Influence of Social Norms on Sufficiency–Oriented Fashion Consumption among Thai Consumers

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Abstract

The rapid expansion of fast fashion has exacerbated unsustainable consumption. While social norms are known to influence behavior, the psychological mechanisms driving sufficiency–oriented consumption in non–Western contexts remain underexplored. This study aims to fill this gap by examining the causal influence of static and dynamic social norms on sufficiency–oriented fashion consumption among Thai consumers, with moral motivation and environmental guilt as mediating variables. A cross–sectional survey was employed to collect data from 450 Thai consumers, and the data were analyzed using Structural Equation Modeling (SEM).

The findings revealed that the proposed model demonstrated a strong fit to the data (χ^2/df = 2.013, CFI = 0.962, RMSEA = 0.047). Static norms positively influenced moral motivation (β = 0.34, $p < 0.001$), while dynamic norms significantly predicted environmental guilt (β = 0.42, $p < 0.001$). Both moral motivation (β = 0.48, $p < 0.001$) and environmental guilt (β = 0.31, $p < 0.001$) positively affected sufficiency–oriented fashion consumption. The indirect effects were also significant. This study contributes to sustainability literature by proposing and empirically validating a dual–pathway model (cognitive–moral and emotional) that explains how social norms translate into sustainable behavior within a collectivist culture. Findings offer practical guidance for designing norm–based campaigns to promote sufficiency values among young Thai consumers.

Keywords: social norms; moral motivation; environmental guilt; sufficiency–oriented consumption; sustainable fashion

Introduction

The fashion industry is among the world's most environmentally damaging sectors, generating vast amounts of textile waste and consuming significant natural resources, including water and energy, throughout the production and supply chain (Bailey, 2022). The phenomenon of "fast fashion"—characterized by rapid production cycles and low-cost, trend-driven apparel—has accelerated unsustainable consumption, encouraging consumers to buy more than they need. This overconsumption has led to an alarming increase in textile waste, carbon emissions, and pollution. In response, the concept of "sufficiency consumption" has emerged as a key principle of sustainability within the fashion sector, emphasizing moderation, durability, and responsible use of resources (Wiese et al., 2022). Sufficiency-oriented consumption encourages individuals to purchase only what is necessary and to extend the lifespan of clothing items through reuse and repair.

However, transforming consumer behavior toward sufficiency is inherently challenging. Purchasing decisions are often shaped not solely by personal values but also by social norms, which represent shared expectations and perceived social approval of what behaviors are considered acceptable or appropriate in a given community (Cialdini et al., 1990; Bicchieri, 2017). Social norms act as powerful psychological mechanisms that influence decision-making, particularly in consumption contexts involving social visibility and identity expression, such as fashion.

Recent empirical studies have revealed that social norms can be communicated in distinct forms, namely static norms—descriptive information about what most people currently do—and dynamic norms, which describe how social behaviors change over time (Sparkman & Walton, 2017). A study by Granato and Mugge (2025) in the *Journal of Environmental Psychology* found that combining static and dynamic norm messages can effectively encourage consumers to reduce unsustainable fashion consumption. When individuals perceive an imbalance between existing and emerging social norms—for instance, recognizing that excessive consumption has become socially undesirable—they experience heightened moral motivation, leading to behavioral adjustments consistent with sufficiency principles. This process aligns with the concept of Social Moral Cleansing, which suggests that people tend to restore moral balance by engaging in more ethical or sustainable behaviors after recognizing moral inconsistencies (Sachdeva et al., 2009; Lasarov & Hoffmann, 2020).

While these psychological mechanisms have been demonstrated in experimental contexts, quantitative and causal evidence from real–world consumer settings remains limited, particularly in developing economies such as Thailand. Despite the country's cultural emphasis on moderation and the Sufficiency Economy Philosophy, few empirical studies have explored how perceived social norms translate into moral and emotional processes that influence sufficiency–oriented fashion consumption.

While studies by Sparkman & Walton (2017) have highlighted the power of dynamic norms and Wiese et al. (2022) have explored sufficiency in fashion, their application within a collectivist, developing economy like Thailand, particularly through the dual psychological mechanisms of moral motivation and environmental guilt, remains underexplored. This creates a critical research gap regarding how different types of social norms function across culturally distinct settings. Therefore, this research seeks to answer the following questions: (1) How do static and dynamic social norms distinctly influence the psychological drivers (moral motivation and environmental guilt) of Thai consumers? (2) To what extent do these moral and emotional drivers mediate the relationship between social norms and sufficiency–oriented fashion consumption? To address this gap, this study develops and empirically tests an integrated model using SEM. This research contributes by being among the first to validate a dual–pathway (cognitive–moral and emotional) framework of social influence on sustainable consumption in a Southeast Asian context, offering a culturally nuanced extension to Social Norm Theory.

Research Objectives

1. To study the level of social norm awareness (Static and Dynamic Social Norms) among Thai fashion consumers.

2. To investigate the influence of social norms, moral motivation, and environmental guilt on sufficiency–oriented fashion consumption among Thai consumers.

3. To test the fit of the structural equation model (SEM) on the influence of social norms on sufficiency–oriented fashion consumption among Thai consumers.

Literature Review

Concepts and Theories of Social Norms

Social norms refer to the implicit rules of society that define what behavior is "appropriate" or "acceptable" within a group (Bicchieri, 2017; Cialdini et al., 1990). People tend to adapt their behavior to what they believe "others are doing" or "expected." They can be divided into two main types:

1. Descriptive norms refer to perceptions of how others generally behave (e.g., "Most people buy new clothes every month").

