Factors Influencing Green Purchase Intention

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ABSTRACT
This research aims to examine whether 1) green perceived value and green perceived risk can influence green trust 2) green perceived value and green perceived risk can influence green purchase intention 3) green trust can influence green purchase intention 4) green trust mediates the effect on green perceived value and green perceived risk on green purchase intention. Sample was selected using convenience sampling method amounted to 150 respondents at Jakarta. Data was processed with structural equation modeling using SmartPLS.3.2.7 program. The results indicate green perceived value and green perceived risk have significant effect to predict green trust and green purchase intention, green trust have significant influence to predict green purchase intention, and green trust partially mediates the effect on green perceived value as well as green perceived risk on green purchase intention.

Keywords: Green perceived value (GPV), Green Perceived Risk (GPR), Green Trust (GT), Green Purchase Intention (GPI)

1. INTRODUCTION
Green purchase intention refers to the possibility of consumers purchasing certain products in accordance to their environmental needs [1]. Companies have taken several steps to support green life campaign in order to increase public awareness to purchase environmentally friendly products. Companies want consumers who support this program to buy the green brands offered. Consumers with high purchase intention for a product or service have a higher actual purchase level compared to consumers with lower purchase intention [2]. According to Chen and Chang [3] companies must implement a green marketing strategy to enhance the perceived value of the product as well as decrease the perceived risk of the product, by paying attention to nature and the environment to ultimately increase the company's competitive advantage.

To increase sales, companies need to know the factors affecting consumers’ green purchase intention. According to Chen and Chang [1] green purchase intention is affected by green perceived value and green perceived risk. Meanwhile, according to Weisstein, Asgari, and Siew [4] green purchase intention is affected by perceived savings as well as perceived quality. By increasing perceived quality and maximizing perceived saving obtained by consumers, green products purchase will increase. Furthermore, Wang and Yang [5] claimed that green purchase intention is affected by green brand positioning as well as green brand knowledge, and lastly, purchase intention can be influenced by emotion and perceived risk [6].
Beneficial products are more likely to be purchased. Green perceived value refers to the consumers’ overall assessment of the net benefits of products or services comparing what is received with what is given according to the desires of the consumer’s environment, sustainable expectations of consumers, and the need for environmental friendliness. Today, more people are beginning to see the value of environmental friendliness in a product. According to Chen and Chang [1] if a product has good green perceived value, it will increase green purchase intention. This is validated by previous studies, such as of Putra and Suryani [7], who found that green perceived value positively influenced green purchase intention. Wu and Chen [8] discovered that if perceived value increases, then purchase intention will also increase.

Green perceived risk is important in generating green purchase intentions. As discussed by Chen and Chang [1], green perceived risk is a negative expectation that can have an impact on the environment related to buying behavior. Chen and Chang [1] found that green perceived risk has negative influence on green purchase intention. Similar results were also obtained in the research of Kim and Lennon [6] who found that perceived risk has a negative impact on purchase intention. This is also supported by Chang and Chen's research [9] that the greater the risk that can be perceived from a product, the less the consumer's intention to buy the product.

Another factor that can explain green purchase intention is green trust. Green trust is a will to reply on a service, a product or brand according to beliefs or expectations due to credibility, good deeds, and how environmentally friendly it is [10]. Strong trust in a product will increase consumer purchase intentions for said product. This is supported by research by Chen and Chang [1] which discovered that green trust has a direct positively influences green purchase intention on electronic products in Taiwan. These results were also found in the study of Alessandro, Girardi and Tiangoongnern [11]. In the research of Chen and Chang [1] green trust mediates the effect of green perceived risk and green perceived value on green purchase intention.

This study aims to determine whether green perceived value as well as green perceived risk can be used to predict green trust, along with whether green perceived value and green perceived risk can be used to predict green purchase intention, whether green trust can be used to predict green purchase intention, and whether brand love can mediate brand image and self-expressive towards word of mouth. The results of this study are expected to provide information to companies to consider the opinions and ratings of their consumers about the internal aspects of the company to develop its products. Besides, this research can be taken into consideration in making appropriate decisions related to the use of green perceived value, green perceived risk, and green trust factors on consumers’ green purchase intentions so that companies can continue to survive in global competition.

