DIPONEGORO JOURNAL OF MANAGEMENT *Volume 12, Nomor 1, Tahun 2023, Halaman xx-xx*
https://ejournal3.undip.ac.id/index.php/djom/index ***ISSN (Online): 2337-3792***

Investigating The Antecedents of Brand Loyalty Mediated by Green Trust and Green Satisfaction Empirical Study in Central Java

Muhammad Ariq Sofyan, Kardison Lumban Batu [1]

Departemen Manajemen Fakultas Ekonomika dan Bisnis Universitas Diponegoro

Jl. Prof. Soedharto SH Tembalang, Semarang 50239, Phone: +622476486851

ABSTRACT

An effective strategy in generating customer loyalty is to make consumers believe and be satisfied with the products and actions of the company. To make consumers believe, companies need to pay attention to greenwashing, green perceived value, eco-brands and eco-labels. The purpose of present study is to design and develop an empirical conceptual model of how greenwashing, green perceived value, eco-brand, and eco-label affect brand loyalty through green trust and green satisfaction as mediating variables.

This study uses Panasonic consumers as the research population, then sampling is carried out using purposive sampling and has several criteria. The sample in this study was 150 respondents who live in Central Java. The collected data will be analysed using the structural equation model (SEM) method and processed with AMOS software.

The results of this study indicate that greenwash has a significant negative effect on green trust, green perceived value has a significant positive effect on green trust, eco-brand has a significant positive effect on green trust, eco-label has a significant positive effect on green trust, greenwash has no effect on green satisfaction, green perceived value has no effect on green satisfaction, eco-brand has no effect on brand loyalty, green trust has a significant positive effect on brand loyalty, dan green satisfaction has a significant positive effect on brand loyalty.

Keywords*:* **Greenwash, Green Perceived Value, Eco-Brand, Eco-Label, Green Trust, Green Satisfaction, Brand Loyalty**

INTRODUCTION

Industrial and technological developments often conflict with environmental conservation issues. Many companies are still using environmentally damaging substances, especially those containing ozone depleting substances (BPO) such as chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), halons and carbon tetrachloride which are used as coolants in refrigerators and air conditioners. Regulations in Indonesia currently apply an emphasis on the use of BPO through the Minister of Industry Regulation Number 41/M-IND/PER/5/2014 and 55/M-Dag/PER/9/2014.

The use of ODS has contributed a lot to the destruction of the ozone layer. The depletion of the ozone layer is caused by ODS which breaks down ozone molecules in the atmosphere. Even this material contributes a lot to the increase in global warming. One of the most affected by this regulation is the manufacturers of air conditioners or air conditioners. Now, a number of manufacturers are busy switching to AC technology that is more environmentally friendly. One of them is by using Freon R-32. PT Sharp Electronics Indonesia (SEID) was the first to start changing its air conditioning refrigerant from R-22 to

[1] *Corresponding author*

R-32. Another AC manufacturer, PT Daikin Airconditioning Indonesia, has also started introducing AC products made from R-32 in Indonesia. Daikin introduces this new refrigerant at the same time as the launch of its two newest AC products, Urusara 7 and European Design (Republika, 2014).

This study places the object of research in the form of Panasonic air conditioners. It is known that in 2021 Panasonic won the "Indonesia Most Engaging Brand 2021" award for the Air Purifier and Smart TV category, followed by 2020 Panasonic won the "Indonesia Most Engaging Brand 2020" award for the general Electronics category with a total index of 88.37 (Wulandari, 2022). Even during the pandemic, Panasonic also won an award in the form of "The most Engaged Brand in the Pandemic Era" for the air purifier and Smart TV category (Rakyat Merdeka, 2021). Panasonic uses a campaign with eco mode in AC and other electronic products "without worrying about the power going down!". As for Panasonic AC products which are eco mode in the form of 12 products with campaign inverters that save electricity and can limit AC watts so that you can still use other electronics simultaneously with the eco mode feature and cooling can be controlled remotely with the Panasonic Comfort Cloud application (Panasonic, 2023).

Table 1
Research Gap

Variables Correlation	The Researchers	Results
Positive Effect	• Chen (2010) • Kang & Hur (2011) • Park & Kim (2016)	Trust has a positive effect on Loyalty
Negative Effect	• Jin et al., (2009) • Dagger & O'Brien (2010) • Hong & Cho (2011)	Trust has no effect on Loyalty

RESEARCH FRAMEWORK AND HYPOTHESIS DEVELOPMENT

According to Ajzen & Fishbein (1991) theory of reasoned action states that the best prediction of a person's behavior is based on that person's interests. Behavioral interest is based on 2 main factors, namely individual belief in the results of the behavior carried out (attitude) and individual perceptions of the views of those closest to the individual towards the behavior carried out. Attitude towards behavior is an individual's belief in behavior that describes the subjective probability that the behavior in question will produce certain results and evaluation describes an implicit judgment, if someone perceives that the result of displaying a behavior is positive, then he will have a positive attitude towards the behavior and so will on the contrary. Subjective norms refer to perceived social pressure to perform or not perform the behavior, (Ajzen, 1991). P. Hong et al (2009) stated that the aim of (SGMO) is to increase the real benefits of the organization through the implementation of innovative environmental strategies. SGMO requires a long-term commitment to improve organizational image which impacts business performance through internal integration such as design, manufacturing and engineering, as well as external coordination with customers and suppliers starting from product concept creation to waste disposal (Linton et al., 2007). SGMO has an important role in creating a balance between financial and non-financial performance (Chahal et al., 2014).

