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## **The Effect of Green Purchase Intentions on Intention to Buy Environmentally Friendly Straws in Batam City**

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### **Abstract**

In recent years, the use of environmentally friendly straws has become a lifestyle trend, one of which is stainless steel straws which are the most popular new innovations today with the advantages of being used multiple times and environmentally friendly functions. Along with the development of technology, new innovations in environmentally friendly straw materials have emerged, such as paper, glass, metal, ice, and cake materials. This study aims to analyze the relationship between attitude towards green products, green perceived value, green perceived risk, green trust to green purchase intentions in Batam City. This research method is comparative causal research. The object of this research is environmentally friendly straws, i.e., stainless steel, bamboo, paper, glass, and silicone. Data collected using a questionnaire distributed to 200 respondents with the consideration that male and female respondents who have used environmentally friendly straws in Batam used the accidental sampling method. SEM-PLS 3.0 is applied for data processing. The results show that attitude towards green products have a positive effect on green purchase intentions, as well as the green perceived value and green trust. Meanwhile, green perceived risk has a negative effect on green purchase intentions.

**Keywords: Green Purchase Intentions, Green Trust, Attitude Towards Green Product, Green Perceived Value, Green Perceived Risk**

### **Introduction**

Plastic is known for its cheap price, light weight, water resistance, and practical functions. Plastic is used for a variety of packaging, such as plastic bags that can be found in markets and supermarkets, mineral water, etc. Plastic bags are more often used for shopping because they are convenient and efficient to use. Currently, Indonesia has produced 85 thousand tons of waste per day by estimating an increase in the amount of waste in 2025, reaching 150 thousand tons per day (Sanusi, 2021). The World Bank has estimated that in 2025 the world will produce up to 2.2 billion plastic waste (Berplastik, 2021). During the COVID-19 pandemic, plastic waste production increased due to delivery behavior (62%) using packaging such as Styrofoam, plastic bags, and online shopping (47%) with packaging such as bubble wrap, masking tape, cling wrap, cable tie, and bags. Plastic. In addition, the production of plastic waste has soared due to the purchase of medical equipment such as masks, gloves, disinfectants, personal protective equipment (PPE) (Lidwina et al., 2020). Factors that cause the accumulation of waste include

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increasing population, urbanization, and industrialization. Then, inadequate management planning, lack of waste processing infrastructure, lack of funding sources, and low public awareness of waste (Lidwina et al., 2020). So, attitudes that can be taken by the community to limit or even reduce plastic waste, such as using shopping bags, applying the 3R (Reduce, Reuse, Recycle) principle, and using plastic straws instead. Nowadays, many environmentally friendly products have emerged as an effort to reduce the negative impact on the environment. Even now, many people are turning to eco-friendly products due to the emergence of eco-friendly trends in recent years (Hagiworo, 2020). Currently, the use of environmentally friendly straws is becoming an environmentally friendly lifestyle trend in the millennial era. One of them is stainless steel straws, which is a new innovation today, with the advantages of being able to be used many times and having environmentally friendly functions (Karyn, 2021). Along with technological developments, new innovations have emerged from environmentally friendly straw materials such as cake, bamboo, glass, paper, ice, seaweed, silicone, glass, and straw (Havalina, 2021). However, straws with stainless steel are the most popular straws (CARLSEN, 2021). Finally, other types of environmentally friendly straws that are safe to use are bamboo, paper, metal, glass, and silicone (Dekoruma, 2019).

## **Literature Review**

### **Attitude Towards Green Product**

Recent studies argue that attitude towards green products have a direct influence on green purchase intentions (Paul, Modi, & Patel, 2016; Varshneya, Pandey, & Das, 2017; Yadav & S.Pathak, 2017). Several researchers confirm the broad application of the attitude towards green product with green purchase intentions (K.M.Lai & Eddie W.L.Cheng, 2016; Yadav & Pathak, 2016). Attitudes towards green products are defined as consumer responses to eco-friendly products which are reflected in feelings of likes or dislikes (Solomon, 2015). Previous research has also noted that purchasing decisions are usually based on consumer attitudes towards the environment (Felix & Braunsberger, 2016). In addition, (Yadav & Pathak, 2016) state that consumer attitudes towards eco-friendly products have a significant effect on intentions to buy eco-friendly products. The impact of attitudes towards green products on green beliefs can be seen through consumers' positive attitudes about the benefits for the environment. So, the higher the consumer's attitude in using eco-friendly products, the higher the green trust impact. It can be concluded, attitudes that show consumers' liking for a product because they care about the environment and the more positive the perceived benefits, tend to have a stronger belief in using eco-friendly products.

