# FACTORS AFFECTING SKEPTICISM TOWARD GREEN ADVERTISING: A STUDY OF UNIVERSITY STUDENTS IN JAKARTA

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#### **ABSTRACT**

The number of green advertising has been increasing recently due to the concern toward the environment. This research aims to examine if there is correlation between environmental concern, conservation behavior, and buying behavior toward skepticism against green advertising claims. Survey was used to collect data from 150 respondents through paper questionnaire. Cronbach's Alpha and Confirmatory Factorial Analysis are utilized to determine reliability and validity of the constructs. Multiple Linear Regressions are the hypothesis testing chosen for this study. Independent T-Test is performed to differentiate consumers' skepticism level toward green advertising claims in relation to the gender group. Cross-tabulation analysis is also performed in order to find out if there is correlation between age and expense toward skepticism level. The result concluded that Environmental Concern was positively affecting the skepticism level of a consumer toward green advertising claims. The finding also shows that environmental behavior of a consumer does not have significant relation to the level of skepticism toward green advertising claims. Environmental Concern of a consumer produce most significant influence toward skepticism level against green advertising claims. However, environmental behavior of consumers

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does not affect consumers being skeptical toward green advertising claims.

*Keywords:* buying behavior, conservation behavior, environmental concern, green advertising, skepticism.

#### INTRODUCTION

Environment has been an issue in several countries. An increase in gas emission such as CO2 (Carbon Dioxide) in several countries including Indonesia has been one reason that cause disasters such as extreme changes in temperature and climate changes occurred.

In 2012, a report from European Commission Joint Research showed a trend of n increase of gas emission that may support an existence of such extreme changes including climate change. China and India suffered an increase of gas emission (CO2) emitted for 9% and 6% respectively. In 2011, the gas emission (CO2) emitted in Indonesia also increased for 210% compared to the situation in 1990.

Intergovernmental Panel on Climate Change (IPCC) (2013) showed an existence of changes in the temperature globally of 0.89 Celsius since 1901. The report also mentioned an issue of increased temperature in Southeast Asia that could range from 0.4 up to 1 Celsius. With the report assuming and performing a constant occurrence of such events, several countries are vulnerable to other threats such as increased sea level as a result of changes in rainfall pattern (WWF, 2013).

As a response to this problem, a considerable amount of companies have been showing effort to suppress various disasters such as unusual climate changes, increasing water volume, excessive pollution, and so on by producing green products which companies believed to contribute to less damage to the environment. Ottman (1998) indicated that green can be reflected in certain ways, describing products with less impact to the environmental health. More green products have been produced by various companies to reach green consumers as well as to express their concern to the environmental issue

Toyota is one example of company that produce green car. With its new hybrid technology, Toyota successfully manufactured a vehicle that less harmful to the environment. Nokia has also followed the trend to contribute to the environmental protection in which every product the company manufactured can be recycled. Unilever claims to produce environmentally friendly product. However, Unilever differs itself with other companies in which the company decided to renew its detergent product that uses only half as much water as its previous product. This reflects the company responsibility toward environment by encouraging its user to be conscious about conserving resources such as water.

Some of companies in Indonesia have also started to show their concern toward environment through several different ways. Ades claims to produce green product in which bottle being used for containment can be easily recycled. In addition, Philip expressed its concern to the environment through its eco-friendly light bulbs that consumed less energy.

Green consumerism has begun to arise for Asian region. This statement reinforced by Haris (2006) who indicated that consumers in Asia communities are becoming more conscious and aware to the environmental issue. This statement was proven by a report from Indonesia Ministry of Industrial mentioning that green products such as hybrid cars and low cost green car are positively welcomed by Indonesian population because of its environmentally friendly feature. Introduction to these new types of cars which believed to be less harmful to the environment through several exhibitions in Indonesia has been one factor as to why Indonesian populations are aware of and positively welcome to these products.

