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Discovering the Drivers of Ecological Fashion Adoption Intention among Fast Fashion Consumers

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Abstract

The environmental impact of fast fashion has garnered global attention due to its resource-intensive production, excessive waste, and pollution. In response, ecological fashion has emerged to promote sustainable consumption and mitigate environmental harm. However, research on ecological fashion adoption intention in developing countries remains limited. Despite growing awareness, many consumers continue to prioritize fast fashion over eco-friendly alternatives. This study examines how the need for fashion and need for uniqueness influence ecological fashion adoption intention among Malaysian consumers. A quantitative survey was conducted with 396 participants using a structured questionnaire. Data were analyzed using SPSS. Findings show that among the dimensions of the Need for Fashion, image consciousness and market knowledge significantly and positively influence ecological fashion adoption intention, while fashion awareness and fashion consciousness were not significant. For the Need for Uniqueness, creative choices and unpopular choices significantly affect adoption intention, whereas avoidance of similarity was not significant. These results highlight the importance of self-expression, creativity, and market awareness in driving sustainable fashion behavior in Malaysia. The study contributes theoretically by integrating fashion consciousness and uniqueness into ecological fashion adoption models in a developing country context. Practically, it offers insights for policymakers and marketers to design strategies that promote sustainable fashion adoption. By understanding consumer motivations, stakeholders can encourage environmentally responsible behavior, foster a greener lifestyle, and support Malaysia's sustainable development objectives.

Keywords: Need for Fashion, Fashion Awareness, Fashion Consciousness, Image Consciousness, Market Knowledge, Need For Uniqueness, Avoidance of Similarity, Creative Choices,Unpopular Choices, Ecological Fashion Adoption Intention

Introduction

Clothing is a fundamental human necessity, with over 60% of global textile use attributed to apparel (Ellen MacArthur Foundation, 2017). The global clothing market, valued at USD 1.5 trillion in 2020, is projected to reach 2.26 trillion by 2030, growing at a Compound Annual Growth Rate of 4.2% from 2025 to 2030. However, the fashion industry poses significant environmental challenges. The United Nations Framework Convention on Climate Change estimates that by 2030, fashion's emissions could increase by 50% if no action is taken, ranking as the second-largest global polluter, after the oil industry (Hole & Hole, 2019). On average, individuals discard approximately 70 pounds of clothing and shoes annually, exacerbating waste issues and accelerating fast fashion trends (Brydges, 2021). Fast fashion, which emphasizes low-cost and trend-driven clothing, results in up to 33% of garments being discarded within the first year of purchase (Moazzem et al., 2021).

The environmental impact of fast fashion is substantial, including excessive water consumption, chemical contamination, and rising greenhouse gas emissions, all of which contribute to climate change (Gazzola et al., 2020). The industry currently emits 1.2 billion tons of CO_2 annually, with estimates suggesting a 50% increase by 2030 if no action is taken (Whalen, 2022). By 2050, the fashion sector is projected to surpass the 2°C global warming threshold, consuming over 26% of the remaining carbon budget. This pressing issue underscores the urgent need for systemic change and environmentally responsible solutions to address social, economic, and environmental challenges (Saraswat & Kumar, 2016).

Fast fashion heavily relies on natural resources, exacerbating environmental degradation (Fang, 2023). For example, producing a single cotton t-shirt can consume up to 2,700 liters of water, worsening water scarcity in many regions (Maratos, 2023). Additionally, the fast fashion culture fosters disposability, generating around 92 million tons of textile waste annually, much of which ends up in landfills (Aponte et al., 2024). The sector also produces more CO_2 emissions than the combined emissions of France, Germany, and the UK, largely due to its linear business model prioritizing rapid production and consumption (Aponte et al., 2024). While fast fashion offers affordability, its environmental footprint underscores the urgent need for sustainable practices to reduce ecological harm.

Initiatives such as the Fashion Industry Charter for Climate Action have made progress, yet current production and consumption patterns fall short of Paris Agreement targets. Engaging stakeholders including policymakers, governments, and consumers is critical to achieving meaningful change (Diddi & Yan, 2019). Consumer behavior, in particular, is pivotal in reducing overconsumption and extending product life cycles, which are essential for advancing a circular economy (Machado et al., 2019). In this context, exploring Malaysian consumers' intentions toward ecological fashion adoption is vital to understand how individual actions contribute to sustainable fashion practices.

In Malaysia, fabric waste accounted for 31% (432,901 metric tonnes) of total waste in 2021, with 75% of this waste deemed reusable or recyclable (Chu, 2019). Despite ongoing sustainability initiatives, Malaysia's transition to sustainable fashion is gradual (Hasbullah et al., 2020). The country has joined global movements such as Fashion Revolution and is committed to the 17 United Nations Sustainable Development Goals (SDGs) established in 2015. However, Executive Director of the United Nations Human Settlements Programme

(UN-Habitat), noted that Malaysia's progress toward achieving the SDGs by 2030 remains behind schedule, even before the COVID-19 pandemic (Wong, 2021).

A major challenge for Malaysia in meeting sustainability targets is balancing government initiatives with individual accountability. While governmental programs promote sustainable fashion, consumer choices play a decisive role in addressing environmental issues in the sector. Recent findings indicate that although Malaysians are increasingly aware of sustainability, this awareness has yet to translate into purchasing behavior, as many consumers continue to favor fast fashion over eco-friendly alternatives (Palomo-Domínguez et al., 2023). As the global fashion industry contends with overconsumption, Malaysia's slow but steady shift toward sustainability raises concerns regarding its ability to achieve the SDGs within the designated timeframe.