### **Green Perceived Value**

The perceived value of green is defined as a consumer's assessment of goods or services that have benefits for the environment (Y. Chen & Chang, 2012). (Y. Chen & Chang, 2012; Cheung, Lam, & Lau, 2015) showed that the perceived value of green positively affects green trust. From research conducted by (Y. Chen & Chang, 2012), green trust as a mediation of green perceived value on green purchase intentions. According to (Lam, Lau, & Cheung, 2016), green perceived value can determine green purchase intentions by way of green trust. The effect of the perceived value of green-on-green trust can be seen from customer assessments of the environmentally friendly benefits of environmentally friendly products. So, when consumers perceive a particular product as having a higher eco-friendly value, they will believe that the product has less negative impact on the environment. Therefore, if the green perceived value high, the higher the green trust. (Y. Chen & Chang, 2012; Weisstein, Asgari, & Siew, 2014; Wu

& Chen, 2014) states that if a product has a positive green perceived value, then the green purchase intention will be higher.

### **Green Perceived Risk**

(Bhukya & Singh, 2015; Y. Chen & Chang, 2012; D'Alessandro, Girardi, & Leela Tiangsoongnern, 2012; Kim & Sharron J. Lennon, 2013) stated that green perceived risk had a negative influence on green purchase intentions. The perceived green risk is defined as a product having a negative impact on the environment caused by customer buying behavior (Y. Chen & Chang, 2012). (Y. Chen & Chang, 2012) states that reducing green perceived risk will increase green trust. The level of risk perceived by consumers will affect the consumer's decision to trust or not to a product. (D'Alessandro et al., 2012) stated that green perceived risk has a negative impact on green trust. (Y. Chen & Chang, 2012; D'Alessandro et al., 2012) stated that green trust as a mediation between green perceived risk and green purchase intentions for jewelry products in Thailand. Before having a purchase intention, customers pay attention to the risk first, if the consumer trusts the product, the consumer's purchase intention increases. The impact of green perceived risk on green trust can be known through customer perceptions of the risks of using eco-friendly products in protecting the environment. So, when consumers are concerned that the product has a higher negative impact on the environment, consumers are less likely to trust the product. Therefore, if the green perceived risk is higher, then the green trust is lower.

### **Green Trust**

Green trust is consumer trust to use goods or services that are believed to have a positive impact on the environment (Y. Chen & Chang, 2012). In research (Y. Chen & Chang, 2012), green trust as a mediation of green perceived risk and green perceived value on green purchase intentions. (Y. Chen & Chang, 2012; D'Alessandro et al., 2012) also concluded that trust has a positive influence on purchase intention. When consumer confidence increases, consumer purchase intention will also increase. The influence of green trust on green purchase intention is known from consumer assessments of trust in environmentally friendly products in the long term due to its positive impact on the environment, causing an increase in purchase intention. Thus, high consumer green trust refers to higher green purchase intentions. (Y. Chen & Chang, 2012) states that green trust can mediate green perceived risk and green perceived value on green purchase intentions. Supported by (Y. Chen & Chang, 2012; Lam et al., 2016; Teng & Wang, 2015) concluding that green trust has a positive impact on green purchase intentions.

### **Green Purchase Intentions**

Green purchase intentions are the tendency of buyers to buy certain products based on benefits for the environment (Y. Chen & Chang, 2012). Green purchase intentions refer to consumers to buy eco-friendly products according to their environmental needs (Y. Chen & Chang, 2012). Green purchase intentions are the tendency of buyers to buy certain products based on environmental needs (Y. Chen & Chang, 2012). Green purchase intentions refer to the willingness of consumers to buy eco-friendly products, and plays a role in buying eco-friendly products (Dagher & Omar S Itani, 2014; Gary Akehurst, Carolina Afonso, 2012). It is an individual's desire to prioritize eco-friendly products over other products when making purchasing decisions (D.Newton, Tsarenko, Ferraro, & Sean Sands, 2015). The antecedents and consequences of the green purchase intentions variable have been widely studied by researchers such as (Azizan & Suki, 2014; K. Chen & Deng, 2016; Y. Chen & Chang, 2012; Hojjat & Khoshtina, 2016; Karatu & Mat, 2015; Kong, Harun, Sulong, & Lily, 2014; Lee, 2017; Ma, Rau,

& Guo, 2018; Moyo & Masuku, 2018; C. S. Sharma & Nitika Sharma, 2016; N. Sharma & Dayal, 2017; Yatish Joshi & Rahman, 2015).

