



The Effect of Greenwashing Practices and Product Quality on Consumer Satisfaction Moderated by Environmental Awareness (Study on Clothing Thrift at Pasar Senen)

Dinda Oktaviani^{1*}, Peggy Ratna Marlianingrum²
Muhammadiyah University of Technology Jakarta

Corresponding Author: Dinda Oktaviani dindaaoktvni@gmail.com

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ABSTRACT

The present study evaluates the influence of perceived greenwashing and product quality in shaping consumer satisfaction., moderated by environmental awareness, among thrift clothing consumers at Pasar Senen, Jakarta. Using Structural Equation Modeling (SEM) via SmartPLS, the responses were obtained from a sample of 175 participants through purposive sampling. Results show that greenwashing does not significantly affect consumer satisfaction, while product quality has a significant effect, reflecting the expectancy confirmation dynamic of thrift markets. Environmental awareness positively influences consumer satisfaction and moderates the product quality-satisfaction relationship, but does not moderate the greenwashing-satisfaction relationship. The $R^2=10.3\%$ indicates additional influencing factors. These findings affirm that transparency in product quality and environmental claims is essential for building sustainable consumer satisfaction in the thrift clothing industry.

INTRODUCTION

The global fashion industry has long been acknowledged as one of the most ecologically harmful industries, generating millions of tons trash annually due to the widespread use of synthetic materials such as polyester, nylon, and acrylic (Arif, 2024). In Indonesia, this challenge is particularly acute. Kementerian Lingkungan Hidup dan Kehutanan (KLHK) reported that, in 2023, textile waste was projected to account for 2.87% of the country's total waste stream, or roughly 1.75 million tons per year (Trisnadi, 2025). Data from Sistem Informasi Pengelolaan Sampah Nasional (SIPSN, 2023) show that Indonesia produces around 2.3 million tons textile waste annually, while merely 0.3 million tons gets recycled. Without serious, systematic intervention, that amount is projected to reach 3.9 million tons by 2030 (Kompas.com, 2025). These figures underscore the need for a fundamental shift in fashion consumption patterns toward a more sustainable and responsible model.

In response to rising environmental concerns, the practice of purchasing secondhand clothing is gaining popularity as an economically viable and environmentally friendly alternative. A GoodStats (2023) of 261 respondents found that 49.4% of young Indonesians have bought used items clothing thrift, reflecting a broader shift in consumption patterns among urban young people. Pasar Senen, a second-hand clothing market in Central Jakarta, is one of the most prominent examples of this trend; since the 1980s, it has been one of the largest and oldest hubs for second-hand clothing trade in Indonesia. This is reflected in the significant increase in imports of second-hand clothing into the area, from 8 tons in 2021 to 26.22 tons in 2022 (BPS, 2023), indicating that the second-hand clothing trend has moved beyond a passing phenomenon to become a substantial element of changing consumer behavior.

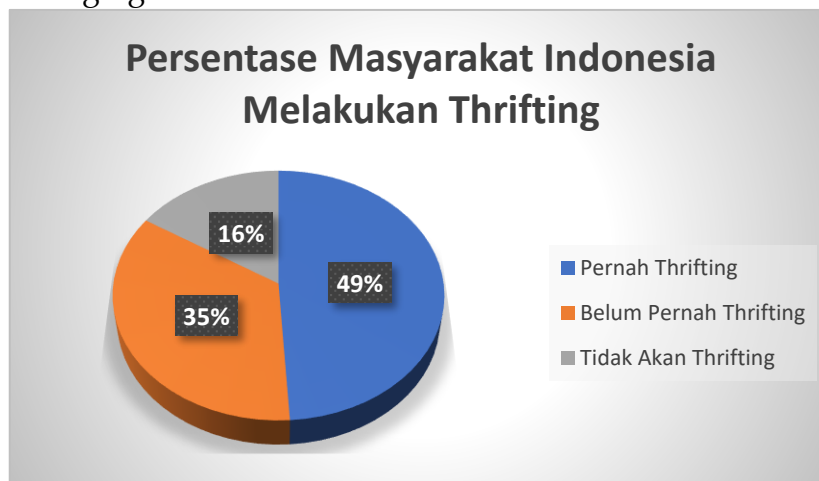


Figure 1. The Percentage of Indonesians Who Do Thrifting
Source: GoodStats (2023)

As the narrative of sustainable fashion gains momentum, an alarming phenomenon has emerged that undermines consumer trust: greenwashing. Greenwashing is recognized as a deceptive form of environmental marketing in which firms cultivate a perception of sustainability despite the absence of

authentic environmental commitment or measurable supporting actions. (de Freitas Netto et al., 2020). This practice takes many forms, including the use of unverified eco-labels, ambiguous claims such as "green" or "eco-friendly", selective disclosure of information, and manipulative imagery designed to associate products with environmental responsibility (Zioło et al., 2024). In relation to the thrifting market, greenwashing can occur when sellers invoke sustainability narratives to attract environmentally conscious buyers while failing to transparently disclose a product's origin, condition, or how it has been handled, creating unrealistic expectations that can ultimately lead to consumer dissatisfaction.