2. Injunctive norms refer to perceptions of what others expect us to do or think we should do (e.g., "Society views reusing old clothes as good") (Cialdini et al., 1990; Schultz et al., 2007).

Recent studies have added the dimension of "time" to the understanding of norms. Sparkman and Walton (2017) proposed the concepts of Static norms, which reflect currently accepted behaviors, and dynamic norms, which reflect changing behavioral trends, such as "more people are turning to secondhand clothing."

Granato and Mugge (2025) explain that communication that combines "static and dynamic norms" can influence consumption decisions more effectively than either method alone. This is because consumers become aware of "new social trends" that are shifting toward greater sustainability, prompting behavioral adaptations to align with the new social group (Loschelder et al., 2019).

In terms of consumer behavior, this concept can be explained by Social Influence Theory and Cialdini et al.'s (1990) Focus Theory of Normative Conduct, which proposes that the perception of a norm influences behavior only if it is "attractive" to the individual at that moment.

Furthermore, Norm Activation Theory (Schwartz, 1977) suggests that when individuals perceive norms regarding good behavior, such as sustainable consumption, they develop a "moral obligation" to act in the right way, a key mechanism of sustainable behavior.

Social Norms and Consumer Behavior

Many studies confirm that social norms significantly influence consumer decisions, both in general consumption and in sustainable consumption (White et al., 2019; Yamin et al., 2019). Consumers often adapt their behavior to reflect what they "see others do" to maintain their social image or avoid criticism (Goldstein et al., 2008).

Sparkman and Walton (2017) found that a dynamic norm message ("The number of people reducing their meat consumption is increasing each year") motivates consumers to reduce meat consumption more than a static norm message that addresses only current behavior. This study suggests that "changing norms" can motivate consumers to adapt their behavior to better align with social trends. Similarly, Loschelder et al. (2019) found that messages emphasizing societal trends toward clean energy use significantly reduced home energy consumption.

However, perceiving harmful norms, such as seeing others overconsume, can trigger a "moral cleansing effect," in which consumers attempt to engage in the opposite behavior to compensate for the emotional discomfort (Sachdeva et al., 2009; Lasarov & Hoffmann, 2020). This means that perceiving others' unsustainable behavior may lead some individuals to moderate their consumption to achieve a moral balance.

Moral Motivation and Environmental Guilt Theory

Moral motivation refers to the internal drive that drives individuals to act ethically, even in the absence of external motivation (Blanken et al., 2015). Specifically, in the context of consumption, consumers with high moral motivation tend to favor environmentally sustainable products or purchase them only when necessary (Merritt et al., 2010; Thøgersen, 2006).

Meanwhile, environmental guilt is a negative emotion arising from awareness of one's environmental impact (Bissing-Olson et al., 2016) that motivates individuals to compensate by taking more environmentally friendly actions, such as reducing consumption or choosing secondhand products.

A study by Lasarov and Hoffmann (2020) showed that when consumers perceive others engaging in excessively unsustainable behavior, they experience "social moral cleansing," such as intentionally extending the lifespan of their clothing. Alternatively, reducing the purchase of new fashion items aligns with Sachdeva et al.'s (2009) concept of moral self-regulation, which posits that individuals strive to maintain their moral balance.

Therefore, moral motivation and ecological guilt are psychological mechanisms linking "perception of social norms" and "sufficient consumption behavior."

Sufficiency-Oriented Fashion Consumption

Sufficiency consumption refers to the rational use of resources, purchasing only what is necessary, and extending product lifespans to reduce environmental impact (Gordon, 2015; Speck

& Hasselkuss, 2015). This concept is linked to the Thai "Sufficiency Economy" principle, which emphasizes a moderate, socially responsible way of life.

In the fashion context, Wiese et al. (2022) found that consumers with sustainable values tend to purchase fewer garments and prioritize quality over quantity. Furthermore, extending the lifespan of clothing by just nine months can reduce carbon and textile waste by up to 30%.

Granato and Mugge (2025) point out that reducing fashion consumption cannot be achieved solely through "environmental campaigns," but also through social mechanisms, such as changing consumer norms to see sufficiency as the "new fashion" in society. Communications that promote both the "fixed norm of overconsumption" and the "changing norm of reuse" significantly stimulate awareness and behavioral change.

In Thailand, the concept of sufficiency consumption aligns with the Sufficiency Economy Philosophy, which emphasizes moderation, rationality, and resilience against overconsumption (NESDC, 2021). This research, therefore, helps bridge the gap between social concepts and actual consumer behavior in the Thai fashion industry.

A literature review reveals that shifting fashion consumers' consumption behavior from "overconsumption" to "sufficiency consumption" requires the power of social norms, reflecting the emergence of sufficiency as a new social norm. Static and dynamic norm communication can instill moral sentiments and environmental guilt, leading to responsible consumption.

This research addresses a gap in the Thai fashion industry context by employing a SEM model to explain the trajectory of social norms' influence on sufficiency consumption behavior. The results are expected to guide future social and marketing campaigns to promote sustainable consumption.

