

## **EFFECT OF GREEN MARKETING MIX ON PURCHASE INTENTION: MODERATING ROLE OF ENVIRONMENTAL KNOWLEDGE**

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### **ABSTRACT**

*This study investigates the moderating effect of environmental knowledge on the relationship between green marketing mix and purchase intentions. As consumer environmental awareness rises, so does the trend towards green consumption. However, a purchase intention, or willingness to buy green products, must precede actual green purchasing behavior. This research employs a quantitative survey design. Participants are randomly selected from a database of Instagram visitors and followers. A sample of 100 respondents is gathered using incidental sampling methods. Data is collected through a survey link. SEM analysis is used to analyze the data. The green marketing mix significantly impacts purchase intention, with environmental knowledge acting as a moderator. A T-test reveals a significant difference between the original sample's -0.112 and 0.000 significance values of 1.963 and 1.963, respectively. This suggests that the green marketing mix has a stronger influence on purchase intention than environmental knowledge.*

**Keywords:** *Environmental Knowledge; Green Marketing Mix; Purchase Intention.*

### **INTRODUCTION**

Currently, industrial development is accelerating. This ultimately had an effect on environmental issues. Environmental safety can benefit from increased public knowledge. Environmental problems, like the current financial crisis and pollution, have developed to the point where they can now be compared to other problems, like hazardous wastes that can be handled safely, those that cause damaging pollutants, and others (Putri, 2022). In the 1970s, the idea of green marketing first appeared, and in the 1990s, green products gained popularity. For the purpose of promoting products and services that are known to be safe for the environment, green marketing combines product/service enhancements, production/packaging process adjustments, and advertising (Liao et al., 2020). Green marketing entails deliberately fusing social and environmental issues into corporate connections with consumers. Additionally, where the marketing mix is a part of green marketing and is acknowledged to include the 4Ps of product, price, place, and promotion (Krisdayanti & Widodo, 2022).

Green marketing entices customers to purchase environmentally friendly products, which lowers pollution. Consequently, consumers become more environmentally conscious. Recently, there has been a trend toward shoppers

taking their environmental awareness into account while making purchases. The intention to acquire green products, also known as purchase intention, must exist prior to the development of a green buying behavior (Jamal et al., 2021).

West Sumatra's Tanah Datar Regency is home to numerous handicraft SMEs, including those engaged in batik, weaving, food processing, and other crafts. Small and medium-sized businesses (SMEs) or home industries make up the majority of the handicraft SMEs in Tanah Datar (Mevia, 2021). Many craft SMEs are nature-focused due to consumer and export demand. This entails utilizing natural raw materials and environmentally sound production techniques to produce products that are either green or friendly to the environment. One of these is Pariangan Village in Tanah Datar District, West Sumatra Province, which has achieved notable firsts in the categories of the first tourism village record and the first tourism village in Indonesia to produce batik artwork using dye made from coffee waste. Batik fabric can be dyed with coffee waste. The 3Rs (Reuse, Reduce, Recycle) can be applied to this garbage to turn it into a natural color for batik. Utilizing waste to carry out the same or a different function is known as reuse. While Reduce focuses on reducing waste-producing materials, recycling entails reprocessing to create goods in a variety of forms with a market value.

This Coffee Dregs batik is produced by the Pariangan Batik UMKM House and is available for purchase both online and in person at the Pariangan UMKM gallery.

Even though numerous studies on purchase intention behavior have been conducted, the ability to construct a green marketing mix model by assessing environmental knowledge as a mediating variable is still fairly restricted. According to earlier research by Thoria Omer Mahmoud (Mahmoud et al., 2017), the majority of studies on the impact of the green marketing mix on purchase intention used multiple regression analysis methodologies, making it difficult to determine the strong and weak indicators of each variable. The study's findings showed that the green marketing mix had a substantial impact on consumers' intentions to make purchases. In addition, Munamba researchers (Munamba & Nuangjamnong, 2021) look into how the green marketing mix, green brand awareness, and attitudes towards green products influence the propensity of Generation Y consumers in Bangkok, Thailand, to purchase green products. According to the findings of the descriptive analysis and linear regression analysis, the six variables have a favorable impact on purchase intention. Conclusion: The likelihood that consumers will make green purchases is highly influenced by the green marketing mix, brand awareness, and attitudes toward green products. The green marketing mix is identified by researcher Ambalam Pushpanathan (Pushpanathan et al., 2020) as an independent variable, while purchase intention is regarded as the dependent variable of the study. Using the convenience sampling method, a structured questionnaire was distributed to 116 respondents in the sample. Using the SPSS Package version 20.0 to assess descriptive, correlational, and multiple regression analyses, hypotheses were constructed following a thorough literature study. According to the study's findings, there is a strong correlation between the green marketing mix and customers' intentions to buy. Additionally, the findings show that these factors have a significant influence on customers' purchasing intentions in the hospitality sector.

