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Development and application of an ethical consumption behavior scale: Evidence from retail consumers in the Mekong delta, Vietnam

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Abstract: This study aims to develop and validate a scale for measuring ethical consumer behavior tailored to the socio-cultural context of retail consumers in the Mekong Delta, addressing limitations of existing international scales when applied in Vietnam. Based on the Theory of Planned Behavior (TPB), the model examines relationships among attitude, subjective norms, perceived behavioral control, intention, and ethical consumer behavior. Data were collected and analyzed in multiple stages with independent samples, utilizing Cronbach's Alpha, EFA, CFA, and SEM techniques. Results demonstrate that the scales exhibit good reliability and validity, with a new factor emerging that reflects consumers' ethical and sustainable orientation. Structural model analysis shows that subjective norms and perceived behavioral control positively influence both intention and ethical behavior, whereas attitude does not significantly impact intention. Notably, the relationship between intention and behavior was not confirmed, indicating a gap between perception and action in ethical consumption. The study contributes theoretically by refining a localized scale and suggests future research directions to better understand how intention translates into behavior within emerging economies.

Keywords: *Ethical consumer behavior, Ethical consumer, Mekong Delta, Retail industry, Scale Development.*

1. Introduction

In the context of globalization and increasing concerns about environmental pollution, business ethics, and social inequality, ethical consumer behavior is becoming vital for sustainable development. Consumers now prioritize ethical considerations alongside price and quality, often boycotting companies that violate standards and supporting those demonstrating social responsibility and transparency [1-3]. Nonetheless, the concepts and measurement systems for ethical consumer behavior lack consistency, mainly due to cultural differences, values, and ethical motivations across various social contexts, which complicates establishing a universal framework for evaluating ethical consumer actions [4-6]. In developing economies, including the Mekong Delta region, empirical studies on ethical consumption are limited despite significant growth in modern retail and e-commerce. The region faces serious challenges from climate change and resource depletion. In the online environment, where direct contact between consumers and retailers is limited, factors such as trust in businesses, social norms, social capital, and network structure are crucial in shaping ethical purchasing intentions and behaviors [7-9]. Additionally, social media promotes collective behaviors like boycotts, supporting ethical products, or spreading information, reflecting perceptions of personal effectiveness and civic responsibility in consumption [10-12]. Currently, popular scales for measuring ethical consumer behavior are primarily developed in Europe, America, or urbanized areas and are often reused without adaptation to the socio-cultural context of the Mekong Delta. This practice risks bias in evaluating the

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region's ethical consumption levels and forms, potentially leading to inaccurate assessments and ineffective policy development [13-15]. In addition, many studies have not clearly distinguished between attitudes, intentions, and actual behavior, nor have they adequately addressed the paradox of "saying one thing and doing another," which is common in ethical consumption, especially in digital environments where advertising, promotions, and impulsivity significantly influence behavior [16-18]. These gaps motivate this research to develop and validate a localized ethical consumer behavior scale for retail consumers in the Mekong Delta, ensuring contextual relevance, reliability, and conceptual validity. The proposed scale incorporates key antecedents such as social capital, beliefs, social norms, perceived ethical responsibility, and behavioral traits within e-commerce, factors that strongly impact ethical consumer intentions and actions [7, 19, 20]. The refinement of this scale will enhance the theoretical framework of ethical consumption in developing economies and offer a practical foundation for businesses and policymakers. It will aid in designing sustainable marketing, CSR initiatives, and customer relationship management strategies.

2. Theory and Overview

2.1. Consumer Intention and Ethics

Ethics, viewed by many scholars as a system of social values and norms, guides individual behavior to benefit the common good, fulfill social responsibilities, and co-create value with the community. This perspective extends beyond a simple right-wrong dichotomy, highlighting the complex and contextual nature of ethical activity in modern social life [7]. In the context of globalization and the emergence of complex, unpredictable situations, ethics is not a static framework but an ongoing process. Individuals and organizations must continually evaluate, interpret, and adapt their value systems to align with cultural, institutional, and conflict-of-interest conditions [21, 22]. At the organizational level, ethics manifests in fair, responsible, and respectful behaviors, which enhance employee satisfaction, engagement, and overall performance [23]. Many organizations still lack clear values and ethical standards, emphasizing the urgent need to establish and implement unified ethical guidelines to promote sustainable development, balancing economic, social, and environmental interests effectively [24].

Consumer behavior is a purposeful process where individuals respond to external stimuli such as advertising, promotions, online reviews, and socio-cultural factors, influenced by intrinsic motivations like needs, preferences, identity, and personal values [25, 26]. Based on rational action and planned behavior theories, it is seen as a goal-oriented problem-solving process involving need recognition, information search, evaluation of alternatives, and decision-making aimed at achieving functional and value-based outcomes [27, 28]. Simultaneously, this behavior reflects a rational cost-benefit analysis, as consumers compare expected value and probability of achievement with the risks or costs involved. This aspect is especially evident in ethical consumption, where consumers often face higher prices or lower convenience levels compared to conventional products [29]. Therefore, consumer behavior results from ongoing interactions among environmental factors, intrinsic motivation, and rational evaluation, making it both instrumental and value-driven, particularly when linked to ethical goals and social responsibility in consumption.

