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Research Article

Fashion Thrifting Motivations And Pro-Environmental Consumption Behavior Of College Students: A Correlational Study

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Abstract

Fashion is considered a form of self-expression that shapes identity, confidence, and psychological well-being. Many people follow fast-fashion trends, but their negative effects on the environment are often ignored. However, thrifting has become a potentially more sustainable consumption alternative. Even though fashion thrifting is becoming more popular, few studies have examined why people engage in it and how it relates to Pro-Environmental Consumption Behavior (PECB). This study examined the relationship between fashion thrifting motivation and PECB among college students, using self-determination theory. Then, a quantitative correlational design with stratified sampling was used, and a 5-point Likert scale questionnaire was administered to 378 college students at one university in Davao City. The study also used descriptive statistics, Pearson r, and regression analysis. The results showed high thrift motivation, strongly driven by economic reasons and least by critical motivation which involves reasons for thrifting that are related to criticism of fashion practices and environmental considerations. PECB was also high, especially concerning future generations. The correlation showed a significantly moderate positive relationship between thrifting motivation and PECB. Moreover, regression analysis showed that critical and secondhand-brand motivations significantly predicted PECB when heteroscedasticity-consistent standard errors were used, with critical motivation as the strongest predictor. The model explained 26.9% of the variance in PECB ($R^2 = .269$, adjusted $R^2 = .258$). So, while thrifting motivations provide meaningful insight, other factors are also associated with PECB. These findings suggest that fostering sustainability-oriented values and environmental motivations through education and programmatic initiatives may promote PECB.

Keywords: fashion thrifting, secondhand fashion, sustainable consumption, pro-environmental consumption behavior, college students, sustainable fashion, Davao City

1. Introduction

Fashion is often seen as a medium through which people express themselves, ultimately shaping their confidence, identity, and psychological well-being. A research study by Daizy (2025) shows that it helps people regulate their feelings and align their outward appearance with their core selves. However, beneath its expressive appeal, this can also lead to negative effects such as body image issues, materialism, impulse control problems, and anxiety that increases stress tied to their consumption pressure practices. Beyond its psychological association, the fashion industry presents one of the most pressing environmental challenges today. It has become a major part of modern consumption, but its continued growth has also raised concerns about its effect on the environment. This industry is recognized as one of the world's most polluting sectors, significantly contributing to greenhouse gas emissions, textile waste, and resource depletion through the fast fashion cycle, which generates massive marine pollution from polyester waste, damages aquatic life, and produces up to 92 million tons of garment waste annually and consumes around 93 billion cubic meters of water each year throughout its production process (Bailey et al., 2022). In addition, A study from Peña et al. (2023) noted that production places considerable pressure on water and land resources while generating wastewater and solid waste across the textile supply. These environmental impacts are also associated with fast fashion, which relies on the rapid production and consumption of clothing and contributes to pollution (Hays, 2023).

These concerns have become more apparent as the demand for clothing continues to increase. As clothing consumption continues to grow, the increasing production and disposal of garments have placed further pressure on the environment, particularly through the growing volume of textile waste (Farghaly et al., 2024). Fast fashion further contributes to environmental problems through carbon emissions and the release of plastic microfiber from synthetic textile waste (Williams, 2022). Taken together, these concerns demonstrate that the way clothing is produced, consumed, and discarded can have considerable environmental consequences.

Furthermore, in the Philippines, fast fashion poses a significant concern for textile waste, as consumers continue to purchase fast-fashion products and discard it after only limited use despite increasing awareness of environmental sustainability (Diola et al., 2025). These environmental impacts underscore the potential importance of consumer decision-making in promoting more sustainable fashion consumption, as Earth's resources are finite (Moaveni, 2023). Ultimately, although consumers may be aware of the negative environmental effects of fast fashion, research shows that awareness does not necessarily translate into pro-environmental behaviors. According to the study of Magwegwe et al. (2024) and Aponte et al. (2024), consumers may continue purchasing fast fashion because of factors such as affordability, convenience, and rapid trend changes. This distinction is important because environmental awareness refers to an

individual's knowledge or recognition of environmental issues, whereas motivation refers to the reasons that encourage an individual to engage in a particular behavior. In the context of the present study, Fashion Thrifting Motivation (FTM) refers to the reason that motivates the consumers to engage in thrifting, while Pro-Environmental Consumption Behavior (PECB) refers to consumption practices that shows responsible use and purchasing while considering the needs of future generations and environmental well-being. In contrast, fashion thrifting has gained popularity as a sustainable alternative. A study by Ciechelska et al. (2024) found that concern for the environment strongly associates with thrifting in Europe, suggesting that consumers' concern is associated with their sustainable consumption practices. However, environmental concern is conceptually distinct from motivation and from actual consumption behavior. In addition, according to Nishu et al. (2023), economic factors primarily drive thrifting, whereas only sustainability concerns were associated with pro-environmental consumption behavior. In Indonesia, Ramdan and Pertiwi (2025) observed that young urban consumers are initially motivated by economic and aesthetic factors, whereas sustainability concerns were more directly associated with PECB. These findings indicate the reasons why individuals engage in thrifting do not necessarily correspond to the environmental outcomes of their consumption practices. Other studies have emphasized motivations that are less directly related to environmental considerations. Frahm et al. (2024) described thrifting as a form of recreational activity that gives consumers excitement, relaxation, and satisfaction from finding precious items, highlighting the hedonic and emotional aspects of motivation. At the same time, in the Philippine context, few studies address this topic, yet they still suggest similar trends. According to Valentin et al. (2023), they found that environmental values do motivate Generation Z consumers' thrifting practices, indicating that there is a stronger orientation to PECB than among Generation X. Furthermore, researcher Villarente (2024) reported that Generation Z consumers' motivations include expressing themselves, being driven by sustainability, as well as the thrill of discovery. While in Davao City, a study by Malig-on and Campos (2024) found that young buyers understood the environmental impact of fast fashion and how it negatively affects us; however, their consumption decisions remained mainly driven by style and price. All in all, these studies indicate that thrifting is associated with a range of motivations, however, these motivations should not be treated as equivalent to environmental awareness, environmental concern, attitudes, or behavioral intention. The present study therefore focuses specifically on fashion thrifting motivation as the independent variable and pro-environmental consumption behavior as the dependent variable allowing the relationship between these two constructs to be examined directly