Influence Between Greenwashing on Green Trust

Greenwashing is an organizational malpractice in which companies are dishonest about their green marketing practices by making unconfirmed and erroneous claims about the green functionality of their products (Lin et al., 2017). Consumer perceptions holding the

authenticity of brand green claims can influence their decision making. Previous research has proven that the impact of greenwashing can be far-reaching, with long-term market effects. Greenwashing can lead to customer confusion and create doubt, distrust and cynicism about purchasing green products (Pomering & Johnson, 2009).

H1 : The lower the degree of greenwash, the higher the degree of green trust

Influence Between Green Perceived Value on Green Trust

GPV has been shown to have positive effects and contribute to the development of relationships between consumers and brands through increasing green trust (Y. S. Chen & Chang, 2013). Green trust represents the level of consumer confidence in environmentally friendly claims made by companies by proving their products and services (A. Gupta et al., 2019). So that if consumers feel good value at proving company claims, then consumer confidence will increase.

H2 : The higher the degree of green perceived value, the higher the degree of green trust

Influence Between Eco-Brand on Green Trust

Eco-brands function to help consumers distinguish between environmentally friendly products and products that are not environmentally friendly. According to research by Chatterjee (2009) consumers want to buy alternative products that are environmentally friendly with a higher impact on the environment compared to alternatives that have a lower environmentally friendly impact (Suki, 2013). Consumers will respond positively to products that have eco-brands.

H3 : The higher the degree of eco-brand, the higher the degree of green trust

Influence Between Eco-Label on Green Trust

Eco-label is a means of transparent information to consumers about products that are less harmful to the environment. Eco-labels increase consumers' ability to assess a product's potential effects on the environment at the point of purchase (Thøgersen et al., 2010). Eco-labels are the most reliable source of information for consumers to evaluate products. Consumer confidence increases when companies use certified eco-labels to promote their eco-friendly products. The use of third-party certification is an effective way to attract consumers towards these products and shape their environmental behavior. Through eco-labels companies can send clear and effective signals to consumers regarding their performance to ensure environmental sustainability (Testa et al., 2015).

H4 : The higher the degree of eco-label, the higher the degree of green trust

Influence Between Greenwashing on Green Satisfaction

Greenwashing is an organizational malpractice in which companies are dishonest about their green marketing practices by making unconfirmed and erroneous claims about the green functionality of their products (Lin et al., 2017). Consumer perceptions holding the authenticity of brand green claims can influence their decision making. Many green claims now overstate a product's green functionality or attributes, so this may reduce consumer satisfaction (Y. S. Chen et al., 2014).

H5 : The lower the degree of greenwash, the higher the degree of green satisfaction

Influence Between Green Perceived Value on Green Satisfaction

GPV has been shown to have positive effects and contribute to the development of relationships between consumers and brands through increasing green trust (Y. S. Chen & Chang, 2013). Customers' perceived value is considered significant to strengthen overall customer satisfaction. If the company able to provide its customers with value for money, high levels of service delivery and affordable prices, there will be a greater possibility of satisfying the needs of customers (Anwar et al., 2021). If the benefits outweigh the cost, the value perception of customers is higher, stimulating their overall satisfaction levels in the future (Aslam et al., 2018).

H6 : The higher the degree of green perceived value, the higher the degree of green satisfaction

Influence Between Eco-Brand on Brand Loyalty

Eco-brands function to help consumers distinguish between environmentally friendly products and products that are not environmentally friendly. According to research by Chatterjee (2009) consumers want to buy alternative products that are environmentally friendly with a higher impact on the environment compared to alternatives that have a lower environmentally friendly impact Suki (2013). Consumers will respond positively to products that have eco-brands.

H7 : The higher the degree of eco-brand, the higher the degree of brand loyalty

Influence Between Green Trust on Brand Loyalty

Trust is a type of bond that sustains a long-term relationship between a company and a company, this indicates a state in which the company is reliable and able to prove its promises as expected by customers (Alhaddad, 2015). Trust as a core component of a stable and sustainable relationship with consumers is an important factor in long-term loyalty from consumers (Song et al., 2019).

