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ANALYSIS OF THE EFFECT OF GREEN PERCEIVED RISK, GREEN PACKAGING, AND GREEN PRODUCT ON GREEN PURCHASE INTENTION ON CULINARY OR FOOD MSME PRODUCTS (STUDY ON STUDENT CONSUMERS IN SEMARANG CITY)

Mohamad Hasanudin[1], Marliyati[2], Ch Retno Gayatri[3], Sulistyo[4], Ardian Widiarto[5]

AFFILIATIONS
[1] Departement of Accounting, Semarang State Polytechnic, Indonesia
[2] Departement of Accounting, Semarang State Polytechnic, Indonesia
[3] Departement of Accounting, Semarang State Polytechnic, Indonesia
[4] Departement of Accounting, Semarang State Polytechnic, Indonesia
[5] Departement of Accounting, Semarang State Polytechnic, Indonesia

*Corresponding Author E-mail: mohamad.hasanudin@polines.ac.id

Abstract: After experiencing the Covid-19 Pandemic starting in 2023, the Indonesian economy began to rise but has not fully reached normal conditions. The same condition is also experienced by the MSME sector, especially the culinary / food sector. The impact of the economic recovery after the covid pandemic also has an impact on the increasing amount of waste. According to the Semarang City Environmental Agency (DLH), during the pandemic waste production started at 900 tons, even down to 650 tons, but now in 2022 after the covid pandemic began to end the amount of waste began to rise to 1200 tons of waste per day. This study aims to determine and analyze whether or not there is a relationship between the green economy perception variable which consists of: Green Perceived Risk Green Packaging and Green Product on Green Purchase Intention among students in Semarang city related to the implementation of Semarang mayor regulation no.27 of 2019 concerning plastic waste control in Semarang city. Data collection was carried out using a questionnaire or questionnaire method and observation. The data analysis method used in this research is Structural Equation Modeling with the Partial Least Square (SEM-PLS) algorithm approach. Based on the results of this study, it will be concluded that the effect value of Green Perceived Risk (X1) on Green Purchase Intention (Y) is a negative and insignificant effect on the attitude of desire to buy green products, thus H1 is rejected. The effect value of Green Packaging (X2) on Green Purchase Intention (Y) is a positive and insignificant effect on the interest in buying green products, thus H2 is rejected. The value of the influence of Green Product (X3) on Green Purchase Intention (Y) is a positive and significant effect on the interest in buying green products, thus H3 is accepted.

Keywords: Green Perceived Risk of Green Packaging and Green Product on Green Purchase Intention, MSMEs, sales of green products.

INTRODUCTION

Introduction

Green economy or environmentally friendly business is a business activity that always seeks to minimize damage to the environment, such as pollution through the waste produced, and the occurrence of disturbances to the balance of the ecosystem and the environment of the community around the business area. The existence of environmentally friendly businesses is expected to increase the assurance and sustainability of ecosystem balance in the future (Bank ndonesia 2015).

Semarang City has issued a mayoral regulation no.27 of 2019 concerning plastic waste control, with the issuance of the mayor's regulation the Semarang city government is expected

to be able to realize the vision and mission of a plastic waste-free Semarang city in 2025. When observed in the field, the application of Perwal No. 27/2019 of Semarang City Government has been effectively applied to minimarkets, but not yet effective for cafes, restaurants, etc. (food/culinary).

The condition of all MSMEs, especially the food / culinary sector, which has not yet recovered from the impact of the Covid 19 pandemic, this can be seen from the sales turnover which has not yet recovered from normal conditions. Regarding the rules of Indonesian Law No. 3 of 2014 explaining the green industry, namely the industry whose production process prioritizes efforts to make efficient and effective use of resources in a sustainable manner so as to be able to harmonize development with the preservation of environmental functions and Perwal No. 27 of 2019 concerning the control of plastic waste in the city of Semarang, how is the application of these rules according to the perceptions of young students in the city of Semarang seen from the perception of the green economy consisting of: green Perceived Risk Green Packaging and Green Product Against Green Purchase Intention for Culinary / Food MSME Products in the city of Semarang.

LITERATURE REVIEW

Micro, Small and Medium Enterprises (MSME)

Article 1 of Law No. 20/2008 on micro, small, and medium enterprises provides several important definitions of MSMEs, namely:

1. Micro Business
   Micro enterprises are productive businesses owned by individuals and/or individual business entities that meet the criteria for Micro Enterprises as stipulated in this Law.
2. Small Business
   A small business is a stand-alone productive economic business, conducted by an individual or business entity that is not a subsidiary or not a branch of a company owned, controlled, or a part either directly or indirectly of a Medium Business or a Large Business that meets the criteria of a Small Business as referred to in this Law.
3. Medium Enterprises
   Medium enterprises are productive economic businesses that stand alone, which are carried out by individuals or business entities that are not subsidiaries or branches of companies that are owned, controlled, or are part of either directly or indirectly with Small Enterprises or Large Enterprises with a total net worth or annual sales as regulated in this Law. Article 1 No. 20 of 2008 defines MSMEs as:
   a) Micro-enterprises are businesses in the economic sector owned by individuals that meet the requirements and criteria of MSMEs as stipulated in the Law.
   b) Small businesses are businesses in the economic sector that are established by individuals or business entities where these small businesses are not part of a branch of a medium-sized business or a large business either in terms of ownership, power, or being directly or indirectly part of the criteria for small businesses as stipulated in the Law.
   c) Medium-sized enterprises are businesses in the economic sector that are established by themselves, either individuals or business entities where these medium-sized enterprises are not part of a branch of small businesses or large businesses either in terms of ownership, power, or being directly or indirectly part of the criteria for medium-sized enterprises as stipulated in the Law.

Meanwhile, the definition of MSMEs according to the 1945 Constitution, which was later strengthened through TAP MPR NO.XVI/MPR-RI/1998 concerning Economic Politics in the framework of Economic Democracy, Micro, Small and Medium Enterprises need to be

empowered as an integral part of the people's economy which has a strategic position, role and potential to realize an increasingly balanced, developed and equitable national economic structure. Furthermore, the definition of MSMEs was made through Law No.9 of 1999 and due to increasingly dynamic developments, it was amended to Law No.20 Article 1 of 2008 concerning Micro, Small and Medium Enterprises, so that the definition of MSMEs is as follows:

a. Micro Business
   Micro enterprises are productive businesses owned by individuals and/or individual business entities that meet the criteria for Micro Enterprises as stipulated in this Law.
b. Small Business
   A small business is a stand-alone productive economic business, conducted by an individual or business entity that is not a subsidiary or branch of a company owned, controlled, or a part either directly or indirectly of a Medium Business or Large Business that meets the criteria of a Small Business as referred to in this Law.
c. Medium Enterprises
   Medium-sized enterprises are productive economic businesses that stand alone, which are carried out by individuals or business entities that are not subsidiaries or branches of companies that are owned, controlled, or are part of either directly or indirectly with Small Enterprises or Large Enterprises with a total net worth or annual sales as stipulated in this Law.
d. Large Enterprises
   A large business is a productive economic business conducted by a business entity with a net worth or annual sales revenue greater than that of a medium-sized business, which includes state-owned or private national businesses, joint ventures, and foreign businesses conducting economic activities in Indonesia.
e. Business World
   The business world is Micro Enterprises, Small Enterprises, Medium Enterprises, and Large Enterprises that conduct economic activities in Indonesia and are domiciled in Indonesia.

Green Perceived Risk

According to Schiffman & Wisenblit (2015), perceived risk is the uncertainty that consumers face when they cannot predict the consequences of their purchasing decisions. In simple terms, the perception of risk felt by customers can make them avoid buying products so as to avoid fraud (Rizwan et al., 2013). Based on perceived risk theory, consumers are more intent on reducing perceived risks than maximizing profits and consumers will switch from a product if they consider it too risky (Meilisa, 2020). According to Chen & Chang (2012) green perceived risk is the subjective perception of consumers regarding the possible consequences of the wrong decision to buy environmentally friendly products. In order for a green consumer to have a purchase intention for a product, the company needs to position its product as a green product. Therefore, consumer purchase intentions for green products depend on the risk of consuming green products. Green perceived risk has a negative correlation with green purchase intention, where when a company can reduce green perceived risk, there will be an increase in green purchase intention (Juliana et al., 2020). Therefore, to increase product purchase intention, the green perceived risk felt by customers must be reduced.

MSME and Green Economy

The concept of green economy has now begun to be widely used in various economic activities. Likewise, companies are trying to create products that are environmentally friendly.

Environmental impacts are a consequence of the ever-increasing industrial activities. Remedial policies in recent decades have been implemented to repair such environmental damage. In order to protect the life of our world, it is necessary to adopt a preventive approach towards environmental pollution. In order to eliminate the problem of environmental pollution, environmental management concepts, such as green management, green marketing, green product and green innovation, etc. are now being promoted. The emergence of international environmental regulations, such as Montreal Convention, Kyoto Protocol, Restriction of Utilization of Certain Hazardous Substances in EEE (RoHS), and Waste Electronic and Electrical Equipment (WEEE), and consumer awareness regarding the environment will have a significant impact on businesses in the world (Chen et al., 2006). Therefore, environmental management is important in organizations and is increasingly becoming an important part of the management agenda.