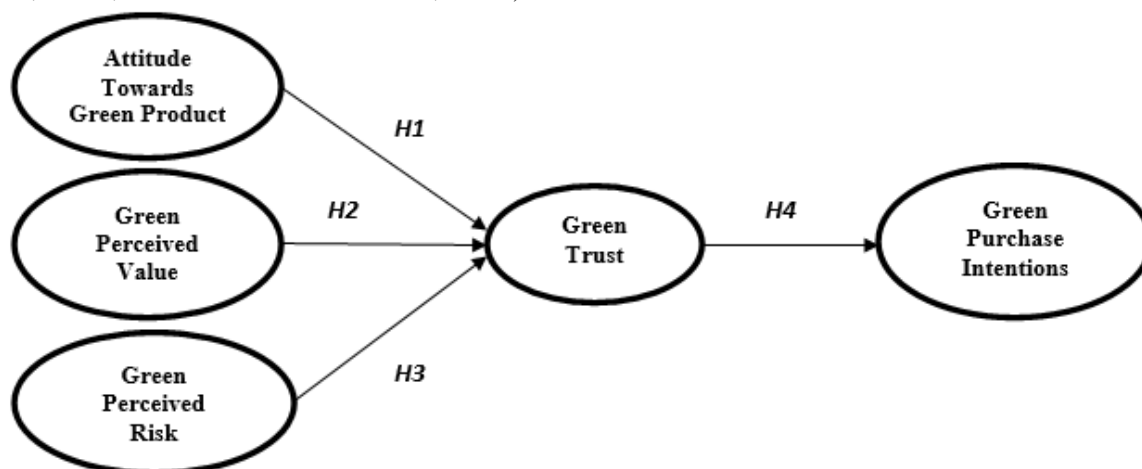


Figure 1. Research Model.

Based on the literature review, the following describes the formulation of the hypothesis according to the model, as a follows:

H1: Attitude Towards Green products have a positive impact on Green Trust.

H2: Green Perceived Value has a positive impact on Green Trust.

H3: Green Perceived Risk has a negative impact on Green Trust.

H4: Green Trust has a positive impact on Green Purchase Intentions.

## Methods

### Research Design

The research conducted is basic research. The research method used is a comparative causal research which is used to determine causal relationships and test hypotheses between variables and by comparing more than two research objects (Saputra & Asyik, 2017), i.e. types of environmentally friendly straws including stainless steel, glass, bamboo, paper, and silicone. The research was conducted because it wanted to know how much influence green purchase intentions had on the intention to buy environmentally friendly straws in Batam. The research consists of five variables with the dependent variable being green purchase intentions, the intervening variable being green trust, and the independent variables being attitude towards green products, green perceived risk, and green perceived value.

### Research Object

The object of the research is people in Batam who have the intention to buy environmentally friendly straws, i.e., stainless steel, bamboo, paper, glass, and silicone. The five types of straws are eco-friendly, popular, lightweight, easy-to-find, non-waste replacement plastic straws, affordable, practical, and safe to use in everyday life (Dekoruma, 2019; Kumparan, 2020; Mustinda, 2019; Muyasar, 2019; Primastika, 2019). The most popular alternative straws are glass and metal, paper straws are easy to process and inexpensive straws, while the most environmentally friendly straw is bamboo because it is used as compost (Primastika, 2019). Bamboo straws have a natural aroma and are light in weight (Dekoruma, 2019; Kumparan, 2020). Then, paper straws are environmentally friendly straws that are worldwide and have a variety of designs and colors (Dekoruma, 2019; Mustinda, 2019). Stainless steel straws are straws that are durable, anti-rust and durable, compared to glass straws which are breakable and heat-resistant

(Dekoruma, 2019; Kumparan, 2020; Mustinda, 2019). Lastly, silicone straws have a fairly large size, elastic texture, and are used specifically for drinks that have a thick texture and contain jelly such as juices, smoothies, etc. (Dekoruma, 2019; Mustinda, 2019).