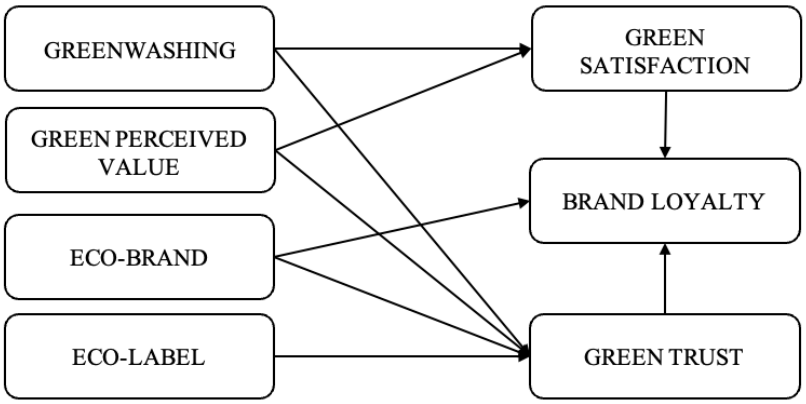
H8 : The higher the degree of green trust, the higher the degree of brand loyalty

Influence Between Green Satisfaction on Brand Loyalty

Green satisfaction is an important factor in brand loyalty because it is a response to the performance of environmentally friendly products that is better than consumer expectations (Papista & Dimitriadis, 2019). This has been explored as a significant predictor of customer loyalty (Cronin et al., 2011), and it has also been suggested that loyalty is one of the ways in which consumers express their satisfaction with the quality of products or services obtained (Bloemer & Kasper, 1995).

H9 : The higher the degree of green satisfaction, the higher the degree of brand loyalty

Fugure 1
Framework



Source: Chen & Chang (2013), Pahlevi & Suhartanto (2020), Rahbar & Wahid (2011), Hameed & Waris (2018), Shiau & Lup (2012), Chrisjatmiko (2018), Chen (2010)

RESEARCH METHOD

Research Variable

According to Ferdinand (2014) the research variable is a value, object, or activity with certain variations. This study has one dependent variable, two independent variable and one intervening variable. The variables are as follows:

1. Dependent Variable

   According to Ferdinand (2014) the dependent variable is the variable that is the center of attention of the researcher. The nature of a problem is easily seen by recognizing the various dependent variables used in a model. It is the variability of this factor or factors that this research seeks to explain. The independent variable is denoted by (Y), the dependent variable in this study is Brand Loyalty.

2. Independent Variable

   Independent variables are variables that affect the dependent variable, either positively or negatively (Ferdinand, 2014). The independent variable is denoted by (X), the independent variables in this study are Greenwash (X1), Green Perceived Value (X2), Eco Brand (X3), Eco Label (X4).

3. Mediating Variable

   Mediating variables according to Ferdinand (2014) are said to be intervening variables or intermediate variables that connect a major independent variable to the dependent variable being analyzed. The intervening variable is denoted by (Z), the intervening variable in this study is Green Trust (Z1), Green Satisfaction (Z2).

Table 2
Operational Definition

Variable	Definition	Indicator	Scale
Brand Loyalty	Brand loyalty is described as a strong intention to repurchase or support a preferred service or product continuously in the future. (Izogo, 2015)	• Recommend Panasonic to others because it is environmentally friendly • Always use Panasonic because of its concern for the environment • Willing to pay more than any other brand to benefit from this brand's environmental commitment • Even if another brand has the same environmental features	Ratio

		as Panasonic, you would prefer to buy this brand • If another brand's environmental performance is as good as Panasonic you would prefer to buy this brand (Kang & Hur, 2011)	
Green Satisfaction	Green satisfaction can be defined as the extent to which consumer environmental desires and/or consumer environmental needs are fulfilled (Chen, 2010)	• I am happy about the decision to choose Panasonic Air Conditioner because of its environmental commitments • Overall, I am glad to buy Panasonic Air Conditioner because it is environmentally friendly • My choice to buy Panasonic Air Conditioner was a wise one • Panasonic Air Conditioner is exactly what I need • Overall, I am satisfied with Panasonic Air Conditioner because of its environmental concern (Kang & Hur, 2011)	Ratio
Green Trust	Green trust is the level of consumer confidence in environmentally friendly claims made by companies by proving their products and services (Gupta et al, 2019)	• I feel that Panasonic Air Conditioner environmental comments are generally reliable • I feel that Panasonic Air Conditioner arguments are generally trustworthy • Panasonic Air Conditioner environmental concerns meet my expectation • Many people I know use Panasonic Air Conditioner service because of its environmental concern • I trust Panasonic is a company that strives to keep its environmental concern (Kang & Hur, 2011)	Ratio
Greenwash	Greenwashing is an organizational malpractice in which companies are dishonest about their green marketing practices by making unconfirmed and false claims about the green functionality of their products. (Dixon, 2020)	• Panasonic mislead with words about the environmental features of their products • Panasonic mislead with visuals or graphics about the environmental features of their products • Panasonic provide vague or seemingly un-provable environmental claims for their products • Panasonic overstate or exaggerate the environmental features of their products	Ratio