Beyond greenwashing, product quality remains the primary determinant of consumer satisfaction in the thrifting market, where item conditions vary widely and are difficult to predict. Product quality pertains to how well a product can fulfill or surpass customer expectations based on its functional and aesthetic attributes (Kotler & Armstrong, 2012). In the thrifting market, quality assessment becomes far more complex because each item's condition is unique, making evaluation inherently subjective. Consumers seeking to purchase second-hand goods with specific quality expectations may experience positive confirmation or negative disconfirmation depending on the extent to which expected product performance aligns with actual performance. These dynamics render the secondhand goods market analytically distinct from the conventional retail environment and warrant a dedicated scientific inquiry.

Previous studies have examined greenwashing (Indriani (2024); Sun & Shi (2022); Paudel (2024)) and product quality ((Indriani, 2024) (Rafly & Hadita, 2024); (Gstngr et al., 2021) separately in relation to consumer behavior, primarily focusing on purchase intentions, brand perceptions, and consumers' responses to products labeled as environmentally friendly. However, no research has simultaneously investigated the combined effects of greenwashing practices and product quality on consumer satisfaction, with environmental awareness serving as a moderating variable—particularly in the context of second-hand clothing sales at Pasar Senen. This gap is particularly significant given the proliferation of unverified "eco-friendly" claims across various second-hand trading platforms, both online and offline.

In response to this gap, The present study investigates the impact of greenwashing practices and product quality on consumer satisfaction, with environmental awareness as a moderating variable, among second-hand clothing consumers in Pasar Senen, Jakarta. The research questions posed are: Does the practice of greenwashing affect consumer satisfaction? Does product quality affect consumer satisfaction? Does environmental awareness moderate consumer satisfaction? Does environmental awareness play a moderating role in linking greenwashing to consumer satisfaction? Does the same moderating role apply to the relationship between product quality and consumer satisfaction?? Theoretically, The present study enriches the literature by offering empirical evidence concerning the role of greenwashing in the second-hand goods sector, explores the unique dynamics of product quality expectations in the second-hand market, and examines environmental awareness as a moderate variable. In

practical terms, this present study is intended to help thrift businesses build transparent, sustainable marketing strategies and to offer constructive recommendations to policymakers to promote a more responsible fashion consumption ecosystem in Indonesia.

LITERATURE REVIEW

Expectation-Confirmation Theory

According to the Expectation-Confirmation Theory put forward by Oliver (1980), satisfaction levels among consumers are largely a function of whether perceived performance meets, falls short of, or exceeds pre-formed expectations. The degree of consumer satisfaction depends on whether the perceived performance aligns with or surpasses prior expectations, while a gap between expectations and actual performance tends to generate dissatisfaction. According to Kotler & Keller (2012), the concept of consumer satisfaction denotes the satisfaction arises when consumers perceive that a product delivers performance consistent with, or better than, what they initially expected. (Tjiptono, 2014) further emphasizes that satisfaction is a post-purchase evaluative response shaped by rational factors, such as product quality, as well as by emotional and psychological drivers. The consumer satisfaction indicators used in this study are based on Tjiptono & Chandra (2011), namely: overall satisfaction, repurchase intention, willingness to recommend, and fulfillment of consumer expectations.

Theory of Planned Behavior (TPB)

Identifies attitudes toward a behavior as the primary determinant of individual action. According to Ajzen (1991), Individuals who hold a more positive evaluation of a particular behavior are generally more likely to develop the intention to perform it, the greater the social support they obtain and the more they believe in their ability to control their behavior, their motivation to perform the behavior is likely to increase. In this study, the theory is applied to explain how consumers' attitudes toward greenwashing claims and product quality – shaped by environmental values and social norms – can influence their satisfaction.

Greenwashing Practices

Greenwashing is a marketing tactic used by businesses to cultivate an image of environmental responsibility through sustainability claims that are not fully substantiated by the companies' actual practices (Li et al., 2015; Mangini et al., 2020). According to Ziolo et al. (2024), greenwashing can manifest in different ways, such as selective disclosure, decoupling, distracting attention, misleading manipulation, and the application of questionable labels and ineffective voluntary programs. In this study, greenwashing was measured using the indicators developed by Gultom & Sakti (2023): false or misleading statements, visuals that create inaccurate impressions, vague environmental promises, exaggerated claims regarding environmental responsibility, and the concealment of material facts. Prior research has yielded conflicting results concerning the influence of greenwashing on consumer reactions.

Szabo & Webster (2021) found that greenwashing practices can increase satisfaction among consumers with low levels of environmental awareness.

Paudel (2024) and Simanjuntak et al. (2024) report that greenwashing tends to erode consumer trust over time and purchase intentions. Based on the literature review, there remains limited research specifically examining the effect of greenwashing on consumer satisfaction in the context of thrifted clothing. This study was conducted to address this gap in the literature by analyzing the impact of greenwashing practices on consumer satisfaction among customers of thrift clothing businesses in Pasar Senen.