**Sampling**

This study uses non-probability sampling. (Sugiyono, 2017) states that the non-probability sampling technique is done by not providing different opportunities for each selected population to be sampled. Then, the basis used by researchers in taking research samples is using the accidental sampling. Accidental sampling is a sampling technique based on respondents who coincidentally meet with researchers and these respondents are deemed to meet the criteria and are suitable for use in data collection (Sugiyono, 2017). The population that has been determined by the researchers in the study is the people who have used environmentally friendly straws in Batam. Furthermore, the sample criteria selected by the researcher in the study were male and female respondents with the consideration that they had used environmentally friendly straws in Batam. Types of environmentally friendly straws used for research include stainless steel, bamboo, paper, glass, and silicone. Researchers did not find data regarding the number of purchases of environmentally friendly straws in Batam. So, taking the number of samples in the study is using the (Jr, Sarstedt, Hopkins, & Kuppelwieser, 2014). The method is carried out with a ratio of 10:1, meaning that every 1 question is multiplied by 10 which is representative of the respondent. The research has 20 questions taken from all 5 variables; 20 questions are multiplied by 10 so the result is 200. Thus, the minimum calculation of the research sample is  $20 \times 10 = 200$ . So, the minimum sample in the study is 200 samples.

**Table 1. Questionnaire Items**

<b>Constructs</b>	<b>Items</b>
Attitude Towards Green Product	Concern for the environment is important to me when purchasing products.
	I believe that buying eco-friendly products helps reduce pollution (water, air, etc).
	I believe that eco-friendly products help save nature and resources.
	If there's a choice, I will prefer environmentally friendly products over conventional products.
Green Perceived Value	The eco-friendly function of this product provides a good value.
	The eco-friendly performance of this product meets the expectations and needs of the environment.
	I bought this product because it has more ecological value than other products.
Green Perceived Risk	There may be something wrong with the environmental performance of this product.
	It is possible that this product will not function properly due to environmental design.
	There is a possibility that I will get penalized or pollute the environment if I use this product.
	It is possible that the use of this product will have a negative impact on the environment.
	Using this product will damage my reputation or my eco-friendly image.
Green Trust	I feel the environmental reputation of this product is generally reliable.
	I find the environmental performance of this product to be generally reliable.
	I believe this product provides a guarantee for the environment.
	This product's environmental concern met my expectations.
	This product keeps its promise and commitment to protect the environment.

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Green Purchase Intentions	I intend to buy environmentally friendly products because of my concern for the environment.
	I hope to buy eco-friendly products in the future because of the environmental benefits.
	Overall, I feel happy to buy an eco-friendly product because of its eco-friendly function.

**Table 2. Demographic Respondents (N=200)**

Indicator	Frequenchy	Percentage
<b>Gender</b>		
Male	77	38.5
Female	123	61,5
<b>Age</b>		
<18	36	18
18-30	149	74.5
31-45	9	4.5
46-60	6	3
<b>Education</b>		
Middle School	8	4
High School/ Vocational School	112	56
Diploma	22	11
Bachelor	57	28.5
Magister and above	1	0.5
<b>Income</b>		
< Rp 3.691.466	160	80
Rp 3.694.774 – Rp 6.516.357	24	12
Rp 6.531.155 – Rp 9.793.314	6	3
Rp 9.795.948 – Rp 13.032.714	3	1.5
> Rp 13.038.708	7	3.5
<b>Straw Type</b>		
Bamboo	23	11.5
Glass	6	3
Paper	57	28.5
Silicone	17	8.5
Stainless Steel	97	48.5

Based on the table above which explains the respondent data collected by gender, from 200 respondents there were 77 males (38.5%) and 123 females (61.5%). Then, the age with the highest number ranged from 18-30 years with a total of 149 respondents (74.5%), respondents with the second highest age of <18 years (16%) with a total of 36 respondents, then 31-45 years 9 respondents (4.5%), the last age was 46-60 years 6 respondents (3%). Next, there is the highest

number of recent education levels in the High School/Vocational School category, which is 112 respondents (56%) followed by the Bachelor category as many as 57 respondents (28.5%), then Diploma 22 respondents (11%), Middle School 8 respondents (4%), and magister and above 1 respondent (0.5%). Then, the income level of <Rp 3,691,466 amounted to 160 respondents (80%) which made the highest income level, then followed by Rp 3,694,774 – Rp 6,516,357 totaling 24 respondents (12%), then >Rp 13,038. 708 totaling 7 respondents (3.5%) then Rp 6,531,155 – Rp 9,793,314 totaling 6 respondents (3%), and the minimum income of Rp 9,795,948 – Rp 13,032,714 totaling 3 respondents (1.5%). Lastly, Batam citizen chose the type of straw they had used from a total of 200 respondents, including stainless steel amounting to 97 respondents (48.5%), followed by paper type which was 57 respondents (28.5%), bamboo type amounting to 23 respondents (11.5%), the type of silicon is 17 respondents (8.5%), and glass type is 6 respondents (3%).