		• Panasonic leave out or hide important information about the real environmental features of their products (Qayyum et al, 2022)	
Green Perceived Value	Green perceived value is a customer's evaluation of the benefits received from a product compared to what is sacrificed based on the consumer's environmental needs and desires (Woo & Kim, 2019)	• Panasonic Air Conditioner environmental functions provide very good value for me • Panasonic Air Conditioner has more environmental benefits than other brands • Panasonic Air Conditioner is more environmentally friendly than other brands • Panasonic Air Conditioner able to help preserve the environment • Panasonic Air Conditioner has a good durability (Leckie et al, 2021)	Ratio
Eco-Brand	Eco-brand is a product name, product symbol or product design that is environmentally friendly (Rahbar & Wahid, 2011)	• I feel good about buying Panasonic Air Conditioner which are less damaging to the environment • I trust Panasonic green branded products • Panasonic keeps guarantees and commitments for environmental protection • Panasonic has greener image than other brands • Panasonic has a great reputation in technology industry and environmental concern (Juwaheer et al, 2012)	Ratio
Eco-Label	Eco-label is a way for companies to mark products by providing specific labels to indicate products, services or companies that are environmentally friendly based on predetermined standards or criteria. (Harris & Divakarla, 2016)	• Eco-labels are eye catching on Panasonic Air Conditioner • Sufficient information is provided on Panasonic Air Conditioner eco-labels • I believe Panasonic Air Conditioner eco-labels are easy to read • Information on Panasonic Air Conditioner eco-labels is accurate • Information on Panasonic Air Conditioner eco-labels can be trusted (Juwaheer et al, 2012)	Ratio

Population and Sample

Population is a combination of elements that form events, things or that form similar characteristics that are the center of attention of researchers as a research universe

(Ferdinand, 2014). The population in this study were PANASONIC AC users in Central Java.

According to Ferdinand (2014) a sample is a subset of the population consisting of several members of the population. In this study, the sampling technique used is purposive sampling, purposive sampling is a sampling method based on criteria determined by the researcher (Ferdinand, 2014). The technique and method used in determining the Sample in this study is non-probability sampling technique. Non-probability sampling means that all elements in the population do not have the same opportunity to be selected as a sample (Ferdinand, 2014). The number of variables used in this study is 7 variables, so according to Hair et al (2018), the minimum sample size in this study is 150 samples. Those 150 Respondents have to fulfill the following criteria.

1. Over than 18th years old
2. Using PANASONIC AC (SI-BIRU, Inverter, Standard Inverter, or Deluxe Inverter type/series) more than 3 (three) months
3. Knowing the green technology of PANASONIC AC
4. Domiciled in Central Java
5. Concern on environmentally friendly

Data Analysis Methods

Methods Data analysis is the process of processing data that has been collected in research to understand the answers to the research problems themselves. This study uses a quantitative research method where the data used is in the form of numbers and analyzed using statistics. The analytical tool used in this study uses a structural equation model (SEM) which is operated using AMOS 24. SEM is a multivariate technique that aims to unify multiple regression factor analysis that allows to simultaneously examine the dependence relationship between related variables simultaneously (Hair et al., 2018). This study uses the SEM method consisting of 7 steps, namely developing a theory-based model, compiling flowcharts, converting flowcharts to structural equations, selecting input matrices and estimation techniques, assessing problem identification, evaluating models, and interpreting model modifications.

DATA ANALYSIS

Description of Respondents

Researchers distributed questionnaires to 150 respondents who use Panasonic air conditioners in Central Java Province. Based on the distribution of questionnaires, the majority of respondents' characteristics are 56% female, 31% aged 25-31 years, 32% work as private employees, and 25% earn Rp 6,000,000-Rp 8,000,000 per month.

Validity Test

Bsed on validity test result, all questions/indicators to measure greenwash, green perceived value, eco-brand, eco-label, brand trust, brand satisfaction, and brand loyalty variables have a value of more than 0.5, so that all questionnaire questions are declared valid.

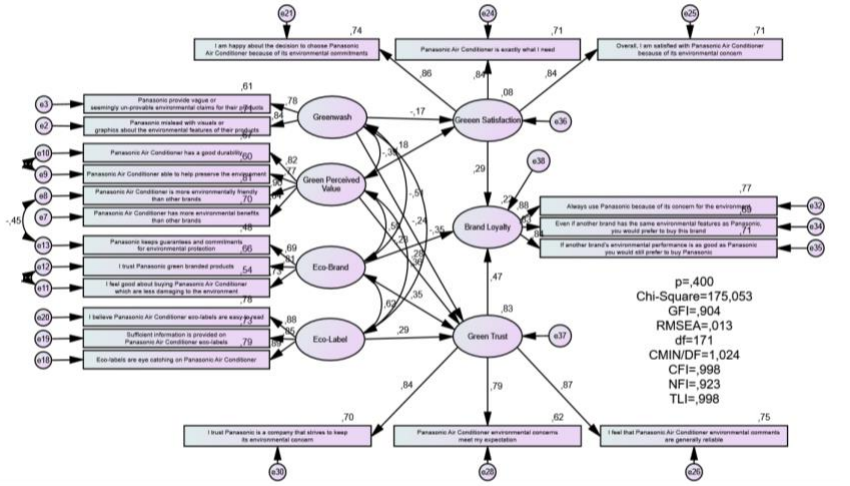
Reliability Test

Based on reliability test results, shows the results of Composite Reliability (CR) calculations on the variables greenwash, green perceived value, eco-brand, eco-label, brand trust, brand satisfaction, and brand loyalty respectively, namely, 0.918, 0.926, 0.884, 0.924, 0.896, 0.909, and 0.927. CR on all variables has met the requirements because it is greater than 0.7. Then the calculation results of the Average Variance Extracted (AVE) on the variables greenwash, green perceived value, eco-brand, eco-label, brand trust, brand satisfaction, and brand loyalty respectively are, 0.691, 0.714, 0.605, 0.709, 0.633, 0.667, and

