improve the environment (Ishaswini, 2011). There have been reports that showcase heightened public interest in sustainability and environmental issues in general, in which the majority

of people currently are conscious of making choices that would ensure the stability of the environment (IPCC, 2014; UNEP, 2015; The Ninh Nguyen, Antonio Lobo, & Steven Greenland, 2016).

The ability to understand how susceptible our environment is to harm caused by human activities and therefore proceeding to take part in environmental related activities in order to protect it is called "Environmental Awareness" (Xinsheng Liu, 2014; Marie Louise Umuhire & Qinhua Fang, 2015; Meng-Meng Geng & Ling-Yun He, 2021; Mohd Khairul Amri Kamarudin, Muhammad Hafiz Md Saad & Noorjima Abd Wahab, 2018). In Indonesia, for example, where its government has decreed a roadmap for future stability and growth of the environment which incorporates all policies, planning, and investments necessary to encourage the protection of the country's own environment. The existence of this roadmap called, "Delivering Green Growth for a Prosperous Indonesia" in which it is brimmed with endeavors of creating a better environment of Indonesia is a proof that, the country and its people are aware of how human actions is pivotal and feels the need to take some initiatives (Government of Indonesia, 2015). A research conducted by Statista Research Department in 2019 also shows around 82% of Indonesians stated that they felt the environment is a crucial part of their lives, a majority of them are already alert in terms of how important the environment is (Statista, 2021). One of the real-life manifestations of this awareness is an effort to shift one's own lifestyle into something that would be more advantageous to the environment. In the roadmap mentioned above, there is one program named "The Sustainable Consumption and Production Program"; it is spearheaded by the Ministry of Forestry and Environment as well as Bappenas themselves. The aim of this program is to embed and integrate green products usage as much as possible in Indonesia, where they are also prepared to increase the understanding of green products, in the hope of encouraging behavioral change of Indonesians (Government of Indonesia, 2015).

This change of lifestyle preference all the world, and that includes in Indonesia, is not without reason, as it is mentioned in the previous studies that it is expected when one's own awareness towards environmental issues increases, so does the desire for environmentally friendly products (De Moura et al., 2012; Justin Paul, 2015). There have been several researchers that investigate this particular topic, where the relationship between environmental awareness and purchase intention is being studied in great detail (Okada & Tamaki, 2019; Haiyan Li, 2020; Widodo & Yusiana, 2020; Lestari E, Septifani R & Nisak K, 2021) however, none of those previous studies had emphasized specifically on the purchase intention that relates to eco-friendly detergent with Belimbing Wuluh as a base in Indonesia.

In other words, the research only makes general statements about green items; not a single product was singled out. In addition, a study conducted in Japan examined the impact of awareness on consumers' intentions to purchase electric automobiles (Okada & Tamaki, 2019). Furthermore, in other Asian countries such as India, a similar study was conducted, however the scope of this study is too broad, because it does not specify what kind of green products are being analyzed (Kumar, 2012). One of the studies conducted in Indonesia itself examines how customers behave towards green products there. Despite this, the study simply examines green products as a whole without mentioning the individual products that are under investigation (Eles & Sihombing, 2017). This study intends to explore in considerable detail how environmental awareness and buying intention connect to the use of environmentally friendly detergents. The results of this research would also be employed further for Det-Urgent to enhance their company strategy.

## II. METHODOLOGY

This particular research would first begin by analyzing and interpreting problems Det-Urgent has as a company, where the most integral as well as important predicament would be addressed by the researcher. After that, literature review is going to be commenced in order to find comprehensible theories that are aligned with the main topic of this research.

The researcher would then subsequently form a conceptual framework as well as hypothetical structure that could yield answers to the proposed research questions. Then, a questionnaire that is suitable for the research questions would be disseminated so that it could collect data from appropriate samples that have been previously determined. Data that have been collected would then be analyzed in order to gain insights about the research questions and to prove the hypothetical questions of the researcher. Finally conclusion would be with the result from data analysis as a base where then recommendations to the Det-Urgent business and further research could be proposed.