Understanding the factors that influence ecological fashion adoption in Malaysia is therefore critical. This study investigates how Malaysian consumers' attitudes and behaviors regarding sustainable fashion can either facilitate or impede the nation's progress in ecological sustainability within the fashion sector. Insights from this research are essential for aligning Malaysia's fashion industry with global sustainability objectives and addressing environmental issues related to textile waste.

The study addresses the following research questions:

RQ1: Is there a significant relationship between the need for fashion dimensions and ecological fashion adoption intention among Malaysian consumers?
RQ2: Is there a significant relationship between the need for uniqueness dimensions and ecological fashion adoption intention among Malaysian consumers?

Literature Review

The global fashion industry is undergoing significant transformation, driven by increased competition from online marketplaces, slowing growth, and a surge of new startups. Consumers are increasingly fatigued by fashion purchases that once excited them (Tao & Xu, 2020). Although fashion consumption has doubled since 2000, the duration that consumers wear their clothing has decreased by half (Elmer, 2017). To address sustainability challenges, some fashion brands are partnering with recycling facilities to manage discarded garments. For example, the I:CO plant in Berlin processes items collected from brands such as H&M, Levi's, Timberland, and Nike. Nevertheless, despite these initiatives, clothing disposal remains a pressing problem. Current recycling technologies are limited to older fibers or single-fiber garments, often excluding mixed-fiber items (Elmer, 2017). In response, leading brands are gradually adopting raw materials and processes that support a circular economy, in which resources are continuously repaired, recycled, or reused without generating waste. Eco-friendly fabrics made from bamboo, eucalyptus, and wood are increasingly popular (Elmer, 2017).

Ecological fashion, also known as sustainable, green, or ethical fashion, is gaining momentum, particularly in developing countries such as China, Indonesia, India, and Malaysia (Jalil & Shaharuddin, 2019). Rising consumer interest in socially responsible choices is fueled by greater awareness of production processes and materials used in clothing (Khandual &

Pradhan, 2019). This awareness has led consumers to favor brands that prioritize environmental responsibility, with many willing to pay a premium for ethically produced garments (Pires et al., 2024). As sustainability becomes increasingly important, ecological fashion has emerged as a growth area aimed at mitigating environmental harm. It is characterized by practices that reduce environmental and social impacts while employing manufacturing processes that enhance product longevity (Miśkiewicz, 2018). Ecological fashion emphasizes the use of renewable resources and commitment to ethical production and fair labor practices (Fu, 2019).

Research indicates that ecological clothing is both timeless and durable, often following a circular lifecycle where materials are reclaimed and reused, reducing waste (Khandual & Pradhan, 2019). The growing focus on sustainability and circular economy principles is shaping future fashion trends (Gazzola et al., 2020). Although consumers generally respond positively to green brands (Phau & Ong, 2007), there remains a gap between environmental awareness and actual purchasing behavior (Vehmas et al., 2018). Nevertheless, studies show that environmentally conscious consumers hold favorable attitudes toward eco-friendly fashion items (Fu, 2019). Understanding the factors influencing fashion adoption, especially for sustainable products, is therefore critical. Fashion adoption refers to the degree to which consumers accept current styles within a specific period (Rahman et al., 2014), and the intention to adopt serves as a key predictor of consumer behavior toward new products (Baek & Oh, 2021).

Recent research highlights a growing connection between the Need for Uniqueness and the adoption of eco-friendly fashion, particularly among consumers who value distinctiveness in their sustainable choices. Studies focusing on Generation Z indicate that, despite high environmental consciousness, their desire for uniqueness leads them to prefer eco-friendly brands that offer differentiation, such as Vinted, which specializes in second-hand clothing. However, these sustainable options may be secondary to other brand attributes, suggesting that eco-friendly messaging may not fully resonate unless it also addresses consumers' aspirations for individuality and self-expression (Palomo-Domínguez et al., 2023).

The shift in fashion consumption following the pandemic reflects a growing preference for sustainable fashion, driven by increased ecological awareness and consumer resilience. Consumers are seeking fashion that aligns with their environmental values while also fulfilling personal desires for uniqueness. This trend suggests that fashion brands can effectively attract eco-conscious consumers by offering sustainable options that simultaneously allow for self-expression and differentiation (Wang & Zakaria, 2024).

Need for Fashion and Ecological Fashion Adoption Intention

Recent research continues to affirm the connection between fashion involvement and the intention to adopt eco-friendly fashion. O'Cass (2004) demonstrated that consumer participation in fashion significantly influences decision-making processes, while Ling-Yee (1997) noted that individuals committed to sustainable fashion tend to exhibit more conservation-oriented behaviors. Similarly, Goldsmith et al. (1999) observed that regular clothing shoppers often seek fulfillment through their purchases, which are frequently guided by fashion trends (Solomon & Rabolt, 2004). Bratt (1999) emphasized that ecological fashion, which integrates style with ethical considerations, satisfies personal fashion desires while

enhancing consumer satisfaction. Recent studies further support this view: Chen and Li (2023) found that eco-conscious consumers are more likely to engage with sustainable fashion when it is perceived as fashionable and appealing, and Zhou et al. (2024) highlighted that adoption is influenced by consumer perceptions of environmental responsibility and social norms. Accordingly, when consumers actively select and evaluate new fashion trends based on their preferences, they demonstrate a stronger intention to adopt ecological fashion (Seo et al., 2001).