The concept of green economy was officially coined two decades after the United Nations (UN) conference on environment and development held in Rio de Janeiro in 1992 officially adopted the concept of sustainable development (E. Loiseau, L. Saikku, R. Antikainen, et., 2016). The aim, among others, was to address issues related to unsustainable economic development and environmental degradation. After the financial crisis in 2008, the green economy has been thrust into the current economic debate perceived by international organizations and governments as a paradigm shift in contemporary development thinking for the advancement of sustainable economic development (J.K. Musango, A.C. Brent, 2014).
The three dimensions of environmental, social and economic sustainable development are embedded in the definition of a green economy. There are several definitions for green economy and green growth. A green economy is an economy that provides a better quality of life for all people within the ecological limits of the planet (green economy coalition). Green growth means promoting economic growth and development while ensuring that natural assets continue to provide the resources and environmental services on which our well-being depends (GIZ, 2015).

The *Green Economy* issue is part of the issues that headline future economic growth on business sustainability. The MSME sector has an important role in realizing it (Utomo & Pratiwi, 2021). Indonesian Law No. 3 of 2014 explains the green industry, namely an industry whose production process prioritizes efforts to make efficient and effective use of resources in a sustainable manner so as to be able to harmonize development with the preservation of environmental functions and provide benefits to society (Prasetyo, 2021).The concept of Green Economy in the business world is currently being discussed because the concept is used to preserve the environment, for example replacing product packaging with environmentally friendly packaging, or replacing packaging that can be used repeatedly (Hartono et al., 2021).
The implementation of socialization and education is needed in order to foster awareness of MSMEs to implement the green economy in their business environment (Sriyono 2014; Jauhari 2017), while the reason why MSMEs have not implemented the green economy in their business is due to lack of knowledge of the concept (Steinfeild 2012) and benefits (Kruja 2013) as well as the high application costs that cause the green economy not to be carried out by MSME owners. Likewise, the lack of support and socialization from the government and related agencies has caused the concept of *green economy* not to be implemented by MSMEs (Noviardy et al. 2014).

The elements of the Green Economy include *Low Carbon, Green Growth, Green Technology, Green Energy, Green Product, Green Life, and Green Management* (Menlhk, 2021). There are several benefits obtained by MSMEs in implementing the *Green Economy* concept, namely as an effort to preserve the environment through environmentally friendly product design and can create raw material efficiency, increase product economic value, and

capture market opportunities for demands for environmentally friendly products (Khairin et al., 2021a).

Green Packaging

Green packaging is part of the company's efforts to attract consumers through environmentally friendly packaging (Draskovic et al., 2009). influence consumers to have awareness and buy environmentally friendly products (Okada & Mais, 2010; Saxena & Khandelwal, 2012). Green packaging is product packaging that does not damage the environment and contributes to sustainable environmental devlopment. Green packaging for food and beverage products has now emerged in Indonesia, along with the rise of issues regarding global warming and other issues related to environmental pollution which has become a problem in recent years. Plastic waste is one of the important problems not only in Indonesia but also in the world (Zhao, Ouyang, Xu, Yang, & Ren, 2018) According to (Zhao et al., 2012) green packaging is packaging made from natural plants, can be recycled or used repeatedly, is vulnerable to degradation and promotes sustainable development where the packaging is not harmful to the environment and the health of living things.

Packaging is one of the key components that can provide a competitive advantage in the market for many consumer products and even a low investment to change packaging can drive significant gains in brand sales compared to advertising and promotional activities (Barber, 2010). Therefore, packaging should be considered as an element of the product and brand. Packaging that attracts consumers' attention can communicate images that affect consumers' perceptions, appeal to consumers' emotions, and motivate desire for the product (Draskovic et al., 2014). Therefore, to better understand how packaging communicates and influences consumers, it is important to investigate how consumers perceive packaging (Kong Wilson et al., 2014). Consumers' awareness of environmental sustainability makes them think about the impact of the product packaging they buy. A green consumer in making purchasing decisions will consider product packaging, hoping that the packaging can reduce environmental problems. In order for a green consumer to have a high purchase intention for a product, green packaging is one of the considerations for companies as one of their marketing strategies.

Green Product

Product quality is an important aspect in influencing purchase interest and consumer satisfaction (Susila et al., 2014). One of the trends in improving product quality is the development of green products. This is aimed at offering alternative products that use organic materials, save, use, energy, use, eliminate toxic products, and reduce pollution and waste (Pankaj & Vishal, 2014). Green products are designed to reduce the use of excessive natural resources during the production process and minimize the impact as a medium for the adverse environment during the production process (Albino et al., 2009; Okada & Mais, 2010).

In general, consumer awareness consists of consumer perception and consumer reaction. Consumer awareness is not only an understanding, but also a willingness and ability to buy and even promote environmentally friendly products. Consumer awareness of the use of green products in addition to influencing purchase intention (Wu & Chen, 2014), can also help preserve the environment (Okada & Mais, 2010). The current condition of companies that apply green products is growing to attract consumer interest in these products. The company's efforts play a role in enhancing the company's positive image. This is not only an effort to build the company's image but the development of products that can be environmentally friendly is aimed at increasing market share and even increasing consumer loyalty.