### 4.2 Research Methodology

In this particular research the main approach that will be used is deductive approach which is concerned with developing hypotheses based on existing theory and the research design was developed to test the hypothesis. Furthermore, a quantitative approach is implemented due to the nature of this particular research that relies heavily on numerical data obtained from a survey (Ahmad & Wasim, 2019).

A cross sectional survey is adopted as a research strategy to answer and find evidence to test the hypothesis. The study only used one method which is survey or questionnaire as a method and will be explained in detail in the following subchapter. A survey is utilized due to its ability to compile a large data set that includes characteristics as well as opinions from a relatively large group of people (Pinsonneault & Kraemer, 1993; Priscilla A. Glasow, 2005). On the other hand, the versatility of a survey is a huge factor when it comes to the current pandemic situation, even if overall the intensity of COVID-19 has dwindled down, acquiring data through survey is considered to be the better option. The data gathered from the survey will revolve around respondents' degree of environmental awareness and how it would affect their purchase intention towards Det-Urgent's product.

### 4.3 Data Collection

In the case of this particular study the primary data that will be collected would originate from questionnaire results. The reason behind this is that questionnaires are quite effective when researchers plan to gather data from different areas with little difficulties. On top of that, data obtained from it would provide little bias as well as unwanted answers. Questionnaire would then yield clear and coherent quantitative data that is of great importance to the research (S. Roopa & MS. Rani, 2012). Primary data is data that has been retrieved by a researcher of a study by first hand methods. Moreover, primary data is highly integral to this research, as the information obtained would be authentic and with little to no tampering from previous study (Kabir, 2016).

The questionnaire that would be disseminated to the respondents would be thoroughly planned and structured, in order to achieve reliable as well as insightful data. In addition to that, to make the data more accurate, the researcher of this study would implement Likert scale for the questionnaire. This is due to the fact that Likert scale is commonly used to measure attitudes that are embedded in respondents, where they could express their agreement or disagreement in a metric scale (Ankur Joshi & Dinesh Kumar Pal, 2015). In the questionnaire measurement, a five-point Likert scale would be used, as an odd number scale is proven to be better and reliable. Furthermore, a five-point Likert scale is able to ease the respondents into participating in the survey and therefore increasing response rate (James T. Croasmun & Lee Ostrom, 2011).

#### 4.3.1 Population

In this research, the population is the main target of interest that would be studied and is already determined since the beginning (Umair Majid, 2018). To be more specific,

all individuals, both females as well as males who have bought detergent or cleaning products and are currently residing in Gresik, Surabaya and Bandung. The underlying reason behind this decision is that those areas are where Det-Urgent primarily markets their products. In addition to that, the respondents must have at least an experience in terms of using cleaning products, more specifically detergents. In terms of respondents, this research would require a minimum of 105 respondents in order to obtain reliable data to analyze, based on Hair and Black (1992)

#### 4.3.2 Sampling Techniques

Sampling is the means and process of determining the representative of the population, more specifically named sample. In other words, sampling is used to select which sample would be analyzed and studied in a research. A non-probability sampling method will be applied in this research. The reasoning behind this is that that particular method could be utilized to generate novel insights as well as to study existing theories or even emerge brand new theories into existence (Showkat & Parveen, 2017).

There are several types regarding non-probability sampling methods, however in this research, the one that would be embedded is convenience sampling. This is due to the degree of liberty convenience sampling could provide to this specific research. It is also highly favorable in which little budget and mobility is required to do convenience sampling, where the researcher is given the freedom to use acquaintances as part of the sampling (Taheerdoost, 2016).

#### 4.4 Data Quality Assessment

The researcher would use a pilot test in this study in order to identify whether the instrument of research in the form of a questionnaire is already suitable or not. Pilot test is commonly used to determine design flaws existing in the research instrument. In addition to that conducting a pilot test would also reveal what might encumber the participants before delving further into the study. By using this method, researchers are able to improve or omit design flaws that might hamper the continuity of the study (Fraser, Fahlman & Guillot, 2018).