Summary of Key Literature on Social Norms and Sustainable Consumption shown in Table 1

Table 1: Summary of Key Literature on Social Norms and Sustainable Consumption

Author(s) & Year	Key Variables Studied	Context / Sample	Key Findings / Contribution	Research Gap Addressed by This Study
Sparkman & Walton (2017).	Static vs. Dynamic Norms: Meat Consumption	USA (University students)	Dynamic norms are more effective than static norms in motivating behavior change, even when the behavior is counternormative.	Lacks application in fashion consumption and non–Western cultural contexts.
Wiese et al. (2022).	Sufficiency Consumption; Sustainable Values	Germany (General population)	Identified consumer segments for sufficiency fashion consumption, but did not test the influence of social norms as a driver.	Did not examine the psychological mechanisms (mediators) linking social perception to behavior.
Lasarov and Hoffmann (2020).	Moral Licensing; Environmental Guilt	Germany (Online experiment)	Negative social cues (observing others' unsustainable behavior) can trigger guilt and compensatory sustainable actions.	Focused on negative cues; did not differentiate between static and dynamic positive norms.
Thøgersen (2006)	Moral Norms (Motivation); Pro–environmental Behavior	Denmark (Household survey)	Strong moral motivation is a direct and robust predictor of a wide range of environmentally responsible behaviors.	Did not investigate the role of external social norms in activating this internal moral motivation.
This Study	Static & Dynamic Norms; Moral Motivation; Environmental Guilt; Sufficiency Fashion Consumption	Thailand (Online consumers)	Integrates and tests a dual–pathway model (moral and emotional) in a collectivist, Southeast Asian context.	Fills the gap by testing a culturally relevant SEM model that explains *how* social norms translate into sufficient behavior.

Conceptual Gap and Justification for Mediators

A synthesis of the existing literature, as summarized in Table 1, reveals two critical gaps. First, while the distinction between static and dynamic norms is promising (Sparkman & Walton, 2017), its application to sufficiency–oriented fashion consumption, particularly in a non–Western context such as Thailand, remains absent. Second, the psychological pathways linking these norms to behavior remain fragmented. On the one hand, research emphasizes cognitive drivers such as moral obligation (Thøgersen, 2006), and on the other hand, it points to emotional responses such as guilt (Lasarov & Hoffmann, 2020). However, few studies have integrated these cognitive and emotional mechanisms into a single framework to test their simultaneous mediating roles.

This study addresses this gap by proposing a dual–pathway model. We select Moral Motivation as the cognitive mediator, rooted in Norm Activation Theory (Schwartz, 1977), which suggests that norms activate an internal sense of responsibility. We select Environmental Guilt as the emotional mediator, drawing from Moral Emotion Theory (Haidt, 2003), which posits that emotions are potent drivers of moral behavior. This selection is particularly relevant for the Thai context, where cultural values emphasize both ethical conduct (*doing good*) and emotional harmony (*consideration for others' feelings*). We posit that static norms, which reflect established societal expectations, are more likely to trigger a cognitive assessment of one's duty (Moral Motivation). In contrast, dynamic norms, which highlight change in collective behavior, are more likely to create social–emotional dissonance, leading to feelings of guilt when one fails to align with the emerging trend. Thus, these two mediators represent distinct yet complementary psychological mechanisms through which social norms can influence sustainable consumption.

Research Conceptual Framework

The conceptual framework of this study integrates Social Norm Theory (Cialdini et al., 1990), Norm Activation Theory (Schwartz, 1977), and Moral Emotion Theory (Haidt, 2003) to explain how social and psychological factors jointly influence sustainable consumer behavior. The model proposes that static norms—representing prevailing social expectations—and dynamic norms—reflecting emerging behavioral changes—serve as external social influences that activate internal mechanisms of moral motivation and environmental guilt, leading to sufficiency–oriented fashion consumption (Granato & Mugge, 2025; Wiese et al., 2022). Specifically, static norms are expected to strengthen moral motivation by fostering a sense of ethical responsibility (Thøgersen, 2006), while dynamic norms evoke environmental guilt through awareness of social change and moral dissonance (Sparkman & Walton, 2017; Lasarov & Hoffmann, 2020). Together, these

pathways explain how social perceptions, moral cognition, and emotional regulation interact to promote sustainable and responsible fashion behavior consistent with Thailand's Sufficiency Economy Philosophy (NESDC, 2021).

The integrated model presented in Figure 1 extends prior research (Granato & Mugge, 2025; Lasarov & Hoffmann, 2020; Wiese et al., 2022) by empirically testing these relationships among Thai consumers using Structural Equation Modeling (SEM).

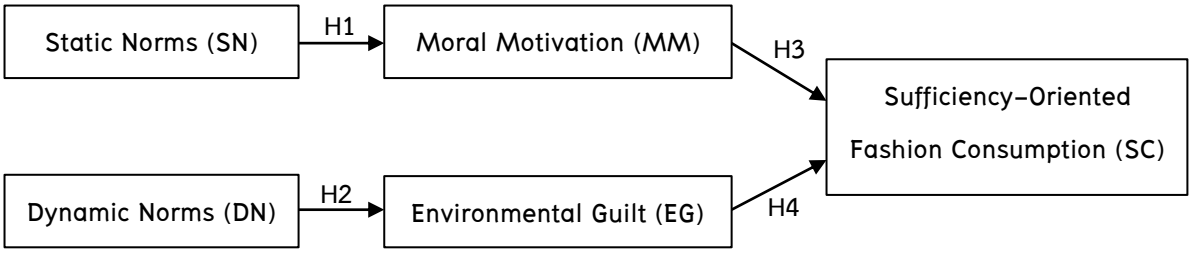


Figure 1 Research Conceptual Framework

Research Hypotheses

Based on the conceptual framework, the following hypotheses are proposed:

H1: Static social norms have a positive influence on moral motivation.

H2: Dynamic social norms have a positive influence on environmental guilt.