Despite these study findings, an important empirical gap remains. Existing research has primarily examined secondhand-fashion purchase intention, environmental attitudes, or general sustainability motivations, while relatively few studies have examined whether distinct motivations for fashion thrifting are statistically associated with broader pro-environmental consumption behavior. Studies have shown that consumers may engage in thrifting because of economic benefits, environmental concerns, enjoyment, fashion interest, or the opportunity to discover unique items (Ciechelska et al., 2024; Nishu et al., 2023; Ramdan & Pertiwi, 2025; Villarente, 2024), however, it remains unclear whether these

distinct reasons for fashion thrifting are also reflected in consumers' broader pro-environmental consumption practices. This gap is particularly relevant in the Philippine context, where research examining the relationship between fashion-thrifting motivations and broader sustainable fashion consumption remains limited. A related methodological consideration is how pro-environmental consumption behavior is operationalized. The present study examines pro-environmental consumption behavior as a consumption related outcome rather than as environmental awareness, attitude, concern, or behavioral intention. To operationalize this outcome, the study adopts the Sustainable Consumption Behavior (SCB) scale developed by Quoquab et al. (2019). The scale directly evaluates careful purchasing, avoidance of excess usage, environmental care, and responsibility to future generations, while also capturing the economic dimensions. Although the SCB scale represents a broader sustainable-consumption construct and was not developed specifically for assessing fashion thrifting consumption, its dimensions provide a basis for assessing consumption practices related to PECB. Thus, the scale is adopted as the operational measure of PECB in the present study, while recognizing the broader original construct of the SCB.

In view of the reported gaps, this study focuses more closely on students' thrift motivation, with the following objective: to examine college students' motivations for fashion thrifting and how they are related to their pro-environmental consumption behavior. Specifically, this study seeks to determine the motivations that drive college students to engage in fashion thrifting. Second, this study aims to measure the level of pro-environmental consumption behavior among college students. Lastly, this study aims to analyze the relationship between fashion thrifting motivations and pro-environmental consumption behavior and identify which fashion thrifting motivation best predicts pro-environmental consumption behavior. Based on these objectives, the study aims to understand better whether fashion thrifting constitutes a true expression of PECB among students or remains primarily a matter of practicality and style. Conducting this study may benefit students, Higher Education Institutions (HEIs), the community, and future researchers. For students and HEIs, this study may help them understand how their motivations for thrifting relate to practicing pro-environmental fashion behavior while still allowing individual expression through fashion. Additionally, this study may be useful for HEIs, as it can open opportunities to integrate sustainability into academic programs. This study may raise awareness of the environmental benefits of thrifting and the harm of the fast fashion industry, contributing to local efforts toward achieving the United Nations Sustainable Development Goals 12 (Responsible Consumption and Production) and 13 (Climate Action). Finally, this study may contribute to the growing body of literature on fashion thrifting motivations and PECB, supporting future researchers who will explore the psychological and behavioral environmental responsibilities.

This research is primarily anchored in the Self-Determination Theory (SDT) developed by Deci and Ryan (1985). Self-determination refers to an individual's capacity to make autonomous choices and regulate their own behavior. SDT explains motivation according to the degree to which it is internalized and self-determined. More internalized forms of motivation are

generally associated with greater autonomy and may contribute to more consistent and sustained behavior. Meanwhile, less internalized forms of motivation may be more dependent on external circumstances or situational factors.

In the context of this study, SDT provides a general perspective for understanding the role of motivation in students' fashion thrifting. Students may engage in fashion thrifting for different reasons, including critical, hedonic, secondhand brand, fashion interest, and nostalgic motivations. These motivations are treated as distinct reasons for engaging in fashion thrifting rather than being directly classified into specific SDT motivation regulations. While some motivations may reflect a greater degree of personal interest or value alignment than others, the present study does not assume that each motivation corresponds directly to a particular category within SDT's continuum of regulation. Hence, from this perspective, SDT is relevant because it emphasizes the importance of understanding the reasons underlying behavior and the extent to which these reasons are personally endorsed or internalized. Therefore, examining different motivations for fashion thrifting may provide insight into whether particular reasons for thrifting are associated with PECB.

The Theory of Planned Behavior (TPB) proposed by Icek Ajzen in 1991 is used a s supplementary theoretical support. TPB proposed that behavior is related to behavioral intentions, which are shaped by attitudes, subjective norms, and perceived behavioral control, which, in turn, are shaped by underlying motivational factors.. Although the present study does not directly test the full TPB model or measure its specific constructs, the theory still provides additional support for the general proposition that psychological factors underlying individuals's reasons may be associated with their behavioral outcomes. Thus, TPB is not treated as an integrated explanatory model in this study but as a complementary support for examining the relationship between fashion thrifting motivations and PECB.

Accordingly, the present study hypothesizes that students' fashion thrifting motivations significantly and positively predicts their pro-environmental consumption behaviors. Rather than assuming that all motivations positively predicts PECB, the study examines the extent and direction of the relationships between the specific dimensions of fashion thrifting motivation and PECB.

2. Materials and Methods

2.1. Research Design

This study employed a quantitative descriptive-correlational design to examine the relationship between fashion thrifting motivation and pro-environmental consumption behavior among college students. The descriptive part of the design was used to measure the students' motivation and PECB as they existed in real life, while the correlational design focused on the relationship between the two variables. Descriptive research helps explain what currently exists, proven by the study of Thomas and Zubkov (2023), while correlational studies identify the relationship between two variables without having to manipulate them.