### **Data Collection**

Researchers used a questionnaire as a technique of collecting data. Questionnaire is a data collection technique that is done by giving a question given to the respondent to be answered (Sugiyono, 2017). The questionnaire used in the form of a Google Form conducted by researchers to respondents to collect data. The questionnaire distributed by the researchers has two parts, the first part contains the demographics of the respondents which includes the name of the respondent, the respondent's age, education level and income level of the respondent, and questions about the object under study, and the second part contains questions related to variables. Questionnaires in the study given to respondents by researchers amounted to 200 questionnaires using a Likert scale measurement of 1-5 with information from strongly disagree to strongly agree for each indicator. Secondary data is obtained by the author through conducting research from various journals, books, magazines, websites, or another internet. Lastly, the test was carried out using the SEM-PLS 3.0.

### **Measures**

This measurement model is useful for test the statistics on causal variables and to test the effect of inter-variables. This study uses a descriptive analysis method presented in the form of a table to determine the amount and percentage of respondent demographics, gender, age, education level, income level, frequency of respondents who have used environmentally friendly straws, and types of straws that have been used. The next step is testing the evaluation of 2 types of models, inner model, and outer model. Researchers evaluate the outer model which consists of a validity test that shows convergent validity with a loading factor is said to be valid >0.7, discriminant validity-cross loading with construct criteria has a cross loading higher value than the value of other constructs, discriminant validity-fornell larcker criterion with the criterion of having a Fornell-Larcker higher value than the other variables, and the discriminant validity-Heterotrait Monotrait Ratio (HTMT) with a valid criterion <0.90. Then, a reliability test that shows Cronbach's alpha with valid criteria >0.60, composite reliability with valid criteria >0.70, and Average Variance Extracted (AVE) with valid criteria >0.5. Furthermore, the evaluation of the inner model which consists of hypothesis testing which includes path coefficients with significant criteria if the t-statistics >1.96 and p-values <0.05, total indirect effects with significant criteria if the t-statistics >1.96 and p-values <0.05, r-squared by showing the correlation with the criteria 0 (no correlation), 0-0.049 (weak), 0.50 (moderate), 0.51-0.99 (strong), and 1.00 (perfect) (Ghozali, 2018), and standardized root mean square residual (SRMR) with eligible criteria if <0.05 (Henseler et al., 2014). Finally, the Goodness of Fit (GoF) test with the criteria of 0-0.25 (small), 0.25-0.36 (moderate), and >0.36 (large) (Ghozali, 2014).

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**Results**

The first step is the validity test which shows the loading factor. Loading factor aims to test convergent validity, an indicator is valid if the loading factor >0.7 (Soetrisno & Januar, 2018). Based on the output results, there's 5 indicators of the attitude towards green product i.e ATGP1 (0.833), ATGP2 (0.799), ATGP3 (0.702), and ATGP4 (0.757), green perceived value has 3 constructs, GPV1 (0.730), GPV2 (0.887), GPV3 (0.802), green perceived risk has 5 constructs, GPR1 (0.869), GPR2 (0.903), GPR3 (0.869), GPR4 (0.902), GPR5 (0.854), green trust has 5 constructs, GT1 (0.909), GT2 (0.888), GT3 (0.889), GT4 (0.912), GT5 (0.860), and green purchase intentions has 3 constructs, GPI1 (0.890), GPI2 (0.888), GPI3 (0.861). It can be concluded that each variable has met the criteria, so all constructs on all variables are valid.