2.2. Ethical Consumer Behavior

Ethical consumer behavior is seen as a reflective decision-making process where individuals consider not only personal interests but also social, environmental, and ethical impacts of their choices regarding products and services. This approach emphasizes supporting companies that follow principles of social equity, environmental sustainability, and community responsibility, including practices like buycotts and boycotts [18, 30, 31]. Consumers often assess products based on labor conditions, fair trade, sustainable sourcing, environmental effects, and animal testing. Ethical consumption thus involves more than economic decisions; it serves as a form of civic participation, reflecting deliberate choices and rejections in daily life to promote social and environmental well-being [7, 32].

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Although attitudes favoring ethical consumption are growing, a notable gap persists between intention and action. Common barriers include high prices, difficulty accessing products, limited transparency, and discrepancies between corporate ethical claims and societal expectations, all hindering the conversion of awareness into consistent ethical behavior [1, 33, 34]. In-depth knowledge and understanding of the socio-environmental impacts of products play a crucial role in helping consumers form less emotional judgments and reduce their reliance on crowd influence [35, 36]. Furthermore, socio-cultural factors such as reciprocity norms, social capital, the need for positive self-expression, and religious beliefs can significantly influence ethical consumption levels across industries, countries, and regions [4, 12, 14, 37]. In crisis situations, emotional responses like fear often outweigh moral motivations, and a lack of clear information about sustainability or corporate responsibility increases consumer hesitation and skepticism [31, 33].

2.3. Related Underlying Theories

2.3.1. Theory of Planned Behavior (TPB)

According to Ajzen [38], an individual's planned behavior is influenced by attitudes toward the behavior, subjective norms, and perceived behavioral control. In ethical consumption, the Theory of Planned Behavior (TPB) explains how consumers balance ethical values against perceived barriers such as cost, capability, and convenience. The theory also accounts for the common gap between intention and actual behavior, especially in ethical choices. By focusing on rational factors, TPB offers a valuable framework for predicting ethical consumer behavior.

2.3.2. Value Belief Norm Theory (VBN)

VBN by Stern et al. [39] asserts that personal values influence beliefs about the social and environmental impacts of actions, activating personal norms that promote responsible behavior. In ethical consumption, this theory highlights the significance of altruistic, ecological, and social equity values in guiding choices. The Value-Belief-Norm (VBN) model indicates that ethical actions originate from intrinsic motivation and a sense of moral responsibility, rather than social pressure. Consequently, it offers a comprehensive framework for understanding the ethical drivers behind consumer behavior.

2.3.3. Moral Identity & Moral Signaling Theory

According to Aquino and Reed II [40], ethical identity reflects how individuals see ethics as central to themselves, influencing behavior that aligns with their self-image. Moral signaling theory indicates that consumers sometimes select ethical products to project a positive image or demonstrate social responsibility. In ethical consumption, these theories explain the roles of identity motives, self-expression, and social impact within digital environments. They help clarify behavioral variability based on cultural context and social interaction levels.

2.4. Developing Hypotheses and Research Models

Subjective norms represent the social pressure or expectations from reference groups that influence individuals' decisions to engage in certain behaviors. In ethical consumption, these norms are especially significant because actions like boycotting, supporting specific purchases, or choosing sustainable options are often motivated by shared values within families, friends, or communities [1]. When individuals perceive that their social group values environmental and social responsibility, they are more likely to develop stronger intentions toward ethical consumption. Cross-cultural research indicates that subjective norms consistently predict intentions, regardless of economic, cultural, or market development differences [12, 37]. In societies emphasizing community cohesion and mutual support, moral intentions form more readily when reference groups signal ethical behavior [7]. In digital media, social networks amplify normative pressure, accelerating the spread of movements like green purchasing and anti-plastic waste initiatives [41].

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Subjective norms influence not only intentions but also directly affect behavior, particularly in social contexts like ethical consumption. Consumers tend to conform to group expectations to avoid inconsistency, thereby performing behaviors that align with social norms to preserve social acceptance and avoid social disapproval [8]. This makes ethical consumption a form of social compliance. In contexts such as religion, local communities, or environmental movements, the stronger the subjective norm, the more likely the behavior will occur, even if the intention is not yet fully established [18, 37]. Studies also show that ethical behavior is often contagious: individuals imitate group behavior to maintain harmony [32]. Therefore, subjective norms can directly influence ethical consumer behavior.

H_1: Subjective norms have a positive influence on ethical consumer intentions.

H_2: Subjective norms have a positive influence on ethical consumer behavior.