2.2. Respondents and Sampling Procedure

The respondents were students enrolled in one of the universities in Davao City. To qualify, respondents had to meet the following inclusion criteria: (1) they were at least 18 years old, (2) enrolled in the second semester of the school year 2025–2026, and (3) had engaged in fashion thrifting at local thrift shops at least twice a month for a minimum of one year. In addition, (4) their wardrobe should consist of a significant portion of thrifted fashion items. Respondents who did not meet these requirements were excluded from the study. Specifically, individuals who were below 18 years old, not enrolled in the second semester of the school year 2025–2026, had engaged in fashion thrifting for less than 1 year or less than twice a month at local thrift shops; and wardrobes that did not include a significant portion of thrifted fashion items were also excluded from participation. Moreover, the study population consisted of 24, 065 students, from which a final sample of 378 respondents was obtained using stratified sampling approach with proportional allocation. This approach was used to ensure a fair and proportionate representation across the identified strata. According to Triveni et al., (2024) stratified sampling technique involves dividing population into different strata and allocating samples across these groups. Utilizing this approach was appropriate because it allowed the researchers to proportionally allocate respondents from each college based on their population size and ensured adequate representation across the university population. In this study, the population was divided into strata based on academic colleges. With the assistance of a statistician, the required number of respondents from each college was determined before data collection. The official enrollment roster from the University Registrar served as the sampling frame and was used to determine the population size per stratum. 378 respondents were then allocated across the strata based on the population size of each academic college. Based on the proportional allocation, the sample was distributed as follows: College of Accounting Education (N = 2,316; n = 36) College of Fine Arts Education (N = 2,074; n = 32), College of Arts and Sciences Education (N = 2785; n = 43), College of Computing Education (N = 2875; n = 45), College of Criminal Justice Education (N = 2,112; n = 33), College of Engineering Education (N = 6,073; n = 96), College of Hospitality Education (N = 2,178; n = 34), College of Health and Sciences Education (N = 2,126; n = 33), College of Teachers Education (N = 1,526; n = 26). A total of 525 students were initially approached through the combination of face to face surveys and Google Forms. A total of 378 students met the inclusion criteria and successfully completed the survey, representing 72% of the students approached.

2.3. Research Instruments

Fashion Thrifting Motivations Questionnaire. Fashion thrifting motivations were measured using the 31-item Fashion Thrifting Motivations Questionnaire developed by Brummer (2020), drawing on the works of Guiot and Roux (2010) and Cervellon (2012). The instrument assesses six dimensions of fashion thrifting motivation: fashion interest (5 items), secondhand brand (3 items), critical motivations (5 items), economic motivations (6 items), hedonic motivations (8 items), and nostalgia (4 items). These dimensions capture respondents' interest in fashion, preferences for secondhand brands, critical perspectives on conventional fashion consumption, economic considerations, enjoyment of thrifting, and attraction to vintage items. Each item is rated on a

five-point Likert scale ranging from 1 (Totally Disagree) to 5 (Totally Agree). Responses are numerically coded, with higher mean scores indicating stronger motivations for engaging in fashion thrifting. No reverse-coded items are included. For descriptive interpretation, mean scores are classified as follows: 1.00–1.80 (very low), 1.81–2.60 (low), 2.61–3.40 (moderate), 3.41–4.20 (high), and 4.21–5.00 (very high) motivation for fashion thrifting.

Sustainable Consumption Behavior Questionnaire. Pro-environmental consumption behavior (PECB), the dependent variable of the study, was operationalized using an adapted version of the Sustainable Consumption Behavior (SCB) questionnaire developed by Quoquab et al. (2019). The instrument comprises 24 items distributed across three dimensions: quality of life (11 items), care for the environment (7 items), and care for future generations (6 items). These dimensions assess responsible consumption practices, environmental concern, and consideration of the long-term implications of consumption for future generations, respectively. To align the instrument with the context of fashion consumption, the wording of the original items was contextualized without translating, adding, or removing any items, thereby preserving the original subscale structure. Responses are recorded using a five-point frequency scale ranging from 1 (Never) to 5 (Always), with higher mean scores indicating more frequent engagement in sustainable consumption practices related to fashion. No reverse-coded items are included. For descriptive interpretation, mean scores are categorized as follows: 1.00–1.80 (very low), 1.81–2.60 (low), 2.61–3.40 (moderate), 3.41–4.20 (high), and 4.21–5.00 (very high) levels of pro-environmental consumption behavior. The adapted instrument underwent content validation by the research panelists, while its internal consistency reliability was reassessed through pilot testing using Cronbach's alpha. These procedures were undertaken to establish the instrument's suitability for the study population and research context.

2.4. Data Collection

The researchers first prepared an outline paper for the research proposal. They presented it to the research coordinator with a panel member to ensure its contribution to the body of knowledge. The panelists also reviewed and validated the questionnaires, after which the researchers proceeded to utilize them with modifications limited to contextualizing the items of Sustainable Consumption Behavior to relate it particularly to fashion consumption. Afterward, a request letter was submitted to the Dean's office of the College of Arts and Sciences to request permission to conduct this study. Once it was approved, the same request letter was sent to other deans of other colleges to obtain approval to survey the target respondents. After all permissions were granted, the researchers conducted a pilot test with 31 respondents to evaluate the instrument's reliability. The reliability of each subscale was assessed using Cronbach Alpha. For Fashion Thrifting Motivations Questionnaire, fashion interest subscale obtained an alpha value of 0.783, secondhand brand attained an alpha value of 0.822, economic motivation acquired 0.762, hedonic motivation got 0.807, critical motivation gained 0.819, and nostalgic motivation obtained 0.857. While the Sustainable Consumption Behavior (SCB) in the context of fashion consumption obtained a Cronbach's Alpha coefficient of .895 for quality of life, 0.961 for care for future generations, and 0.901 for care for environmental well-being. After passing the