This study aims to improve on other studies' models for doing research and their chosen analytical techniques. Models from earlier studies were applied in this investigation. The analysis method employed in this study, PLS (Partial Least Square), is novel compared to earlier studies that used Multiple Regression Analysis and SPSS. The discovered model is anticipated to be more thorough to assist scientific advancements in the

investigation of the green marketing mix, purchasing intention, and environmental knowledge.

### **Green Marketing Mix**

Over the past thirty years, the idea of green marketing has grown in importance as a subject of study. Regarding becoming green, the propensity of consumers to be environmentally aware is the driving force behind how businesses conduct their commercial operations, and these eco-conscious consumers help build new economies throughout the world. Increasing client awareness of numerous environmental issues can encourage them to adopt more caring philosophies in their daily lives. Customers have shifted to a more environmentally friendly way of life. People consciously work to minimize the damage or adverse effects of their actions on the environment. Customers that care about the environment must be catered to in green marketing. The concept of green marketing, a novel idea that emerged in the latter half of the 20th century, is the outcome of this eco-friendly strategy. Examples of green marketing activities include the creation, differentiation, pricing, and promotion of goods and services that satisfy consumers' environmental needs (Tan et al., 2022).

The majority of definitions of green marketing depend on environmental consciousness. Utilizing green marketing is one way to satisfy customer demand for products that can lessen environmental impact while also meeting consumer needs. By placing a higher priority on the preservation of the planet's resources through changes in the manufacturing process, product changes, packaging changes, and changes in advertisements that are oriented towards sustainability, green marketing strategies are used to market products that are thought of as environmentally friendly (Krisdayanti & Widodo, 2022).

### **Green Product**

The foundation of a green marketing mix approach is a green product, which includes the finished product, packaging, materials used, and production methods. When all three subcategories ingredients, packaging, and production are safe for the environment and don't include any harmful materials, a product can be designated as green. Additionally, due to growing environmental concerns, consumers are increasingly prepared to pay more on eco-friendly products than traditional alternatives. Furthermore, it claims that while customers see risk, perceived cost, and consumer habits as barriers, green products have perceived consumer value, perceived efficacy, green consumer value, and trust. When making

purchases, consumer understanding of organic products is crucial. Green products, as a component of the green marketing mix, are a significant element affecting customer purchase intentions, claims Munamba (Munamba & Nuangjamnong, 2021).

#### **Green Place**

The current imperative for preserving our environment is green marketing. It is crucial to develop a green philosophy for the environment. In reality, the location includes channels, coverage, transit, location, logistics, and other things. The main method used by green places to lessen their carbon footprint is logistics optimization. For instance, rather than encouraging local production, one may compare it to mango juice, which is popular in India. This makes remote delivery of items impossible. As a result, shipping expenses are decreased, as well as carbon emissions from ships and other types of transportation, which is more significant (Mahmoud et al., 2017).

#### **Green Promotion**

This has to do with giving clients truthful product information while respecting their ethical and materialistic values. Advertising as a marketing technique has the potential to generate actual demand from environmentally conscious consumers (Suki et al., 2016). Green advertising tries to alter customer purchasing behavior by convincing people to select products that do not harm the environment and drawing their attention to the advantages of their choices for both themselves and the environment. The aforementioned marketing communication is an instance of what is known as a cross-functional activity. Participating in green marketing can affect how likely it is that corporate claims will be carefully examined.

#### **Green Price**

As purchasers view price as a trade-off, an indicator of quality, or both, pricing plays a number of functions in the purchasing process. Green pricing, often known as the cost of renewable resources, is an option provided to customers to encourage the growth of renewable energy sources and environmental betterment (Sinambela et al., 2022). Due to increased labor and material expenses, as well as additional expenditures related to certifying products for eco-

labels, the cost of creating green products is, in general, higher than the cost of making non-green goods. The benefits of green products over non-green ones were discussed by Roger in 1983. Due to their increased public popularity, eco-friendly items occasionally outperform conventional products in terms of quality and performance. The benefits of green products must be compared to their cost. In some cases, in addition to monetary expenses, the price of a green product also includes opportunity costs, energy costs, and physical costs.