0.719. AVE on all variables has met the requirements because it is greater than 0.5. So, it can be concluded that all the questions/indicators used are reliable because they have fulfilled the CR and AVE.

Analysis Full Structural Equation Modeling (SEM)

Figure 2
Full Structural Model



Based on Figure 2, the Full model has 7 variables greenwash, green perceived value, eco-brand, eco-label, green trust, green satisfaction, and brand loyalty. The goodness of fit model can be measured with the following criteria, Probability, Chi-Squared, GFI, RMSEA, CMIN/df, CFI, NFI, and TLI. The results of testing the goodness of fit model can be seen in table 4 below.

Table 4
Testing Goodness of Fit Model

Criteria	Critical Value	Result	Evaluation
Probability	>0,05	,400	Fit
Chi-Squared	Expected low	183,900	Low
GFI (Good of Fit Index)	>0,9	,904	Fit
RMSEA (Root Mean Square Error of Approximation)	<0,08	,013	Fit
Fuction (With Degree of Freedom)	<5	171	
CMIN/df (The Minimum Sample Discrepancy Function Degree of Fredom)	<2	1,024	Fit
CFI (Comparative Fix of Index	>0,95	,998	Fit
NFI (Normal Fit Index)	>0,9	,923	Fit
TLI (Tucker Lewis Index)	>0,9	,998	Fit

Based on table 4, the values of Probability, Chi-Squared, GFI, RMSEA, CMIN/df, CFI, NFI, and TLI based on the criteria used show fit results.

Hypothesis Testing

Hypothesis testing is done by comparing the p-value with a significance value of 5%. If the p value is less than 5%, then the hypothesis is accepted. The results of hypothesis testing can be seen in table 4.25 below.

Table 5
Hypothesis Testing

	Estimate	S.E.	C.R.	P	Information
Z2 <--- X2	,170	,096	1,770	,077	Rejected
Z2 <--- X1	-,161	,099	-1,633	,102	Rejected
Z1 <--- X1	-,254	,077	-3,303	***	Accepted
Z1 <--- X2	,310	,089	3,491	***	Accepted
Z1 <--- X3	,438	,160	2,742	,006	Accepted
Z1 <--- X4	,297	,081	3,667	***	Accepted
Y <--- Z2	,294	,091	3,243	,001	Accepted
Y <--- Z1	,418	,189	2,217	,027	Accepted
Y <--- X3	-,250	,244	-1,023	,306	Rejected

Based on table 5, there are 6 hypotheses that are accepted because they have a P value that is smaller than 0.05 or 5% and 3 hypotheses that are rejected because they have a P value that is greater than 0.05 or 5%. Further explanation regarding hypothesis testing will be explained below.

Hyphothesis Testing 1

Testing the effect of greenwash on green trust shows a CR value of -3.303 and with a probability of 0.000. Both of these values meet the requirements for acceptance of H1 because the CR value is -3.303 which is greater than 1.96 and the probability of 0.000 is less than 0.05. Thus, it can be concluded that greenwash has a significant negative effect on green trust. These results are in accordance with research conducted by Ha et al (2022) which states that greenwash has a significant negative effect on green trust.

Hyphothesis Testing 2

Testing the effect of green perceived value on green trust shows a CR value of 3.491 and with a probability of 0.000. Both of these values meet the requirements for acceptance of H2 because the CR value is 3.491 which is greater than 1.96 and the probability of 0.000 is less than 0.05. Thus, it can be concluded that green perceived value has a significant positive effect on green trust. These results are consistent with research conducted by Pahlevi & Suhartanto (2020) which states that green perceived value has a significant positive effect on green trust.

Hyphothesis Testing 3

Testing the effect of eco-brand on green trust shows a CR value of -2.742 and with a probability of 0.006. Both of these values meet the requirements for acceptance of H3 because the CR value is 2.742 which is greater than 1.96 and the probability of 0.006 is less than 0.05. Thus, it can be concluded that eco-brand has a significant positive effect on green trust. These results are in accordance with research conducted by Lestari et al (2020) which states that eco-brands have a significant positive effect on green trust.

Hyphothesis Testing 4

Testing the effect of eco-label on green trust shows a CR value of -3.667 and with a probability of 0.000. Both of these values meet the requirements for acceptance of H4 because the CR value is 3.667 which is greater than 1.96 and the probability of 0.000 is less than 0.05. Thus, it can be concluded that eco-label has a significant positive effect on green trust. These results are in accordance with research conducted by Alamsyah et al (2020) which states that eco-label has a significant positive effect on green trust.