Product Quality

Garvin (1987) framework defines product quality is assessed based on eight dimensions, including performance, features, reliability, conformance, durability, serviceability, aesthetics, and perceived quality. As stated by Kotler & Armstrong (2012), product quality denotes a product's ability to execute its functions effectively. In this research, the measures of product quality are as follows. Saleleng et al. (2014): performance, reliability, features, serviceability, and durability. Product quality has been consistently recognized as a key driver of consumer satisfaction. Naini et al. (2022) confirmed that product quality significantly and positively influences consumer satisfaction, subsequently driving brand loyalty. Rahmola et al. (2022) indicated a significant positive correlation between product quality and customer satisfaction. Gstngr et al. (2021) identified product quality as a primary factor in enhancing satisfaction that ultimately leads to loyalty, while Sambo et al. (2022) found product quality to be the most influential determinant of consumer satisfaction. Rafly & Hadita (2024) demonstrated that product quality significantly influences purchase decisions for thrift clothing at Pasar Senen.

Environmental Awareness

Environmental awareness pertains to a person's comprehension, worry, and dedication to environmental challenges (Kollmuss & Agyeman, 2002). Stern (1999) adds that those who hold environmental values tend to form personal norms that motivate pro-environmental behavior. Indicators follow (Kristanto & Mazni, 2023): general beliefs/values, personal attitudes, and information/knowledge. Prior studies confirm its moderating role: Hudayah et al. (2023) found it moderates green value perception and purchase intention in Indonesia; Sun & Shi (2022) showed it amplifies the negative effect of greenwashing on green purchase intentions; J. Wang et al. (2020) confirmed it moderates the effect of perceived product quality on green purchase intention. However, no study has tested environmental awareness as a simultaneous moderator of both greenwashing and product quality on consumer satisfaction in clothing thrift, which this study specifically addresses.

Consumer Satisfaction

Consumer satisfaction is an evaluative response formed after purchase, reflecting the degree to which perceived product performance meets or exceeds initial expectations (Kotler & Armstrong, 2012); Tjiptono & Chandra, 2011). The way consumers assess a product extends beyond its functional quality, as emotional reactions and psychological processes also contribute to their overall evaluation. Indicators in this study follow Tjiptono & Chandra (2011): overall feeling of satisfaction, repurchase intention, willingness to recommend, and

fulfillment of consumer expectations. Prior studies confirm that both product quality and environmental claims are significant antecedents of satisfaction. Brian (2019) found that green hotel practices positively influence consumer satisfaction, while Gstngr et al. (2021) identified product quality as the primary driver of satisfaction leading to loyalty. These findings establish consumer satisfaction as the central dependent variable in this study.

Hypothesis Development

H1: Greenwashing influences Consumer Satisfaction.

H2: Product Quality influences Consumer Satisfaction.

H3: Environmental Awareness influences Consumer Satisfaction.

H4: Environmental Awareness moderates the effect of Greenwashing on Consumer Satisfaction.

H5: Environmental Awareness moderates the effect of Product Quality on Consumer Satisfaction.

Drawing from earlier studies and the impact of factors from different research, the subsequent framework of ideas is provided as a foundation for developing the hypothesis outlined in the model presented in Figure 2.

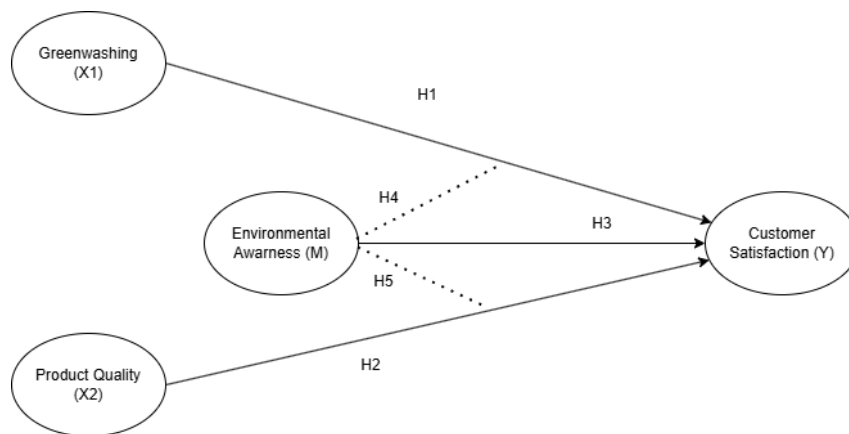


Figure 2. Conceptual Framework

METHODOLOGY

This research utilized a quantitative causal approach to examine the impact of greenwashing and product quality on consumer satisfaction, along with the moderating influence of environmental awareness. The data was gathered through an online survey (Google Forms) administered to consumers of clothing thrift at Pasar Senen, Jakarta. A total of 175 valid responses were obtained through purposive sampling. Respondents were required to meet the following criteria: (1) having purchased secondhand clothing at Pasar Senen, (2) being at least 17 years old, and (3) being aware of environmental sustainability issues. The sample size was determined as recommended by Hair et al. (2011) following the rule of thumb of ten observations per indicator (17 indicators \times 10 = 170), the final sample of 175 exceeded this minimum. Variables were assessed using a six-point Likert scale (1 = Strongly Disagree; 6 = Strongly Agree). Greenwashing (X1) was measured with five indicators; product quality (X2) with five indicators; environmental awareness (M) with three indicators; and consumer satisfaction