H3: Moral motivation has a positive influence on sufficiency–oriented fashion consumption.

H4: Environmental guilt has a positive influence on sufficiency–oriented fashion consumption.

Furthermore, we hypothesize that these psychological mechanisms mediate the influence of social norms on sufficiency–oriented consumption:

H5: Moral motivation and environmental guilt mediate the relationship between social norms and sufficiency–oriented fashion consumption.

H5a: Moral motivation mediates the positive relationship between static social norms and sufficiency–oriented fashion consumption.

H5b: Environmental guilt mediates the positive relationship between dynamic social norms and sufficiency–oriented fashion consumption.

Research Methodology

This study employed a quantitative research design using a cross-sectional survey to examine the causal relationships between social norms and sufficiency-oriented fashion consumption among Thai consumers. The research aimed to test the proposed conceptual framework using Structural Equation Modeling (SEM), which enables simultaneous analysis of direct and indirect effects among multiple latent constructs (Hair et al., 2019). The methodological approach was designed to provide empirical evidence on how static and dynamic norms influence moral motivation and environmental guilt, which, in turn, affect sufficiency-oriented fashion consumption.

Population and Sample

The population of this study consisted of Thai consumers aged 18 years and older who had purchased fashion products—such as clothing, accessories, or footwear—within the previous six months. This target group was selected because they actively engage in fashion consumption and are thus relevant to the study's objectives. Given the focus on behavioral modeling, a minimum sample size was determined based on the recommendation of Hair et al. (2019), who suggested at least 10–15 respondents per observed indicator for SEM analysis. With 30 indicators across all constructs in this study, a sample of 450 respondents was deemed sufficient to ensure statistical reliability. The sample was selected using convenience sampling, a non-probability technique suitable for online consumer studies (Saunders et al., 2019). Data were collected via online platforms such as Facebook, Instagram, and Line, which Thai consumers commonly use for e-commerce and fashion purchases.

Research Instrument

Data were collected using a structured questionnaire developed from established measurement scales adapted to the context of sufficiency-oriented fashion consumption. The questionnaire consisted of seven sections: (1) respondent screening, (2) demographic information, (3) static norms, (4) dynamic norms, (5) moral motivation, (6) environmental guilt, (7) sufficiency-oriented fashion consumption, and, all items were measured using a five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). An example item for Moral Motivation is, *"I feel a personal obligation to reduce my fashion consumption to protect the environment."* For Environmental Guilt, an example is, *"I feel guilty when I buy more clothes than I really need."*

The questionnaire was validated for content validity by three academic experts in marketing and consumer psychology. The Item–Objective Congruence (IOC) values for all items ranged from 0.80 to 1.00, exceeding the threshold of 0.67 (Polit & Beck, 2017). A pilot test was conducted with 30 respondents to assess clarity, comprehension, and reliability. Cronbach's alpha coefficients for all constructs ranged between 0.87 and 0.91, confirming acceptable internal consistency (Nunnally & Bernstein, 1994).

Data Collection Procedures

The data were collected online between March and April 2025. Respondents were first provided with an informed consent form explaining the study's objectives, their rights, and the confidentiality of their responses. Only those who confirmed having purchased fashion products within the past 6 months were eligible to proceed. Participation was voluntary, and respondents were assured that their data would be used solely for academic purposes. The survey required approximately 8–10 minutes to complete. After screening for incomplete or duplicate responses, 450 valid questionnaires were retained for analysis.

Common Method Bias and Ethical Considerations

To minimize the risk of standard–method bias (CMB), often associated with self–report surveys, procedural remedies such as ensuring respondent anonymity and precise item wording were employed. Statistically, Harman's single–factor test was conducted, where all items were loaded onto a single factor. The result showed that the single factor accounted for only 38.7% of the total variance, which is below the 50% threshold, suggesting that CMB was not a significant concern in this study (Podsakoff et al., 2003). Ethical approval for the study was obtained from the university's research ethics committee. All participants were provided with an informed consent form and assured of the confidentiality of their responses.

Data Analysis

The data analysis followed a two–stage process: (1) validation of the measurement model and (2) testing of the structural model. Descriptive statistics were first used to summarize respondent characteristics. Prior to analysis, the data were examined for normality, outliers, and multicollinearity following the guidelines of Kline (2016).

In the first stage, Confirmatory Factor Analysis (CFA) was performed to assess the measurement model's reliability and validity. Convergent validity was confirmed when factor loadings exceeded 0.60, Composite Reliability (CR) was above 0.70, and Average Variance

Extracted (AVE) exceeded 0.50 (Fornell & Larcker, 1981). Discriminant validity was assessed by ensuring that the square root of each construct's AVE was higher than its correlations with other constructs.

In the second stage, Structural Equation Modeling (SEM) was used to evaluate the hypothesized relationships among the constructs. Model fit was assessed using multiple indices: Chi–square/df, Goodness–of–Fit Index (GFI), Comparative Fit Index (CFI), Tucker–Lewis Index (TLI), and Root Mean Square Error of Approximation (RMSEA). Acceptable thresholds were $\chi^2/df < 3.00$, CFI and TLI ≥ 0.90, and RMSEA ≤ 0.08 (Hair et al., 2019). The significance of direct and indirect effects was examined using Bootstrapping with 5,000 samples to test mediation effects (Preacher & Hayes, 2008).

Limitations

This study has some limitations: First, the use of convenience sampling limits the generalizability of the findings to the entire Thai consumer population. Second, the cross–sectional design captures relationships at a single point in time. Third, the study relied on self–report measures, which may be subject to social desirability bias.