#### **Purchase intention**

The growth of a consumer's desire to purchase something as a result of their product knowledge and purchasing power. Additionally, buying intent shows that a customer is interested, which encourages ongoing focus and a strong desire (Sugandini et al., 2020). The urge to purchase products or services in the anticipation of receiving a reward is known as purchase intention. An increased likelihood of purchasing is indicated by a stronger intention to buy. Therefore, buying intention has a positive effect on the likelihood that consumers choose to acquire green items.

#### **Environmental Knowledge**

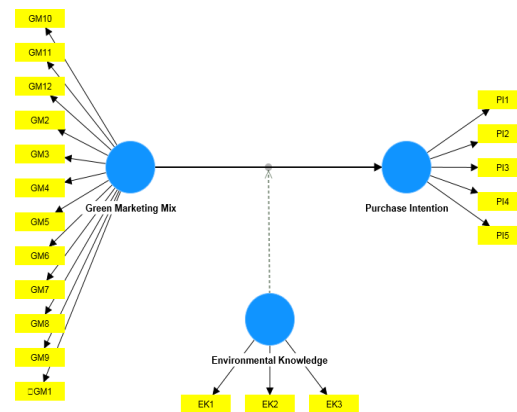
Additionally, because of this omission, it is not clear how various types of knowledge interact to influence behavior. For instance, before taking action, a person must comprehend ecosystems in their natural condition and the activities that take place within them (systems knowledge), as well as what can be done to address environmental challenges (action-related knowledge). When people must select among a range of feasible behaviors, the third type of knowledge-knowledge about the advantages (efficacy) of environmentally responsible actions is especially pertinent (Frick et al., 2004).

Based on empirical data from earlier research investigations, the following research hypothesis will be tested:

H1: Purchase intention is significantly positively impacted by environmental knowledge.

H2: The Purchase Intention is significantly impacted favorably by the Green Marketing Mix.

H3: Environmental knowledge has a moderating influence on the impact of the green marketing mix on purchase intention.



**Figure I. Research Conceptual Framework**

**RESEARCH METHODS**

Due to the data and analysis used, this study is a quantitative one. The location of Coffee Dregs Batik, which is in Pariangan Village, Tanah Datar Regency, has been chosen for the study. Students and the general public were included in the consumer population, which was chosen at random from a database of Instagram visits and followers. A questionnaire was distributed by wa, and 100 responses were received that fully completed the questions, making them eligible to serve as a study sample. Incidental sampling is considered to be the sampling method itself, which is a non-probability sampling method. Everyone who suddenly or accidentally encounters a researcher can be employed as a sample, according to Akhmad Fauzi (Fauzy, 2019), provided that it is confirmed that they are eligible as a data source. Incidental sampling is the term for this sample strategy.

Researchers gathered both primary and secondary data for this investigation. In this study, primary data collecting is an essential form of data gathering. Researchers utilize questionnaires as a

main data collection tool. In order to uncover information about the study literature, secondary data was used to gather details regarding ideas linked to green marketing strategies, green products, green places, green prices, and green promotions, as well as consumer purchase intents and environmental understanding. Particularly for secondary material gathered from books, journals, and internet. Questions using a five-point Likert scale were incorporated into the questionnaire to examine the independent and dependent variables (Duryadi, 2021).

The variables identified in this study include environmental knowledge as a moderating variable, green marketing mix as an exogenous variable, and purchase intention as an endogenous variable. A Likert scale is used to evaluate the traits of financial management behavior, with "strongly disagree" receiving a score of "1" and "strongly agree" receiving a score of "5" for each potential response.

The elements evaluated are listed in the questionnaire, which is utilized as a research tool. The grid for the questionnaire is in Table 1.