Hyphothesis Testing 5

Testing the effect of greenwash on green satisfaction shows a CR value of -1.633 and with a probability of 0.102. These two values do not qualify for H5 acceptance because the

CR value is -1.633 which is less than 1.96 and the probability of 0.102 is greater than 0.05. Thus, it can be concluded that greenwash has no effect on green satisfaction.

Hyphothesis Testing 6

Testing the effect of green perceived value on green satisfaction shows a CR value of 1.770 and with a probability of 0.077. These two values do not qualify for H6 acceptance because the CR value is 1.770 which is less than 1.96 and the probability of 0.077 is greater than 0.05. Thus, it can be concluded that green perceived value has no effect on green satisfaction.

Hyphothesis Testing 7

Testing the effect of eco-brand on brand loyalty shows a CR value of -1.023 and with a probability of 0.306. These two values do not meet the requirements for acceptance of H7 because the CR value is -1.023 which is less than 1.96 and the probability of 0.306 is greater than 0.05. Thus, it can be concluded that eco-brand has no effect on brand loyalty.

Hyphothesis Testing 8

Testing the effect of green trust on brand loyalty shows a CR value of -2.217 and with a probability of 0.027. Both of these values meet the requirements for acceptance of H8 because the CR value is 2.217 which is greater than 1.96 and the probability is 0.027 which is less than 0.05. Thus, it can be concluded that green trust has a significant positive effect on brand loyalty. These results are in accordance with research conducted by Yuen et al (2018) which states that green trust has a significant positive effect on brand loyalty.

Hyphothesis Testing 9

Testing the effect of green satisfaction on brand loyalty shows a CR value of 3.243 and with a probability of 0.001. Both of these values meet the requirements for acceptance of H9 because the CR value is 3.243 which is greater than 1.96 and the probability of 0.001 is less than 0.05. Thus, it can be concluded that green satisfaction has a significant positive effect on brand loyalty. These results are in accordance with research conducted by V. Gupta (2020) which states that green satisfaction has a significant positive effect on brand loyalty.

CONCLUSIONS

Conclusion

From the results of the analysis and discussion that have been described previously, this research explicitly provides the following conclusions:

1. Of the 9 hypotheses proposed, 6 hypotheses are accepted and 3 other hypotheses are rejected. The 6 accepted hypotheses are H1, H2, H3, H4, H8, and H9, while the 3 rejected hypotheses are H5, H6, and H7.
2. Brand trust is influenced by greenwashing, green perceived value, eco-brand, and eco-label, if the four variables are sorted by their influence, then eco-label has the greatest influence, then followed by green perceived value, greenwash, and finally with the smallest profit is the eco-brand.
3. Brand satisfaction is not influenced by greenwash or green perceived value variables because based on hypothesis testing it does not have a significant effect.
4. Brand loyalty is affected by green trust and green satisfaction, while eco-brand does not affect brand loyalty because based on hypothesis testing it does not have a significant effect. On the variables that affect brand loyalty, namely brand trust and brand satisfaction, brand satisfaction has a greater influence than brand trust.

Theoretical Implication

Based on conclusions defined above, this study able to strengthen the results in the prior research, here are the results of the hypothesis that have effect on theoretical implications.

Table 6
Theoretical Implications

No.	Findings	Theoritical Implications
1.	Greenwash has a significant negative effect on green trust	These results are in accordance with research conducted by Ha et al (2022) which states that greenwash has a significant negative effect on green trust.
2.	Green perceived value has a significant positive effect on green trust	These results are in accordance with research conducted by Ha et al (2022) which states that greenwash has a significant negative effect on green trust.
3.	Eco-brand has a significant positive effect on green trust	These results are in accordance with research conducted by Lestari et al (2020) which states that eco-brands have a significant positive effect on green trust.
4.	Eco-label has a significant positive effect on green trust	These results are in accordance with research conducted by Alamsyah et al (2020) which states that eco-label has a significant positive effect on green trust.
5.	Green trust has a significant positive effect on brand loyalty	These results are in accordance with research conducted by Yuen et al (2018) which states that green trust has a significant positive effect on brand loyalty.
6.	Green satisfaction has a significant positive effect on brand loyalty	These results are in accordance with research conducted by V. Gupta (2020) which states that green satisfaction has a significant positive effect on brand loyalty.

Managerial Implication

Based on the findings in the study, it can be used as an input for PANASONIC to evaluate strategies to confront customers who have uncertainty to purchase PANASONIC.