Research Result

The results are organized into five sections: (1) respondent information, (2) validation of the measurement model, (3) model fit analysis, and (4) hypothesis testing.

Respondent information

The results indicate that the majority of participants were female (62.0%), aged 18–35 years (78.0%), and held a bachelor's degree (67.1%). Most respondents regularly purchased fashion items online through Shopee and Lazada, reflecting the dominance of e–commerce platforms in Thailand's fashion market.

Measurement Model Validation

Prior to hypothesis testing, Confirmatory Factor Analysis (CFA) was conducted to assess the reliability and validity of the measurement model. The results presented in Table 2 demonstrate that all constructs achieved satisfactory levels of internal consistency, convergent validity, and discriminant validity.

Table 2 Confirmatory Factor Analysis Results

Construct	No. of Items	Factor Loading Range	Composite Reliability (CR)	Average Variance Extracted (AVE)	Cronbach's α
Static Norms (SN)	5	0.73–0.86	0.89	0.61	0.87
Dynamic Norms (DN)	5	0.75–0.88	0.91	0.65	0.90
Moral Motivation (MM)	5	0.72–0.88	0.90	0.63	0.88
Environmental Guilt (EG)	5	0.70–0.87	0.89	0.59	0.87
Sufficiency Consumption (SC)	8	0.69–0.85	0.92	0.60	0.91

All constructs exhibited CR values above the 0.70 threshold and AVE values above 0.50, confirming convergent validity (Fornell & Larcker, 1981). The factor loadings for all observed variables exceeded 0.70, indicating that each item was a strong indicator of its respective latent construct.

Discriminant validity was confirmed by comparing the square root of each construct's AVE with the inter–construct correlations. As shown in Table 3, the square root of AVE for each construct exceeded the corresponding correlation coefficients, satisfying Fornell and Larcker's (1981) criterion.

Table 3 Discriminant Validity of Constructs

Constructs	SN	DN	MM	EG	SC
SN	**0.78**				
DN	0.58	**0.81**			
MM	0.42	0.48	**0.79**		
EG	0.36	0.51	0.55	**0.77**	
SC	0.39	0.44	0.61	0.57	**0.78**

Model Fit Assessment

The goodness–of–fit indices for both the measurement and structural models indicated an excellent fit to the data, as summarized in Table 4.

Table 4 Goodness-of-Fit Indices for the SEM Model

Fit Index	Observed Value	Recommended Threshold	Interpretation
χ^2 (Chi-square)	734.85	—	Used to assess the overall model fit
df (Degrees of Freedom)	365	—	Indicates model complexity
p-value	0.000	> 0.05 (desired but rarely achieved for large samples)	Significant due to large sample size (N=450)
χ^2/df	2.013	< 3.00	Acceptable fit
GFI (Goodness-of-Fit Index)	0.924	≥ 0.90	Good fit
AGFI (Adjusted Goodness-of-Fit Index)	0.901	≥ 0.90	Good fit
CFI (Comparative Fit Index)	0.962	≥ 0.90	Excellent fit
TLI (Tucker–Lewis Index)	0.954	≥ 0.90	Excellent fit
RMSEA (Root Mean Square Error of Approximation)	0.047	≤ 0.08	Good fit
SRMR (Standardized Root Mean Square Residual)	0.045	≤ 0.08	Good fit

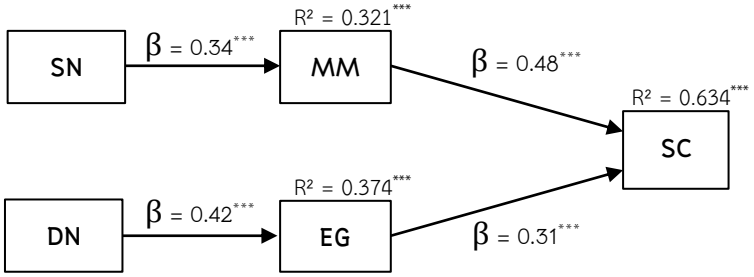
The SEM results indicate that the hypothesized model provides an excellent overall fit to the empirical data (χ^2 = 734.85, df = 365, χ^2/df = 2.013, p < 0.001). Although the chi-square test is significant—standard in large-sample analyses—the ratio χ^2/df is well below the recommended cut-off of 3.0, confirming model adequacy. All incremental and absolute fit indices (GFI, AGFI, CFI, TLI) exceed 0.90, and both residual indices (RMSEA = 0.047, SRMR = 0.045) fall within acceptable limits, indicating a reasonable and parsimonious model fit (Hair et al., 2019; Kline, 2016). The SEM model accurately represents the relationships among the constructs and demonstrates strong explanatory power. Specifically, the model explains:

1) 32.1% of the variance in Moral Motivation (R^2 = 0.321), indicating that static norms significantly account for consumers' sense of ethical duty.

2) 37.4% of the variance in Environmental Guilt (R^2 = 0.374), suggesting that dynamic norms are a strong predictor of emotional responses to consumption behavior.

3) 63.4% of the variance in Sufficiency-Oriented Fashion Consumption (R^2 = 0.634), confirming that the combination of social norms and the mediating psychological mechanisms effectively predicts sustainable behavior.

The model's influence statistics, including R^2 values for all endogenous constructs, are shown in Figure 2.