Chen and Chang [1] explained that green perceived value directly and positively influence green trust. With an increase in consumers’ perceived value of an item, the level of consumer confidence will increase. This is also supported by Chen's research [10] suggesting that green perceived value directly and positively influence green trust in electronic consumers in Taiwan. Furthermore, Cheung, Lam, and Lau [12] proposed that green perceived value has positive relationship with green trust in Bonaqua consumers in Hong Kong.

Chen and Chang [1] [3] [13] suggested that reducing green perceived risk increases green trust. This means that green perceived risk has a negative impact on green trust. When companies reduce the perceived risk felt by consumers, consumer confidence in these products will increase. The level of consumers’ perceived risk will influence the
consumer's decision to trust or mistrust. Further research by Alessandro, Girardi, and Tiangsoongnern [11] found that perceived risk has a negative impact on trust. Based on the description above, the first hypothesis is as follows:

\[ H_1a: \text{Green perceived value can positively influence green trust.} \]
\[ H_1b: \text{Green perceived risk can negatively influence green trust.} \]

Weisstein, Asgari, and Siew [4] found perceived value positively influenced purchase intention on green products. When the benefit felt by consumers increases, the intention to buy a product will also increase. Chen and Chang [1] discovered green perceived value positively influenced green purchase intention. Chen and Chang [1] stated that consumers must be given knowledge about green products to increase green perceived value, in order to increase consumers' purchase intentions on green products. Cheung, Lam, and Lau [12] found that green perceived value has a positive impact on green purchase intentions on bottled mineral water products in Hong Kong. Furthermore, the study by Wu and Chen [8] found that if perceived value increases, then green products purchase intention will also increase.

Chen and Chang [1] found that green perceived risk negatively impacts green purchase intention. When consumers’ perceived risk increases, the intention to buy the product decreases. Similar results were obtained in the study by Alessandro, Girardi and Tiangsoongnern [11] in which perceived risk negatively influenced purchase intention. Purchase intention increases if consumers’ perceived risk decreases. Furthermore, Bhukuya and Singh [14] found that perceived risk negatively impacts purchase intention. Consumer confidence can be gained by the company by minimizing perceived risk in every aspect. As per the discussions above, this study posits that:

\[ H_2a: \text{Green perceived value can positively influence green purchase intention.} \]
\[ H_2b: \text{Green perceived risk can negatively influence green purchase intention.} \]

Consumer confidence is the main determinant of long-term consumer behavior. In a research by Chen and Chang [1], it was found that green trust has a direct positive impact on green purchase intentions on electronic products in Taiwan. Furthermore, Chang and Chen's [9] study uncovered that green trust has a direct positive influence on green purchase intentions for consumers who shop online. Alessandro, Girardi, and Tiangsoongnern [11] also discovered trust positively influence purchase intention. When consumer confidence increases, consumers’ purchase intention increases. Hence, this study hypothesizes that:

\[ H_3: \text{Green trust can influence green purchase intention positively.} \]

Chen and Chang [1] found that green perceived risk significantly influences green trust and green purchase intention directly. Companies must understand the effects of green perceived risk and green trust on green purchase intentions. A product with low green perceived risk will be able to win consumer preferences in a purchasing decision compared to those with high green perceived risk. However, before consumers decide to make a purchase, consumers will consider whether this product can be trusted before buying the product. The above statement is supported by research by Alessandro, Girardi, and Tiangsoongnern [11] which stated that trust mediates the perceived risk relationship to consumers' purchase intentions on jewelry products in Thailand. Before having purchase intentions, consumers will first consider the perceived risk, then consumers will trust said product resulting in an increase of consumers’ purchase intentions of said product will increase.

Based on the result of research conducted by Chen and Chang [1], green trust can mediate green perceived value to one's purchase intention. Consumers feel confident about a product if they have felt the value of
environmentally friendly product. After consumers are confident in the environmental performance of a product, they will have purchase intentions on environmentally friendly products. Meanwhile, according to Lam, Lau, and Cheung [15] green perceived value can predict green repurchase intention through green trust. To continue to maintain relationships with green consumers, companies must continue to develop green perceived value of a product and increase green trust. Based on the description above, the research hypothesis is:

H4a: Green trust can positively mediate the influence of green perceived value on green purchase intentions.

H4b: Green trust can negatively mediate the influence of green perceived risk to green purchase intention.

Consequently, the research model is as follows:

![Figure 1. Research Model](image)

2. METHOD

This research is a descriptive research with cross sectional design method. The population in this study are all consumers in Jakarta. Non-probability sampling method was adopted, indicating that not all brand users have the same chance to be selected as a sample. While the sample selection technique used in this study is convenience sampling. The sample in this study was 150 consumers in Jakarta.