Research on green product innovation is still an interesting issue to research. In fact, Lin and Chen, (2007) explain the importance of innovation in improving the existence and performance of SMEs in the short term.

Green Purchase Intention

According to Ali & Ahmad (2012) green purchase intention is defined as the possibility and desire of consumers who are interested in the environment and are aware of issues to choose products that are more environmentally friendly compared to current conventional products, most of which production processes tend to ignore the impact of the environment. Research by Rizwan (2013) states that there is a growing trend in society to use products that are less harmful to the environment. Even they are willing to pay more for such products, which have less impact on the environment. This is supported by a statement in Alamin & Ratnasari's research (2019) which states that people who are aware and more concerned about the environment will have a big influence on purchasing decisions because they will continue to buy environmentally friendly products even though the price of environmentally friendly products is more expensive than ordinary products. Environmentally friendly products must have product functionality to compete with non-environmentally friendly products to increase purchase intentions (Juliana et al., 2020). Therefore, marketers try to influence purchasing decisions by providing information about the environmentally friendly products they market (Dhewi et al., 2018).

RESEARCH METHODOLOGY

Population

According to Sugiyono (2017: 117), population is a generalization area consisting of objects or subjects that have certain qualities and characteristics set by researchers to study and then draw conclusions. In this study, the population used is consumers (students in Semarang city) who have experience in shopping for MSME products, the number of which is not known with certainty.

Sample

According to Sugiyono (2016: 81) sampling technique is a sampling technique. In this study using purposive sampling technique because sampling is taken with certain considerations or criteria that must be met. The criteria in the study are consumers (students in Semarang city) who have experience shopping for MSME products. According to Sugiyono (2017: 81) the research sample is part of the number and characteristics of the population. Because researchers do not know the exact number of consumer populations who shop for MSME products, researchers use the Lameshow formula: $n = Z\ 2x\ P$ (1-P) $d2$ Description: n = sample Z = Z score at 95% confidence = 1.96 P = prevalence outcome, data has not been obtained so 50% = 0.5 d = sampling error = 10% = 0.10 n = (1.96) 2 x 0.5 (1 - 0.5) (0.10) 2 = 96.04 So in this study, researchers used a minimum sample size of 96 respondents who had shopped for MSME products in Semarang City.

Data Collection Techniques

In this study, the approach used is quantitative. Researchers use primary data, as a data collection technique. Primary data is information data obtained first-hand that is collected directly through observation, interview, and questionnaire distribution techniques (Sari & Zefri, 2019). Researchers will distribute questionnaires online through social media such as Instagram, Whatsapp, Line. Primary data that has been carried out by researchers will be followed by measurement using a Likert scale with a score of 1 to 5 which means strongly disagree-strongly agree.

Operational Definition

According to Sugiyono (2016: 38) research variables are anything in the form of anything that is determined by the researcher to study so that information is obtained about it, then conclusions are drawn. The research consists of independent variables and dependent

variables. The independent variables are *Green Perceived Risk,. Green Packaging and Green Product*, while the dependent variable is the decision to purchase green products / *Green Purchase Intention*. The data collection method in this study was carried out by distributing questionnaires.

Data Analysis Method with *Structural Equation Model* (PLS)

This study uses data analysis using SmartPLS software, which is run by computer media. PLS (*Partial Least Square*) is a variant-based structural equation analysis (SEM) that can simultaneously test the measurement model as well as test the Structural model. The measurement model is used for validity and reliability tests. While the structural model is used for causality testing. PLS (*Partial Least Square*) is an analysis that is *soft modeling* because it does not assume that the data must be with a certain scale measurement, which means that the number of samples can be small (under 100 samples). Structural model testing in PLS is carried out with the help of SmartPLS for windows V.4 software. The steps that must be taken in Partial Least Square (PLS) include:

- **Designing the Structural Model (*Inner Model*)**
  In the structural model, also known as the inner model, all latent variables are connected to one another. Latent variables are divided into two, namely exogenous variables and endogenous variables.
- **Designing the measurement model (*Outer Model*)**
  The measurement model, also known as the outer model, connects all indicator variables with their latent variables. The outer model, often called the*outer relation* or *measurement model,* defines how each indicator block relates to its latent variable.

a. **Convergent Validity**
   Testing the Convergent Validity of each construct indicator, an indicator is said to have good reliability if its value is greater than 0.70, while a loading factor of 0.50 to 0.60 can be considered sufficient. Based on these criteria, if the loading factor is below 0.50, it will be dropped from the model.

b. **Discriminant Validity**
   Discriminant Validity testing is the extent to which the measurement results of a concept are able to distinguish themselves from the measurement results of other concepts, theoretically they should be different Discriminant validity is also part of the outer model. The requirement to fulfill this discriminant validity is that an indicator is declared valid if it has the highest loading factor for the intended construct compared to the loading factor for other constructs. Another method to see discriminant validity is to look at the *square root* value of *the average variance extracted* (AVE) of each construct with the correlation between the construct and other constructs in the model, if the root value of the AVE is greater than the highest value of the correlation between the constructs, it is said to have good discriminant validity value.

c. **Composite Reliability**
   Composite reliability testing aims to test the validity of instruments in a research model. Or measure *internal consistency* and the value must be above 0.70. If all latent variable values have a *composite reliability* value or Cronbach alpha $\geq$ 0.7, it means that the construct has good reliability or the questionnaire used as a tool in this study is reliable or consistent.