χ^2 = 734.85, df = 365, χ^2/df = 2.013, GFI = 0.924,
CFI = 0.962, TLI = 0.954, RMSEA = 0.047

Figure 2: The Statistics of influence in the model

Hypothesis Testing

The structural model was analyzed using SEM with Maximum Likelihood Estimation (MLE) to evaluate the direct and indirect relationships among variables. The results of the hypothesis testing are presented in Table 5, and a full summary of effects is provided in Table 6.

Table 5 Results of Hypothesis Testing (Direct and Indirect Effects)

Hypothesis	Path	β	C.R. (*t*)	p–value	Result
H1	Static Norms ⟶ Moral Motivation	0.34	4.97	*p < 0.001*	Supported
H2	Dynamic Norms ⟶ Environmental Guilt	0.42	6.21	*p < 0.001*	Supported
H3	Moral Motivation ⟶ Sufficiency Consumption	0.48	7.83	*p < 0.001*	Supported
H4	Environmental Guilt ⟶ Sufficiency Consumption	0.31	5.10	*p < 0.001*	Supported
H5a	Static Norms (SN) ⟶ Moral Motivation (MM) ⟶ Sufficiency Consumption (SC)	0.16	—	*p < 0.01*	Supported
H5b	Dynamic Norms (DN) ⟶ Environmental Guilt (EG) ⟶ Sufficiency Consumption (SC)	0.13	—	*p < 0.01*	Supported

Table 6: Summary of Standardized Direct, Indirect, and Total Effects

Path	DN			MM			EG			SC		
	DE	*IE*	*TE*	*DE*	*IE*	*TE*	*DE*	*IE*	*TE*	*DE*	*IE*	*TE*
Static Norms (SN)	—	—	—	0.34	0.16	0.50	—	—	—	—	—	—
Dynamic Norms (DN)				—	—	—	0.42	0.13	0.55	—	—	—
Moral Motivation (MM)							—	—	—	0.48	—	0.48
Environmental Guilt (EG)										0.31	—	0.31

Note: **p < 0.05, **p < 0.01, **p < 0.001. DE=Direct effect, IE=Indirect Effect, TE=Total Effect.*

All direct paths proposed in H1 to H4 were statistically significant. Specifically, Static Norms positively influenced Moral Motivation (β = 0.34, p < 0.001; H1 supported), and Dynamic Norms positively influenced Environmental Guilt (β = 0.42, p < 0.001; H2 supported). Furthermore, both Moral Motivation (β = 0.48, p < 0.001; H3 supported) and Environmental Guilt (β = 0.31, p < 0.001; H4 supported) exerted significant positive effects on Sufficiency–Oriented Fashion Consumption.

The mediation analysis, based on bootstrapping, confirmed the significance of the indirect effects. The indirect effect of Static Norms on Sufficiency Consumption through Moral Motivation was significant (β = 0.16, p < 0.001), thus supporting H5a. Similarly, the indirect effect of Dynamic Norms through Environmental Guilt was also significant (β = 0.13, p < 0.01), supporting H5b.

The findings highlight two complementary pathways: (1) a cognitive–moral route, in which static norms activate moral motivation and strengthen consumers' sense of ethical responsibility; and (2) an emotional route, in which dynamic norms evoke environmental guilt, prompting behavioral adjustment toward sufficiency. These findings are consistent with previous studies emphasizing the importance of social influence and moral emotions in sustainable consumption (Granato & Mugge, 2025; Lasarov & Hoffmann, 2020; White et al., 2019).

Overall, the results demonstrate that Thai consumers are sensitive to social cues reflecting changing sustainability expectations and that both moral motivation and emotional awareness are critical mediators driving sufficiency–oriented behavior.

Discussion

This study aimed to investigate the influence of static and dynamic social norms on sufficiency–oriented fashion consumption among Thai consumers, with moral motivation and environmental guilt as mediators. The findings provide robust support for the proposed dual–pathway model, confirming that social norms operate through both cognitive–moral and emotional mechanisms to shape sustainable behavior. The discussion below is organized according to the three research objectives.

Objective 1: To study the level of social norm awareness (Static and Dynamic Social Norms) among Thai fashion consumers.

The findings revealed that Thai fashion consumers demonstrated moderate–to–high awareness of both static and dynamic social norms. Respondents demonstrated clear recognition of socially accepted behaviors (static norms), such as the belief that moderate consumption and avoiding wasteful shopping are socially approved. They also observed noticeable changes in others' consumption behavior (dynamic norms), such as a growing trend toward purchasing fewer, higher–quality fashion items and supporting sustainable brands.

This outcome reflects the increasing public attention toward sustainability in Thailand's fashion sector and aligns with the country's Sufficiency Economy Philosophy, which promotes moderation, responsibility, and balance (NESDC, 2021). The finding also supports Sparkman and Walton's (2017) assertion that consumers are sensitive to both current social expectations and emerging behavioral trends. Moreover, the relatively high dynamic norm awareness suggests that Thai consumers are influenced not only by what others currently do, but also by what they perceive others will do in the future.

These results are consistent with Granato and Mugge (2025), who found that exposure to both static and dynamic norm messages enhances sustainability awareness and behavioral intention. The finding implies that Thai consumers are increasingly responsive to sustainability–related messages, signaling an opportunity for marketers and policymakers to leverage norm–based communication to accelerate behavioral change.

Objective 2: To investigate the influence of social norms, moral motivation, and environmental guilt on sufficiency–oriented fashion consumption among Thai consumers.