**Table 3. Convergent Validity – Loading Factor, and Discriminant Validity – Cross Loading**

	Attitude Towards Green Product		Green Perceived Value		Green Perceived Risk		Green Trust		Green Purchase Intentions	
	Loading Factor	Cross Loading	Loading Factor	Cross Loading	Loading Factor	Cross Loading	Loading Factor	Cross Loading	Loading Factor	Cross Loading
ATGP1	0.833	0.833		0.697		-0.285		0.59		0.631
ATGP2	0.799	0.799		0.461		-0.2		0.442		0.602
ATGP3	0.702	0.702		0.456		-0.15		0.372		0.472
ATGP4	0.757	0.757		0.529		-0.195		0.532		0.625
GPI1		0.724		0.621		-0.297		0.649	0.89	0.89
GPI2		0.674		0.542		-0.219		0.535	0.888	0.888
GPI3		0.595		0.454		-0.338		0.518	0.861	0.861
GPR1		-0.224		-0.319	0.869	0.869		-0.394		-0.236
GPR2		-0.239		-0.372	0.903	0.903		-0.4		-0.279
GPR3		-0.227		-0.247	0.869	0.869		-0.244		-0.303
GPR4		-0.218		-0.303	0.902	0.904		-0.323		-0.309
GPR5		-0.308		-0.285	0.854	0.854		-0.318		-0.315
GPV1		0.535	0.73	0.73		-0.233		0.505		0.431
GPV2		0.634	0.887	0.887		-0.342		0.7		0.586
GPV3		0.542	0.802	0.802		-0.271		0.594		0.471
GT1		0.585		0.694		-0.388	0.909	0.909		0.58
GT2		0.609		0.687		-0.316	0.888	0.888		0.573
GT3		0.54		0.647		-0.31	0.889	0.889		0.554
GT4		0.608		0.698		-0.384	0.912	0.912		0.64
GT5		0.502		0.607		-0.347	0.86	0.86		0.549

Based on the table. 3, after retesting that all variables have met the loading factor criteria >0.7 (Soetrisno & Januar, 2018). So, all indicators on each variable in convergent validity are valid. Next, the output of discriminant validity which displays cross loading. Cross loading is the value of loading on a construct, with the criteria of the intended construct having a higher value than the loading value on other constructs (Ghozali, 2015). Based on the output show the cross loading for each construct, attitude towards green product has 4 constructs, ATGP1 (0.833), ATGP2 (0.799), ATGP3 (0.702), and ATGP4 (0.757), green perceived value has 3 constructs, GPV1 (0.730), GPV2 (0.887), GPV3 (0.802), green perceived risk has 5 constructs, GPR1 (0.869), GPR2 (0.903), GPR3 (0.869), GPR4 (0.902), GPR5 (0.854), green trust has 5 constructs, GT1 (0.909), GT2 (0.888), GT3 (0.889), GT4 (0.912), GT5 (0.860), and green purchase intentions has 3 constructs, GPI1 (0.890), GPI2 (0.888), GPI3 (0.861). In conclusion, the value of the construct on the variable attitude towards green product, green perceived value, green



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perceived risk, green trust, and green purchase intentions has a higher value than the loading value on other constructs, so all constructs on all variables are valid.

**Table 4. Discriminant Validity – Fornell Larcker Criterion**

	Attitude Towards Green Product	Green Purchase Intentions	Green Perceived Risk	Green Perceived Value	Green Trust
Attitude Towards Green Product	0.774				
Green Purchase Intentions	0.76	0.88			
Green Perceived Risk	-0.276	-0.324	0.88		
Green Perceived Value	0.707	0.619	-0.354	0.809	
Green Trust	0.64	0.651	-0.392	0.749	0.892

Based on the output discriminant validity which displays the Fornell larcker criterion. The Fornell larcker criterion value has criteria, the Fornell larcker criterion value of the variable must be higher than the value of the other (Soetriono & Januar, 2018). Based on the output above, there are attitude towards green product with the Fornell larcker criterion of 0.774. Then, the green perceived risk with Fornell's larcker criterion is 0.880. Green perceived value with Fornell's larcker criterion is 0.809. Green purchase intentions with the Fornell larcker criterion of 0.880. Lastly, green trust with Fornell's larcker criterion is 0.892. It can be concluded that each variable is valid, i.e the Fornell Larcker criterion value of the variable is higher than the Fornell Larcker criterion value of the other variables. Thus, all variables in the discriminant validity test - Fornell's larcker criterion are valid.

**Table 5. Discriminant Validity – Heterotrait Monotrait Ratio (HTMT)**

	Attitude Towards Green Product	Green Purchase Intentions	Green Perceived Risk	Green Perceived Value	Green Trust
Attitude Towards Green Product					
Green Purchase Intentions	0.914				
Green Perceived Risk	0.316	0.368			
Green Perceived Value	0.913	0.766	0.415		
Green Trust	0.728	0.719	0.408	0.895	

Based on table. 5, which displays discriminant validity which displays the Heterotrait Monotrait Ratio (HTMT). HTMT has a criterion of <0.90 (Henseler, Ringle, & Sarstedt, 2015). The HTMT method uses a multitrait-multimethod matrix measurement basis. Based on the output, which shows 5 variables i.e. attitude towards green products, green perceived risk, green perceived value, green trust, and green purchase intentions. However, 2 variables are not met the criteria, green perceived value to attitude towards green products with a heterotrait monotrait ratio value of 0.913, and green purchase intentions to attitude towards green products with a heterotrait monotrait ratio value of 0.914.