Accordingly, advertising has played a crucial role in the sales growth of various companies in recent year. Advertising is sought to be a tool to communicate companies' offerings in form if products or services to public. AIDA which consists of Attention, Interest, Desire, and Action is a common list of event that may occur when consumers are engaged with an advertisement. By following the event listed as AIDA, advertising may able to attract attention, gain interest, create desire and indirectly cause action from consumer toward the product (Gass, 2013).

With more green products produced as an act of concern to the environmental issue, many companies have also developed green advertising. Haytko and Matulich (2008) found that green advertising started during recession in 1970s as a result of elevated oil prices and the need to deal with environmental issues. Thus, many companies tried to follow this green trend began to design and promote environmentally friendly products to achieve competitive advantage underlined by this differentiating factor (Phau and Ong, 2007).

Due to the lack of study in green communication, less knowledge were given to the potential consumers that more individuals are becoming skeptical toward green advertising. In addition, Ottman (1998) indicated that even if the information today is less confusing than those of 1980s, variety of label, as well as the packaging is still confusing to those of green consumers rather than being informative about the product.

With the escalation in green advertising, suggestions have showed that there is a great confusion over individuals in regard to the green claim of the several products. Unclear meanings of green claims and no accepted definitions of statements including "bio-degradable", "environmentally friendly", and so on are one of the reasons creating the confusion. Without proper knowledge regarding environmental claims from the company, most consumers find it difficult to grasp the mean being the base of the green claim. In addition, if a green advertisement is recognized as too technical or manipulative, it may prevent consumers to grasp the meaning of the message being conveyed, thus will results in advertisers' failure to communicate to the public (Carlson, Grove, and Kangun 1993).

## **Green Advertising**

Since green advertising makes use of green claims in it, author believes it will be necessary to underline what green/environmental claim is. Scammon and Mayer (1995) defined environmental claim as a statement by organizations in relation to the impact of one or more of the products' attributes on the environment. Furthermore, Scammon and Mayer pointed out terms such as 'environmentally friendly', 'safe for environmental' and many other being used for green claims in the environmental advertising.

Banerjee, Gulas and Iyer (1995) defined green advertising as any advertisement that fulfill one or more of the following characteristics:

1) addresses the relation between products/ service offered with its impact to the environment, 2) promotes green lifestyles with or without presenting the product or service, 3) portrays the organization's image of being responsible toward environment.

Carlson, Grove, Kangun and Polonsky (1996) mentioned that green (environmental) claims are divided into four types that characterize the environmental information conveyed in green advertisements. According to Carlson et al (1996), these types of claims are product-related claims, process related claims, image-related claims, and facts about the natural environment. The first two claims are included as substantive claims which are mean to present information that enable individuals' consumption decision that are beneficial to the physical environment (Carlson et al., 1996). Image-related claims and environmental facts are perceived as associative claims which purpose is to link the organization with environmental cause, whilst claims represent statements related to physical environment that have connection with advertisers (Carlson et al., 1996).

## **Skepticism toward Green Advertising**

Studies show that consumers who are green, and even individuals who are concern about the environment, do not trust ads which have virtually no effect toward the market; thus, optimal marketing strategy might allow companies to start using unpaid media as it considered to be more trustworthy (Ottman, 1998).

However, it may be difficult to incorporate green argument into communication to a degree that allows the message to be delivered to the audience. Assuming the message is deviated from its original meaning, green consumers may feel disappointed or discouraged, may as well change brands, and as green consumers are usually consists of opinion leaders, this occurrence may influence other consumers negatively (Arminda Paço and Rosa Reis, 2012). With only few studies relative to green communication, consumers are still find environmental claim confusing rather than informative (Ottman, 1998).

The adversity in determining the "environmental truth" conveyed by companies has generated a generalized skepticism toward green advertising (Carlson et al., 1996). Obermiller, Spangenberg, and

MacLachlan (2005), found that consumers with high skepticism are more likely to ignore overlook advertisings and look for product information through other sources. High skepticism will also affect consumers responsiveness to information on advertising negatively as compared to consumers with low skepticism which resulting in more negative attitude toward the advertisements, and lower intention to make a further action of purchasing the product.