Attitudes toward ethical consumption indicate how individuals evaluate purchasing socially and environmentally responsible products, either positively or negatively. According to the Theory of Planned Behavior (TPB), attitude is the most significant predictor of intention in deliberate decision-making processes [38]. In the context of ethical consumption, consumers develop attitudes based on the belief that their actions are not only morally correct but also socially valuable, reinforcing their self-identity and civic duty [3]. This makes ethical choices meaningful, increasing the likelihood of forming purchase intentions aligned with personal values. Research indicates that positive attitudes stem from various sources. Intentional acts like boycotting or supporting causes provide consumers with a sense of effectiveness, which strengthens favorable attitudes and encourages ongoing ethical behavior [1]. Furthermore, the need to express moral identity, the desire to be seen as responsible, leads consumers to link purchasing behavior with self-image, increasing their intention to act [4, 8]. This shows that attitudes are not only rational judgments but also include psychosocial elements. Therefore, based on theory and empirical evidence, the study proposes:

Attitudes not only predict intentions but often directly influence behavior, especially when linked to ethics or personal values. Consumers with strong ethical consumption attitudes tend to act accordingly, even without social pressure [5]. A positive attitude helps individuals maintain internal consistency, aligning actions with moral beliefs, making purchasing or boycotting an expression of moral identity. Research across industries confirms that favorable attitudes can lead to actual consumer behavior, even when market barriers like price, availability, or information are less than ideal [42, 43]. This is especially evident in emerging economies, where socially conscious consumers often act for the common good [14]. Attitudes influence intentions and can directly lead to behavior when psychosocial factors are sufficiently strong.

H_3: Attitudes positively influence ethical consumer intentions.

Perceived behavioral control (PBC) indicates how much an individual believes they have the ability, resources, and conditions to perform a behavior. In ethical consumption, PBC is crucial because ethical actions often involve higher costs, longer search times, and assessing product transparency [3]. When consumers feel capable, their intention to buy ethical products rises significantly. Many empirical studies confirm that PBC is a vital predictor of ethical consumption intention [20, 43]. Consumers with high PBCs generally feel confident in differentiating ethical from unethical products, are willing to pay for sustainability, and believe their actions have a significant impact [44]. Conversely, low perceived behavioral control (PBC) weakens intention even with favorable attitudes and subjective norms. PBC influences both intention and behavior, particularly in efforts or high-barrier actions. According to the Theory of Planned Behavior, high PBC increases the likelihood that intentions will translate into actual behavior [38]. In ethical consumption, consumers feel they have sufficient financial capacity, information, and skills to select products that align with their ethical values [42]. Studies indicate that PBC influences the capacity to overcome barriers such as price, availability, or information ambiguity, which often impede ethical consumer behavior [34]. In e-commerce, PBC is crucial when ethical consumption relies on consumers' ability to search, compare, and verify information [20]. It functions as an "action capacity" enabling consumers to fulfill their ethical commitments effectively.

H_4: Perceived behavioral control positively influences ethical consumption intentions.

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H_5: Perceived behavioral control positively influences ethical consumption behavior.

Intention is considered the most direct and powerful precursor to actual behavior [38]. In ethical consumption, intention reflects the consumer's psychological commitment to choosing socially and environmentally responsible products. When intention is strong enough, ethical behavior is performed consistently [5]. Numerous studies demonstrate that purchase intention is a key variable predicting ethical consumer behavior across various product categories, including food, fashion, bioplastics, and e-commerce [18, 43]. Intention reflects desires and includes cognitive and emotional preparation, aiding consumers in overcoming practical barriers like high prices, lack of transparent information, or limited choices [19, 37]. Therefore, the stronger the intention, the more likely the behavior is to occur.

H6: Ethical consumer intention has a positive influence on ethical consumer behavior.