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**Table 6. Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE)**

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Attitude Towards Green Product	0.779	0.856	0.599
Green Perceived Risk	0.928	0.945	0.774
Green Perceived Value	0.734	0.849	0.654
Green Purchase Intentions	0.855	0.911	0.774
Green Trust	0.936	0.951	0.795

The next step is reliability test. Table. 6, which displays Cronbach's alpha output, which is valid if it has a Cronbach's alpha >0.60 in each construct (Ghozali, 2018), composite reliability is valid if it has a composite reliability >0.70 in each construct (Ghozali, 2014), and Average Variance Extracted (AVE) is valid with an average variance extracted >0.5 for each construct (Ghozali, 2015). Based on the output, it is known that the Cronbach's alpha value of each construct, attitude towards green product (0.779), green perceived risk (0.928), green perceived value (0.734), green trust (0.936), and green purchase intentions (0.855). Next, the composite reliability value of each construct is attitude towards green product (0.856), green perceived risk (0.945), green perceived value (0.849), green trust (0.951), and green purchase intentions (0.911). Lastly, the average value extracted from each construct is attitude towards green product (0.599), green perceived risk (0.774), green perceived value (0.654), green trust (0.795), and green purchase intentions (0.774). In conclusion, all variables from the reliability test are valid.

**Table 7. Path Coefficients Test (Direct Effect)**

	T Statistics	P Values
Attitude Towards Green Product -> Green Trust	2.487	0.014
Green Perceived Risk -> Green Trust	3.137	0.002
Green Perceived Value -> Green Trust	6.535	0
Green Trust -> Green Purchase Intentions	10.062	0

Based on the table. 7, which displays the results of the path coefficients test (Direct Effect). Hypothesis testing was conducted to see the value of t-statistics and p-values. All items are significant if t-statistics >1.96, and p-values <0.05 (Ghozali, 2015). Based on the output, there are 4 hypotheses proposed in the study, it is known that each hypothesis has met the following criteria: H1 shows an attitude towards green product to green trust and has t-statistics 2.487 and p-values 0.014. Therefore, it is concluded that attitude towards green products has a positive effect to green trust. So, H1 is accepted. Next, H2 shows that green perceived risk to green trust has t-statistics 3.137 and p-values 0.002. Therefore, it is concluded that green perceived risk has a negative effect to green trust. So, H2 is accepted. Then, H3 shows that green perceived value to green trust has t-statistics 6.535 and p-values 0.000. Therefore, it is concluded that green perceived value has a positive effect to green trust. So, H3 is accepted. Lastly, H4 shows that green trust to green purchase intentions has t-statistics 10.062 and p-values 0.000. Therefore, it is concluded that green trust has a positive effect to green purchase intentions. So, H4 is accepted.

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**Table 8. Total Indirect Effects Test**

	T Statistics	P Values
Attitude Towards Green Product -> Green Purchase Intentions	2.177	0.031
Attitude Towards Green Product -> Green Trust		
Green Perceived Risk -> Green Purchase Intentions	3.148	0.002
Green Perceived Risk -> Green Trust		
Green Perceived Value -> Green Purchase Intentions	6.412	0
Green Perceived Value -> Green Trust		
Green Trust -> Green Purchase Intentions		

Table. 8, which shows the results of indirect effects. All items are significant if they show t-statistics >1.96, and p-values <0.05 (Ghozali, 2015). Based on the test, attitude towards green product to green purchase intentions has t-statistics 2.177 and p-values 0.031, it is concluded that attitude towards green product is significant to green purchase intentions. Then, green perceived risk to green purchase intentions has t-statistics 3,148 and p-values 0.002, so it is concluded that green perceived risk is significant to green purchase intentions. Lastly, green perceived value to green purchase intentions has t-statistics 6.412 and p-values 0.000, so it is concluded that green perceived value is significant to green purchase intentions.