In addition, Friestad and Wright (1994) clarify that consumers will become skeptical to advertising when being exposed to a repetitive advertising tactic that offers same product insistently.

Obermiller and Spangenberg (1998) clarify ad skepticism can be translated as a tendency to disbelieve information or message conveyed through advertising. Normally, consumers tend to distrust certain advertising after experiencing negative incidents or occurrence relatively to the advertisement or product involved. For instance, disappointment is shown after consumer obtained a distinct item that they ordered. In addition, Mangleburg and Bristol (1998) stated that every advertisement claims have some extent of disbelief as consumers identify that advertisers tend to have specific motives, such as selling products or persuade them to buy or consume the products.

Mohr, Eroglu and Ellen (1998) define skepticism as cognitive response that may differ depending on the content and context of communication. Friestad and Wright (1994) added that consumers will be more likely to be skeptical when they are exposed to a repetitive advertisement offering same product. Mangleburg and Bristol (1998) also mentioned that every advertising claim may inflict disbelief because consumers perceived that advertisers may have motives such as to sell or to convince consumers into buying the products. Skeptics can be convinced about the validity and accuracy of the message by providing evidence or proof. On the other hand, cynicism is a characteristic that remains stable regardless of situation and time. Moreover, Mohr et al., (1998, p.33) exemplify these differences by saying, "an individual with strong tendency to doubt the purpose behind a commercial message (e.g. cynic) will tend to be skeptical than individuals with low level of cynicism". This statement suggests that influencing cynical individual would be more difficult compared to skeptical individual.

Virtually, assuming consumers disbelieve the environmental benefit referred to the ads or the label package, the mean of creating such green communication would be lost; furthermore, consumers who are skeptical may unconsciously give up the probability to help improving environment by buying precise environmentally friendly products. Therefore, market efficiency may be diminished with the existence of suspicion on the advertising and other forms of marketing efforts (Mohr, Eroglu, and Ellen 1998).

Even further, Ruth (2012) clarify 'greenwash' has contributed to the increase of consumers skepticism. Ruth also depicted 'Greenwash' as an insincere display of concern toward the environment expressed by firms. Arminda Paço and Rosa Reis (2012) also added term 'greenwashing' which described as misleading, inconsiderable, or even false green claims in an advertisement. According to Cohen (1991), misleading advertising harms more than just the individuals who wrongly consume the product they believe to be green. This consumption may as well produce a considerable cynicism toward environmental claims.

In this research, author defines skepticism as a cognitive response in form of tendency of disbelief from individuals. Furthermore, ad skepticism described as a response to disbelieve toward a certain context of communication.

#### **Research Model and Hypotheses**

Tucker, Rifon, Lee and Reece (2012) exposed that with more environmental concern, individuals tend to apprehend environmental claims as misleading or deceitful. Meanwhile, in their previous research, they concluded at environmental concern had little impact toward being skeptical to an advertisement. Previous studies found that consumers respond positively toward environmental claim in ecological ads (Kim, Forney, and Arnold, 1997) resulting in positive attitude against the brand and advertisement (Chan, 2004; Kim and Damhorst, 1998; Phau and Ong, 2007). On the other hand, several other studies done by various researchers resulted in vague opinion. Past study resulted in consumers being skeptical toward ecological claims in a green advertisement (Laroche, Bergeron, and Barbaro-Forleo, 2001).

Given the importance to identify if a positive or negative relationship between environmental and skepticism toward ecological advertising does exist, a question has arisen that more environmentally concern consumers are more skeptical toward green advertising claims. Hence, a hypothesis was formed as follow:

H1. Environmentally concern consumers tend to be more skeptical toward green advertising claims

Morrison (2009) defined consumer behavior is based on a set of decisions related to acquisition, consumption, and also disposition of good, services, or even ideas or time by individual.