**Table 1. A grid of questionnaires**

| <b>Variable for Research</b>       | <b>Indicator</b>  | <b>Item</b>  |
|------------------------------------|---|--|
| <i>Purchase Intention (Y)</i>      | I was interested in learning more information about the product.<br>Thinking about purchasing, attempting to be interested, seeking product information, and desiring to purchase items | PI1,PI2,PI3,PI4,PI5                                |
| <i>Green Marketing Mix (X)</i>     | Green product, Green Place, Green Promotion, Green Price  | GM1,GM2,GM3,GM4,GM5,GM6,GM7,GM8,GM9,GM10,GM11,GM12 |
| <i>Environmental Knowledge (Z)</i> | Consumer awareness, environmental understanding, and environmental regulations  | EK1,EK2,EK3  |

Source: (Mahmoud et al., 2017), (Munamba & Nuangjammong, 2021), (Pushpanathan et al., 2020)

To evaluate the study hypothesis, the Structural Equation Model (SEM) method and Partial Least Square (PLS) software are combined. PLS is SEM that bases itself on components or variance. In contrast to the covariance-based SEM technique, which typically assesses theory or causation, Ghozali contends that PLS is more of a predictive strategy (Sholiha & Salamah, 2015). The research hypothesis was examined utilizing the Structural Equation Model (SEM) technique and the Partial Least Square (PLS) program. Based on components or variance, the structural equation model (SEM) referred to as PLS is used. According to Ghozali, PLS is a different approach from covariance-based SEM techniques since PLS is more of a predictive model as opposed to the latter, which typically analyze causation or theory. According to Chin, Gopal, and Salinsbury in Jogiyanto (Carrasco, 2010), the model has appropriate discriminant validity if the AVE root for each construct is higher than the correlation

between that construct and other constructs in the model. Along with validity testing, reliability testing is performed in PLS-SEM. To show the instrument's precision, accuracy, and consistency when evaluating different structures, reliability tests were conducted. Cronbach's Alpha and Composite Reliability are two methods for evaluating construct reliability with mirroring indications. To be regarded as dependable in terms of construction, the Composite Reliability Rating must be higher than 0.70. It is preferable to utilize Composite dependability rather than Cronbach's Alpha because the latter yields poorer results (see estimates below) when measuring construct dependability (Rifai, 2015).

**RESULTS AND DISCUSSION**

Respondent profile information is information gathered from respondents to create participant profiles for research. Based on the study's findings, a profile of the 101 respondents

who participated in answering the research questionnaire was created. When looking at this study from a gender standpoint, female sex dominates with a proportion of 77.2%. The

majority (54.5%) of people are between the ages of 22 and 26 when viewed by age. Considering that the majority of the 34.6 percent of the content is student-produced.

**Table II: Respondent Characteristics**

| No | Variable      | Classification     | Amount of people | Percentage (%) |
|----|---------------|--------------------|------------------|----------------|
| 1  | Gender        | Man                | 23               | 23             |
|    |               | Woman              | 77               | 77             |
|    | <b>Amount</b> |                    | <b>100</b>       | <b>100</b>     |
| 2  | Age           | 17-21 Years        | 14               | 14             |
|    |               | 22-26 Years        | 55               | 55             |
|    |               | 27-32 Years        | 24               | 24             |
|    |               | > 33 Years         | 7                | 7              |
|    | <b>Amount</b> |                    | <b>100</b>       | <b>100</b>     |
| 3  | Employment    | Student            | 38               | 38             |
|    |               | Private workers    | 34               | 34             |
|    |               | Government workers | 12               | 12             |
|    |               | Irt                | 15               | 15             |
|    | <b>Amount</b> | Entrepreneur       | 1                | 1              |
|    |               |                    | <b>100</b>       | <b>100</b>     |

Source: processing data, 2023

**Outer Model (Validity and Reliability Test)**

**Validity of Variants**

**Purchase Intention**

The Purchase Intention variable in this instance consists of 5 statement items or question items, denoted by the letters PI, numbered PI1 through PI5, as well as the test results. The outcomes of processing with SmartPLS 4 demonstrate the value of external models or the connection between the elements of a statement and latent variables or constructs, which frequently fulfill convergent validity. Each of these markers has a correlation value that is under the advised threshold of 0.70, indicating that the variable is neither practicable nor genuine. According to the external loading depicted below, item PI5 needs to be taken out of the model because its loading is lower than 0.70. Our model was re-estimated and evaluated after having 1 invalid statement removed.

All statement items had a Convergent Validity value of 0.70 following the model revision, indicating that all variable items were valid or practicable (Ghozali, 2006). This value reflects the importance of the outer model, namely the relationship between latent variables and statement items. As a result, all of the items that are now available are suitable and suitable to represent the Purchase Intention variable in subsequent testing.