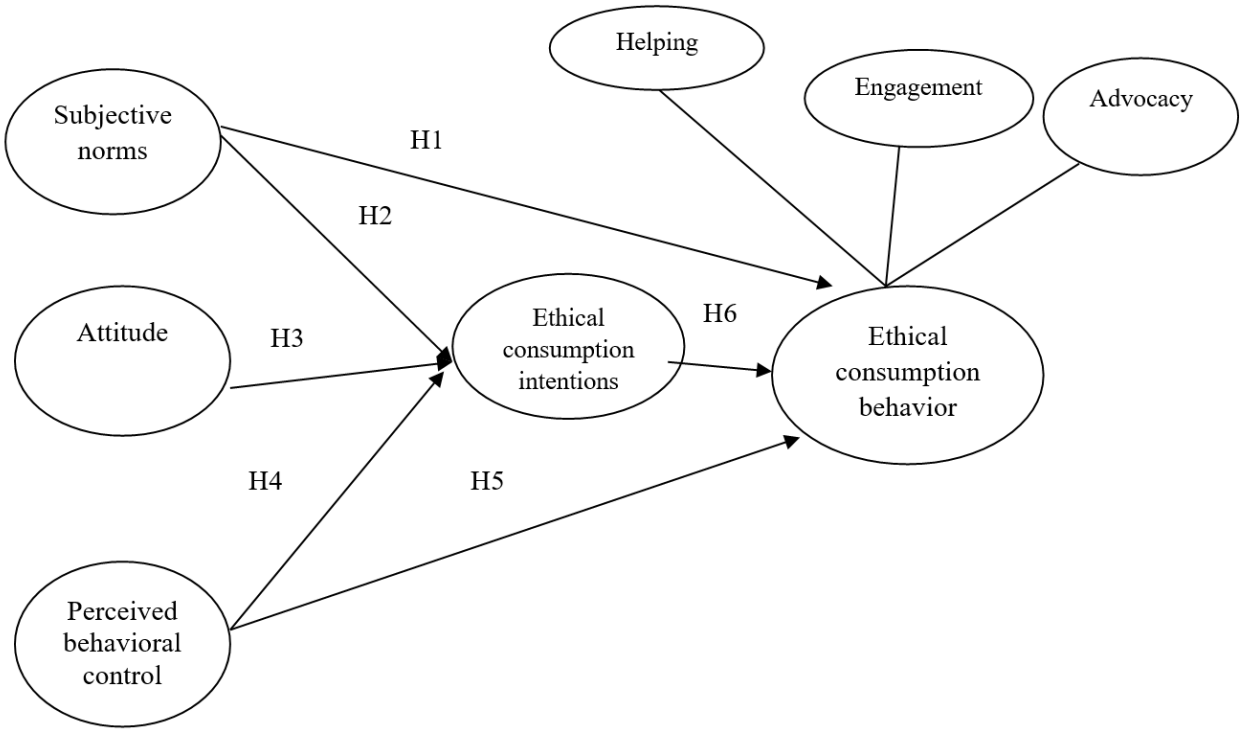

Figure 1.
Initial proposed research model.

3. Research Methods

3.1. Data and Sampling Methods

The study employed a multi-stage quantitative analysis to ensure the reliability and validity of the scale and the appropriateness of the research model. Initially, a preliminary reliability test was conducted using Cronbach's Alpha with 103 observations to assess internal consistency and eliminate unsuitable variables. According to Hair et al. [45] and Hair et al. [46], scales with a Cronbach's Alpha above 0.7 are deemed reliable for further analysis. A larger dataset of 306 observations was then used for Exploratory Factor Analysis (EFA) to examine the underlying structure of the scales and test the unidimensionality of the research constructs. The EFA not only refined the scale but also identified a new factor related to the ethical aspect of consumer behavior, tentatively labeled as NEWF (Ethics). The identification of new factors through EFA is appropriate when expanding theoretical models, especially when the conceptual framework has not been fully tested within the specific research context [46].

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After completing the scale, the study utilized a formal dataset of 411 observations to perform Confirmatory Factor Analysis (CFA) and retesting of Exploratory Factor Analysis (EFA). This process aimed to confirm the scale structure and evaluate the measurement model's suitability. Model fit indices, composite reliability (CR), and average variance extracted (AVE) were employed to assess convergent validity and reliability, following the thresholds recommended by Hair et al. [45] and Hair et al. [46]. Based on the validated measurement model, the study applied structural equation modeling (SEM) to test the hypothesized relationships within the research framework. Regarding data collection, a quota sampling method was used, targeting individuals shopping at supermarkets across several provinces and cities in the Mekong Delta, including An Giang, Dong Thap, Can Tho, and Vinh Long. This approach ensured sample diversity and enhanced the representativeness of consumer behavior in the context of modern retail in the region.

Table 1.
Summarizes the study sample.

Variable	Category	Sample 1 (n = 103)	Sample 2 (n = 306)	Sample 3 (n = 411)
Gender	Male	55 (53.4%)	145 (47.4%)	203 (49.4%)
	Female	48 (46.6%)	161 (52.6%)	208 (50.6%)
Age	Under 25 years	23 (22.3%)	67 (21.9%)	86 (20.9%)
	25–30 years	28 (27.2%)	80 (26.1%)	113 (27.5%)
	30–40 years	26 (25.2%)	78 (25.5%)	98 (23.8%)
	Over 40 years	26 (25.2%)	81 (26.5%)	114 (27.7%)
Income	Under 12 million	28 (27.2%)	75 (24.5%)	102 (24.8%)
	12–15 million	23 (22.3%)	87 (28.4%)	116 (28.2%)
	15–20 million	31 (30.1%)	71 (23.2%)	93 (22.6%)
	Over 20 million	21 (20.4%)	73 (23.9%)	100 (24.3%)
Education	High school or below	21 (20.4%)	93 (30.4%)	154 (37.5%)
	Intermediate	25 (24.3%)	84 (27.5%)	97 (23.6%)
	College	26 (25.2%)	71 (23.2%)	81 (19.7%)
	University degree or higher	31 (30.1%)	58 (19.0%)	79 (19.2%)

3.2. Measurement

In this study, a 5-point Likert scale measured consumer agreement with statements on ethical behavior. The observed variables were adapted from reputable prior research, ensuring theoretical consistency and relevance to Vietnam's context. Using a 5-point Likert scale enhances data sensitivity and supports detailed quantitative analysis in later stages [46]. The initial research model included seven first-order concepts: Attitude (ATTI), Subjective Norm (SUBJ), Perceived Behavioral Control (BECO), Ethical Consumption Intention (INTE), and Ethical Consumption Behavior. Ethical consumer behavior is viewed as a multidimensional structure with three sub-components: Engagement (ENGA), Support (HELP), and Referral (ADVO), building upon the studies of Yi et al. [47], Groth [48], Seo et al. [49], and Yoon [7]. During the exploratory factor analysis (EFA), the initial scale structure underwent significant adjustments. Several observed variables related to ethical consumer behavior converged into a new group of factors, better reflecting consumers' ethical and sustainable perceptions and actions. Consequently, the study identified a new factor, named NEWF (Ethics/Sustainability Orientation). This factor signifies consumers' long-term commitment to responsible consumption, including beliefs in sustainability, environmental concern, demand for corporate transparency, and intentions to support ethical businesses. After adjustments, the measurement model comprises eight concepts, with ethical consumer behavior reorganized into clearer, more stable sub-components. These changes not only align with empirical data but also support modern theoretical perspectives on ethical consumer behavior, highlighting the importance of ethical and sustainability orientation as an independent construct within the model [7, 46].