According to Rosa and Paço (2012), an increase in level of skepticism was demonstrated by consumers against environmental claims that are in labels and advertisements (affected by practice of 'greenwashing' from firms that persistently conveying false environmental claims), limits environmental behaviors that are related to conservation activities (i.e. recycling, resources preservation) and green buying behavior as well. Blackwell *et al.*, (2007) reinforced this statement by explaining that claims are important in assisting consumers to make a purchasing decision and several consumers are looking for green claims. Blackwell further added that skepticism level increases among consumers as a result of manufacturers falsely put green claims on its products. For instance, manufacturers may have claims that the product is totally bio-degradable whilst the actual product is not totally bio-degradable.

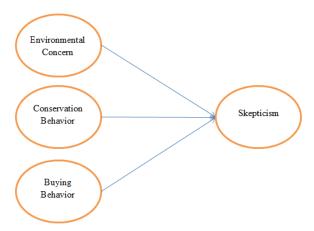
Furthermore, Paço and Rosa Reis suggested that consumers interested in purchasing green products are generally skeptical toward environmental claims in advertising. Therefore, based on these assumptions, hypotheses were able to be formulated:

- **H2.**Consumers who demonstrate conservation behavior tend to be skeptical toward green advertising
- **H3.**Consumers who engage in green buying behaviors tend to be skeptical toward green advertising

Friestad and Wright (1994) clarified that the persuasion knowledge has been a necessary theoretical foundation for examination of phenomena in consumer behavior. Further, Fang, Liao and Hsu (n.d.) explained that persuasion knowledge refers to the way consumers are persuaded and believe the claims in advertising and why consumers are acting as such.

Past studies conducted by various researchers resulted to women having different attitude against environmental claims than men. Shrum, McCarty, and Lowrey (1995) found that women' green buying behavior is correlated with the belief that advertisement is an insult and thus, indicate that women who consume green products are more likely to be skeptical to green advertising while men being skeptical toward green advertising considered to be not correlated to their buying behavior. Meyers-Levy and Sternthal (1991) found that female giving more consideration toward advertising than most men. Fang, Liao and Hsu added that females tend to agree and concern more for others than males. Haytko and Matulich (2008) reinforced this statement by their finding indicating that women are more likely to be environmentally concern and thus have positive attitude toward both green ads and green product. Underlined by this statement, a hypothesis is able to be formulated as:

*H4.* Women are more skeptical toward green advertising than men.



**Figure 1.** Proposal of a Model about Skepticism toward Green Advertising

## RESEARCH METHODOLOGY

The research design utilized in this study was descriptive research which involves statistical calculation to describe characteristics of an occurrence being studied (Maholtra, 2012). In addition, this study entangled questionnaire which include several scales to enable information garnered about attitude (Environmental Concern), conservation behavior, green buying behavior and perception toward green advertising. This research will be characterized as cross-sectional study where collection of information from sample was measured only once and that the research will be conducted at one specific point in time (Maholtra, 2012).

Data used in this research were from questionnaires distributed to students attending Indonesian University. The sample restricted to students whose age ranges from 17-25, not just for a matter of convenience, but also because young individuals judged to be better informed and aware of the environmental issue due to the exposure of them from advertising (Sheila Shayon, 2012). Furlow and Knott (2009) also added that young individuals play a significant role in green market.

A total of 150 respondents participated in this research. Offline questionnaires were distributed in several different places. The respondents accounted as valid were those who had seen a green advertisement, had bought and consumed a green product. Respondents that have not been exposed to the green advertisement, have not bought or consumed green product, were excluded from this research.

The data statistically analyzed and interpreted using the statistical tools SPSS, version 21.0. Frequency distribution analysis, multiple regressions, Independent T-Test and cross-tabulation analysis were conducted. In order to test the hypotheses of this study, multiple linear regressions were utilized. In addition, to find out a difference in skepticism level in relation to gender differences, Independent T-test was utilized

## **RESULT AND ANALYSIS**

The sample had an age of 17 up to 25 years old. The sample consists of 96 males and 54 females. The majority studied marketing (40.0%), accounting (24.0%), hotel and tourism management (14.7%), management (12.7%), art and design (4.7%), and several others (4.0%). Most respondents were from S1 Undergraduate Programs (96.7%), while some were from S2 Graduate Programs (3.3%).