pilot test, the actual data collection was conducted on February 16, 2026 to March 9, 2026. A total of 378 qualified respondents were recruited by approaching students inside the campus and inviting them to participate in the study. Those who were unavailable were asked if they could answer through Google forms instead, with their consent, the link was sent through their social accounts. Qualified respondents were also thoroughly informed about the purpose of this study, their informed consent was obtained to ensure that participation was voluntary, and no incentives or compensations were provided to the respondents. They were then invited to complete the survey via printed copies or Google Forms with both formats containing the same questions and response options. The survey approximately took 10 to 15 minutes to complete. To avoid duplicate responses, the researchers carefully checked the names, school ID numbers, and school emails of the respondents in both formats before recording their responses. No missing or incomplete responses were recorded. Finally, all responses were collected, encoded, and tallied using Microsoft Excel.

2.5. Data Analysis

Descriptive statistics (means and standard deviations) were used to summarize fashion-thrifting motivations and pro-environmental consumption behavior (PECB). Pearson's product–moment correlation, with a two-tailed significance level of $\alpha = .05$, was used to estimate the association between the overall composite scores. A simultaneous multiple linear regression was then fitted with PECB as the outcome and the six motivation dimensions as predictors. Before interpretation, scatterplots and residual plots were examined, and regression diagnostics evaluated linearity (Ramsey RESET), residual normality (Q–Q plot and Shapiro–Wilk test), homoscedasticity (Breusch–Pagan test), influential observations (externally studentized residuals, leverage, and Cook's distance), multicollinearity (tolerance and variance inflation factor [VIF]), and independence of errors (Durbin–Watson statistic). Because the residuals were non-normal and heteroscedastic, coefficient tests, standard errors, and 95% confidence intervals were based on the HC3 heteroscedasticity-consistent estimator. The conventional ordinary least-squares R, R^2, adjusted R^2, and omnibus F statistic are reported as measures of model fit. Statistical significance was evaluated at $\alpha = .05$, and exact p values are reported except when $p < .001$.

2.6. Ethical Considerations

This study adhered to ethical standards to protect the rights, dignity, and wellbeing of all participants. Formal ethical review by an institutional ethics committee was not strictly required during the conduct of this study, therefore it was not obtained by the researchers. However, the research procedures and informed consent materials including the letter provided to the respondents were carefully reviewed by the research panelists. Based on the Data Privacy Act of 2012 (RA 10173), participation in this research was voluntary, and withdrawal was an option to the respondents. To confirm their willingness to participate, the researchers handed out informed consent forms. Numerous measures were taken to maintain anonymity and confidentiality, including limiting access to authorized personnel only and securely storing data. The tallied data have been safely stored by the researchers since the beginning of data collection, but to protect the respondents' anonymity, identifiable names were no longer included in the Excel sheets, and respondents were instead assigned to numerical

identifiers. Furthermore, the collected data will be securely retained by the researchers until the completion of this study and, ideally for one year thereafter. Once the data are no longer needed for research purposes, they will be permanently deleted. Following the ethical principles of the American Psychological Association (APA), harm was avoided (Principle A), honesty and transparency were maintained (Principle C), and trust and responsibility were upheld (Principle B). Finally, the rights and dignity of respondents were respected (Principle E).

3. Results and Discussion

3.1. Level of Fashion Thrifting Motivation

Table 1 presents the descriptive results for respondents' levels of fashion thrifting motivation with six indicators, namely critical, economic, hedonic, nostalgic, interest in fashion, and secondhand brand motivations, analyzed using mean and standard deviation.

Table 1. Level of Fashion Thrifting Motivation of College Students.

Indicators	Mean	Standard Deviation	Descriptive Level
Critical Motivation	3.7235	.63664	High
Economic Motivation	4.1664	.51858	High
Hedonic Motivation	4.0565	.54761	High
Nostalgic Motivation	3.7626	.80078	High
Interest in Fashion	3.9077	.64291	High
Secondhand Brand Motivation	3.9144	.78886	High
Overall	3.8767	.47161	**High**

The results indicate that college students exhibit a high level of thrifting motivation, as evidenced by a mean score of 3.8767 and an SD of 0.47161, suggesting that fashion thrifting is a common and relevant behavior within this population.

Among the indicators, economic motivation ($\bar{x}$ = 4.1664, SD = .51858) emerged as the most prominent factor, indicating that affordability and cost efficiency play an important role in driving students' participation in thrifting. Hedonic motivation also had a high mean ($\bar{x}$ = 4.0565, SD = .54761), suggesting that students engage in thrift buying not only for practical purposes but also to enjoy themselves and gain personal fulfillment. Moreover, the motivation for secondhand brands ($\bar{x}$ = 3.9144, SD = .78886) and interest in fashion ($\bar{x}$ = 3.9077, SD = .64291) both showed high $\bar{x}$ and SD.

On the other hand, nostalgic motivation also has a higher but somewhat lower mean ($\bar{x}$ = 3.7626, SD = .80078) than other motivations, indicating that emotional attachment and appreciation for vintage items play a role in thrifting, but they are not the dominant factors. Similarly, critical motivation, which involves reasons for thrifting that are related to criticism of fashion practices and

environmental considerations, got the lowest mean ($\bar{x}$ = 3.7235, SD = .63664), although it is interpreted as high. This implies that though students recognize the environmental effects of their consumption, it is not the main reason for their thrifting behavior.

3.2. Level of Pro-Environmental Consumption Behavior

Table 2 summarizes the descriptive results of pro-environmental consumption behavior in the context of fashion among college students with three indicators: quality of life, care for environmental well-being, and care for future generations, analyzed using mean and standard deviation. The overall level of pro-environmental consumption behavior is also shown.