Evaluation of Goodness of Fit

Testing the goodness of fit of the structural model on the inner model uses the R-square (R^2) value. If the R value is greater than 0.7, it is categorized as strong (Sarwono, 2014).

Hypothesis Testing

Hypothesis testing is one of the important procedures in statistics. In various tests, hypothesis testing can help in proving various things to be studied whether the facts are true or just a theory (Anuraga et al., 2021). In testing the hypothesis using the t-statistic value and probability value. Hypothesis testing for the statistical value for alpha is 5% or 0.05 (p-values <0.05) and the value for the t-statistic is used at 1.96. The criteria in the hypothesis will be declared accepted if the t-statistic> 1.96.

RESULTS AND ANALYSIS

Result

Responden Profile

The description of the characteristics of the respondents is to describe or provide an overview of the identity of the respondents in this study, because by describing the identity of the respondents who were sampled in this study, it will be known to what extent the identity of the respondents in this study. The results of a survey of students in the city of Semaarng obtained a sample of 208 respondents. The details of the respondents in this study can be seen in appendix 2. The following is a description of the identity of the respondents in this study:

- **Gender of Respondents**

  Based on the results of the analysis of questionnaires that have been filled in by 208 students in the city of Semarang, the results for male gender are 52 students (25%) and female 156 students (75%). This corresponds to a smaller proportion of males than females. Details of the gender of respondents are shown in Table 1.

Table 1. Gender of students in Semarang City

No	Gender	Amount	Percentage
1	Female	156	75%
2	Male	52	25%
Amount		208	100%

Source: Primary Data, 2023

- **Origin of College**

  The results of the analysis of questionnaires that have been filled in by 208 students in the city of Semarang obtained the results of students who came from State Polytechnic of Semarang as many as 151 students (72.6%) from State Polytechnic of Health Semarang as many as 25 students (12%), from Diponegoro University as many as 15 students (7.2%) from State Islamic University Walisongo Semarang as many as 13 students (6.2%), from State University of Semarang as many as 4 students (1.9%). Details of students from universities can be seen in table 2 below.

Table 2. College Origin of Students

No	Origin of College	Amount	Percentage
1	State Polytechnic of Semarang	151	72,6%
2	State Polytechnic of Health Semarang	25	12%
3	Diponegoro University	15	7,2%

4	State Islamic University Walisongo Semarang	13	6,2%
5	State University of Semarang	4	1,9%
Total		208	100%

Source: Primary Data, 2023

- **Origin of Faculty/Study Program**

The distribution of questionnaires for students in Semarang City who were used as respondents in this study spread across 5 universities, with a total of 17 faculties/study programs. The following 3 faculties/study programs were the most common, namely accounting faculties/products with 150 students (72.11%), then radiology faculties/products 25 students (10.56%) and economics and business faculties/products 15 students (7.20%). Details of the origin of faculty / study program students can be seen in table 3 below.

Table 3. Faculty Origin or Student Study Program

No	Faculty or Study Program	Amount	Percentage
1	Accounting	150	72,11%
2	Radiology	22	10,56%
3	Mechanical Engineering	4	1,92%
4	Economics and Business	15	7,20%
5	Sports Science	1	0,48%
6	Education Science and Psychology	1	0,48%
7	Social and Political Sciences	5	2,40%
8	Fisheries and Marine Science	3	1,44%
9	Urban and regional planning	1	0,48%
10	Physics	2	0,96%
11	Environmental Engineering	1	0,48%
12	Legal Science	1	0,48%
13	Public Health	4	1,92%
14	Elementary School Teacher Education	1	0,48%
15	Electrical Engineering	2	0,96%

16	Biology	1	0,48%
17	Agriculture	1	0,48%
Amount		208	100 %

Source: Primary Data, 2023

- **Semesters Students Have Taken**

The distribution of semesters taken by students in higher education is the three largest, namely semester 5 with 74 students (35.56%), then semester 1 with 64 students (30.75%), then semester 3 with 44 students (35.56%). In detail the semester that students have taken can be seen in table 4 below.

Table 4. Semester Taken by Students

No	Length of Time	Amount	Percentage
1	1st Semester	64	30,75%
2	3rd Semester	49	23,55%
3	5th Semester	74	35,56%
4	7th Semester	19	9,13%
	>7th Semester	1	0,47%
Amount		208	100%

Source: Primary Data, 2023

- **MSME Products Purchased by Students**

The results of a survey conducted on 208 students at 5 universities in Semarang city related to MSME products purchased by students show that most of them are food products 158 students (75.96%) and snack products 51 students (24.50%) in detail MSME products purchased by students can be seen in table 5 below.