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Table 2.
Scales for research concepts.

Construct	Code	Item	Measurement statement	Source
Attitude	ATT	ATTI1	Purchasing products from ethical companies benefits people and communities	Berki-Kiss and Menrad [50]
		ATTI2	Buying green products is a positive, beneficial action for the environment	
		ATTI3	Using products from sustainable companies benefits society and the environment effectively	
Subjective Norm	SUBJ	SUBJ1	Family and friends support my purchase of ethical products	Berki-Kiss and Menrad [50]
		SUBJ2	People around me expect me to choose sustainable products	
		SUBJ3	Important others believe buying ethical products is the right thing to do	
		SUBJ4	People sharing my values prefer environmentally responsible firms	
Perceived Behavioral Control	BECO	BECO1	I feel capable of purchasing ethical products	Ajzen [38]
		BECO2	I have sufficient resources to consume ethically	
		BECO3	I can control my ethical purchasing decisions	
Ethical Consumption Intention	INTE	INTE1	Willing to pay more for environmentally friendly products	Yoon [7]
		INTE2	Prefer products with minimal environmental harm	
		INTE3	Try to buy recyclable or reusable packaging	
		INTE4	Avoid products from socially irresponsible firms	
Engagement	ENGA	ENGA1	I propose solutions to ethical firms	Yi, et al. [47] and Yoon [7]
		ENGA2	I provide feedback when improvements are needed	
		ENGA3	I suggest ideas to improve product quality	
Support	HELP	HELP1	I support the policies of ethical firms	Groth [48] and Seo, et al. [49]
		HELP3	I feel close to ethical companies	
		HELP5	I trust ethical businesses	
		HELP6	I prefer products made through eco-friendly processes	
Advocacy	ADVO	ADVO1	I recommend ethical companies to others	Yi, et al. [47] and Yoon [7]
		ADVO2	I consider ethical firms when purchasing	
		ADVO3	I prefer products from ethical firms	
		ADVO5	I encourage others to use ethical products	
Ethical–Sustainability Orientation	SUST (NEWF)	SUST1	Sustainable consumption is necessary for future generations	Yoon [7]
		SUST2	I care about environmentally positive products	
		SUST3	Firms should operate transparently	
		SUST4	I will continue supporting ethical firms	

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3.3. Attitude

Consumer attitudes toward ethical consumption are defined as an individual's overall evaluation of the positive or negative aspects of purchasing products from socially and ethically responsible companies. According to Berki-Kiss and Menrad [50], Attitudes reflect an individual's beliefs and feelings about the outcomes that behavior produces for people and society. In this study, attitude is measured by three observed variables: (1) belief that purchasing products from ethically practicing businesses benefits people (ATTI1); (2) feeling that buying green products is positive and pleasant (ATTI2); and (3) belief that using products from sustainable businesses benefits society (ATTI3). These variables fully capture both the cognitive and emotional aspects of consumer attitudes toward ethical consumption.

3.4. Subjective Norms

Subjective norms indicate the degree to which individuals perceive expectations, support, or social pressure from significant others regarding ethical consumer behavior. According to Berki-Kiss and Menrad [50], subjective norms influence behavior through social expectations and environmental approval. In this study, four observed variables measured subjective norms: family and friends' support for purchasing ethical products (SUBJ1), expectations from others about choosing sustainable products (SUBJ2), belief that ethical consumption is appropriate (SUBJ3), and the tendency of like-minded individuals to prioritize environmentally friendly businesses (SUBJ4). These variables highlight the critical role of social pressure and support in shaping ethical consumer behavior.

3.5. Perceived Behavioral Control

Perceived behavioral control indicates the extent to which consumers believe they possess the ability, resources, and initiative to engage in ethical consumption. According to Ajzen [38], this is a fundamental element of the Theory of Planned Behavior (TPB), representing an individual's perception of their capacity to control their actions. This concept is assessed through three observed variables: perceived ability to purchase ethical products (BECO1), perceived sufficiency of resources for ethical consumption (BECO2), and the ability to influence ethically oriented purchasing decisions (BECO3). These variables reflect consumers' confidence and actual capacity to participate in ethical consumption.

3.6. Ethical Consumption Intention

Ethical consumption intention indicates consumers' willingness and commitment to prioritize products aligned with ethical and environmental values. According to Yoon [7], this intention directly precedes ethical consumer behavior. In this study, ethical consumer intention was assessed through four observed variables: willingness to pay a premium for environmentally friendly products (INTE1), preference for products causing less environmental harm (INTE2), selection of products with reusable or recyclable packaging (INTE3), and avoidance of products from socially irresponsible businesses (INTE4). These variables demonstrate that ethical consumer intention reflects a proactive, long-term commitment to ethical consumption behaviors.

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4. Research Results

4.1. Reliability and Validity

4.1.1. Preliminary Scale Validation

Table 3.
Preliminary Cronbach Alpha Test Results.