Table 2. Level of Pro-Environmental Consumption Behavior of College Students.

Indicators	Mean	Standard Deviation	Descriptive Level
Quality of Life	3.9422	.5637	High
Care for Environmental Well-Being	4.1582	.59406	High
Care for Future Generations	4.2366	.66703	Very High
Overall	4.0309	.60640	**High**

As shown in the table, the overall mean score of PECB is 4.0309 with an SD of .60640. The result shows that that respondents often adopt sustainable, eco-friendly practices when buying and using fashion items. Among the indicators, care for future generations ($\bar{x}$ = 4.2366, SD = .66703) was the highest-rated, suggesting that students' consumption behaviors are primarily motivated by long-term sustainability and concern for future generations. Then, the high level of care for environmental wellbeing ($\bar{x}$ = 4.1582, SD = .59406) may indicate that students often consider the impact of their consumption behaviors on the environment. Lastly, quality of life has the lowest mean ($\bar{x}$ = 3.9422, SD = .5637), yet students still demonstrate a high level of quality of life. Wise and careful consumption patterns, along with the efficient use of fashion items, describe this. So, students are less likely to engage in excessive consumption behaviors.

3.3. Relationship Between Fashion Thrifting Motivations and Pro-Environmental Consumption Behavior

Table 3 presents the results of the relationship between fashion thrifting motivations and pro-environmental consumption behavior among college students, analyzed using Pearson's r, and significance is evaluated at $\alpha = 0.05$.

Table 3. Correlation between Variables

Variables	Pearson r	p-Value	N
Fashion Thrifting Motivations & Pro-Environmental Consumption Behavior	.644	< .001	378

Note: *Correlation is significant at the 0.01 level (2-tailed).*

Fashion-thrifting motivation was positively associated with PECB, r(376) = .644, 95% CI [.581, .700], p < .001. Thus, respondents with higher overall fashion-thrifting motivation scores tended to report higher PECB scores. The null hypothesis of no linear association was rejected. This result indicates association, not causation; the cross-sectional correlational design does not establish that either variable causes the other.

3.4 Regression Analysis of Factors Predicting Pro-Environmental Consumption Behavior of College Students

The simultaneous multiple regression model included critical, economic, hedonic, nostalgic, fashion-interest, and secondhand-brand motivations as predictors of PECB. The predictor–outcome relationships showed no marked curvature, and Ramsey's RESET did not indicate functional-form misspecification, $F(1, 370) = 0.33$, $p = .568$. Residual normality was not supported, Shapiro–Wilk $W = .978$, $p < .001$, and the Breusch–Pagan test indicated heteroscedasticity, $\chi^2(6) = 20.20$, $p = .003$. Two cases had externally studentized residuals greater than |3|; however, no case was highly influential (maximum Cook's D = .057; all values < 1). Multicollinearity was not evident: tolerance ranged from .511 to .839 and VIF ranged from 1.19 to 1.96. The Durbin–Watson statistic was 1.05. Because the observations were cross-sectional and ordered by college rather than time, this value was interpreted cautiously; each respondent contributed one response. HC3 robust standard errors and confidence intervals were used to reduce sensitivity to non-normality and heteroscedasticity.

Table 4. Regression Analysis of Factors Predicting Pro-Environmental Consumption Behavior.

Predictor	B	Robust SE	β	95% CI for B	t	p	Tol. / VIF
Intercept	1.250	.272	—	[.716, 1.784]	4.60	< .001	—
Critical motivation	.226	.059	.237	[.110, .342]	3.82	< .001	.743 / 1.35
Economic motivation	.112	.073	.095	[−.033, .256]	1.52	.130	.714 / 1.40
Hedonic motivation	.142	.075	.128	[−.006, .290]	1.89	.060	.511 / 1.96
Nostalgic motivation	.049	.045	.065	[−.040, .138]	1.09	.278	.649 / 1.54
Fashion-interest motivation	.069	.049	.073	[−.029, .166]	1.39	.166	.706 / 1.42
Secondhand-brand motivation	.114	.041	.149	[.034, .195]	2.80	.005	.839 / 1.19

Note. *N = 378. R = .519; R^2 = .269; adjusted R^2 = .258; F(6, 371) = 22.80, p < .001. B = unstandardized coefficient; robust SE = HC3 heteroscedasticity-consistent standard error; β = standardized coefficient; CI = confidence interval; VIF = variance inflation factor.*

The overall regression model was statistically significant, F(6, 371) = 22.80, p < .001, and explained 26.9% of the variance in PECB (R^2 = .269, adjusted R^2 = .258). Using HC3 robust inference, critical motivation was the strongest unique predictor, β = .237, B = .226, robust SE = .059, 95% CI [.110, .342], t = 3.82, p < .001. Secondhand-brand motivation also uniquely predicted PECB, β = .149, B = .114, robust SE = .041, 95% CI [.034, .195], t = 2.80, p = .005. Holding the other motivation dimensions constant, higher scores on these dimensions were associated with higher PECB scores.

Economic motivation (β = .095, p = .130), hedonic motivation (β = .128, p = .060), nostalgic motivation (β = .065, p = .278), and fashion-interest motivation (β = .073, p = .166) were not statistically significant under HC3 robust inference. Hedonic motivation had reached significance with the conventional standard error (p = .039), but not after the correction for heteroscedasticity; it was therefore treated as inconclusive rather than as an established unique predictor. These coefficients describe unique statistical associations while controlling for the other predictors and should not be interpreted as causal effects.

4. Discussion

This study examined the relationship between fashion thrifting motivation and pro-environmental consumption behavior among college students in one of the higher education institutions in Davao City. Overall, the findings indicate that fashion thrifting motivations and PECB are positively associated. However, the results also provide a more detailed understanding of this relationship. While students demonstrated strong motivations to engage in thrifting and reported high levels of pro-environmental consumption behavior, their motivations were not exclusively environmental. Instead, the findings suggest that thrift shopping may serve multiple purposes, including economic practicality, enjoyment, fashion -related self-expression , and environmental responsibility.