(Y) with four indicators. Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed to analyze the research data, with SmartPLS version 4.0 serving as the analytical tool. Furthermore, Moderated Regression Analysis (MRA) was employed to examine the moderating role of environmental awareness. The research framework is outlined below:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 M + \beta_4 (M \times X_1) + \beta_5 (M \times X_2) + \varepsilon$$

Description:

- Y = Customer Satisfaction (Y)
- X₁ = Greenwashing (X₁)
- X₂ = Product Quality (X₂)
- M = Environmental Awareness (M)
- β₁, β₂, β₃ = Coefficient
- ε = Error

RESULT AND DISCUSSION

This study focuses on secondhand (thrift) clothing consumers at Pasar Senen in DKI Jakarta. A questionnaire was administered to 175 respondents. Eligible questionnaires were analyzed to identify respondents' characteristics using demographic variables: age, highest educational attainment, place of residence, occupation, income, and purchase frequency over the past 12 months.

Table 1. Characteristics of Respondents

Characteristics	Group	Respondent	Percentage
Age	18 - 24 Years	163	93,1%
	25 - 34 Years	10	5,7%
	35 - 44 Years	0	0
	45 - 54 Years	1	0,6%
	>55 Years	1	0,6%
Latest Education	SD	0	0
	SMP/Sederajat	3	1,7%
	SMA/Sederajat	126	72%
	S1	45	25,7%
	S2	1	0,6%
Occupation	S3	0	0%
	Student	151	86,3%
	Civil Servant	3	1,7%
	Private Employee	15	8,6%
	Entrepreneur	1	0,6%
	Housewife	1	0,6%
	TNI	2	1,1%
	Labor	1	0,6%
Freelancer	1	0,6%	
Domicile	West Jakarta	31	17,7%
	Central Jakarta	29	16,6%
	South Jakarta	54	30,9%
	East Jakarta	25	14,3%
	North Jakarta	21	12%
	Kepulauan Seribu	15	8,6%

Characteristics	Group	Respondent	Percentage
Monthly Income	<Rp1.500.000	84	48%
	Rp1.500.000 - Rp3.500.000	52	29,7%
	Rp3.500.000 - Rp5.500.000	21	12%
	Rp5.500.000 - Rp7.500.000	8	4,6%
	Rp7.500.000 - Rp10.000.000	9	5,1%
	RP5.500.000 - Rp7.500.000	1	0,6%
	Rp10.000.000		
	>Rp10.000.000		
Purchase Frequency Over the Past 12 Months	1-2 Times	100	57,1%
	3-5 Times	66	37,7%
	More Than 5 Times	9	6,1%

Source: Author's Compilation (2026)

Based on respondent characteristics, the sample was predominantly 18–24 years old (93.1%), most had completed SMA/Sederajat (72%), and the majority were students (86.3%). The largest share of respondents resided in South Jakarta (30.9%), and 48% reported a monthly income of less than Rp 1,500,000. Regarding purchase frequency over the previous 12 months, most respondents (57.1%) reported buying 1–2 times.

Descriptive Analysis of Research Variables

To present the general characteristics of the collected data, descriptive statistics were performed, including the maximum and minimum values, mean, and standard deviation. The descriptive statistics for the study's variables are shown in the table below: greenwashing, product quality, consumer satisfaction, and environmental awareness.

Table 2. Descriptive Statistics of Research Data

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Greenwashing	175	10	30	22,21	3,982
Product Quality	175	8	30	22,46	3,927
Environmental Awareness	175	6	18	13,32	2,539
Consumer Satisfaction	175	8	24	17,80	3,435

Source: Processed Primary Data (2026)

The results of the descriptive statistics indicate that all four variables have $N = 175$. The Greenwashing variable recorded values ranging from 10 to 30, with an average score of 22.21 ($SD = 3.982$), indicating a relatively high level of respondents' knowledge of greenwashing relative to the maximum possible score. For the Product Quality variable, the lowest recorded score was 8 and the highest was 30, while the average score reached 22.46 ($SD = 3.927$), indicating a high level of respondents' knowledge of product quality relative to the maximum possible score. The Environmental Awareness variable exhibited values ranging from 6 to 18, with an average score of 13.32 ($SD = 2.539$), indicating a relatively high level of environmental awareness. The Consumer Satisfaction variable demonstrated a score distribution between 8 and 24, with a mean value of 17.80

(SD = 3.435), indicating a relatively high level of consumer satisfaction. Overall, all four variables fell into the high category when the mean was expressed as a percentage of the maximum possible score.

Outer Model

a. Validity Test

The validity test was conducted utilizing SmartPLS software, which involves testing convergent validity (loading factors), discriminant validity, and the significance levels among the latent variables included in the research model, which used a reflective measurement model for the relationships between indicators and constructs. The validity assessment began by inputting respondents' questionnaire responses after converting them to numeric values. The following table reports the loading values for each indicator.