**Green Marketing Mix**

There are 12 statement items or question items in the green marketing mix variable in this instance, and they are all represented by the letters GM, numbered from GM1 to GM12. Data

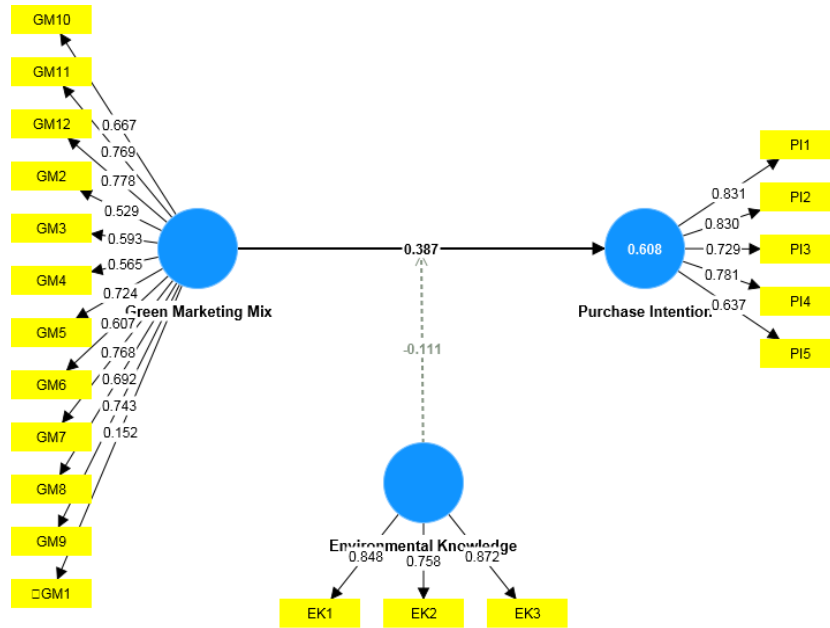
processing with SmartPLS 4 reveals outer model values or correlations between statement items and latent variables or constructs that often do not achieve convergent validity. Six statement items are still not practical or valid according to the processing results since they have a Convergent Validity value of 0.7, specifically items GM1, GM2, GM3, GM4, GM6, GM8. Retesting ought to be done when this part has been taken out of the model.

The retest's outcomes demonstrate the applicability of the external model or the connection between latent variables and statement items. Convergent Validity value > 0.70 denotes that each variable item has been demonstrated to be true or workable after the model has been altered (Ghozali, 2006). All elements are therefore trustworthy and appropriate to represent the Green Marketing Mix factors for future testing.

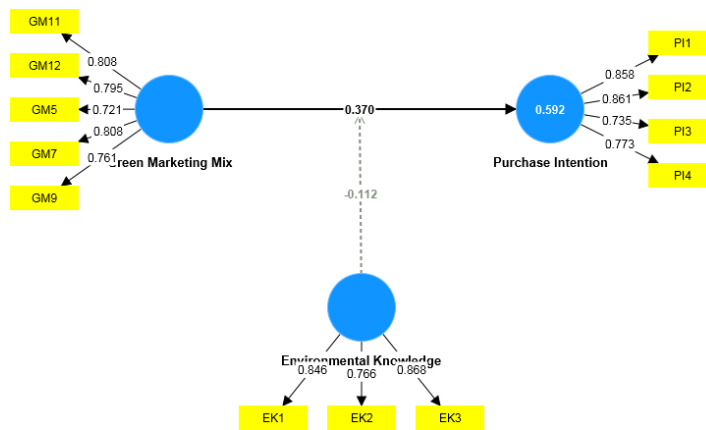
**Environmental Knowledge**

In this instance, the environmental knowledge variable comprises three statement items or question items, denoted by the letters EK, numbered EK1 through EK3. The value of the outer model or correlation between statement items and latent variables or constructs that typically do not meet convergent validity is revealed by data processing utilizing SmartPLS 4. Items EK1, EK2, and EK3 are examples of statement items where the processing results still do not uncover items that are still not practical or valid since they have a Convergent Validity value of 0.7. Therefore, it

may be said that all of the variable elements are legitimate or practicable (Ghozali, 2006).