To test the first three hypotheses, multiple linear regressions analysis was used to analyze the effect of environmental concern (EC), conservation behavior (CB), and buying behavior (BB) on skepticism toward environmental claims (SCE). To check the reliability of the scales, Cronbach's Alpha coefficient was estimated. In this research, the values ranged from .80 to .99: EC = .935, CB = .879, BB = 0.952, SCE = .887. Therefore, the scales can be considered as reliable and have a good internal consistency.

Multiple linear regression analysis was conducted to determine coefficient and simple correlation. To see whether functional relationship could be inferred between dependent variable (SCE) and the independent variables (EC, CB and BB), it was necessary to ensure that the model assumptions were valid.

The R-square value is 0.706 which means 70.6% of the variation in 'Skepticism' can be explained by the variation in 'Environmental Concern', 'Buying Behavior', and 'Conservation Behavior'. The rest of 29.4% of the variation may be explained through various other variables such as the pricing level of the product.

To undertake analysis of model variance, *p-value* was estimated. This research generated *p-value* of .000 for EC, .362 for BB and .063 for CB. These results indicated that only independent variable EC significantly affected the dependent SCE. The value of the regression coefficient was positive ( $\beta_1 = .880$ ) and represents a unit of variation in the EC variation estimated for the SCE variation as 88.0%.

To test the last hypothesis, Independent T-Test was conducted to see whether there were significant differences between men and women regarding skepticism toward environmental claims (see Table 2).

## CONCLUSION AND RECOMMENDATIONS

This research was conducted mainly to focus on the factors that affect the skepticism level of an individual, which mainly directed to universities students whose age range from 17 to 25. This research aims to know if consumers that are environmentally concern, take part in green buying behavior and engage in conservation behavior are, in environmental fact, skeptical against claims included advertisement. This research requires a total of 150 respondents in order to gain appropriate result. The author processes all data collected by utilizing a statistical program SPSS 21.0. The result of cross tabulation analysis stated that there is no significance difference of skepticism level in relation of the respondents' age.

The findings demonstrated that 70.6% of the skepticism can be explained by the three variables included in the model (EC, CB, BB). This enables us to test an existence of a relationship between variables EC, CB and BB, and SCE.

The results of the multiple regression analysis point to the acceptance of H1 and to the rejection of H2 and H3. For H1, the statistical test was significant, which indicates that the most concerned consumers are, in fact the most skeptical toward environmental claims. This result is in line with the previous study by Newell, Goldsmith,, and Banzhaf (1998) indicating that the higher the consumers' level of concern toward environment, the more likely the consumer will perceive the advertising as misleading. The result of multiple regression analysis also indicates that consumers who adopt green buying behavior and adopt conservation behavior are, in fact, tend to believe environmental claims.

To check the significance of gender in relation to skepticism toward green advertising, independent t-test analysis was carried out and the result point to the rejection of H4. This result oppose to the previous study by Shrum, McCarty, Lowrey (1995) that found that there is difference regarding skepticism toward environmental claims in relation to gender group differences.

With the result generated, businesses should be able to identify the right strategy to avoid concerned consumers to be skeptical toward green advertising by showing commitment to protect environment by conducting CSR which benefit the company image and enable company to gain trust. To better gain trust from the targeted customers, companies are urged to focus more on providing detailed information and giving out familiar terms rather than implementing repetitive advertising.

This research offers some limitations that should be considered to have affected the generalization of the findings. The first is the use of convenience sampling method. Other possible limitations were geographical coverage and time constraint.