Fashion awareness refers to the understanding and recognition of fashion trends, styles, and the cultural significance of clothing and accessories. It encompasses both cognitive and emotional engagement with fashion, influencing choices and behaviors in social contexts. Early research by Sproles (1979) introduced fashion adoption theory, positing that awareness of emerging trends is essential for shaping purchasing intentions. This perspective was later expanded by Rogers (2003) and Robertson (1971), who emphasized the importance of fashion awareness in the initial adoption phases. Naim (2012) further highlighted that fashion awareness is closely linked to fashion consciousness, significantly impacting consumption decisions. Recent studies have extended these insights to sustainable fashion. For instance, Paek et al. (2022) reported that fashion awareness plays a key role in eco-friendly purchasing, Liu et al. (2023) found that greater awareness of environmental issues positively influences consumers' willingness to adopt ecological fashion, and Zhao and Wong (2024) concluded that heightened fashion awareness encourages sustainable fashion choices as consumers align their fashion consciousness with ecological values. Based on these insights, the following hypothesis is proposed:

H1a: There is a significant relationship between fashion awareness and ecological fashion adoption intention.

Fashion consciousness, defined as consumers' "active engagement" with fashion (Nam et al., 2007), plays a critical role in the acceptance of new fashion items (Belleau, Nowlin, Summers, & Jiao Xu, 2001). Sproles and Kendall (1986) identified it as a key factor influencing purchasing intentions and consumption choices. Recent research supports this view, showing a positive correlation between fashion consciousness and the adoption of new styles, with fashion-conscious individuals more likely to embrace emerging trends (Venter, Chinomona, & Chuchu, 2016). Additionally, heightened fashion consciousness increases consumers' responsiveness to marketing strategies for clothing products (Kaiser & Chandler, 1984) and significantly shapes behavior within the fashion sector (Bertrandias & Goldsmith, 2006). Recent studies have extended these insights to sustainable fashion. Heo and Lee (2022) found that consumers with high fashion consciousness are more likely to select sustainable fashion options, while Park and Kim (2023) reported that fashion-conscious individuals show greater engagement with eco-friendly fashion brands. Zhang and Li (2024) further highlighted the influence of fashion consciousness on ecological fashion preferences among younger consumers. Building on these findings, the present study proposes the following hypothesis:

H1b: There is a significant relationship between fashion consciousness and ecological fashion adoption intention.

Purchasing ecological products has been shown to enhance individuals' self-image (Hwang & Choi, 2018), aligning with the aspiration to project a pro-environmental persona through eco-friendly consumption, a notion supported by Hartmann and Apaolaza Ibáñez (2006). According to Sirgy's (1986) self-congruity theory, consumers tend to select products that reflect their self-image. Usakli and Baloglu (2011) further noted that individuals with a strong sense of self-congruence are more likely to purchase products that resonate with their personal identity. Recent research reinforces this perspective. Liu et al. (2022) found a positive relationship between self-congruity and the adoption of sustainable fashion, demonstrating that consumers' self-identity influences eco-friendly behaviors. Similarly, Wang et al. (2023) observed that image-conscious consumers prefer eco-friendly products to express a green identity, highlighting the role of self-image in ecological fashion decisions. Additionally, Park et al. (2024) confirmed that consumers with strong ecological values are more likely to incorporate eco-fashion into their personal identity. Based on this evidence, the following hypothesis is proposed:

H1c: There is a significant relationship between image consciousness and ecological fashion adoption intention.

Research indicates that understanding environmental issues positively influences consumers' attitudes toward eco-friendly fashion, increasing their likelihood of adoption. Ferguson (2014) noted that exposure to environmental information enhances awareness of the values associated with ecological fashion, thereby encouraging its adoption. Similarly, Thøgersen (2000) found that individuals with greater environmental knowledge exhibit stronger intentions to purchase eco-friendly products. Bower, Saadat, and Whitten (2003) also reported that environmental labels increase consumers' willingness to pay more for sustainable products, emphasizing the role of informed decision-making in promoting adoption. Recent studies continue to support these findings. Green et al. (2022) demonstrated that market knowledge significantly strengthens consumer preferences for sustainable fashion, while Zhang et al. (2023) found that informed consumers are more likely to adopt eco-friendly fashion due to heightened environmental awareness. Lee and Kim (2024) further validated that environmental knowledge positively correlates with sustainable fashion adoption, as consumers are motivated by both ethical considerations and practical benefits. Based on this evidence, the following hypothesis is proposed:

H1d: There is a significant relationship between market knowledge and ecological fashion adoption intention.

Need for Uniqueness and Ecological Fashion Adoption Intention

The desire for uniqueness has been linked to fashion adoption behaviors, suggesting that individuals who strongly seek social distinction are more likely to embrace new and distinctive fashion items (Venter, Chinomona, & Chuchu, 2016). Simonson and Nowlis (2000) also highlighted that the need for uniqueness significantly affects consumers' purchasing decisions, emphasizing its influence on fashion-related choices. Recent studies support this relationship, indicating that consumers who prioritize uniqueness are more inclined to select ecological and sustainable fashion products, motivated by a desire to stand out while supporting eco-friendly principles (Amatulli et al., 2022; Lee, Yu, & Kim, 2023). Based on these findings, this study proposes the following hypothesis:

Avoidance of similarity similarly influences fashion consumption patterns. Simonson and Nowlis (2000) noted that consumers who avoid similarity often make distinct purchasing choices to differentiate themselves from others. Latter (2012) observed that such consumers may experience shorter product life cycles, as they cease using items to prevent conformity. Wan et al. (2001) emphasized that individuals perceive their identity as shaped by the products they purchase, reinforcing the need for distinctiveness. Furthermore, research by Afshar Jahanshahi and Jia (2018) in Peru and Bangladesh revealed a positive and significant relationship between avoidance of similarity and eco-friendly purchasing behaviors. Recent studies (Smith & White, 2022; Zhang et al., 2023) continue to support these findings, highlighting the link between consumer individuality and sustainable fashion choices. Accordingly, the current study proposes the following hypothesis:

H2a: There is a significant relationship between avoidance of similarity and ecological fashion adoption intention.