**Table 9. Coefficient of Determination Test (R<sup>2</sup>)**

	R Square	R Square Adjusted
Green Purchase Intentions	0.424	0.421
Green Trust	0.602	0.596

Based on table 9, which shows the results of the coefficient of determination or r-square test of green purchase intentions and green trusts. The coefficient of determination test is used to measure the dependent variable by showing the ability of the model (Ghozali, 2018). Based on the table above which shows the correlation value of green purchase intentions of 0.421, it is concluded that green purchase intentions have a weak correlation. Furthermore, the green trust correlation is 0.596, it is concluded that the green trust has a moderate correlation. Because, in this study there were more than 2 independent variables, the adjusted R square was used.

**Table 10. Standardized Root Mean Square Residual (SRMR)**

	Original (O)	Mean (M)	95%	99%
Saturated Model	0.066	0.046	0.055	0.059
Estimated Model	0.089	0.05	0.06	0.065

SRMR refers to how much of a difference there is between the tested data and the model. SRMR has a value with a range between 0–1. The test is valid if it has an SRMR <0.05 (Henseler et al., 2014). Based on the output shows the results of the SRMR test, the saturated model with an SRMR of 0.066, and the estimated model with an SRMR of 0.089. Thus, it is concluded that the SRMR test has not met the criteria. Finally, the Goodness of Fit (GoF) test or compatibility test has the aim of knowing the relationship between outer model and inner model whose values vary between 0-1 which is carried out using manual calculations with the following formula:

GoF formula:  $GoF = \sqrt{(AVE \times R^2)}$  (Ghozali, 2015).

$GoF = \sqrt{(AVE \times R^2)}$

So, the calculation is as follows:

$AVE = 0.599 + 0.774 + 0.774 + 0.654 + 0.795$  divided by 5 results in 0.7192, while

$R^2 = 0.421 + 0.596$  divided by 2 results 0.5085.

$GoF = \sqrt{(0.7192 \times 0.5085)}$

$GoF = \sqrt{0.3657132}$

$GoF = 0.6047422591$

Thus, it can be concluded that the results of the manual calculation of Goodness of Fit (GoF) show the large GoF criteria.

## **Conclusion**

The study was conducted to determine the impact of green purchase intentions on the intention to buy environmentally friendly straws in Batam City. The research was conducted by distributing questionnaires in the form of Google Forms totaling 200 to Batam citizens with the criteria of male and female samples being considered as having used environmentally friendly straws in Batam City. The types of environmentally friendly straws used in this study include stainless steel, bamboo, paper, glass, and silicone. The data analysis method used is SEM-PLS 3.0. After processing the data, the results are concluded as follows: H1 which shows attitude towards green product to green trust has t-statistics 2,487 and p-values 0.014. Therefore, it is concluded that attitude towards green products has a positive effect on green trust. Thus, the H1 is accepted. Next, H2 which shows green perceived risk to green trust has t-statistics 3.317 and p-values 0.002. Therefore, it is concluded that green perceived risk has a negative effect on green trust. Thus, the H2 is accepted. Next, H3 which shows green perceived value to green trust has t-statistics 6.535 and p-values 0.000. Therefore, it is concluded that green perceived value has a positive effect on green trust. Thus, the H3 is accepted. Finally, H4 which shows green trust to green purchase intentions has t-statistics 10.062 and p-values 0.000. Therefore, it is concluded that green trust has a positive effect on green purchase intentions. Thus, the H4 is accepted.

In addition, there are some limitations experienced to be taken into consideration so that the next research gets better results. The limitations of the research carried out are as follows: In the research conducted there are still many other factors that might influence green purchase intentions towards the intention to buy environmentally friendly straws. Furthermore, the determination of the sample, the number is still relatively less. Researchers may be able to determine the number of samples more to obtain maximal results. Then the object chosen was the type of environmentally friendly straw, which had many types, but the researchers only chose five types that were used in the study. Lastly, in the data collection process, the researcher used the Google Form that was given to the respondents. Thus, the data obtained do not fully show the actual opinion of the respondents because some respondents may fill in carelessly due to differences in perceptions of each respondent.

Based on the conclusions above, the following recommendations are determined as a continuation of the research: This research can be used for academics to add insight into the relationship between attitude towards green products, green perceived value, green perceived risk, green trust, and green purchase intentions towards the intention to buy environmentally friendly straws, and as a reference and information for further research related to green purchase intentions, and conducting comparative research with several other similar studies to provide comparisons and help refine research. This research can also be used as a reference for producers, especially companies that produce products that use plastic materials to add innovation and make solutions to environmental-related problems, increase business actors' awareness of the importance of eco-friendly products, as well as add insight to consumers. Hopefully this research can contribute to environmental awareness, and theoretically help society.

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