Table 3. Outer Loadings: Validity Test Before Drop

Variables	Indicator	Loadings	Descriptions
Greenwashing	X1.01	0,563	Insignificant
	X1.02	0,839	Significant
	X1.03	0,862	Significant
	X1.04	0,635	Insignificant
	X1.05	0,791	Significant
Product Quality	X2.01	0,846	Significant
	X2.02	0,792	Significant
	X2.03	0,780	Significant
	X2.04	0,775	Significant
	X2.05	0,844	Significant
Environmental Awareness	M.01	0,766	Significant
	M.02	0,885	Significant
	M.03	0,902	Significant
Consumer Satisfaction	Y.01	0,809	Significant
	Y.02	0,835	Significant
	Y.03	0,813	Significant
	Y.04	0,885	Significant

Source: Processed Primary Data (2026)

According to the factor loadings, if the value is still below 0.7, it must be dropped. Outer loading values below 0.7 are for the Greenwashing variables, namely X1.01 and X1.03. The following is a table of outer loadings after the indicator is dropped.

Table 4. Outer Loadings: Validity Test After Drop

Variables	Indicator	Loadings	Descriptions
Greenwashing	X1.02	0,839	Significant
	X1.04	0,862	Significant
	X1.05	0,791	Significant
Product Quality	X2.01	0,846	Significant
	X2.02	0,792	Significant
	X2.03	0,780	Significant
	X2.04	0,775	Significant
	X2.05	0,844	Significant
Environmental Awareness	M.01	0,766	Significant

	M.02	0,885	Significant
	M.03	0,902	Significant
Consumer Satisfaction	Y.01	0,809	Significant
	Y.02	0,835	Significant
	Y.03	0,813	Significant
	Y.04	0,885	Significant

Source: Processed Primary Data (2026)

b. Reliability Test

Reliability testing was performed to evaluate the quality and uniformity of the questionnaire items during the research. The construct’s reliability was assessed through SEM in SmartPLS, Cronbach's alpha and composite reliability coefficients were calculated for each construct. The resulting values are presented in the following table.

Table 5. Reliability Test

Variables	Cronbach’s Alpha	Compositer Reliability (Rho_A)	Composite Reliability (Rho_C)	Average Variance Extracted (AVE)
Greenwashing	0,799	0,829	0,879	0,709
Product Quality	0,860	0,909	0,902	0,698
Environmental Awareness	0,830	0,911	0,889	0,729
Consumer Satisfaction	0,871	0,915	0,904	0,653

Source: Processed Primary Data (2026)

The reliability assessment, utilizing Cronbach's alpha and composite reliability results for the independent and dependent variables in this research, exceeded 0.60. This implies that the indicators employed for each construct – Greenwashing, Product Quality, Environmental Awareness, and Consumer Satisfaction – are considered capable of measuring their respective constructs and are dependable.

c. Output Discriminant Validity

Table 6. Output Discriminant Validity

	X ₁	Y	M	X ₂	M*X ₁	M*X ₂
X ₁						
Y	0.165					
M	0.102	0.178				
X ₂	0.122	0.204	0.075			
M*X ₁	0.054	0.026	0.040	0.061		
M*X ₂	0.032	0.151	0.087	0.121	0.052	

Source: Processed Primary Data (2026)

The results of the discriminant validity test shown in Table 6 indicate that the loading factors of several research variables exhibit higher values for their intended constructs compared to their loading values on other constructs. This finding suggests that each latent variable demonstrates adequate discriminant

validity, as the relationship between an indicator and its corresponding construct is stronger than its relationship with other constructs. A loading factor is considered satisfactory if its value exceeds 0.50.

Inner Model

R Square (R²)

Table 7. R Square (R²)

Variable	R Square	R Square Adjusted	Descriptions
Consumer Satisfaction	0.103	0.076	Moderate

Source: Processed Primary Data (2026)

According to the table above, The R² result for the Consumer Satisfaction variable is 0.103, indicating that the proportion of variation in consumer satisfaction explained by greenwashing, consumer satisfaction, and environmental awareness variables is 10.3%, the rest of the variation may be influenced by other variables beyond those examined in the research model.

Hypothesis Testing

Table 8. Hypothesis Testing

Path Relationship	Coeff. (O)	T-Statistic	P-Values	Result	Hypothesis
Greenwashing → Consumer Satisfaction	-0.100	1.381	0.167	Insignificant	Rejected
Product Quality → Consumer Satisfaction	-0.186	2.801	0.005	Significant	Accepted
Environmental Awareness → Consumer Satisfaction	0.190	2.713	0.007	Significant	Accepted
Environmental Awareness × Greenwashing → Consumer Satisfaction	0.029	0.470	0.638	Insignificant	Rejected
Environmental Awareness × Product Quality → Consumer Satisfaction	0.111	1.788	0.074	Significant	Accepted

Source: Processed Primary Data (2026)

The resulting structural equation is:

$$Y = \alpha + -0.100X_1 + (-0.186) X_2 + 0.190M + 0.029 (M \times X_1) + 0.111(M \times X_2) + \varepsilon$$

The Influence of Greenwashing (X1) on Consumer Satisfaction (Y)

The test results indicated that the practice of greenwashing did not have a significant effect on the satisfaction of thrift clothing consumers at Pasar Senen. Consumers tended to prioritize price, product uniqueness, and the item's physical condition over sellers' eco-friendly claims. Indicators of greenwashing – such as misleading language, ambiguous claims, and exaggerated portrayals of environmental benefits Gultom & Sakti (2023) – are also relatively difficult for consumers to detect directly, and thus do not serve as primary factors in shaping satisfaction. These findings are consistent with Indriani (2024), who found that

attitudes toward greenwashing do not significantly affect perceptions of green brands, and are supported by Zhang et al. (2018), who assert that the impact of greenwashing depends on how consumers interpret the environmental claims they receive. Thus, in this context, consumer satisfaction is driven more by the product's functional benefits than by the seller's sustainability claims.