The desire to adopt ecological fashion is strongly influenced by consumers' creative preferences. Research indicates that individuals with higher levels of creativity are more likely to explore new and environmentally friendly products. Lang et al. (2016) demonstrated that creative decision-making significantly increases the likelihood of adopting eco-friendly items, a finding further supported by Ruvio et al. (2008), who observed that distinctive buying behaviors reflect personal creativity. Similarly, the pursuit of novelty encourages consumers to gravitate toward sustainable products (Biswas & Roy, 2015). Afshar Jahanshahi and Jia (2018) confirmed that creative individuals are more likely to engage in positive eco-conscious purchasing behaviors. Recent studies continue to explore this relationship. Yee and Baskaran (2023) examined the link between recycling intentions and ecological fashion adoption, highlighting the role of consumer awareness and proactive engagement in promoting sustainable fashion. Additionally, a mixed-methods study on Generation Z in Vietnam revealed that informed consumers who understand environmental challenges are more inclined to adopt sustainable fashion practices. Based on this, we propose the following hypothesis:

H2b: There is a significant relationship between creative choice and ecological fashion adoption intention.

Individuals with a strong desire for uniqueness are often drawn to distinctive shopping environments, which can influence their purchasing behavior toward eco-friendly products. Research shows that consumers who prefer lesser-known or unconventional brands are generally more inclined to adopt innovative sustainable products. For instance, Afshar Jahanshahi and Jia (2018) found a positive relationship between a preference for unconventional options and eco-conscious purchasing behavior. Similarly, Schumpe et al. (2016) reported that consumers with a high need for individuality are more likely to take risks in their buying decisions, often selecting less conventional brands and products. These findings suggest a meaningful connection between the preference for unpopular options and the intention to embrace sustainable fashion. Based on this, we propose the following hypothesis:

H2c: There is a significant relationship between unpopular choice and ecological fashion adoption intention.

The relationship between the Need for Fashion and ecological fashion adoption intention is closely linked to how individuals perceive and value the aesthetic elements of sustainable clothing. In the Malaysian context, Cultural Aesthetic Sensitivity plays a pivotal role in bridging the desire to remain fashion-forward with the inclination to adopt environmentally conscious choices. Fashion-conscious consumers often seek products that reflect their style preferences while resonating with cultural aesthetics. For example, integrating traditional elements such as batik motifs or songket patterns into ecological fashion can enhance appeal by satisfying consumers' aesthetic preferences and reinforcing cultural identity. Studies emphasize that culturally sensitive design respects and incorporates diverse cultural norms, creating meaningful connections between products and users (Häkkilä et al., 2020). Cultural Aesthetic Sensitivity acts as a mediator by enhancing the perceived value of ecological fashion, particularly when designs reflect cultural pride. Aesthetic appreciation is influenced by sensory responsiveness shaped by cultural background. When consumers perceive that ecological fashion fulfills both their aesthetic desires and cultural expectations, their intention to adopt such products is significantly strengthened. Based on this, we propose the following hypothesis:

The conceptual framework of the research is shown in Figure 1 below.

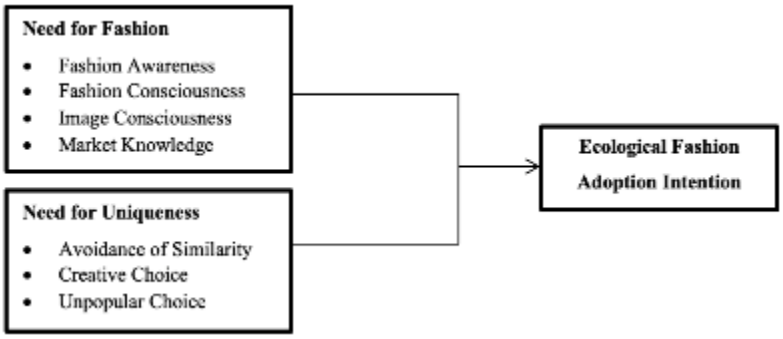

Figure 1 Conceptual Framework

Research Method

Research Design

The present study was designed to examine the relationships between Need for Fashion and Need for Uniqueness and their influence on ecological fashion adoption intention. Both constructs were analyzed across multiple dimensions to assess their impact on adoption intention. This research employed a quantitative approach using a survey research design to collect and analyze the data.

Population and Sample

This study focused on the Malaysian population to examine how the Need for Fashion and Need for Uniqueness influence ecological fashion adoption intention. The survey targeted both male and female respondents across all major ethnic groups, including Bumiputera, Chinese, and Indian. Purposive sampling was employed, a non-random technique in which

participants are selected based on specific characteristics relevant to the research objectives (Etikan, Musa, & Alkassim, 2016). This method ensures that the sample comprises individuals who are knowledgeable about or engaged with fashion-related behaviours, making it suitable for studying ecological fashion adoption. Gall and Gall (2007) also support purposive sampling when participants are selected for their relevance and accessibility to the study context. According to the Department of Statistics Malaysia, the national population is more than 32 million. Using Krejcie and Morgan's (1970) guidelines, the minimum required sample size was 384 respondents. While larger samples generally improve representativeness and generalizability (Ary, Jacobs, & Sorensen, 2018), Roscoe (1975) suggests that sample sizes between 30 and 500 are sufficient for most research designs. Lowhorn (2007) further notes that the relevance of participants is more important than overall population size, and Hair et al. (2010) provide guidance on minimum sample sizes based on model complexity, ranging from 100 to over 500 respondents depending on the number of constructs. For this study, a purposive sample of 384 Malaysian consumers across all states was targeted to ensure that respondents were relevant to the research objectives, providing reliable and generalizable insights on ecological fashion adoption intention.