The pattern of motivations observed in this study suggests that college students may primarily use thrifting as a practical and personally rewarding consumption practice. Economic motivation emerged as the most prominent factor, indicating that affordability and cost efficiency are important considerations in students' participation in thrifting. This finding is consistent with previous studies identifying economic considerations as a major driver of thrift shopping (Nishu et al., 2023; Beniulis et al., 2023; Mobarak et al., 2025). Given the financial circumstances commonly experienced by students, thrift shopping may provide access to clothing while allowing them to manage limited financial resources. Recent research also suggests that younger consumers have become increasingly financially cautious, making secondhand fashion items an attractive alternative to purchasing new ones. Moreover, economic incentives may go beyond mere cost savings by reflecting perceived value of maximizing the use and lifespan of clothing (Sepe et al., 2024).

Although purchasing secondhand fashion items may contribute to waste reduction and extend the life cycle of clothing, individuals may engage in this behavior primarily for financial reasons rather than because of environmental values. Thus, participation in a potentially sustainable practice does not necessarily indicate that environmental concern is the primary reason behind the behavior. Hence, the prominence of economic motivation highlights the difference between sustainable outcomes and sustainable motivations, suggesting that environmentally beneficial outcomes may sometimes result from practical motivations, such as affordability and value, rather than explicitly environmental.

Students' motivations for thrifting were also shaped by enjoyment, fashion interest, and the opportunity to access desirable brands. The presence of these motivations suggests that thrifting may no longer be viewed merely as an economical alternative to purchasing new fashion items. Instead, it may function as an enjoyable and expressive consumption experience. Previous research has similarly described thrifting as a form of leisure and "treasure hunting," where consumers experience excitement and satisfaction in discovering unique or valuable items (Frahm et al., 2024; Halicki et al., 2024). The findings therefore suggest that making sustainable consumption personally enjoyable may encourage greater engagement with secondhand fashion items.

Fashion-related motivations may also reflect the changing social perception of thrift shopping among younger consumers. Fashion is increasingly associated with self- expression and self-empowerment, allowing individuals to communicate aspects of their identity through their appearance (Daizy, 2025; Gjoni, 2025). In this context, thrift shopping may provide students with opportunities to explore personal style while accessing unique or branded fashion items at lower prices. Therefore, the findings are consistent with the growing mainstream acceptance of secondhand fashion, where thrifting is not only viewed as a financial necessity but also a genuine and desirable form of fashion consumption (Sepe et al., 2024).

In contrast, critical motivation, which reflects the reasons for thrifting that are related to criticism of fashion practices and environmental considerations, appeared to be comparatively less dominant to students' reasons for engaging in thrift shopping. This finding is consistent with research suggestions that, although consumers recognize the environmental consequences of fast fashion, economic and style-related considerations may remain more prominent factors of their purchasing decisions (Mobarak et al., 2025; Malig-on & Campos, 2024). This does not necessarily translate to students lacking environmental awareness. Rather, it indicates that environmental concern may not always be the primary reason why they choose to purchase secondhand fashion items.

Similarly, nostalgic motivation appears to make thrifting more appealing even though it was not one of the main reasons students participated. Previous studies have shown that consumers who show interest in thrifted items are partly motivated due to nostalgic associations in their consumption patterns. However, younger consumers may rely less on nostalgia when buying secondhand fashion

items and may give more importance to immediate factors such as price, enjoyment , and personal style (Reis, 2020, as cited in Harantová & Mazanec, 2025). Overall, the findings suggest that college students thrift for different reasons, including practicality, enjoyment, personal preferences, access to branded items, nostalgia, and environmental concerns.

Despite critical motivation being comparatively less prominent in relation to thrifting, students demonstrated an overall high level of pro-environmental consumption behavior in the context of fashion consumption. This finding is particularly important because it suggests that environmental concern may operate differently as a general consumption value than a specific motivation for thrifting shopping. To put it simply, students may engage in environmentally responsible practices even when sustainability is not their primary reason for purchasing secondhand fashion items.

Concern for future generations appeared to be the most important in students' pro-environmental orientation. This pattern suggests that sustainable consumption may be associated to awareness of the long-term consequences of present consumption practices. Environmental ethics emphasized that current societies have the capacity to deplete resources and alter ecosystems in ways that may compromise the needs of future generations, creating a responsibility to adopt more sustainable practices. In line with this, Afridi et al. (2021) found that concern for future generations is associated with greater engagement in green purchasing behavior. Moreover, this finding may also reflect broader sustainability awareness among Generation Z. Previous research suggests that younger consumers are increasingly engaged with environmental and social issues and may demonstrate greater concern for sustainability in their consumption decisions (Dragolea et al., 2023). In the context of fashion thrifting, this may encourage behaviors such as extending the use of fashion items, avoiding unnecessary purchases, and considering the environmental consequences of fast fashion consumption. Thus, the findings imply that students' PECB is associated not only with immediate environmental concerns but also consideration of the long-term effects of present consumption.

Additionally, the positive relationship between fashion thrifting motivations and PECB further supports the idea that motivations for secondhand consumption are associated with broader patterns of environmentally responsible behavior. This positive correlation indicates that as students' motivations for fashion thrifting increase, their pro-environmental consumption behavior may also increase. Meanwhile, lower levels of fashion thrifting motivations are associated with lower levels of pro-environmental consumption behavior. This finding is consistent with previous studies that have identified relationships between motivations and environmentally responsible fashion consumption among younger consumers (Nishu et al., 2023; Ramdan & Pertiwi, 2025; Valentin et al., 2023). However, because the present study is correlational, this relationship should be interpreted as an association rather than evidence that fashion thrifting motivation directly associates with PECB. At the same time, the relationship between the two variables may not always be consistent. Some studies suggest that rebound effect and moral licensing may lead individuals to

increase their overall consumption even when they engage in sustainable behaviors (Mizrachi & Sharon, 2025). This perspective may help contextualize the moderate strength of the correlation found in the present study, as fashion thrifting motivation represents only one factor associated with PECB.