**Figure II. Purchase Intention, Green Marketing Mix, and Environmental Knowledge as an Outer Model Variable**



**Figure III. Test results for the outer model Purchase Intention Variables Green Marketing Mix**

**Environmental Knowledge**

**Test of reliability for all variables**

The next stage is to establish the degree of data dependability, or the degree of reliability of each variable, using the composite reliability value produced by PLS calculations for each construct. If

a construct's value has a composite reliability value of greater than 0.70, it is said to be trustworthy (Werts et al. 1979 in Ghozali, 2006). The reliability test results are shown in the following table:

**Table III. Results of the Variable Reliability Test**

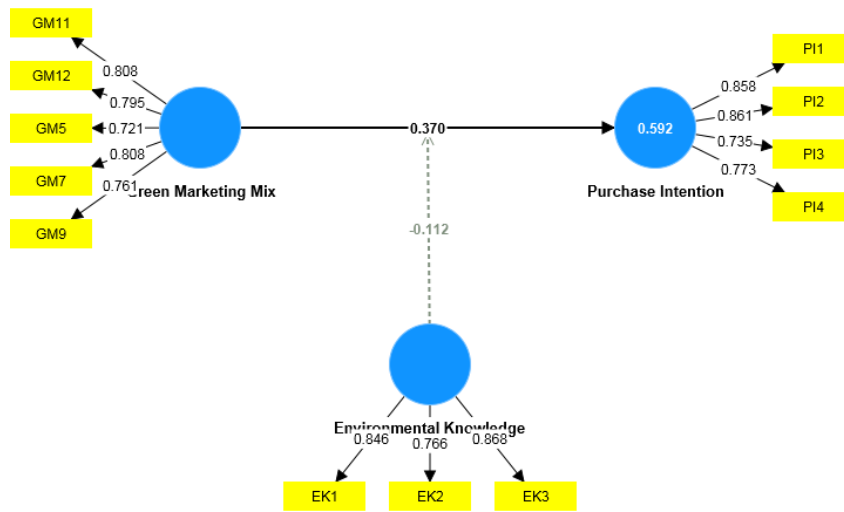
| No | Variable                | AVE   | Composite Reliability | Cronbachs Alpha | Explanation |
|----|-------------------------|-------|-----------------------|-----------------|-------------|
| 1  | Purchase Intention      | 0.654 | 0.837                 | 0.823           | Reliable    |
| 2  | Green Marketing Mix     | 0.608 | 0.846                 | 0.839           | Reliable    |
| 3  | Environmental Knowledge | 0.685 | 0.793                 | 0.793           | Reliable    |

Source: output PLS 4

All research factors, including purchase intention, the green marketing mix, and environmental understanding, had an AVE value of greater than 0.5, according to the test results in Table III. The Composite Reliability score is below 0.70 as a cutoff value for the Environmental Knowledge variable, while the Cronbachs Alpha value is less than 0.7. As a result, not all constructs or research variables have demonstrated to be fit measures; for example, the environmental knowledge variable. This implies that not all of the employed question items are valid and dependable.

**Inner Model (Structural Model Testing)**

The inner model or structural model is put to the test to determine whether the relationship between the constructs, as proposed in this study, is real. The t-test, the significance of the structural path parameter coefficients, the Stone-Geiser Q-square test for predictive relevance, and the R-Square for the dependent construct were all used to assess the structural model. The value of each variable's coefficient of direct effect is shown by the direction of an arrow pointing from some exogenous variables to endogenous variables.



**Figure IV. Model Fit Effect of Green Marketing Mix on Purchase Intention: Moderating The Role of Environmental Knowledge**

The R-Square for each dependent latent variable is the first thing to be considered when evaluating the model with PLS. To determine if a certain set of independent latent variables has a

significant impact on the dependent latent variable, changes in the R-Square value can be used. The outcome of R-Square estimation using Visual-PLS is shown in Table IV.

**Table IV. Value of R-Square**

| Variable           | R-Square |
|--------------------|----------|
| Purchase Intention | 0.592    |