##### 4.4.1 Validity Test

Validity testing is utilized to elaborate how well the data obtained can cover the topic of interest or area of investigation. Variables are considered to be valid if their Standardized Loading factors have a score of  $\geq 0.05$  or if they have a R-Value that is greater than the R-Table.

##### 4.4.2 Reliability Test

Reliability testing is related to how consistent the measuring instruments are. It is commonly tested by using the Cronbach-alpha coefficient. Reliability that variables have must be equal or above 0.6 to be considered valid.

#### 4.5 Data Analysis Method

Regression analysis is a statistical method of analyzing the relationship between existing variables, both dependent and independent. In this research, there is only one dependent variable whereas there are several independent variables, meaning that the most suitable regression method is the multilinear regression. The equation from this statistical method would then represent the linear relationship between the dependent variable and independent variables (Uyanik & Guler, 2013). The data gathered in this research will be analyzed through this particular statistical method, and provide insights to whether environmental awareness does have a positive relationship in customers' purchase intention.

##### 4.5.1 Classical Assumption Test

Before proceeding with the multiple linear regression, there must be a classical assumption test that should be done, in order to ensure that the model is free from any slight deviations that might tamper with the data. The classical assumption test would consist of multicollinearity test, heteroscedasticity test, autocorrelation test, normality test, and linearity test.

###### 1. Multicollinearity test

This test is utilized to determine whether there is a high correlation between independent variables. Should there be a correlation between those variables would then result in a disruption for the connection to the dependent variable.

###### 2. Heteroscedasticity test

Heteroscedasticity means that there is a residual variance that is not constant. A good regression model occurs when there is not any heteroscedasticity present, meaning that a good model should be homoscedastic. This can be detected when scatterplots of standardized residual regression of the distributed standardized predicted values have no distinguished pattern. On top of that homoscedasticity could also be recognized if residual significant values is  $> 0.05$

###### 3. Normality Test

Normality test is implemented in order to determine if a data is normally distributed. A normal distribution, showcased by a bell shaped curve, means that it fully represents the population. A normally distributed data

would have a significant value of  $> 0.05$  in the Kolmogorov-Smirnov.

#### 4. Autocorrelation Test

This test is used to oversee if there are any linear relations in the errors of a time-series observations. Autocorrelations must be done should a time-series data is present, and the test is assessed through the Durbin-Watson method.

#### 5. Linearity Test

This test should be utilized in order to determine whether there is a linear relationship between the dependent and independent variables. Linearity tests could be observed by looking at the Sig. Deviation, if the value is  $< 0.05$  then, the variables have a linear relationship, whereas if the value of Sig. Deviation from linearity is  $> 0.05$ , then the linearity is significant.

#### 4.5.2 Multiple Linear Regression

The multiple linear regression that would be utilized for this particular research could be formulated as follows

$$Y_i = (\beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \dots + \beta_n X_{in}) + \epsilon_i$$

<b>Y</b>	<b>: Dependent Variable</b>
<b><math>\beta_0</math></b>	<b>: Constant</b>
<b><math>\beta_n</math></b>	<b>: Regression Coefficient</b>
<b><math>X_n</math></b>	<b>: Independent Variable</b>
<b><math>\epsilon</math></b>	<b>: Error</b>

After conducting thorough regression analysis, the final result could then be represented using SPSS, more specifically by for the model fit evaluation, R<sup>2</sup> or coefficient and determination would be utilized through the summary table. As for the F-ratio assessment, ANOVA table could be employed for that specific task. In addition to that, for the multiple regression formulation evaluation, coefficient table is the suitable fit to do that for the variables that have been tested.

### III. RESULTS

#### A. Expected Result

There have been several researchers that investigate this particular topic, where the relationship between environmental awareness and purchase intention is being studied in great detail (Okada & Tamaki, 2019; Haiyan Li, 2020; Widodo & Yusiana, 2020; Lestari E, Septifani R & Nisak K, 2021) however, none of those previous studies

had emphasized specifically on the purchase intention that relates to eco-friendly detergent with Belimbing Wuluh as a base in Indonesia.

In this research it is expected that there would be a positive relationship between the intention of purchase for eco-friendly laundry detergent and environmental awareness.

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