The Influence of Product Quality (X2) on Consumer Satisfaction (Y)

The analysis indicates that product quality has a statistically significant impact on consumer satisfaction levels. These findings indicate that product quality is one of the primary factors determining consumer satisfaction when purchasing thrifted clothing. According to Oliver (1980), Drawing on Expectation-Confirmation Theory, satisfaction is achieved when a product's perceived performance aligns with or exceeds consumers' initial expectations. In the context of thrifted clothing, consumers tend to be satisfied when the items they purchase are still wearable, function properly, and match their expectations. This is consistent with the product quality indicators proposed by Saleleng et al. (2014), particularly regarding product performance and functionality, which are primary considerations for consumers when evaluating the quality of thrift clothing. The present study's results are also supported by Rafly & Hadita (2024), empirical evidence indicates that product quality significantly affect the buying decisions of thrift clothing consumers at Pasar Senen. These findings suggest that higher product quality is associated with consumers, the higher the degree of satisfaction perceived by consumers.

The Influence of Environmental Awareness (M) on Consumer Satisfaction (Y)

The analysis confirms that environmental awareness plays a significant role in shaping consumer satisfaction. These findings indicate that consumers with a high level of environmental awareness tend to experience greater satisfaction when purchasing thrift items because the activity aligns with the values and pro-environmental behaviors they hold. According to Kristanto & Mazni (2023), knowledge of the adverse environmental consequences generated by the fashion industry can raise individuals' awareness and encourage them to adopt more responsible consumption patterns, such as buying thrift clothing. In this study, consumers who recognize the importance of protecting the environment tend to view thrifting as contributing to reducing textile waste, thereby creating a sense of satisfaction with their purchase decisions. The present findings are consistent with the results reported by Ngo et al. (2024), which showed that consumers with environmentally conscious attitudes are more predisposed to engage in sustainable clothing purchases. Thus, environmental awareness not only influences consumption behavior but also enhances consumer satisfaction by aligning purchasing actions with sustainability values.

Moderating Effect of Environmental Awareness (M) of Greenwashing (X1) on Consumer Satisfaction (Y)

Empirical results demonstrate that environmental awareness fails to moderate the way greenwashing practice shapes consumer satisfaction levels. These findings suggest that consumers' level of environmental awareness is insufficient to influence the association between greenwashing practices and consumer satisfaction in thrift clothing at Pasar Senen. Although consumers

possess knowledge regarding the significance of environmental conservation and the fashion industry's negative environmental impacts, as noted by Kristanto & Mazni (2023), such knowledge does not necessarily translate into the ability to recognize ambiguous or misleading environmental claims. As a result, consumers remain more focused on functional product attributes – such as price, style, and garment condition – than on the eco-friendly claims made by sellers. A comparable conclusion was reported by Ioannou et al. (2023), who suggested that consumers' evaluations of greenwashing are depends on consumers' ability to interpret and assess the credibility of the environmental claims they receive. These results contrast with Zhang et al. (2018), who found that environmental awareness can strengthen consumer responses to greenwashing practices. This difference is attributed to consumers of thrift clothing at Pasar Senen being more motivated by the economic and functional benefits of the products than by environmental considerations, so environmental awareness has not been able to acts as a moderating variable in the aforementioned relationship.

Moderating Effect of Environmental Awareness (M) of Product Quality (X2) on Consumer Satisfaction (Y)

The analysis confirms that the interplay between environmental awareness and product quality was found to statistically significant influence consumer satisfaction. The analysis confirms that environmental awareness serves to strengthen the role of product quality in shaping consumer satisfaction. Consumers with high environmental awareness tend to evaluate product quality more comprehensively, considering not only functional aspects but also the product's contribution to environmental sustainability. According to Saleleng et al. (2014), Well-maintained product quality is manifested in the extent to which a product can sustain its performance and remain fit for intended use, while Kristanto & Mazni (2023) explain that environmental awareness motivates individuals to adopt more responsible consumption patterns. In the context of secondhand clothing, consumers are more satisfied when purchased items not only meet quality expectations but also align with their sustainability values. A similar conclusion was reported by Y. M. Wang et al. (2022), who demonstrated that environmental awareness as a significant moderator of the relationship between product quality and consumers' purchasing behavior toward environmentally friendly products. Consequently, as consumers' level of environmental awareness increases, the influence of product quality on their perceived satisfaction becomes more pronounced.

CONCLUSIONS AND RECOMMENDATIONS

Drawing on data collected from 175 consumer respondents of thrift clothing at Pasar Senen, further research is recommended to develop and refine the measurement instruments for several indicators that exhibit relatively low outer loading values: the "hiding important information" indicator of the greenwashing variable (X1.05); the "service capability" indicator of the product quality variable (X2.04); the "general beliefs/values" indicator of the environmental awareness variable (M.01); and the "sense of satisfaction" indicator of the consumer satisfaction variable. These findings indicate that

respondents were not fully able to identify information-concealment practices in thrifted clothing products, tended to focus more on the physical condition of items than on service aspects, and held environmental beliefs that did not fully reflect their environmental awareness. Furthermore, consumer satisfaction was not only an emotional response but was also influenced by willingness to make repeat purchases, to recommend the products, and by the extent to which consumer expectations were met. Further research should consider other moderating constructs, including green trust and environmental concern, given the lack of a significant moderating effect of environmental awareness, which may be attributable to the weak role of indicators of general beliefs/values in shaping how consumers assess greenwashing practices.