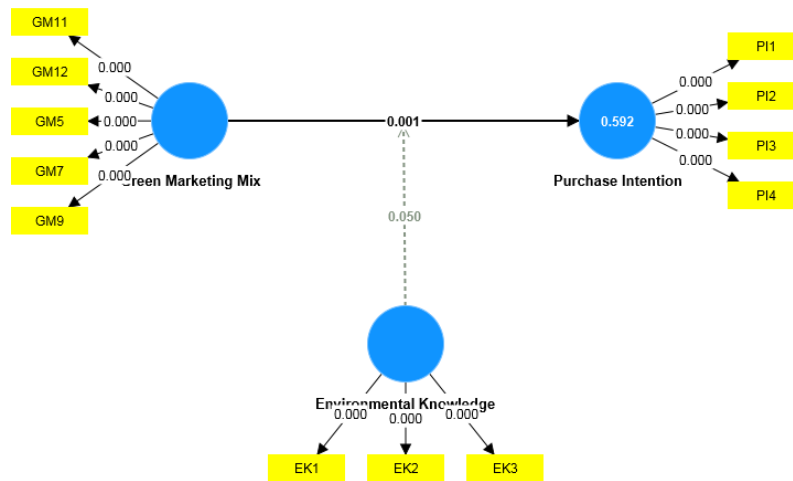
Source: output PLS 4

In Table IV, the R-Square of the Purchase Intention construct is shown to be 0.592, or 59.2%, which illustrates the influence that the Green Marketing Mix variable has when other components, which account for 40.8% of the data, are not taken into account by the research model. With rising R-Square, independent or exogenous variables' capacity to characterize dependent or endogenous variables becomes stronger, which improves structural equations.

**Testing of Structural Equation Models (SEM) using PLS Version 4**

Structural Equation Modeling (SEM) was used as the analytical approach in this investigation. The Smart PLS version 4 application was used to conduct the test. The PLS Algorithm test yielded the following results: Information regarding the link between the research variables is given by the significance of the calculated parameters. The t-statistic value must be between -1.96 and 1.96 in order to reject the suggested hypothesis; otherwise, the null hypothesis (H0) will be accepted. Below this number, the hypothesis will be rejected.





**Figure V. Model FIT Boostroing Environmental Knowledge's Moderating Effect on the Green Marketing Mix's Effect on Purchase Intention**

**Outer Model Analysis Results**

The Outer Model Output from the Smart PLS 4 program for inner weights is shown in table V below, and it includes information about the

path coefficient values, standard errors, and t-statistics. As a rough estimate for evaluating structural models.

**Table V. Direct Effects of Exogenous Variables on Endogenous Variables**

| Variable  | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | P Values |
|---|---------------------|-----------------|----------------------------|----------|
| environmental knowledge -> purchase intention                       | 0.324               | 0.334           | 0.090                      | 0.000    |
| green marketing mix -> purchase intention                           | 0.370               | 0.380           | 0.107                      | 0.001    |
| environmental knowledge x green marketing mix -> purchase intention | -0.112              | -0.091          | 0.057                      | 0.050    |

Source: output PLS 4

Sequentially, the information in the table above can be described as follows: A standardized beta score called Original Sample (O) is used to determine if a variable's ability to predict the dependent (endogenous) variable is positive or negative. The average value of the sample as a result of the iterative procedure is known as the sample mean. The t-statistic, which is >1.96 for a two-way hypothesis and >1.64 for a one-way hypothesis, is a significant parameter of the predictive influence between latent variables measured based on the kind of hypothesis. The

sample distribution's standard deviation levels in a measurement or estimate procedure are called standard deviation and standard error, respectively.

**Analyses of Direct Influence Results**

The value of the direct and total variable influences will be seen, along with an explanation in table VI below: In the meantime, the direct and indirect effects as well as the total environmental knowledge variables are able to play a role in maximizing the influence of the green marketing mix on purchase intention.

**Table VI. Direct Effect**

| Variable  | Original Sample (O) | Decision            |
|---|---------------------|---------------------|
| environmental knowledge -> purchase intention                       | 0.328               | Accepted Hypothesis |
| green marketing mix -> purchase intention                           | 0.370               | Accepted Hypothesis |
| environmental knowledge x green marketing mix -> purchase intention | -0.112              | Accepted Hypothesis |

Source: output PLS 4

### Test Results for Hypotheses

Testing hypotheses was done to address research issues. After the model's presumptions are satisfied, the estimation results with SEM can be interpreted. The t-statistic's value shows whether the given hypothesis was tested. Information regarding the link between the research variables is given by the significance of the calculated parameters. The t-statistic result must fall between -1.96 and 1.96 in order for the proposed hypothesis to be rejected or accepted, respectively. Otherwise, the null hypothesis (H<sub>0</sub>) will be accepted.