Instrument and Measures

This study adopted established scales to measure the key constructs while adapting some items to align with the Malaysian ecological fashion context. The Fashion Consciousness scale developed by Bakewell, Mitchell, and Rothwell (2006) was used to assess multiple dimensions of the need for fashion, including fashion consciousness, fashion awareness, image consciousness, and market knowledge. The Consumers' Need for Uniqueness scale by Tian et al. (2001) was used to measure dimensions of uniqueness, including creative choices, preference for unpopular options, and avoidance of similarity. These constructs are essential for understanding consumer behaviour regarding fashion and sustainability (Bakewell et al., 2006; Tian et al., 2001). All items for the key constructs were measured using a five-point Likert scale, ranging from 1 ("strongly disagree") to 5 ("strongly agree"), allowing respondents to indicate their level of agreement with each statement (Wolfer & Jacoby, 2007). The questionnaire consisted entirely of close-ended items. Demographic information including gender, age, state of residence, and ethnicity was measured using nominal scales. Most scales encompassed at least four to five dimensions to ensure comprehensive coverage of the constructs (Neuman, 2014).

Table 1
Test Instruments

Variable	Authors	Dimensions	No. of Items
Need for Fashion	Bakewell, Mitchell, & Rothwell (2006)	Fashion Awareness	8
		Fashion Consciousness	6
		Image Consciousness	4
		Market Knowledge	4
Need for Uniqueness	Tian, Bearden, & Hunter (2001)	Avoidance of Similarity	4

		Creative Choice	4
		Unpopular Choice	4
Ecological Fashion Adoption Intention	Peloza, White, & Shang (2013)	N/A	4

Reliability and Validity

To ensure the consistency and accuracy of the collected data, the reliability of the survey instrument was assessed using Cronbach's Alpha, a widely used measure of internal consistency in social sciences research. According to Nunnally (1978), a Cronbach's Alpha value of 0.70 or higher indicates acceptable internal consistency. A pilot test was conducted with 20 respondents to evaluate the reliability of the questionnaire. The results of the pilot test, summarized in Table 2, show that all constructs and dimensions achieved Cronbach's Alpha values above the recommended threshold, indicating satisfactory reliability for all scales.

Table 2
Reliability Test for Pilot test

Constructs and Dimensions	Cronbach's Alpha
Fashion Awareness	.819
Fashion Consciousness	.846
Image Consciousness	.712
Market Knowledge	.922
Avoidance of Similarity	.840
Creative Choice	.838
Unpopular Choice	.795
Ecological Fashion Adoption Intention	.788

Data Collection

The survey questionnaire was designed to examine the relationships between Need for Fashion, Need for Uniqueness, and ecological fashion adoption intention. The questionnaire consisted of four sections: the first section included 22 items measuring Need for Fashion, the second section included 12 items measuring Need for Uniqueness, the third section included 4 items assessing ecological fashion adoption intention, and the final section collected 7 demographic variables. The questionnaire was developed and distributed online using Google Forms, a cloud-based platform for creating surveys and questionnaires. All items were set as mandatory to ensure complete responses before submission. Data collection was conducted over a 60-day period, and the survey was disseminated through email and social media channels, including WhatsApp, Instagram, and Facebook Messenger.

Analysis and Findings

Demographic Profiling

A total of 396 respondents participated in this study, with females representing the majority (n = 250, 63.1%) compared to males (n = 146, 36.9%). This indicates a gender imbalance, with a stronger female representation in the sample. In terms of age distribution, most respondents were between 25 and 34 years old (n = 248, 62.6%), followed by those aged 15 to 24 years (n = 71, 17.9%). Smaller proportions were observed among respondents aged 35

to 44 years (n = 39, 9.8%) and 45 to 54 years (n = 28, 7.1%). Only a minimal number of respondents were aged 55 years and above or below 14 years (each less than 2%). This suggests that the sample is heavily concentrated within the young adult working population. With regard to ethnicity, the sample was predominantly Chinese (n = 311, 78.5%), followed by Bumiputera (n = 63, 15.9%) and Indian respondents (n = 22, 5.6%). This distribution indicates a lack of ethnic balance, which may affect the generalisability of the findings in a multi-ethnic context such as Malaysia. In terms of educational attainment, the majority of respondents held a bachelor's degree (n = 266, 67.2%), followed by master's degree holders (n = 48, 12.1%). Diploma holders (n = 37, 9.3%) and those with secondary school qualifications (n = 27, 6.8%) made up smaller portions of the sample. Only a few respondents possessed doctoral qualifications (n = 14, 3.5%) or other forms of education (n = 4, 0.1%). This suggests that the sample is relatively well-educated, which is appropriate for studies involving knowledge-intensive constructs. Regarding economic sector involvement, most respondents were employed in the secondary sector (n = 154, 38.9%), particularly in manufacturing, processing, and construction industries. This was followed by the quaternary sector (n = 120, 30.3%), including research, information technology, and education-related roles. Respondents in the tertiary sector (n = 108, 27.3%) were involved in services such as retail, finance, and entertainment, while only a small proportion were engaged in the primary sector (n = 14, 3.5%). This indicates that the sample is largely drawn from industrial and knowledge-based sectors. In terms of income, the majority of respondents reported earning between RM2,001 and RM5,000 (n = 207, 52.3%), followed by those earning RM5,001 to RM8,000 (n = 60, 15.2%). A smaller proportion earned below RM2,000 (n = 42, 10.6%) or above RM8,001 (n = 36, 9.1%). Additionally, 51 respondents (12.9%) were students without a stable income. This suggests that most respondents fall within the lower- to middle-income group, reflecting a typical early- to mid-career workforce profile. Overall, the demographic profile indicates that the sample is predominantly young, well-educated, and concentrated in industrial and knowledge-driven sectors. While this profile aligns well with studies related to contemporary organisational and technological contexts, caution should be exercised when generalising the findings due to the uneven distribution in gender and ethnicity.