Table 7
Managerial Implication

No.	Findings	Managerial Implications
1.	Greenwash has a significant negative effect on green trust	Greenwash is a variable that affects the green trust variable, so companies need to pay attention to and maintain their marketing strategy so as not to do greenwash, to further convince consumers that Panasonic does not practice greenwashing, Panasonic can provide guarantees and test its products on bodies that have the capability to assess environmentally friendly technologies.
2.	Green perceived value has a significant positive effect on green trust	Green perceived value is a variable that influences the green trust variable, so companies need to pay attention to and maintain their products so that they continue to provide good value for consumers, to

		maintain product value so that it remains good for consumers, Panasonic needs to maintain product design, environmentally friendly features, and low prices. according to the benefits provided to consumers.
3.	Eco-brand has a significant positive effect on green trust	Eco-brand is a variable that affects the green trust variable, so companies need to pay attention and maintain the existence of environmentally friendly attributes in each of their products, to help consumers distinguish Panasonic's environmentally friendly products from other products, Panasonic needs to provide designs and symbols that are easy to remember and understood by consumers about Panasonic's concern for the environment.
4.	Eco-label has a significant positive effect on green trust	Eco-label is a variable that affects the green trust variable, so companies need to pay attention and ensure that there is an environmentally friendly label on every product. To help consumers understand Panasonic products, Panasonic needs to place labels in easy-to-find places, use designs that contrast with the surrounding area, and have complete information on the labels.
5.	Green trust has a significant positive effect on brand loyalty	Green trust is a variable that influences brand loyalty, so companies need to pay attention to and maintain consumer trust. To maintain consumer trust, Panasonic needs to have an environmentally friendly label on its products, provide guarantees, and ensure ease of warranty claim processing.
6.	Green satisfaction has a significant positive effect on brand loyalty	Green satisfaction is a variable that influences brand loyalty, so companies need to pay attention to and maintain customer satisfaction, to maintain customer satisfaction, Panasonic needs to have good quality products at competitive prices, increase environmentally friendly features without reducing its main function, provide guarantees, and ensure ease of processing warranty claims.

Research Limitations

In this study, there are limitations and shortcomings, including:

1. The number of indicators that need to be reduced or eliminated to achieve a fit model.
2. This study also experienced limitations related to the respondent search stage due to the sample criteria in this study which had specific sample characteristics.

Future Studies Suggestion

From the conclusions made about the research and considering the limitations in the study conducted, the researcher provides several suggestions that are expected to be helpful in the future. These suggestions can be used in general for further research to develop literature of marketing management science. Several suggestions used for further research:

1. For further research, it is expected to use other indicators, increase the number of respondents, and use other methods or analytical tools so that there is no need to reduce or delete indicators when conducting tests.
2. Future research is expected to analyze green products on AC brands not only Panasonic AC to make it easier in the data search stage to get respondents.

BIBILIOGRAPHY

Ajzen, I. (1991). Theory of Planned Behaviour. *Organizational Behavior and Guman Decision Processes*, *50*(1), 179–221. https://doi.org/10.47985/dcidj.475

Alhaddad, A. A. (2015). Building customer loyalty model in airline industry View project Perceived Quality, Brand Image and Brand Trust as Determinants of Brand Loyalty. *Quest Journals Journal of Research in Business and Management*, *3*(4), 1–08. www.questjournals.org

Anwar, A., Thongpapanl, N., & Ashraf, A. R. (2021). Strategic imperatives of mobile commerce in developing countries: the influence of consumer innovativeness, ubiquity, perceived value, risk, and cost on usage. *Journal of Strategic Marketing*, *29*(8), 722–742. https://doi.org/10.1080/0965254X.2020.1786847

Aslam, W., Arif, I., Farhat, K., & Khursheed, M. (2018). The role of customer trust, service quality and value dimensions in determining satisfaction and loyalty: An empirical study of mobile telecommunication industry in pakistan. *Market-Trziste*, *30*(2), 177–194. https://doi.org/10.22598/mt/2018.30.2.177

Bloemer, J. M. M., & Kasper, H. D. P. (1995). The complex relationship between consumer satisfaction and brand loyalty. *Journal of Economic Psychology*, *16*(2), 311–329. https://doi.org/10.1016/0167-4870(95)00007-B

Chahal, H., Dangwal, R., & Raina, S. (2014). Antecedents and consequences of strategic green marketing orientation. *Journal of Global Responsibility*, *5*(2), 338–362. https://doi.org/10.1108/JGR-09-2013-0012

Chatterjee, B. (2009). Environment, Sustainable Development and Well-being. *The Indian Economic Journal*, *59*(1), 190–192. https://doi.org/10.1177/0019466220110112

Chen, Y. S. (2010). Towards green loyalty: Driving from green perceived value, green satisfaction, and green trust. *Sustainable Development*, *21*(5), 294–308. https://doi.org/10.1002/sd.500

Cronin, J. J., Smith, J. S., Gleim, M. R., Ramirez, E., & Martinez, J. D. (2011). Green marketing strategies: An examination of stakeholders and the opportunities they present. *Journal of the Academy of Marketing Science*, *39*(1), 158–174. https://doi.org/10.1007/s11747-010-0227-0

Dagger, T. S., & O'Brien, T. K. (2010). Does experience matter?: Differences in relationship benefits, satisfaction, trust, commitment and loyalty for novice and experienced service users. *European Journal of Marketing*, *44*(9), 1528–1552. https://doi.org/10.1108/03090561011062952

Dixon, L. (2020). Autonowashing: The Greenwashing of Vehicle Automation. *Transportation Research Interdisciplinary Perspectives*, *5*, 100113. https://doi.org/10.1016/j.trip.2020.100113

Ferdinand, A. (2014). *Metode Penelitian Manajemen.* Badan Penerbit Universitas Diponegoro.