The results demonstrated that social norms (both static and dynamic) significantly influenced sufficiency–oriented fashion consumption, both directly and indirectly, through moral

motivation and environmental guilt. Specifically, static norms had a substantial positive impact on moral motivation (β = 0.34, p < 0.001), while dynamic norms significantly increased environmental guilt (β = 0.42, p < 0.001). In turn, both moral motivation (β = 0.48, p < 0.001) and environmental guilt (β = 0.31, p < 0.001) positively affected sufficiency–oriented fashion consumption.

These findings align with Social Norm Theory (Cialdini et al., 1990), which suggests that perceived social expectations shape individual behavior through internalized standards of right and wrong. Static norms promote conformity through moral reasoning and self–regulation, whereas dynamic norms encourage behavioral adjustment by highlighting social change. The dual mediation results are also supported by Norm Activation Theory (Schwartz, 1977) and Moral Emotion Theory (Haidt, 2003), which together explain how moral cognition and emotional responses jointly drive ethical and sustainable actions.

Furthermore, the role of environmental guilt in mediating dynamic norms supports the findings of Rees et al. (2015) and Lasarov and Hoffmann (2020), who noted that guilt is a key motivator of compensatory behavior, leading individuals to adopt more sustainable practices after recognizing moral inconsistencies in their consumption. The effect of moral motivation aligns with Thøgersen (2006) and Wiese et al (2022), showing that ethical awareness and responsibility are strong predictors of sufficiency–oriented purchasing.

In the Thai context, these findings confirm that sustainability–oriented behavior is not merely a matter of environmental knowledge but also reflects moral and emotional alignment with cultural values that emphasize moderation and ethical living. Thus, fostering moral motivation and emotional engagement is crucial for promoting long–term sustainable consumption patterns.

Objective 3: To test the fit of the structural equation model (SEM) on the influence of social norms on sufficiency–oriented fashion consumption among Thai consumers.

The results of the SEM analysis confirmed that the proposed model fit the empirical data exceptionally well, as indicated by the following key fit indices: χ^2/df = 2.013, GFI = 0.924, CFI = 0.962, TLI = 0.954, and RMSEA = 0.047. These values exceed the recommended thresholds (Hair et al., 2019; Kline, 2016), indicating that the hypothesized relationships among social norms, moral motivation, environmental guilt, and sufficiency–oriented fashion consumption are statistically significant and theoretically sound.

The model explained 63.4% of the variance in sufficiency–oriented consumption (R^2 = 0.634), indicating strong explanatory power. This finding supports prior studies (Granato & Mugge, 2025; White et al., 2019) suggesting that social and psychological mechanisms can collectively predict sustainable consumer behavior. The good model fit further validates the integration of multiple theoretical perspectives—Social Norm Theory, Norm Activation Theory, and Moral Emotion Theory—into a unified framework for explaining sufficiency–oriented fashion consumption.

Notably, the model's success in the Thai context provides empirical evidence that these theories are culturally transferable when adapted to local values such as moderation, ethical mindfulness, and collective well–being. The model thus contributes to the growing body of research on sustainable consumption by offering a moral–emotional pathway framework that can be applied in other developing or collectivist societies.

Overall, the discussion by objectives indicates that Thai consumers are becoming more socially and emotionally attuned to sustainability issues in the fashion industry. Static norms foster moral awareness, dynamic norms evoke emotional reflection, and together they shape behavior consistent with sufficiency principles. The model's strong fit and explanatory power confirm that sustainable fashion behavior emerges from the interaction between social influence, moral cognition, and emotional regulation, reflecting both theoretical advancement and practical potential for policy and marketing applications in Thailand's sustainability movement.

Theoretical Implications

This study makes several significant contributions to the existing literature.

First, our research extends Social Norm Theory by empirically validating a dual–pathway framework in a non–Western context. Unlike previous studies that often treat social norms as a monolithic construct, we demonstrate that static and dynamic norms trigger distinct psychological processes. Static norms, representing established societal values of moderation, activate a cognitive–moral pathway through *moral motivation*. This aligns with Norm Activation Theory (Schwartz, 1977), which holds that perceived social expectations are internalized as a personal responsibility to act ethically. In essence, when Thai consumers perceive that society approves of sufficiency (a static norm), it reinforces their internal moral compass to do the right thing.

Second, the findings highlight the decisive role of dynamic norms in activating an emotional pathway through *environmental guilt*. The greater influence of dynamic norms on its mediator (β = 0.42) than that of static norms (β = 0.34) is a critical finding. *Why is this the case,*

especially in Thailand? We argue that dynamic norms, which signal a behavioral shift ("more people are adopting sustainable fashion"), create a sense of social momentum and urgency. For consumers in a highly collectivist and socially connected culture such as Thailand, falling behind an emerging positive trend can induce social–emotional discomfort or fear of being "out of sync" with the group. This feeling manifests as environmental guilt, a powerful emotion that drives compensatory behavior, as supported by Moral Emotion Theory (Haidt, 2003) and previous findings by Lasarov and Hoffmann (2020). The high penetration of social media in Thailand likely amplifies this effect, as emerging sustainable trends are made highly visible and aspirational, accelerating the perceived shift in norms.

Third, the mediation analysis provides a similar view of the mechanisms. The finding that moral motivation fully mediates the effect of static norms suggests that established social values do not directly influence behavior but instead shape an individual's ethical reasoning. While environmental guilt fully mediates the effect of dynamic norms. This implies that emerging trends indirectly influence consumers through environmental guilt, prompting them to feel remorse about their past or current unsustainable habits. This influence makes dynamic norm messaging an exceptionally potent intervention tool.