Construct	Code	Number of Items	Cronbach's Alpha	Item–Total Correlation (Min–Max)
Engagement	ENGA	5	0.772	0.466 – 0.608
Helping Behavior	HELP	6	0.837	0.515 – 0.751
Advocacy	ADVO	5	0.84	0.309 – 0.839
Attitude	ATTI	3	0.88	0.729 – 0.801
Subjective Norm	SUBJ	4	0.882	0.721 – 0.766
Perceived Behavioral Control	BECO	3	0.872	0.728 – 0.810
Purchase Intention	INTE	4	0.895	0.704 – 0.839

The study conducted preliminary reliability testing for scales with 30 observed variables across 7 first-order concepts, based on 103 valid observations. Among these, Participation, Referral, and Supportiveness are sub-components of ethical consumer behavior. The intrinsic reliability of the scales was evaluated using Cronbach's Alpha coefficient and item-total correlation, following the recommendations of Hair et al. [45] and Hair et al. [46]. Results showed that Cronbach's Alpha ranged from 0.848 to 0.928, all above the acceptable threshold of 0.70, indicating good to very good reliability of the scales [45]. The item-total correlation coefficients for all observed variables ranged from 0.635 to 0.903, exceeding the minimum threshold of 0.30, indicating a strong relationship between the observed variables and their respective measurement concepts [46]. Removing any observed variable did not significantly increase Cronbach's Alpha, indicating all variables contributed appropriately to the scale. No variables were removed, and all scales were retained for subsequent analyses, including exploratory factor analysis (EFA) and confirmatory factor analysis (CFA).

4.1.2. Exploratory Analysis of Ethical Consumer Behavior Scales

With a sample size of 306 observations, the study conducted reliability testing of the scales using Cronbach's Alpha coefficient. The results show that all scales achieved high reliability, with Cronbach's Alpha values ranging from 0.848 to 0.928, surpassing the acceptable threshold of 0.7 as recommended by Hair et al. [46]. Specifically, the Engagement ($\alpha = 0.904$), Perceived Support ($\alpha = 0.919$), Advocacy ($\alpha = 0.908$), and Purchase Intention ($\alpha = 0.928$) scales demonstrated very good internal consistency, indicating high stability among observed variables within the same concept. The Attitude ($\alpha = 0.848$), Subjective Norm ($\alpha = 0.887$), and Perceived Behavioral Control ($\alpha = 0.862$) scales also showed good reliability, suitable for further analysis. The adjusted variable-total correlation coefficients ranged from 0.635 to 0.903, exceeding the minimum threshold of 0.3, which indicates that the observed variables were strongly related to the total scale and no variables needed removal.

The results of the Exploratory Factor Analysis (EFA) indicated that the data was suitable for factor analysis, as all Kaiser–Meyer–Olkin (KMO) indices exceeded 0.5 and Bartlett's Test of Sphericity was statistically significant ($p < 0.05$), meeting criteria outlined by Hair et al. [45] and Hair et al. [46]. For the Ethical Consumer Behavior scale, the initial EFA extracted four factors accounting for 67.815% of the variance. However, the ADVO4 variable was removed due to low factor loading and convergent validity issues. After adjustment, the second EFA revealed a more stable structure, with total variance explained increasing to 70.663%. All remaining variables had factor loadings above 0.5, satisfying convergent validity standards.

The initial EFA of the research model identified eight factors from 30 observed variables, accounting for 69.227% of the variance. The ADVO4 variable was found to be unsatisfactory and was removed. The

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final EFA results showed improved model fit, with a KMO of 0.852 and a total variance explained of 70.835%. All 29 observed variables met the criteria, with none excluded. These results confirmed that the scales demonstrated convergent and discriminant validity, with a clear factor structure aligned with theoretical expectations. Consequently, the revised scales were retained for subsequent confirmatory factor analysis (CFA), in accordance with the methodological guidelines of Hair et al. [45] and Hair et al. [46].

Table 4.
Shows the exploratory EFA analysis of the scale.

Scale/Item Set	KMO	Bartlett's Sig.	Chi-square (df)	Items Entered	Factors Extracted	Total Variance Explained (%)	Items Removed	Items Retained
Ethical Consumer Behavior (ENGA, HELP, ADVO)	0.798	0.00	3825.142 (120)	16	4	67.815	1	15
Ethical Consumer Behavior (re-estimated)	0.791	0.00	3730.830 (105)	15	4	70.663	0	15
Overall EFA (30 observed variables; 7 constructs)	0.853	0.00	7147.791 (435)	30	8	69.227	1	29
Overall EFA (after refinement)	0.852	0.00	6901.515 (406)	29	8	70.835	0	29

(Source: Quantitative research results)

Table 5.
Results of scale exploration from EFA analysis.

Observed Variable	Original Construct	Extracted Factor	Factor Loading
ENGA4 → NEWF1	Engagement	NEWF	0.928
ENGA5 → NEWF2	Engagement	NEWF	0.922
HELP2 → NEWF3	Perceived Support	NEWF	0.74
HELP4 → NEWF4	Perceived Support	NEWF	0.679
ENGA1	Engagement	Engagement	0.952
ENGA2	Engagement	Engagement	0.638
ENGA3	Engagement	Engagement	0.738
HELP1	Perceived Support	Perceived Support	0.987
HELP3	Perceived Support	Perceived Support	0.906
HELP5	Perceived Support	Perceived Support	0.943
HELP6	Perceived Support	Perceived Support	0.605
ADVO1	Advocacy	Advocacy	0.715
ADVO2	Advocacy	Advocacy	0.937
ADVO3	Advocacy	Advocacy	0.762
ADVO5	Advocacy	Advocacy	0.934

The results of the exploratory factor analysis indicate that, during the evaluation of the Ethical Consumer Behavior scale, a new factor (NEWF) emerged from the initial observed variables associated with the concepts of Engagement and Perceived Support. Specifically, variables ENGA4, ENGA5, HELP2, and HELP4 strongly converged into this new factor, with factor loadings ranging from 0.679 to 0.928, surpassing the acceptable threshold of 0.50 as recommended by Hair et al. [45] and Hair et al.