To better improve the finding of such similar study, several recommendations should be considered. The first recommendation is the utilization of statistical sampling method as it may benefit the survey to cover better generalization of the population. Secondly, the geographical coverage should be expanded. Thirdly, the timing of the data collection process should be considered as it may affect the survey to generate different result.

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## **APPENDIX**

#### **Environmental Concern**

We are approaching the limit of the number of people that earth can support.

To maintain a healthy economy, we will have to develop a steady-state economy where industrial growth is controlled.

The earth is like a spaceship with only limited room and resources.

Humans need not adapt to the natural environment because they can model it to suit their need.

There are limits to growth beyond which our industrialized society cannot expand.

The balance of nature is delicate and easily upset.

When humans interfere with nature, it often produces disastrous consequences.

Humans must live in harmony with nature in order to survive.

Mankind is severely abusing environment.

Humankind was created to rule over the rest of the nature.

#### **Conservation Behavior**

How often do you use reuseable containers to store food in your refrigerator rather than wrapping food in aluminiun foil or plastic wrap?

How often do you conserve water while washing dishes?

How often do you conserve energy by turning off light switches when leaving a room, turning down the thermostat when leaving home, and so forth?

How often do you conserve water while brushing your teeth, shaving, washing your hands, bathing, and so forth?

How often do you refuse to buy products that you feel have extensive packaging?

#### **Buying Behavior**

I try to buy energy-efficient products and appliances.

When there is a choice, i choose the products that causes the least pollution.

I have switched products/brands for ecological reasons.

I make every effort to buy paper products made from recycled paper.

I use environmentally friendly soaps and detergents.

Whenever possible, i buy products packaged in reusable containers.

I try to buy products that can be recycled.

I buy high-efficiency light bulbs to save energy.

#### Skepticism

Because environmental claims are exaggerated, consumers would be better off if such claims on package labels were eliminated.

Because environmental claims are exaggerated, consumers would be better off if such claims in advertising were eliminated.

Most environmental claims on package labels are intended to mislead rather than inform consumers.

Most environmental claims in advertising are intended to mislead rather than inform consumers.

I do not believe most environmental claims on package labels.

I do not believe most environmental claims presented in advertising.

Table 1. Multiple Regression Analysis

**Model Summary** 

Model	R	R Square	Adjusted R	Std. Error of the		
			Square	Estimate		
1	.840ª	.706	.700	.52238		

a. Predictors: (Constant), CBmean, BBmean, ECmean

**ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	95.766	3	31.922	116.980	.000 <sup>b</sup>
1	Residual	39.841	146	.273		
	Total	135.608	149			

a. Dependent Variable: SCEmean

b. Predictors: (Constant), CBmean, BBmean, ECmean

**Coefficients**<sup>a</sup>

Model			ndardized	Standardized Coefficients	t	Sig.		
		В	Std. Error	Beta				
1	(Constant)	.336	.300		1.120	.265		
	ECmean	.880	.051	.818	17.355	.000		
	BBmean	040	.043	042	914	.362		
	CBmean	.108	.058	.088	1.876	.063		

a. Dependent Variable: SCEmean

**Table 2.** Independent T-Test Analysis

# **Group Statistics**

	Gender	N	Mean	Std. Deviation	Std. Error	
					Mean	
Skepticism	Men	96	4.4323	.94113	.09605	
Mean	Women	54	4.6605	.96802	.13173	

## **Independent Samples Test**

		Leve	ene's	t-test for Equality of Means						
Test for										
		Equa	lity of							
		Varia	nces							
F Sig.		t	df	Sig.	Mean	Std.	95% Conf	idence		
						(2-	Differenc	Error	Interval	of the
						tailed)	е	Differen	Differe	nce
								ce	Lower	Uppe
										r
	Equal	.196	.659	-	148	.160	22820	.16174	54782	.0914
	variance			1.411						2
	s									
Skepticism	assumed									
Mean	Equal			-	107.	.164	22820	.16303	55138	.0949
	variance			1.400	402					8
	s not									
	assumed									