Table 5. MSME Products Purchased by Students

No	Products Purchased	Amount	Percentage
1	Fashion	5	2,40%
2	Food	158	75,96%
3	Snack	51	24,50%
4	Souvenirs	1	0,47%
Amount		208	100%

Source: Primary Data, 2023

- **How Often Students Buy MSME Products**

The survey results that have been conducted on 208 students at 5 universities in Semarang city related to how often students buy MSME products, mostly daily purchases of 110 students (52.87%) and weekly purchases of 43 students (20.66%), in detail how often students purchase MSME products can be seen in table 6 below.

Table 6. How Often Students Buy MSME Products

No	Frequent Purchase of MSME Products	Amount	Percentage
1	Everyday	110	52,87%
2	Every Other Day	30	14,41%
3	Every Week	43	20,66%
4	Every Month	25	12,01%
5	Every Year	7	3,35%
Amount		208	100%

Source: Primary Data, 2023

ANALYSIS

In this chapter, we will discuss the results of the validity and reliability tests of the initial questionnaire, the results of descriptive analysis and SEM-PLS and their explanations. Descriptive analysis explains the characteristics and distribution of respondents' answers, while SEM-PLS analysis explains the evaluation results of the measurement model and structural model analysis explains the evaluation results of the measurement model and structural model. The results of the analysis are then associated with the theories and empirical research described in the literature review to test the hypothesis and formulation of research problems.

Data Analysis

The analysis technique in this research is *Structural Equation Modeling* with the *Partial Least Square* (SEM-PLS) *algorithm* approach. The use of SEM-PLS techniques in data analysis is based on research objectives that focus on predicting trends in consumer behavior, as well as the distribution of non-normal research sample answers (Hair et al., 2010). The CB-SEM analysis approach with the help of software such as AMOS and LISREL is not recommended for predictive analysis, because the purpose of CB-SEM is very strict on theory confirmation and parameter accuracy (Davcik, 2014). The accumulated questionnaire data were processed using SmartPLS 4.0 software. Data analysis begins with building a structural model, then testing the validity and reliability of the measurement model (*outer model*), testing the significance of the relationship between variables (*inner model*). The research objective is to analyze the effect of*green packaging, green product,* and green perceived risk on product

purchase intention. Based on the conceptual framework that has been prepared, the structural model in this study is as follows:

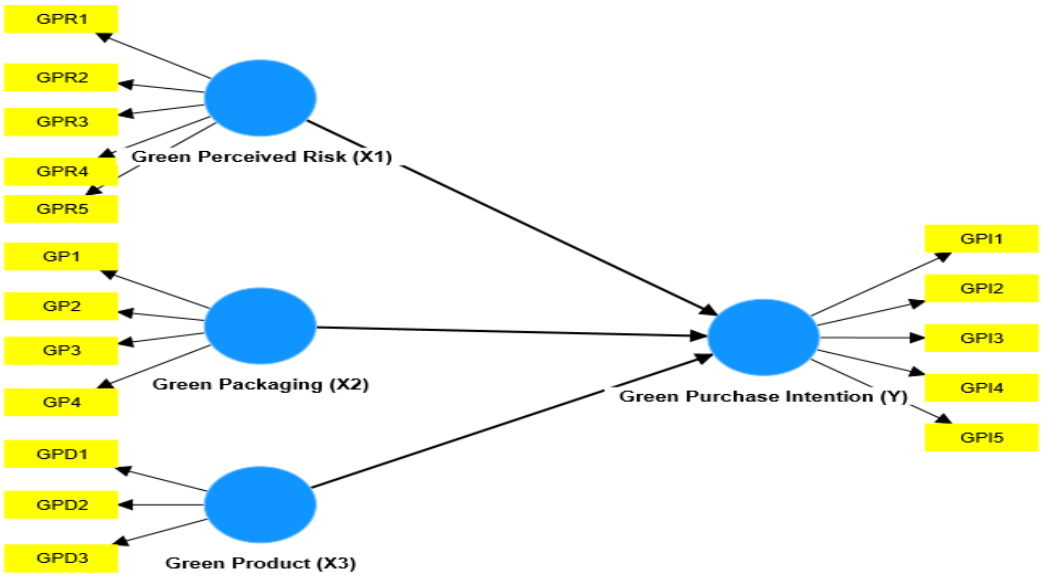

Figure 1 Proposed Structural Model
(Source: SmartPLS output, 2023)

The structural model is created by designing the relationship between latent variables. The exogenous latent variables in the study are *Green Perceived Risk* (GPR), *Green Packaging* (GP), *Green Product* (GPD),. The endogenous variable in this study is *Green Purchase Intention* (GPI). This model was tested on students in Semarang City The results of testing the validity and reliability of the construct are described at the outer model stage below:

Table 7. *Outer Loading* Value After Modification

Variable	Indicator	Loading
Green Perceived Risk	GPR 3	0,905
	GPR 4	0,869
	GPR 5	0,837
Green Packaging	GP 1	0,745
	GP 2	0,709
	GP 3	0,808
	GP 4	0,835
Green Product	GPD 1	0,856
	GPD 2	0,817
	GPD 3	0,793
Green Purcahse Intention	GPI 1	0,826
	GPI 2	0,850
	GPI 3	0,856
	GPI 4	0,845
	GPI 5	0,816

Source: SmartPLS output, 2023

Based on the table above, it can be seen that all indicators have an outer loading value of more than 0.7. This indicates that each study variable has been able to be explained by its indicators and meets the requirements of convergent validity.

Discriminant Validity

The *Fornell-Larcker Criterion* (FLC) value and cross loadings are commonly used approaches in discriminant validity testing. The FLC value and *cross loadings of* an indicator on its own latent construct are expected to be greater than the *cross loadings* on other latent constructs. The results of discriminant validity testing are presented in the following table:

Table 8. *Discriminant Validity* Value (*Fornell-Larcker Criterion*)

	Green Packaging (X2)	**Green Perceived Risk (X1)**	**Green Product (X3)**	**Green Purchase Intention (Y)**
Green Packaging (X2)	0.776			
Green Perceived Risk (X1)	-0.269	0.871		
Green Product (X3)	0.589	-0.237	0.823	
Green Purchase Intention (Y)	0.298	-0.173	0.470	0.839

Source: SmartPLS output, 2023

Based on the table above, it is known that each indicator has the largest FLC value in its own latent construct compared to the FLC values in other constructs. This explains that the indicators used in this study have good *discriminant validity* in forming their respective variables. In addition to the *cross loadings* value, the results of the *discriminant validity* test can also be seen through the *Average Variant Extracted* (AVE) value. Each latent construct must have an AVE value> 0.5 to reflect a good measurement model. The AVE values for the variables in this study can be seen in the following table:

Table 9. Average Variant Extracted (AVE) Value

Variable	**Average Variance Extracted (AVE)**
Green Packaging (X2)	0.602
Green Perceived Risk (X1)	0.759
Green Product (X3)	0.677
Green Purchase Intention (Y)	0.704

Source: SmartPLS output, 2023

Based on the table above, it is known that each indicator of the latent construct is able to explain 50% or more of its variance (Wong, 2013; Sarstedt, et al., 2011).

Composite Reliability

In SEM-PLS analysis, a construct is declared reliable if it has a *composite reliability* value> 0.6 and is reinforced by a *Cronbach's Alpha* value> 0.7. The results of *composite reliability* testing can be seen in the following table:

Tabel 10. Nilai Composite Reliability dan Cronbach's Alpha Nilai *Composite Reliability dan Cronbach's Alpha*

Variable	Cronbach's Alpha	Composite Reliability
Green Packaging (X2)	0.781	0.803
Green Perceived Risk (X1)	0.849	0.937
Green Product (X3)	0.765	0.788
Green Purchase Intention (Y)	0.895	0.898

Source: SmartPLS output, 2023

The composite reliability value of 0.6 - 0.7 and the Cronbach's alpha value of> 0.7 are considered to have good reliability (Sarstedt, et al., 2011). Based on the table above, all constructs have a composite reliability value and Cronbach's alpha> 0.7 so it is concluded that they are reliable.

Structural Model Evaluation (Inner Model)

The structural model evaluation stage (inner model) consists of testing the goodness of the model (model fit) and hypothesis testing. The model goodness test is carried out by observing the R-square (R2) and Q-square (Q2) values. Partial hypothesis testing is done by observing the significance value of the relationship between variables (direct and indirect effects). The results of the bootstrapping process on the structural model can be seen in the following figure:

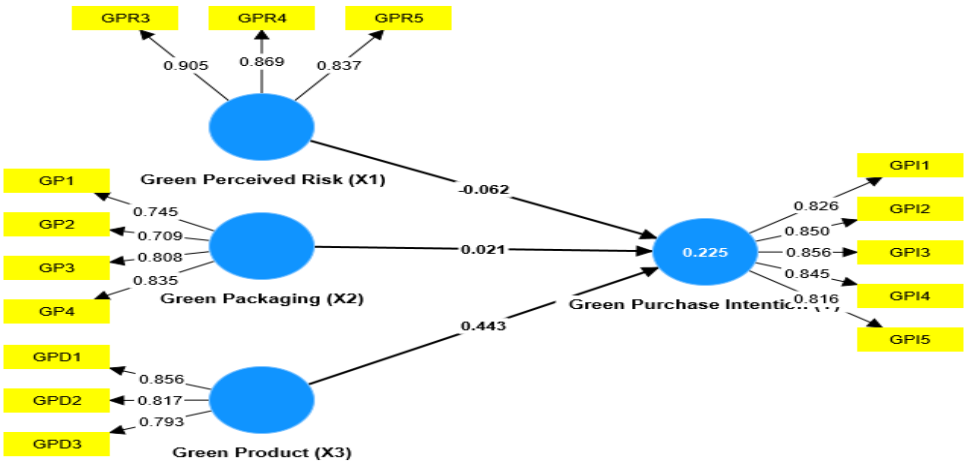

Figure 2. Bootstrapping Process Results
(Source: Output SmartPLS, 2023)