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[46]. The remaining variables related to Engagement, Perceived Support, and Referral continued to load strongly onto their original factors, with high factor loadings and no significant cross-loading. This suggests that the new factor structure is stable and indicates the potential existence of a distinct latent aspect within ethical consumer behavior, separate from the original theoretical components. Consequently, the NEWF factor was retained and renamed in subsequent analysis to better reflect its conceptual nature before being subjected to confirmatory factor analysis (CFA) as recommended by Hair et al. [46]. The study employed two independent datasets to develop and validate the scale. The initial phase involved 103 observations to evaluate the reliability of Cronbach's Alpha for preliminary screening of variables. The subsequent phase included 306 observations, during which exploratory factor analysis (EFA) was performed to identify and stabilize the scale structure. Results indicated the emergence of a new factor, temporarily named "Ethics."

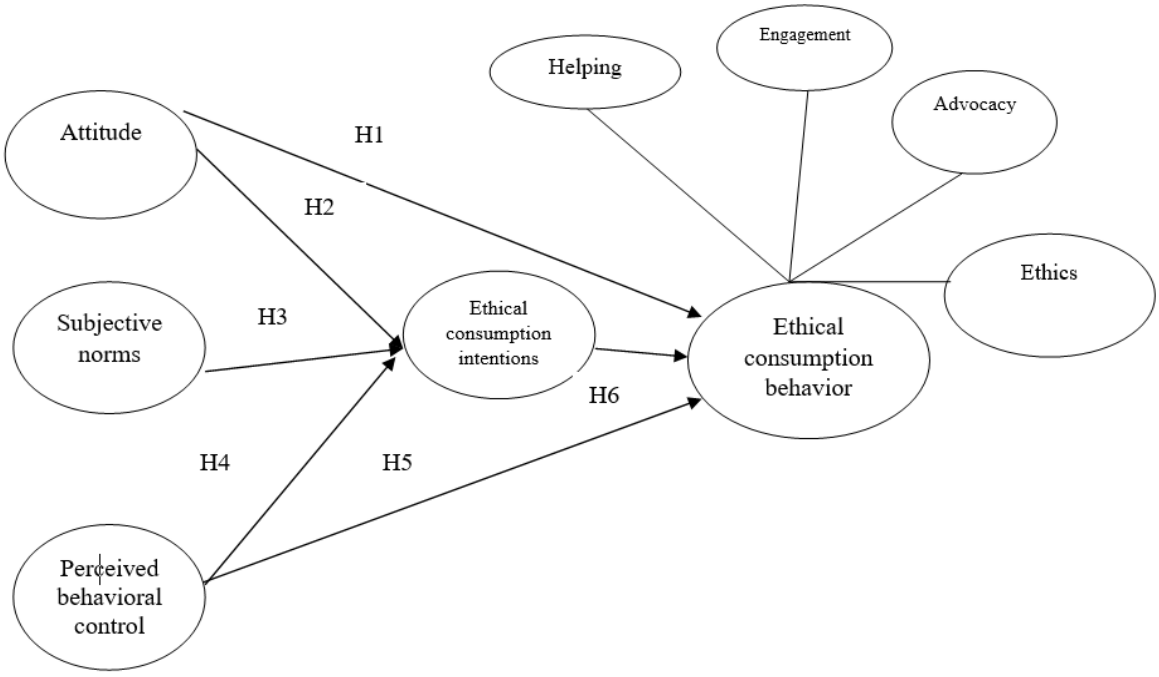

Figure 2.
Model after discovering the new factor.

4.2. Model Testing After Discovering the New Factor

The results of the confirmatory factor analysis (CFA) indicate that the measurement model fits the research data well, based on a sample of 411 observations. All fit indices met or exceeded recommended thresholds, including $\chi^2/df = 2.131$, CFI = 0.941, TLI = 0.932, and RMSEA = 0.061, demonstrating an acceptable fit between the theoretical model and empirical data.