Table 3
Descriptive Statistics

Descriptive Statistics		
	Frequency	**Percentage**
Gender		
Male	146	36.90%
Female	250	63.10%
Total	**396**	**100%**
Age		
15 to 24 years old	71	17.90%
25 to 34 years old	248	62.60%
35 to 44 years old	39	9.80%
45 to 54 years old	28	7.10%
55 to 64 years old	8	2.00%
Above 65 years old	1	0.30%
Below 14 years old	1	0.30%
Total	**396**	**100%**

Descriptive Statistics		
	Frequency	**Percentage**
Ethnic Group		
Bumiputera	63	15.90%
Chinese	311	78.50%
Indian	22	5.60%
Total	**396**	**100%**
Education Level		
Degree	266	67.20%
Diploma	37	9.30%
Master	48	12.10%
Doctoral	14	3.50%
Secondary school	27	6.80%
Other	4	0.10%
Total	**396**	**100%**
Economy Sector Involved		
Primary Sector	14	3.50%
Secondary Sector	154	38.90%
Tertiary Sector	108	27.30%
Quaternary Sector	120	30.30%
Total	**396**	**100%**
Income Level (Ringgit Malaysia)		
2001 to 5000	207	52.30%
5001 to 8000	60	15.20%
8001 and above	36	9.10%
Less than 2000	42	10.60%
Student	51	12.90%
Total	**396**	**100%**

Sample Adequacy

The adequacy of the data for factor analysis was assessed using the Kaiser–Meyer–Olkin (KMO) measure and Bartlett's Test of Sphericity. The KMO value obtained was 0.926, which exceeds the recommended threshold of 0.60 and is considered "superb," indicating that the sample is highly adequate for factor analysis. Bartlett's Test of Sphericity was found to be statistically significant ($\chi^2 = 3627.371$, $df = 105$, $p < 0.001$), suggesting that the correlation matrix is not an identity matrix and that there are sufficient correlations among the variables. Overall, these results confirm that the data are suitable for further factor analysis.

Table 4

Need for Fashion KMO and Bartlett's Test of Sphericity

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.926
Bartlett's Test of Sphericity	Approx. Chi-Square	3627.371
	df	105
	Sig.	.000

Factor Analysis

Exploratory factor analysis (EFA) was conducted to examine the underlying structure of the constructs. For the Need for Fashion construct, four factors emerged, with all items loading strongly on their respective factors (factor loadings ranging from 0.676 to 0.886). Items FA1 to FA5 loaded on Factor 1, FC1 to FC6 on Factor 2, MK1 to MK3 on Factor 3, and IC1 to IC3 on Factor 4. The clear factor structure and high loadings indicate good construct validity. For the Need for Uniqueness construct, three factors were identified, with factor loadings ranging from 0.700 to 0.883. Items AS1 to AS4 loaded on Factor 1, UC1 to UC4 on Factor 2, and CC1 to CC4 on Factor 3. The results demonstrate a well-defined factor structure with strong item loadings. For the Ecological Fashion Adoption Intention construct, a single-factor structure was identified. All items (EFAI1 to EFAI4) loaded strongly on this factor, with loadings ranging from 0.746 to 0.860, indicating uni-dimensionality and strong convergent validity. Overall, the factor analysis results confirm that all constructs exhibit clear factor structures and satisfactory loadings, supporting their suitability for further analysis.

Table 5
Need for Fashion

Items	F1	F2	F3	F4
FA1	.707			
FA2	.759			
FA3	.755			
FA4	.694			
FA5	.726			
FC1		.807		
FC2		.754		
FC3		.779		
FC6		.751		
IC1				.744
IC2				.676
IC3				.719
MK1			.886	
MK2			.875	
MK3			.878	

Table 6
Need for Uniqueness

Items	F1	F2	F3
AS1	.787		
AS2	.834		
AS3	.883		
AS4	.748		
CC1			.700
CC2			.742
CC3			.776
CC4			.732
UC1		.745	
UC2		.836	
UC3		.766	
UC4		.738	

Table 7
Ecological Fashion Adoption Intention

Items	F1
EFAI1	.860
EFAI2	.746
EFAI3	.850
EFAI4	.747

Hypotheses Testing

Regression analysis was conducted to examine the relationships between the independent variables and the dependent variable. The results of the hypothesis testing are presented in Table 8.

H1a: Fashion Awareness → Ecological Fashion Adoption Intention

Hypothesis H1a examined the effect of Fashion Awareness. The results show a negative but non-significant relationship (β = -0.039, t = -0.529, p = 0.597). With a very low explanatory power (R^2 = 0.002), Fashion Awareness does not significantly influence ecological fashion adoption intention. Thus, H1a is not supported.