1. Model Fit Test

The R-Square (R2) value is used to determine the predictive power of the

structural model in SEM-PLS analysis. The criteria for R-Square values close to 0.67 are considered strong, 0.33 as moderate, and 0.19 as weak (Chin & Wynne, 1999). The R-square value can be seen in the following table:

Table 12. R-Square Value

Variable	R-square
Green Purchase Intention (Y)	0.225

Source: SmartPLS output, 2023

Based on this table, it can be seen that the R-square value of the endogenous variable Green Purchase Intention (GPI) is 0.225. This value explains that the strength of the Green Perceived Risk (GPR), Green Packaging (GP), Green Product (GPD) variables in predicting Green Purchase Intention (GPI) is 22.5%. The R-Square value is also used to determine the goodness of the model, where the higher the Q-Square value indicates that the structural model fits the data better (Sarstedt et al., 2011). The Q-square test in this study can be seen in the following table:

Table 13. Q-square Test Results

Variable	Q-square
Green Purchase Intention (Y)	0.374

Source: SmartPLS output, 2023

Based on the table above, it is known that the sum of the Q-square values on the two endogenous variables is 0.374. These results mean that the amount of data diversity explained by this research model is 37.4%. While the remaining percentage of 62.6% is explained by other factors that are outside this research model. Thus, this research model is declared to meet the requirements of goodness (model fit).

2. Hypothesis Test

Hypothesis testing is done by looking at the original sample estimates (O) value to determine the direction of the relationship between variables, as well as t-statistics (T), and p-values (P) to determine the significance level of the relationship. An original sample value close to +1 indicates a positive relationship, while a value close to -1 indicates a negative relationship (Sarstedt et al., 2017). A t-statistics value of more than 1.96 or a p-value smaller than the significance level (<0.05) indicates that a relationship between variables is significant. The results of testing the research hypothesis can be seen in the following table:

Table 14. Relationship Value Between Variables (direct and indirect effects)

	Variable Relationship	O	T	P	
1	Green Perceived Risk (X1) -> Green Purchase Intention (Y)	-0,061	71	34	Negative Not Significant
2	Green Packaging (X2) -> Green Purchase Intention (Y)	0,021	31	18	Positive Not Significant
3	Green Product (X3) -> Green Purchase Intention (Y)	0,443	45	00	Positive Significant

Source: SmartPLS output, 2023

Based on the table above, the relationship between the study variables can be explained as follows:

1. The effect value of the Green Perceived Risk (X1) variable on Green Purchase Intention (Y) is -0.061 with a p-value of 0.384 (>0.05). Thus H1 is rejected, namely the influence value of the Green Perceived Risk variable has a negative and insignificant effect on the attitude of the desire to buy green products.
2. The effect value of the Green Packaging (X2) variable on Green Purchase Intention (Y) is 0.021 with a p-value of 0.818 (>0.05). Thus H2 is rejected, namely Green Packaging has a positive and insignificant effect on the interest in buying green products.
3. The effect value of the Green Product (X3) variable on Green Purchase Intention (Y) is 0.443 with a p-value of 0.000 (<0.05). Thus H3 is accepted, namely green products have a positive and significant effect on interest in buying green products.

CONCLUSION

Conclusion

The results of research data that have been analyzed with Part Least Square (PLS), show that:

1. The effect value of the Green Perceived Risk (X1) variable on Green Purchase Intention (Y) is -0.061 with a p-value of 0.384 (>0.05). Thus H1 is rejected, namely the influence value of the Green Perceived Risk variable has a negative and insignificant effect on the attitude of the desire to buy green products.
2. The effect value of the Green Packaging (X2) variable on Green Purchase Intention (Y) is 0.021 with a p-value of 0.818 (>0.05). Thus H2 is rejected, namely Green Packaging has a positive and insignificant effect on the interest in buying green products.
3. The effect value of the Green Product (X3) variable on Green Purchase Intention (Y) is 0.443 with a p-value of 0.000 (<0.05). Thus H3 is accepted, namely green products have a positive and significant effect on interest in buying green products.

Suggestion

Furthermore, further research needs to be carried out to analyze other variables that affect the purchase intention of green products such as the role of knowledge, product availability and price affordability, and so on. A more in-depth study can focus on the specific availability of green products in the market and the level of consumer perception.

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