Data collection in this study was carried out by distributing questionnaires online using google-form. Majority of respondents were female at 92 people out of 150 or 61%. Furthermore 137 people or 91% were students and as many as 61 people or 40% spend between Rp 2,000,000.00 to Rp 3,999,999.00 per month. 95 people or 63.33% purchase products for their benefits.

Some instruments were adapted from previous studies to measure research variables, a five-point Likert scale with point 1 indicating "strongly disagree" and point 5 indicating "strongly agree" was used to measure the research objects. Table 1 shows the measurement of each variable and its reference. The data analysis method in this study uses structure equation modeling (SEM) with the help of the SmartPLS program, with the significance level of 5%.

Validity analysis has been carried out on the instrument with the results of convergent validity analysis that is the loading factor of all indicators of all variables showing the value above 0.7 and the value of AVE for all variables greater than 0.5 [16]. Then, discriminant validity analysis shows a cross loading value of each indicator variable that is greater than the correlation between other variables, and the fornell-larcker analysis shows that the value of the square root AVE is greater than the correlation between other variables, that all instruments are declared valid [17]. Meanwhile, reliability analysis is based on Cronbach's alpha and composite reliability, each of which shows a value of more than 0.6 so that all indicators in the study are reliable [18].
### Table 1. Measurement Data Variable

| Variable Type | Item | Reference |
|---------------|------|-----------|
| Independent Variable | 1. Green perceived value | 5 | Chen and Chang [1] |
| | 2. Green perceived risk | 4 | |
| Dependent Variable | Green purchase intention | 3 | |
| Mediating Variable | Green trust | 4 | |

### 3. RESULTS AND DISCUSSION

Table 2. below shows the results of analysis.

| Hypothesis | Coefficient | T-statistic |
|------------|-------------|-------------|
| H1a Green Perceived Value -> Green Trust | 0.622 | 10.082** |
| H1b Green Perceived Risk -> Green Trust | -0.161 | 2.376* |
| H2a Green Perceived Value -> Green Purchase Intention | 0.259 | 3.529** |
| H2b Green Perceived Risk -> Green Purchase Intention | -0.188 | 3.004** |
| H3 Green Trust -> Green Purchase Intention | 0.385 | 5.134** |
| H4a Green Perceived Risk -> Green Trust -> Green Purchase Intention | -0.062 | 2.047* |
| H4b Green Perceived Value -> Green Trust -> Green Purchase Intention | 0.239 | 4.856** |

*p<0.05; **p<0.01

The result of testing the first hypothesis showed that green perceived value positively influences green trust. Consumers generally view products as an environmentally friendly international skin care products that are valued and trusted. Research conducted by Chen [10] suggests that green perceived value has a direct positive effect on green trust due to subjective differences in the value of a product perceived by one consumer to another. Company continues to increase the value consumers perceive in order to maximize net profit. This opinion is supported by research conducted by Chen and Chang [1], explaining that green perceived value directly and positively influences green trust. With an increase in consumers’ perceived value of an item, the level of consumer confidence will increase. Further research conducted by Chang, Lam, and Lau [12] suggests that green perceived value and green trust are related positively. Trust or subjective assumptions of consumers often arise in the minds of consumers when choosing a product in a purchasing situation, where consumers prefer products with more perceivable benefits, because they believe that products with benefits equal to the trade-off are more trustworthy than products with benefits that are unequal to the trade-off value.

Furthermore, H1b hypothesis testing proved that green perceived risk significantly influence green trust. In line with previous research by Chen and Chang [2], Chen and Chang [1], Chen and Chang [3] and Alessandro, Girardi, and Tiangsoongnern [11] where green perceived risk can negatively and significantly affect consumer green trust. When companies reduce the perceived risk of consumers, consumer confidence in their products will increase. Green campaign programs created by company such as "eco-
handkerchief", "recycle", and "clean earth" have formed a good paradigm in the minds of consumers where consumers are more confident with products, because they minimize the risks that affect the environment compared to other products that neglect the environment. This implies that green perceived risk negatively influences green trust.