Finally, by successfully applying and integrating Western theories within the Thai cultural framework, guided by the principles of the Sufficiency Economy Philosophy, this study demonstrates the cross–cultural applicability of these theoretical models while also highlighting the need for contextual adaptation. The model offers a culturally grounded moral–emotional framework that can serve as a foundation for future research in other collectivist societies.

New Knowledge from Research

This study contributes new theoretical and empirical insights into the mechanisms linking social norms, moral cognition, and emotional processes in shaping sustainable consumer behavior—particularly within the fashion industry. Unlike previous studies that treated social norms as a single construct, this research distinguishes between static and dynamic norms, demonstrating that they influence sustainable behavior through distinct pathways. Static norms strengthen moral motivation and a cognitive sense of ethical duty, whereas dynamic norms evoke environmental guilt, an emotional response to perceived unsustainable behavior. This dual–process

mechanism extends behavioral models of sustainability by demonstrating that both rational and emotional dimensions are essential to sufficiency–oriented consumption.

Additionally, this study contextualizes Western theories—Social Norm Theory (Cialdini. et al., 1990), Norm Activation Theory (Schwartz, 1977), and Moral Emotion Theory (Haidt, 2003)—within the Thai cultural framework guided by the Sufficiency Economy Philosophy (NESDC, 2021). The findings provide the first empirical evidence, using Structural Equation Modeling (SEM), that a combination of perceived social expectations, moral awareness, and emotional regulation drives Thai consumers' sustainable behavior. Consequently, the study introduces a moral–emotional behavioral framework for sufficiency consumption, offering a culturally grounded extension of global sustainability theory.

Conclusion

This research concludes that social norms are a powerful driver of sufficiency–oriented fashion consumption among Thai consumers, but their influence is channeled through distinct psychological pathways. Static norms, reflecting established cultural values, foster a sense of moral duty, while dynamic norms, highlighting emerging behavioral trends, evoke environmental guilt. Together, these cognitive–moral and emotional mechanisms create a potent combination that encourages a shift toward more sustainable lifestyles.

The empirical model confirmed a strong fit and significant explanatory power (R^2 = 63.4%), affirming that Thai consumers are highly responsive to normative influences that resonate with both their moral reasoning and emotional sensibilities. The key takeaway is that behavioral change is most effectively achieved when external social cues align with internal psychological drivers.

Ultimately, this study makes a significant theoretical advancement by proposing and validating a culturally grounded moral–emotional behavioral framework for sufficiency consumption. By demonstrating how Western–derived theories of social influence function within a collectivist, Thai context, this research extends global sustainability theory and offers a nuanced model that can be adapted and tested in other developing nations. The findings provide a clear directive for policymakers and marketers: to foster sufficiency, interventions must move beyond simple information provision and instead leverage the dynamic interplay of social influence, moral reflection, and emotional engagement.

Suggestions

Suggestion for Implementing the Research Findings

The findings provide actionable insights for stakeholders aiming to foster a culture of sufficiency in the fashion industry.

1. For Policymakers and Environmental Agencies (e.g., Ministry of Natural Resources and Environment): Communication campaigns should strategically combine both types of norm messaging.

1.1 Reinforce the Moral Foundation (Static Norms): Messages should connect sufficiency to cherished Thai cultural values of moderation and responsibility (e.g., "Living moderately is the wise Thai way"). This strengthens the cognitive foundation for sustainable behavior.

1.2 Create a Sense of Momentum (Dynamic Norms): Campaigns should prominently feature statistics, testimonials, and influencer content showcasing that *a growing number of Thais are embracing sufficiency*. For instance, "Join millions of Thais who are now choosing to reuse, repair, and buy secondhand." This messaging is more likely to evoke an emotional response and drive immediate action.

2. For Fashion Brands and Marketers: Sustainable brands can leverage these insights to design more effective marketing strategies.

2.1 Value–Based Marketing: Brands should not only highlight the environmental benefits of their products but also frame their messaging around moral and emotional fulfillment. Marketing could focus on the "good feeling" of responsible consumption and the "pride" of being part of a positive movement.

2.2 Leverage Social Proof: E–commerce platforms and social media campaigns should feature user–generated content, reviews, and counters showing how many people have purchased a sustainable product or taken a pledge to reduce consumption. This makes the dynamic norm visible and tangible.

3. For Educators and Community Leaders: The findings underscore the importance of fostering both ethical reasoning and emotional intelligence in sustainability education. Curricula should include activities that encourage students to reflect on their consumption habits (prompting self–evaluation and potential guilt) and to discuss the moral imperative of sustainability within their community.

Suggestions for Future Research

To build upon the knowledge from this study, the following avenues for future research are recommended:

1. Enhance Generalizability and Explore Diversity: Employ probability sampling techniques to obtain a more representative sample. This will enable comparative studies to understand how the psychological mechanisms in this model differ across diverse demographic segments (e.g., by age or geographic location).

2. Establish Causality with Advanced Methodologies: Utilize longitudinal studies to track behavioral changes over time or conduct experimental studies to directly test the causal impact of social norm messaging on moral motivation, environmental guilt, and consumption behavior.

3. Incorporate Mixed–Methods Approaches: To overcome the limitations of self–report data, adopt a mixed–methods approach that combines quantitative data with qualitative insights (e.g., in–depth interviews) and objective data (e.g., actual purchase records) for a more holistic understanding.

4. Expand the Conceptual Framework and Context: Extend the research model by incorporating other key psychological variables, such as self–efficacy or environmental identity. Additionally, test this moral–emotional framework in other critical consumption contexts, such as food waste or energy use, to build a more comprehensive theory of sustainable behavior.

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