Furthermore, the Theory of Planned Behavior (TPB) provides one possible framework for understanding the relationship. Although the present study did not directly measure all components of TPB, particular;y subjective norms and perceived behavioral control, the theory provides a useful framework for interpreting why motivation toward a consumption practice may be related to broader behavioral outcomes. In the context of sustainable fashion, viewing secondhand consumption positively may be associated with stronger intentions to engage in pro-environmental consumption behavior. Previous research has shown that positive attitudes toward purchasing secondhand fashion items can strengthen behavioral intentions related to thrift shopping (Sepe et al., 2024). Then, this intention may be associated with actual thrifting behavior, suggesting that individuals with stronger motivations and positive attitudes toward thrifting are more likely to express these intentions in PECB. Thus, the positive correlation found in this study is consistent with the general proposition of TPB that individuals' evaluations and motivations surrounding a behavior are relevant to their behavioral intentions and actions.

Self-Determination Theory (SDT) provides a complementary perspective by emphasizing that the reasons underlying a behavior can differ in their degree and quality of motivation. This is relevant to the present study because fashion thrifting motivations encompass different reasons for engaging in the same behavior, including economic, hedonic, fashion interest, nostalgic, brand-related, and critical motivations. SDT suggests that people may engage in the same behavior for different reasons. For example, two students may both purchase secondhand fashion items, but one may be motivated by environmental concerns while the other is motivated by affordability. Although their behavior is similar, their reasons for thrifting are different. The present findings provide an opportunity to examine whether these different motivations are similarly associated with PECB.

The regression findings indicate that different thrifting motivations have different unique relationships with PECB. Under robust inference, critical and secondhand-brand motivations significantly predicted PECB when all six dimensions were entered together, and critical motivation had the largest standardized coefficient. This pattern is consistent with evidence that environmental concern is associated with sustainable consumption (Ciechelska et al., 2024) and with reports that environmentally conscious secondhand consumers recognize consequences of unsustainable consumption (Hur, 2020, as cited in Harantová & Mazanec, 2025). Because the study did not directly measure SDT regulatory types, the result supports the relevance of motivation content to PECB but does not identify critical motivation as a particular intrinsic or extrinsic regulation.

Secondhand-brand motivation remained a significant unique predictor after the robust correction, suggesting that interest in obtaining preferred brands through thrifting can coexist with broader PECB. Hedonic motivation showed a positive coefficient, but its robust confidence interval included zero and p = .060. Its possible connection with enjoyment, discovery, social experience, and personal satisfaction is therefore a useful direction for future research rather than a confirmed finding of this study. This qualification is important because Durrani et al. (2023) reported an association between hedonic motivation and intention to purchase environmentally friendly fashion items, but the present analysis does not provide sufficiently robust evidence of an independent hedonic association with PECB.

On the other hand, the results showed that economic, hedonic, nostalgic, and fashion-interest motivations did not significantly predict PECB under robust inference. This finding suggests that motivations that encourage individuals to participate in thrifting do not necessarily have the same relationship with pro-environmental consumption. The finding for economic motivation is particularly noteworthy because, although it emerged as the most prominent reason for fashion thrifting among the students, it did not significantly predict their PECB. This contrast suggests that being highly motivated to thrift for financial reasons is not necessarily equivalent to engaging in responsible buying and use of fashion items. In light of this interpretation, Ciechelska et al. (2024) suggested that economic factors do not directly drive sustainable consumption and may not be sufficient to promote pro-environmental consumption outcomes. Students may choose thrifted fashion items because it allows them to save money, obtain greater value from their purchases, and access to fashion items at lower prices. Although this behavior may produce environmentally beneficial outcomes by extending the use of fashion items and reducing the demand for fast fashion, the underlying motivation may remain primarily financial rather than environmental. This highlights the important difference between sustainable outcomes and sustainable motivations. A consumer may engage in a behavior that has environmental benefits without necessarily doing so because of environmental concerns. Therefore, the high level of economic motivation in the present study should not be interpreted as evidence of a corresponding level of pro-environmental consumption behavior. This result is particularly important because it challenges the assumption that participation in secondhand fashion consumption reflects environmental motivation. Thrifting may serve as a sustainable consumption practice, but the reasons individuals engage may vary substantially.

Furthermore, fashion interest motivation, which is the personal involvement in fashion, style, and trends, may encourage students to purchase secondhand fashion items without necessarily reflecting environmental concerns. Fashion interest primarily reflects personal attitudes toward style and trends, rather than toward environmental outcomes. Previous literature also suggests that materialism and globalization may decrease genuine, sustainable self-expression practices (Lang & Armstrong, 2017; Talaat, 2022, as cited in Elsharkawi & Sun, 2025). Thus, although fashion interest may encourage participation in thrifting, it may not necessarily extend to broader PECB.

Likewise, nostalgic motivation, which reflects emotional attachment to past experiences, may be associated with secondhand purchase intention among Generation Z, but such attachment does not significantly predict PECB (Kawulur et al., 2022). However, an emotional preference for vintage or secondhand fashion items does not necessarily mean that an individual is motivated to make environmentally responsible consumption practices. Therefore, it may statistically predict interest in purchasing thrifted fashion items while having a limited relationship with broader PECB. These findings emphasize the relevance of examining the underlying reasons for consumption rather than treating all thrift shoppers as having the same motivational orientation.