Gupta, A., Dash, S., & Mishra, A. (2019). All that glitters is not green: Creating trustworthy ecofriendly services at green hotels. *Tourism Management*, *70*(July 2017), 155–169. https://doi.org/10.1016/j.tourman.2018.08.015

Ha, M. T., Ngan, V. T. K., & Nguyen, P. N. D. (2022). Greenwash and green brand equity: The mediating role of green brand image, green satisfaction and green trust and the moderating role of information and knowledge. *Business Ethics, Environment and*

Responsibility, *31*(4), 904–922. https://doi.org/10.1111/beer.12462

Harris, K., & Divakarla, S. (2017). Supply Chain Risk to Reward: Responsible Procurement and the Role of Ecolabels. *Procedia Engineering*, *180*, 1603–1611. https://doi.org/10.1016/j.proeng.2017.04.323

Hong, I. B., & Cho, H. (2011). The impact of consumer trust on attitudinal loyalty and purchase intentions in B2C e-marketplaces: Intermediary trust vs. seller trust. *International Journal of Information Management*, *31*(5), 469–479. https://doi.org/10.1016/j.ijinfomgt.2011.02.001

Izogo, E. E. (2015). Determinants of attitudinal loyalty in Nigerian telecom service sector: Does commitment play a mediating role? *Journal of Retailing and Consumer Services*, *23*, 107–117. https://doi.org/10.1016/j.jretconser.2014.12.010

Jin, B., Park, J. Y., & Kim, J. (2008). Cross-cultural examination of the relationships among firm reputation, e-satisfaction, e-trust, and e-loyalty. *International Marketing Review*, *25*(3), 324–337. https://doi.org/10.1108/02651330810877243

Kang, S., & Hur, W. M. (2012). Investigating the Antecedents of Green Brand Equity: A Sustainable Development Perspective. *Corporate Social Responsibility and Environmental Management*, *19*(5), 306–316. https://doi.org/10.1002/csr.281

Lestari, E. R., Kirana Putri, H., Anindita, C., & Bernadhetta, M. (2020). The Effect of Green Product (Enviromental Friendly Drink), Green Advertising, and Environmental Concern to Green Trust and Implications on Purchase Intention. *Jurnal Teknologi Pertanian*, *21*(1), 1–10.

Lin, J., Lobo, A., & Leckie, C. (2017). The role of benefits and transparency in shaping consumers' green perceived value, self-brand connection and brand loyalty. *Journal of Retailing and Consumer Services*, *35*(October 2016), 133–141. https://doi.org/10.1016/j.jretconser.2016.12.011

Linton, J. D., Klassen, R., & Jayaraman, V. (2007). Sustainable supply chains: An introduction. *Journal of Operations Management*, *25*(6), 1075–1082. https://doi.org/10.1016/j.jom.2007.01.012

Papista, E., & Dimitriadis, S. (2019). Consumer – green brand relationships: revisiting benefits, relationship quality and outcomes. *Journal of Product and Brand Management*, *28*(2), 166–187. https://doi.org/10.1108/JPBM-09-2016-1316

Park, H., & Kim, Y. K. (2016). Proactive versus reactive apparel brands in sustainability: Influences on brand loyalty. *Journal of Retailing and Consumer Services*, *29*, 114–122. https://doi.org/10.1016/j.jretconser.2015.11.013

Rahbar, E., & Wahid, N. A. (2011). Investigation of green marketing tools' effect on consumers' purchase behavior. *Business Strategy Series*, *12*(2), 73–83. https://doi.org/10.1108/17515631111114877

Testa, F., Iraldo, F., Vaccari, A., & Ferrari, E. (2015). Why eco-labels can be effective marketing tools: Evidence from a study on italian consumers. *Business Strategy and the Environment*, *24*(4), 252–265. https://doi.org/10.1002/bse.1821

Thøgersen, J., Haugaard, P., & Olesen, A. (2010). Consumer responses to ecolabels. *European Journal of Marketing*, *44*(11), 1787–1810. https://doi.org/10.1108/03090561011079882

Woo, E., & Kim, Y. G. (2019). Consumer attitudes and buying behavior for green food products: From the aspect of green perceived value (GPV). *British Food Journal*, *121*(2), 320–332. https://doi.org/10.1108/BFJ-01-2018-0027

Yuen, K. F., Wang, X., Wong, Y. D., & Zhou, Q. (2018). The effect of sustainable shipping practices on shippers' loyalty: The mediating role of perceived value, trust and transaction cost. *Transportation Research Part E: Logistics and Transportation Review*, *116*(June), 123–135. https://doi.org/10.1016/j.tre.2018.06.002