FURTHER STUDY

This study was limited to one location (Pasar Senen, Central Jakarta), mostly young respondents (93.1% aged 18–24 years), and the R^2 was only 10.3%. Future research should: (1) expand the geographic scope to other cities in Indonesia for broader generalization, (2) use a mixed-methods design to capture deeper consumer motivations, (3) include additional variables such as price perception, consumer trust, and brand credibility, and (4) use probability sampling to reduce selection bias and increase the representativeness of the data.

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REFERENCES

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Arif, A. (2024, July 17). *Industri Pakaian Gelontorkan Jutaan Ton Limbah Plastik ke Lingkungan*. Kompas.Id.
- Brian, R. (2019). Pengaruh Green Hotel Practice Terhadap Kepuasan Konsumen Pada Hotel Budget di Jakarta. In *Jurnal Pesona Hospitality* (Vol. 12, Number 1).
- de Freitas Netto, S. V., Sobral, M. F. F., Ribeiro, A. R. B., & Soares, G. R. da L. (2020). Concepts and forms of greenwashing: A systematic review. *Environmental Sciences Europe*, 32, 1–12.
- Garvin, D. (1987). Competing on the eight dimensions of quality. *Harv. Bus. Rev.*, 101–109.
- GoodStats. (2023, June 2). *Ada 49,4% Masyarakat Indonesia Pernah Melakukan Thrifting*. <https://Data.Goodstats.Id/Statistic/Ada-494-Masyarakat-Indonesia-Pernah-Melakukan-Thrifting-SP7wi>.
- Gstngr, I., Diputra, A. W., & Yasa, N. N. (2021). THE INFLUENCE OF PRODUCT QUALITY, BRAND IMAGE, BRAND TRUST ON CUSTOMER SATISFACTION

- AND LOYALTY. In *American International Journal of Business Management (AIJBM)* (Vol. 4, Number 01).
- Gultom, R. S. H., & Sakti, M. (2023). *Praktirk Greenwashing: Perlindungan Hukum dan Tanggung Jawab Koperasi Ditinjau dari Hukum Indonesia*. 4(3), 2746–5047. <https://doi.org/10.55637/juinhum.4.3.8331.626-641>
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–152.
- Hudayah, S., Ramadhani, M. A., Sary, K. A., Raharjo, S., & Yударuddin, R. (2023). Green perceived value and green product purchase intention of Gen Z consumers: Moderating role of environmental concern. *Environmental Economics*, 14(2), 87–102. [https://doi.org/10.21511/ee.14\(2\).2023.07](https://doi.org/10.21511/ee.14(2).2023.07)
- Indriani. (2024). PENGARUH PERCEIVED INFORMATIVENESS KAMPANYE “THE POWER OF CLOTHING”, SIKAP TERHADAP FAST FASHION, DAN SIKAP TERHADAP GREENWASHING TERHADAP PERSEPSI GREEN BRAND UNIQLO. <https://ejournal3.undip.ac.id/index.php/interaksi-online/article/view/47082/32029>.
- Ioannou, I., Kassinis, G., & Papagiannakis, G. (2023). The Impact of Perceived Greenwashing on Customer Satisfaction and the Contingent Role of Capability Reputation. *Journal of Business Ethics*, 185(2), 333–347. <https://doi.org/10.1007/s10551-022-05151-9>
- Kollmuss, A., & Agyeman, J. (2002). *Mind the Gap: Why do people act environmentally and what are the barriers to pro-environmental behavior?* Environmental Education Research.
- Kompas.com. (2025, March 8). *Teknologi Daur Ulang Tekstil, Solusi Masa Depan untuk Limbah Industri Fashion*. <https://lestari.kompas.com/read/2025/03/08/104446386/teknologi-daur-ulang-tekstil-solusi-masa-depan-untuk-limbah-industri-fashion?page=all>.
- Kotler, P., & Armstrong, G. (2012). *Principles of Marketing*.
- Kotler, Philip., & Keller, K. Lane. (2012). *Marketing management*. Prentice Hall.
- Kristanto, A., & Mazni, A. (2023). PENGARUH SISTEM MANAJEMEN PENGELOLAAN SAMPAH DAN KESADARAN LINGKUNGAN TERHADAP KEBERSIHAN LINGKUNGAN KOMPLEK PERKANTORAN DINAS/INSTANSI KABUPATEN LAMPUNG TIMUR. *Jurnal Ilmiah Manajemen Management Sciences*, 4(2).
- Li, D., Jia, X., & Xin, L. (2015). A Literature Review of Corporate Greenwashing and Prospects. *Foreign Economy Management*, 86–69.
- Mangini, E. R., Amaral, L. M., Conejero, M. A., & Pires, C. S. (2020). Greenwashing Study and Consumers’ Behavioral Intentions. *CBR - Consumer Behavior Review*, 4(3), 229. <https://doi.org/10.51359/2526-7884.2020.244488>
- Naini, N. F., Sugeng Santoso, Andriani, T. S., Claudia, U. G., & Nurfadillah. (2022). The Effect of Product Quality, Service Quality, Customer Satisfaction on Customer Loyalty. *Journal of Consumer Sciences*, 7(1), 34–50. <https://doi.org/10.29244/jcs.7.1.34-50>
- Ngo, T. T. A., Vo, C. H., Tran, N. L., Nguyen, K. V., Tran, T. D., & Trinh, Y. N. (2024). Factors influencing Generation Z’s intention to purchase sustainable clothing products in Vietnam. *PLoS ONE*, 19(12). <https://doi.org/10.1371/journal.pone.0315502>
- Oliver, R. L. (1980). A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. *Journal of Marketing Research*, 17(4), 460–469. <https://doi.org/10.1177/002224378001700405>