H1b: Fashion Consciousness → Ecological Fashion Adoption Intention

Hypothesis H1b proposed a relationship between Fashion Consciousness and the dependent variable. The findings indicate a negative relationship (β = -0.142) that approaches significance but does not meet the conventional threshold (t = -1.866, p = 0.063). Although the model explains 2.0% of the variance (R^2 = 0.020), the effect remains statistically insignificant at the 0.05 level. Therefore, H1b is not supported, though it may suggest a marginal trend.

H1c: Image Consciousness → Ecological Fashion Adoption Intention

Hypothesis H1c tested the influence of Image Consciousness. The results show a positive relationship (β = 0.119, t = 1.861), but the p-value (p = 0.063) indicates that the effect is not statistically significant at the 0.05 level. The model explains 1.0% of the variance (R^2 = 0.010). Hence, H1c is not supported, although the relationship is close to significance.

H1d: Market Knowledge → Ecological Fashion Adoption Intention

Hypothesis H1d examined the effect of Market Knowledge. The results reveal a positive and statistically significant relationship (β = 0.160, t = 2.791, p = 0.006). Market Knowledge explains 3.0% of the variance in ecological fashion adoption intention (R^2 = 0.030). This indicates that individuals with greater market knowledge are more likely to adopt ecological fashion. Therefore, H1d is supported.

H2a: Avoidance of Similarity → Ecological Fashion Adoption Intention

Hypothesis H2a examined Avoidance of Similarity. The findings indicate a positive but non-significant relationship (β = 0.046, t = 0.785, p = 0.433), with very low explanatory power (R^2 = 0.002). Therefore, H2a is not supported.

H2b: Creative Choices → Ecological Fashion Adoption Intention

Hypothesis H2b tested the effect of Creative Choices. The results show a positive and statistically significant relationship (β = 0.159, t = 2.339, p = 0.020). The model explains 2.5% of the variance (R^2 = 0.025), indicating that individuals who prefer creative and distinctive fashion choices are more likely to adopt ecological fashion. Hence, H2b is supported.

H2c: Unpopular Choices → Ecological Fashion Adoption Intention

Hypothesis H2c examined Unpopular Choices. The results reveal a negative and statistically significant relationship (β = -0.172, t = -2.690, p = 0.007). This suggests that individuals who prefer unpopular or unconventional fashion choices are less likely to adopt ecological fashion. The model explains 3.0% of the variance (R^2 = 0.030). Therefore, H2c is supported, but in a negative direction.

Overall, the results indicate that some dimensions of Need for Fashion and Need for Uniqueness do not significantly influence ecological fashion adoption intention. Only Market Knowledge and Creative Choices show positive significant effects, while Unpopular Choices demonstrates a significant negative effect. The relatively low R^2 values across all models

suggest that additional variables may be needed to better explain ecological fashion adoption intention.

Table 8
Regression Analysis Results

H	Independent variable	Standardized Beta	t-value	Sig. (p-value)	R^2
H1a	Fashion Awareness	-0.039	-0.529	0.597	0.002
H1b	Fashion Consciousness	-0.142	-1.866	0.063	0.020
H1c	Image Consciousness	0.119	1.861	0.063	0.010
H1d	Market Knowledge	0.160	2.791	0.006	0.030
H2a	Avoidance of Similarity	0.046	0.785	0.433	0.002
H2b	Creative Choices	0.159	2.339	0.020	0.025
H2c	Unpopular Choices	-0.172	-2.690	0.007	0.030

Discussion

The Need For Fashion and Ecological Fashion Adoption Intention

Hypothesis H1a examined the effect of Fashion Awareness on ecological fashion adoption intention. The findings reveal a negative and non-significant relationship, indicating that awareness of fashion trends does not lead to sustainable fashion adoption. This is consistent with recent literature highlighting an "attitude–behaviour gap," where consumers may be aware of sustainability issues but fail to translate that awareness into actual behaviour (Recent studies suggest that sustainable fashion consumption is more strongly influenced by values, attitudes, and environmental concern rather than general fashion orientation (Schiaroli et al., 2024). Additionally, sustainable fashion products often lack visibility in mainstream markets, limiting the impact of general fashion awareness on ecological adoption. In emerging markets, such as Malaysia, sustainable fashion awareness remains relatively low compared to developed countries (Hasbullah et al., 2022).

Hypothesis H1b investigated the relationship between Fashion Consciousness and ecological fashion adoption intention. The results indicate a negative and marginally insignificant relationship. This suggests that individuals who are highly fashion-conscious may prioritise trends, aesthetics, and brand image over sustainability considerations. Recent research supports this argument, indicating that fast-changing fashion trends and consumer desire for novelty can hinder sustainable consumption behaviours (Rahaman, 2025). Thus, fashion-conscious consumers may be less inclined to adopt ecological fashion if it is perceived as less trendy or less aligned with current fashion norms.

Hypothesis H1c examined the influence of Image Consciousness on ecological fashion adoption intention. Although the relationship is positive, it is not statistically significant. This suggests that concerns about self-image alone are insufficient to drive ecological fashion adoption. However, recent studies indicate that sustainability can function as a form of symbolic or conspicuous consumption, where individuals use eco-friendly products to signal social identity (Lee & Lee, 2024). The weak effect observed in this study may imply that ecological fashion has not yet been fully positioned as a strong image-enhancing or status-related product within the studied context.

Hypothesis H1d assessed the relationship between Market Knowledge and ecological fashion adoption intention. The results show a positive and statistically significant relationship,

indicating that market knowledge is a key determinant of adoption. This finding is strongly supported by recent literature, which emphasises that knowledge of sustainable products, materials, and environmental impact significantly influences purchase intention (Schiaroli et al., 2024). Furthermore, access to accurate and transparent sustainability information has been identified as a critical driver of informed consumer decision-making in the fashion industry (Li et al., 2024). Therefore, increasing consumer knowledge through education and marketing communication is essential for promoting ecological fashion adoption.