The model explained 26.9% of the variance in PECB, indicating that fashion thrifting motivations account for a meaningful but limited proportion of differences in pro-environmental consumption behavior. Hence, there is a need to consider factors beyond motivation when explaining sustainable consumption. Consistent with the broader TPB framework, factors such as social influence and perceived behavioral control may also be relevant while other research has identified environmental values, beliefs, personal norms, and trust factors associated with sustainable fashion consumption (Yang et al., 2024; Hong et al., 2024). Thus, the findings suggest that fashion thrifting motivation represents one component of a broader system of psychological and social factors associated with PECB.

Overall, the findings support the hypothesized positive association between fashion-thrifting motivations and PECB, while showing that unique associations vary by motivation. Critical motivation had the largest standardized coefficient, and secondhand-brand motivation also remained significant under HC3 robust inference. Economic, hedonic, fashion-interest, and nostalgic motivations were not significant robust predictors. TPB and SDT offer interpretive perspectives, but the study did not directly test their full constructs; the conclusions are therefore limited to the measured variables and their cross-sectional associations.

5. Conclusions

College students are highly motivated to fashion thrift, with economic motivation as the most dominant factor. This means that affordability and cost efficiency encourage students' participation in thrifting, making it a common and relevant behavior. Regarding pro-environmental consumption behavior, the students have also demonstrated a high level of motivation. They are especially concerned for future generations. This indicates that their consumption is generally aligned with sustainable values and that they are increasingly aware of the long-lasting impact on the environment. Additionally, overall fashion-thrifting motivation was positively associated with PECB, $r = .644$, $p < .001$. In the multiple regression with HC3 robust inference, critical and secondhand-brand motivations were significant unique predictors, with critical motivation having the largest standardized coefficient. Hedonic motivation was not significant after the robust correction ($p = .060$). These results identify statistical associations and do not demonstrate causal influence. Furthermore, the

regression model explained 26.9% of the variance in PECB ($R^2 = .269$; adjusted $R^2 = .258$), indicating that the six motivation dimensions accounted for a meaningful but incomplete proportion of individual differences in reported PECB. The remaining variance should not be described as being predicted by unmeasured factors; it represents unexplained variation that future studies may investigate. In conclusion, students reported several reasons for fashion thrifting. Critical motivation showed the strongest unique statistical association with PECB, but the cross-sectional design does not establish an effect or impact. The findings support considering sustainability-oriented values in educational and programmatic initiatives while recognizing that the effectiveness of such initiatives requires direct evaluation.

6. Recommendations

Given that critical motivation has been found to be the strongest predictor of pro-environmental consumption behavior, it is recommended that students intentionally develop motivations driven by care for the environment, especially in their fashion consumption practices. This may be done through participation in environmental campaigns, attending seminars, and gaining educational knowledge about sustainable fashion. These efforts may help students adopt more conscious consumption practices,including reducing impulsive purchases and maximizing the use of their existing clothes. Enhancing critical motivation is also essential, as the findings revealed that not all motivation is significantly associated with pro-environmental consumption behavior, specifically economic and aesthetic factors. This is supported by the study of Nishu et al. (2023), which emphasizes that though economic motivations may encourage thrift shopping, only sustainable-oriented motivations are directly related to pro-environmental consumption behavior. Also, Ciechelska et al. (2024) highlighted that concern for the environment plays a crucial role in shaping sustainable consumption. These findings suggest that students go beyond practical or trend-based motivations and instead internalize environ-mental values to sustain responsible consumption behavior. Furthermore, universities are recommended to promote pro-environmental consumption behavior (PECB) actively. This may be done by integrating sustainability into both academic and extracurricular activities, like incorporating related topics into general education and social sciences courses, organizing thrift and clothing swap events, and conducting workshops that promote sustainable consumption behavior. Collaborating with local communities also provides students with experiential learning opportunities. The study showed that, despite the high levels of PECB demonstrated by the students, economic factors, rather than environmental factors, were the main drivers of their motivation. Malig-on and Campos (2024) also emphasized that students' consumption decisions are still associated with price and style, even though they are aware of the environmental impact of fast fashion. Consequently, such interventions by the institution are needed to strengthen students' sustainability values. Finally, since the regression analysis showed that the model explains only a portion of the variation in pro-environmental consumption behavior, future researchers are encouraged to examine other variables that may have a stronger implication. They may also use mixed-method approaches more effectively to

understand students' motivation and actual consumption behavior They may also expand the population beyond college students to improve the generalizability of the findings.

7. Limitations

This study acknowledged several limitations. First since it only involves students from one university in Davao City, the findings may not be generalizable to all college students in the Philippines. Second, the cross-sectional design prevents the establishment of temporal or casual relationships. Lastly, the use of self-reported responses may have increased the possibility of response and social desirability biases. In addition, residual non-normality and heteroscedasticity were detected; HC3 robust inference was therefore used. The Durbin–Watson statistic also suggested possible residual dependence in the dataset's college-ordered rows, although its interpretation is limited for these non-temporal cross-sectional data. These diagnostic findings warrant cautious interpretation and replication with sampling and analytic procedures that explicitly account for possible college-level clustering.

Supplementary Details

Supplementary Materials & Data availability statement: The data that support the findings of this study are available from the corresponding author upon reasonable request. Due to privacy and ethical restrictions, the raw data are not publicly available.

Author Contributions:
Conceptualization, [Ms. Zalma Jean A. Macul]; methodology, [Mr. Jovin G. Buladaco]; validation, [Ms. Ghaylee Mae O. Jarligo]; formal analysis, [Ms. Ghaylee Mae O. Jarligo]; investigation, [Ms. Ghaylee Mae O. Jarligo]; resources, [Mr. Jovin G. Buladaco]; data curation, [Ms. Zalma Jean A. Macu]; writing—original draft preparation, [Ms. Ghaylee Mae O. Jarligo]; writing—review and editing, [Mr. Jovin G. Buladaco & Ms. Zalma Jean A. Macul]; supervision, [Joannie V. Intong]. All authors have read and agreed to the published version of the manuscript.

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