- Paudel, P. (2024). *EXPLORING THE IMPACT OF GREENWASHING AND SUSTAINABILITY AWARENESS ON THE PURCHASE DECISIONS OF GENERATION X AND GENERATION Y CONSUMERS IN THE FASHION INDUSTRY*.
- Rafly, M., & Hadita. (2024). Pengaruh Kualitas Produk Dan Harga Terhadap Pembelian Baju Bekas Atau Thrift Di Pasar Senen Jakarta Pusat. *Wawasan: Jurnal Ilmu Manajemen, Ekonomi Dan Kewirausahaan*, 2(2), 273–279. <https://doi.org/10.58192/wawasan.v2i2.1848>
- Rahmola, M., Juanna, A., & Abdussamad, Z. K. (2022). Pengaruh Kualitas Produk Terhadap Kepuasan Konsumen Di Konveksi Aria Kaos Kota Gorontalo. *JURNAL ILMIAH MANAJEMEN DAN BISNIS*, 5, 2022. <http://ejurnal.ung.ac.id/index.php/JIMB>
- Saleleng, N. C. M., Kojo, C., & Karuntu, M. (2014). Kualitas Produk dan Kualitas Pelayanan Pengaruhnya Terhadap Kepuasan Pelanggan Kartu Prabayar Telkomsel. *Jurnal EMBA*.
- Sambo, E., Sunday, U. I., Mary, A. M., & John, F. (2022). *Impact of Product Quality and Consumer Satisfaction and Loyalty*.
- Simanjuntak, L. N., Kurniawati, L., Diva, M. A., & Wadyatenti, V. (2024). *Pengaruh Greenwash terhadap Green Purchase Intention yang Dimediasi oleh Green Trust dan Green Skepticism (Studi pada Konsumen Galon Sekali Pakai Le Minerale di Yogyakarta)* (Vol. 4). SIPSAN. (2023). *Sistem Informasi Pengelolaan Sampah Nasional*. <https://Sipsn.Menlhk.Go.Id/Sipsn/>.
- Stern, P. C. (1999). A value-belief-norm theory of support for social movements: The case of environmentalism. *Human Ecology Review*, 81–97.
- Sun, Y., & Shi, B. (2022). Impact of Greenwashing Perception on Consumers' Green Purchasing Intentions: A Moderated Mediation Model. *Sustainability (Switzerland)*, 14(19). <https://doi.org/10.3390/su141912119>
- Szabo, S., & Webster, J. (2021). Perceived Greenwashing: The Effects of Green Marketing on Environmental and Product Perceptions. *Journal of Business Ethics*, 171(4), 719–739. <https://doi.org/10.1007/s10551-020-04461-0>
- Tjiptono, F., & Chandra, G. (2011). *Service, quality & satisfaction edisi 3*. Yogyakarta: Andi, 1.
- Trisnadi, M. F. (2025, January 24). *Fast Fashion: Tren Modis dengan Harga Ekologis*. <https://Djpb.Kemenkeu.Go.Id/>.
- Wang, J., Pham, T. L., & Dang, V. T. (2020). Environmental consciousness and organic food purchase intention: A moderated mediation model of perceived food quality and price sensitivity. *International Journal of Environmental Research and Public Health*, 17(3). <https://doi.org/10.3390/ijerph17030850>
- Wang, Y. M., Zaman, H. M. F., & Alvi, A. K. (2022). Linkage of Green Brand Positioning and Green Customer Value With Green Purchase Intention: The Mediating and Moderating Role of Attitude Toward Green Brand and Green Trust. *SAGE Open*, 12(2). <https://doi.org/10.1177/21582440221102441>
- Zhang, L., Li, D., Cao, C., & Huang, S. (2018). The influence of greenwashing perception on green purchasing intentions: The mediating role of green word-of-mouth and moderating role of green concern. *Journal of Cleaner Production*, 187, 740–750. <https://doi.org/https://doi.org/10.1016/j.jclepro.2018.03.201>
- Zioło, M., Bąk, I., & Spoz, A. (2024). Literature review of greenwashing research: State of the art. *Corporate Social Responsibility and Environmental Management*. <https://doi.org/10.1002/csr.2842>