The Need For Uniqueness and Ecological Fashion Adoption Intention

H2a examined the relationships between Avoidance of Similarity and ecological fashion adoption intention. According to the regression results obtained in Chapter 4, avoidance of similarity was found to positively affect ecological fashion adoption intention. However, the relationship was statistically insignificant. The preceding work that established a significant relationship between avoidance of similarity and ecological fashion adoption intention is shown to be contradictory from this result. One possible explanation is that ecological fashion may not yet be perceived as sufficiently distinctive or rare to appeal to consumers motivated by differentiation (Afshar Jahanshahi & Jia, 2018). Recent studies also suggest that while uniqueness-seeking behaviour can influence sustainable consumption, its effect is moderated by perceived social norms and the visibility of ecological products in the market (Hong et al., 2024).

H2b aimed to identify the relationships between Creative Choices and ecological fashion adoption intention. According to the regression results obtained, creative choices were found to positively affect ecological fashion adoption intention. A significant relationship was observed. These findings are consistent with preceding literature, where Lang et al. (2016) discovered that consumers with higher creative tendencies are more likely to have the intention to adopt ecological fashion. This was further supported by Afshar Jahanshahi and Jia (2018), who demonstrated a significant relationship between creative choices and ecological product adoption. Recent research reinforces this relationship, highlighting that creative and innovative product features enhance adoption intention for sustainable fashion, particularly among young and highly educated consumers (Schiaroli et al., 2024).

The goal of H2c is to identify the relationships between Unpopular Choices and ecological fashion adoption intention. According to the regression results obtained in Chapter 4, unpopular choices were found to negatively affect ecological fashion adoption intention. A significant relationship was observed. Previous research by Afshar Jahanshahi and Jia (2018) suggested that consumers seeking unpopular choices may adopt ecological products to differentiate themselves. This study provides additional insight, indicating that consumers motivated by extreme non-conformity may perceive ecological fashion as too mainstream or socially normative to satisfy their need for uniqueness. This outcome aligns with Griskevicius et al. (2010), who suggested that consumers adopt ecological offerings partly as a self-declarative behaviour, but also highlights that the appeal of ecological fashion may vary depending on the type of uniqueness sought. Recent studies also indicate that the effectiveness of ecological fashion adoption among non-conformist consumers is contingent on perceived novelty, exclusivity, and trend differentiation (Schiaroli et al., 2024).

Conclusion

This study provides valuable insights into the roles of Need for Fashion and Need for Uniqueness in shaping ecological fashion adoption intention. The findings indicate that specific dimensions including fashion consciousness, image consciousness, market knowledge, and creative choices positively influence adoption intention, with market knowledge and creative choices showing statistically significant effects. Conversely, fashion awareness and avoidance of similarity were found to be insignificant predictors, while unpopular choices negatively influenced ecological fashion adoption intention. These results suggest that while general fashion motivation and the desire for differentiation alone may not drive sustainable behaviour, factors related to knowledge, creativity, and perceived product value play a critical role.

Theoretical Contributions

The theoretical framework tested in this study builds upon previous work by Sprole (1979) and Venter et al. (2016). Substantial modifications were made to the key variables to consolidate diverse approaches in measuring ecological fashion adoption. Specifically, the framework integrates dimensions of Need for Fashion and Need for Uniqueness to examine how fashion desire and the motivation for social distinction influence the intention of Malaysia's population to adopt ecological fashion. The findings provide context-specific insights into consumer behaviour in Malaysia, expanding the empirical knowledge of sustainable fashion adoption within a developing country context. Moreover, the study contributes to the theoretical understanding of how market knowledge, creative choices, and image consciousness shape ecological fashion adoption, corroborating recent research that highlights the role of innovation, product novelty, and perceived consumer value in sustainable consumption. The present research thus provides a foundation for future studies to refine conceptual frameworks and apply them to other emerging economies, where cultural, social, and market dynamics may differently influence sustainable fashion adoption behaviour.

Managerial Contributions

The managerial contributions of this study provide valuable insights for both the Malaysian government and marketing practitioners regarding factors influencing ecological fashion adoption. Malaysia has committed to the United Nations' Sustainable Development Goals (SDGs), including environmental sustainability, since 2015. The findings of this study can guide government initiatives to enhance ecological fashion adoption among the Malaysian population, thereby supporting environmental protection and advancing SDG objectives. For instance, policymakers could design targeted campaigns aimed at fashion-conscious and image-conscious consumers while simultaneously improving consumer knowledge of ecological fashion through educational programs and awareness initiatives. For marketing practitioners, this study highlights actionable strategies to engage consumers who are motivated by fashion desire, creativity, and social distinction. Brands offering eco-friendly fashion products can leverage these insights by emphasizing current trends, unique product features, and innovative designs in advertising to attract consumers with a strong need for fashion and creative self-expression. Furthermore, marketers can emphasize uniqueness and novelty in their product positioning, aligning with consumer preferences for creativity and differentiation while maintaining the ecological integrity of their offerings.

Suggestion for Future Research

Future research should explore the interrelationships among these variables and examine how demographic factors such as lifestyle, income, and education affect adoption intention. Particular attention should be given to dimensions that showed non-significant effects in this study, including fashion awareness and avoidance of similarity. To improve understanding and engagement, future studies could incorporate interactive elements, such as short videos or virtual images of ecological fashion, at the beginning of surveys. This approach may enhance respondents' familiarity, interest, and motivation, especially across diverse demographic and socio-economic groups.

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