The following can be conveyed based on the PLS (Inner Model) analysis results shown in tables IV and V and image VI:

**This study's first hypothesis examines whether purchasing intention is significantly influenced favorably by environmental information.**

By examining the Original Sample Value from SEM PLS 4, this test was conducted. Table v above contains the test findings shown below. It may be inferred from the analysis's findings, which are presented in table v, that variables relating to environmental knowledge have an impact on buyers' intentions. The estimated t value was 3.591 above the t table value (1.96) and the beta coefficient value (original sample) was 0.328, indicating that H<sub>0</sub> was rejected at the 5% error/significance level (0.05) and that the first hypothesis suggested was accepted. Therefore, purchasing intention will increase by 0.328 if environmental knowledge grows, and vice versa if environmental knowledge drops by 0.328. This supports the finding that purchasing intentions are significantly influenced by environmental knowledge. Supported by research (Hariyanto & Alamsyah, 2019) environmental knowledge is related to understanding and concern about the natural environment, and encourages stronger individual responsibility to protect the environment. Environmental knowledge can be improved by means of customer understanding of

environmental awareness. means that customer knowledge will increase if they are aware of their needs and purchasing intentions.

**This study's second hypothesis seeks to determine whether the green marketing mix significantly improves purchase intention.**

The Original Sample Value from SEM PLS 4 was used to conduct this test. The test results listed below are shown in table v above. According to the original sample's beta coefficient value of 0.370 and the t-count value of 3.463 above the t-table value of 1.96, the second hypothesis is suggested to be accepted while H<sub>0</sub> is rejected at the 5% error/significance level (0.05). This discovery is supported by analysis done with the Smart PLS 4 program, which is shown in table V. As a result, if the environmentally friendly marketing mix becomes better, the purchase intention will go up by 0.370, and vice versa, if it gets worse, the purchase intention will go down by 0.370. As a result, it can be concluded that the green marketing mix has a big impact on consumers' intents to buy. In line with (Mahmoud, 2018) research which shows that four forms of green marketing mix, namely: (green product, green price, green place and green promotion) have a significant positive relationship with purchase intention.

**This study's third hypothesis is to determine whether the green marketing mix significantly improves purchase intention, with the impact of environmental knowledge acting as a moderator.**

Examining the Original Sample Value from SEM PLS 4 was done as part of this test. The table above, column v, displays the test findings listed below. It can be inferred from the research carried out with the help of the Smart PLS 4 software and the findings presented in table v that environmental awareness reduces the effect of the green marketing mix on consumers' intentions to buy. The first hypothesis was rejected at the 5%

level of significance (0.05) and the third hypothesis was accepted, as indicated by the beta coefficient (original sample) of -0.112 and the t-value of 1.963 above the t-table (1.96). This demonstrates that, in contrast to environmental awareness, a high level of religiosity tends to reduce the influence of green marketing mix on purchase intention at a high level more considerably ( $f^2 = 0.092$ ). According to Kenny (1998), when the  $f^2$  moderation test value is higher than 0.025, a strong influence is apparent. This is supported by research (Mahmoud et al., 2017) which addresses environmental knowledge and the theory of planned behaviour by determining which attitudes are more important in creating customer purchase intentions. In addition, this study is one of the pioneering studies that validates the measurement of green marketing mix with purchase intention.

## CONCLUSION

Determine the Moderate Effect of Environmental Knowledge on the Effect of Green Marketing Mix on Purchase Intention was the aim of this study. Based on the findings of the analysis of the green marketing mix, the purchase intention that was described previously as being moderated by environmental knowledge, the presented descriptive research data, the carried out data analysis, and the discussion that was advanced in the previous chapter, a number of conclusions can be drawn from this study. The green marketing mix variable has a significant impact on purchase intentions when Pariangan Coffee customers discard batik, with the environment acting as a moderating factor. Thus, it may be inferred that a person thinking about purchasing coffee grounds batik may want to take into account green marketing mix characteristics, which are influenced by environmental concern. The fact that it contributed 59.2% of the purchase intention variable, with the remaining influence coming from sources unrelated to the researcher's research, shows this.

Even though approaches and methods designed for this kind of research were used in this attempt, it was challenging to refine the findings. This is the best outcome so far, despite the problems and limitations that were found during the study process. Given how seriously the respondents complete the instrument, it is challenging for the researcher to monitor or manage the respondents' sincerity and accuracy. There is a good chance that the responses provided to the questionnaire items submitted do not exactly reflect the situation, and there might also be a subjective element to answering questions that the

researcher has no control over. As a result, the researcher must make the assumption that the responses to the instrument can typically produce an actual picture that is compatible with what the research instrument claims to reflect.

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