Green perceived value is proven to be able to positively influence green purchase intention, and therefore, H2a is not rejected. This is coherent with studies conducted by Weissstein, Asgari, and Siew [4], Chen and Chang [1] Cheung, Lam, and Lau [12] and Wu and Chen [8] that green perceived value has a positive and significant impact on green purchase intention. When the benefit felt by consumers increases, so does the intention to purchase a product. The many steps taken by company to show consumers the benefit of supporting their products, such as animal-free testing, fragrance-free and colorant-free, piqued consumers’ interest, generating purchase intention for equal trade-off. This finding shows that in a purchase situation, consumers usually pay attention to all aspects related to the product, and if there is a good correlation between consumers and the product, consumers’ purchase intention will increase subconsciously.

The result of testing the H2b hypothesis indicates that green perceived risk is proven to be able to negatively influence green purchase intention. This hypothesis is supported by Alessandro, Girardi and Tiangsoongnern [11], stating that perceived risk negatively influenced purchase intention. Purchase intention increases if the perceived risk experienced by consumer decreases. This supports the perception of the researchers that in choosing skin care products, consumers must already have known the ingredients and be highly involved enough with the product. This is due to consumers considering the risks that might occur when using skin care products, for example whether or not the product was tested on animals, contains colourant and alcohol, and not recycleable. Furthermore, study by Chen and Chang [1]; Bhukya and Singh [14] found that green perceived risk negatively impacts green purchase intention. When the risk felt by consumers increases, their purchase intention decreases. Consumer confidence can be gained by the company by minimizing the perceived risk in all aspects, such as product ingredients, packaging, green campaigns and many others.

Green trust can positively influence green purchase intention and therefore, H3 is not rejected. Similar with the study by Chen and Chang [1], Chang and Chen [9] and Alessandro, Girardi, and Tiangsoongnern [11] that green trust has a significant influence on green purchase intention. Consumers' personal consideration about a product that they plan to buy can affect their thoughts. Consumers will judge a product based on intrinsic and extrinsic information they found regarding the product, where it will form trust that ultimately affects the consumer's purchase intention.

The result of testing the H4a hypothesis indicates that green trust can positively mediate green perceived value to green purchase intention. This is in accordance with the findings of Chen and Chang [1] and Lam, Lau, and Cheung [15] in which green perceived value significantly impacts green trust while having an influence on green purchase intention as well. Consumers feel confident about a product if they have felt the value of an environmentally friendly product. When consumers are confident in the environmental performance of a product, their purchase intention increases. To continue maintaining relationship with green consumers, companies must continue to enhance the green perceived value of a product and increase green trust.

Lastly, the result of H4b hypothesis testing indicates that green trust can negatively mediate green perceived risk to
green purchase intentions. This is similar to the study by Chen and Chang [1] and Alessandro, Girardi, and Tiangsoongnern [11] that green perceived value significantly influences green trust and has an influence on green purchase intention. Before having purchase intentions, consumers will consider the perceived risk first, and then they will trust and consequently increase consumers' purchase intentions on a product. Companies must understand the impact of green perceived risk and green trust on green purchase intention. A product with low green perceived risk will be able to win consumer preferences in a purchasing decision compared to those with high green perceived risk. However, before consumers decide to make a purchase, they will first consider whether or not this product can be trusted.

4. CONCLUSION
One key to success for most businesses is to maintain a positive green value felt by consumers, because consumers are more confident in products with good green values, leading to higher purchase intentions. Another key to success in green products is by paying attention to the risks posed to the environment. Smaller risk can convince consumers to buy and trust these products. Therefore, green perceived risk as well as green perceived value factors are certainly important strategies to consider in corporate decision making.

The analysis conducted proves that green perceived risk and green perceived value impact green trust, because consumers' decision will be influenced by how consumers’ green perceived value and green perceived risk. How consumers perceive a green product will reflect how the product actually is, and when the product reflects the consumers when used, consumers will be more inclined to trust said product. Furthermore, this research also verifies that green trust factor positively influences green purchase intention, because when consumers trust a product, the consumer will have the intention to purchase.

The results of this study are expected to serve as a consideration in decision making for companies related to green perceived value and green perceived risk factors, where collaboration with various groups can support product research and development, and innovate by adjusting to current fashion trends without eliminating the uniqueness of previous designs can help product marketing activities. In addition, for academics it is hoped that this research can be a reference for further research with a greater scope and range of samples so that it can strengthen and complement previous research, and is expected to add other variables such as green satisfaction, green perceived quality, green product knowledge and green product innovation.

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