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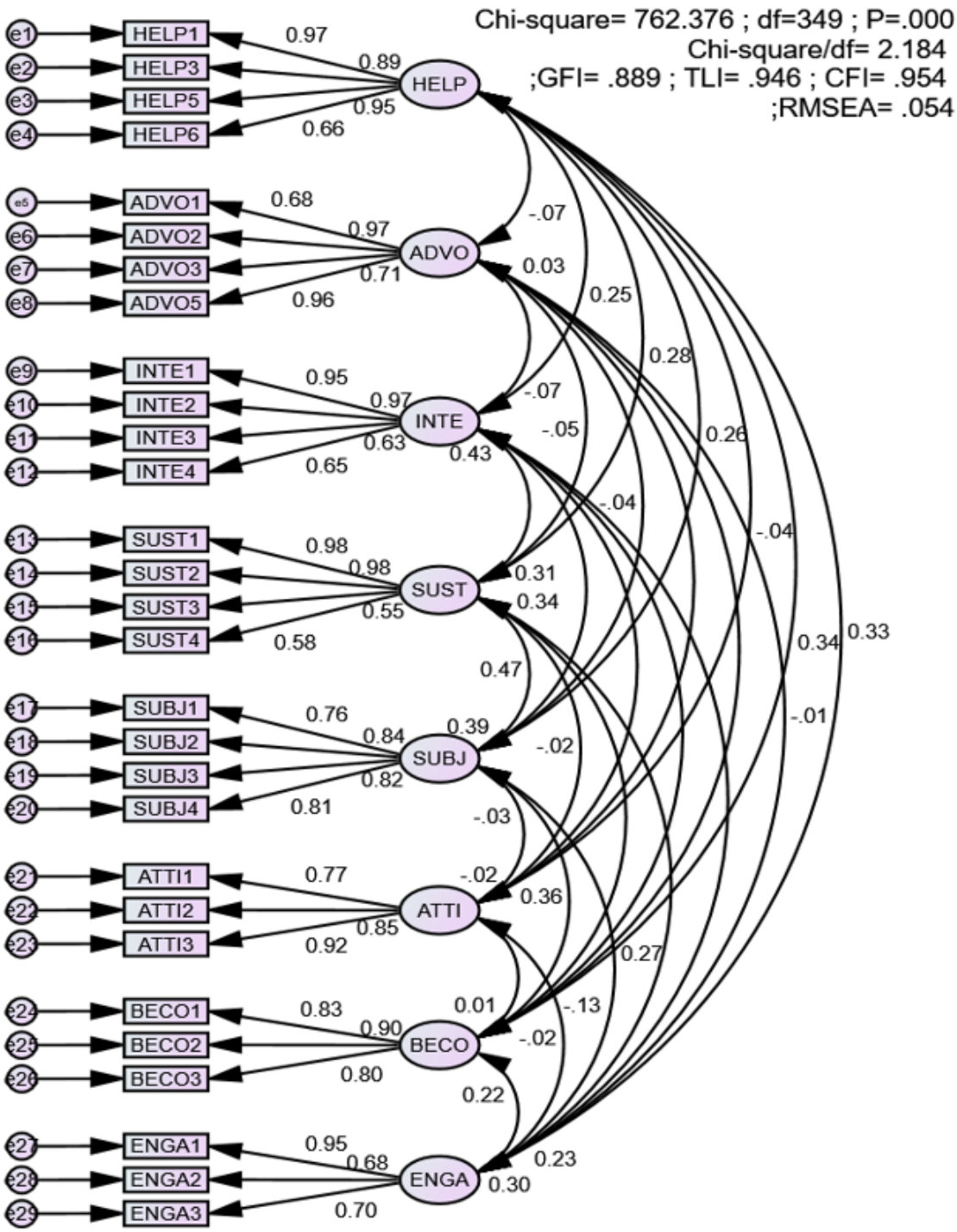

Figure 3.
Shows the overall CFA analysis model.

The standardized factor loading coefficients were all statistically significant ($p < 0.001$) and greater than 0.5, indicating that the observed variables accurately reflected their respective underlying concepts. The composite reliability (CR) of the scales ranged from 0.824 to 0.903, exceeding the recommended

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threshold of 0.70, while the average extracted variance (AVE) ranged from 0.615 to 0.720, above the 0.50 threshold, confirming convergent validity. The new SUST factor "Ethics" identified in the EFA was further validated in the CFA with satisfactory CR and AVE values. Consequently, the final measurement model is accepted and ready for structural analysis in subsequent steps.

Table 6.
CFA Analysis Parameters.

Construct	CR	AVE	Standardized Loading Range	Min Loading Item	Max Loading Item
Perceived Behavioral Control	0.879	0.708	0.800 – 0.899	BECO3 (0.800)	BECO2 (0.899)
Perceived Support	0.88	0.714	0.670 – 0.965	HELP6 (0.670)	HELP1 (0.965)
Advocacy	0.903	0.706	0.668 – 0.965	ADVO1 (0.668)	ADVO2 (0.965)
Purchase Intention	0.884	0.665	0.650 – 0.975	INTE3 (0.650)	INTE2 (0.975)
Ethic	0.87	0.641	0.596 – 0.970	SUST4 (0.596)	SUST2 (0.970)
Subjective Norm	0.881	0.65	0.777 – 0.837	SUBJ1 (0.777)	SUBJ2 (0.837)
Attitude	0.885	0.72	0.782 – 0.894	ATTI1 (0.782)	ATTI3 (0.894)
Engagement	0.824	0.615	0.677 – 0.955	ENGA2 (0.677)	ENGA1 (0.955)

The results of the structural equation modeling (SEM) analysis on a sample of 411 observations indicated an acceptable fit with the data. Fit indices such as CFI = 0.916, TLI = 0.903, and RMSEA = 0.072 were within recommended thresholds. Subjective norm (SUBJ) and perceived behavioral control (BECO) had positive, significant effects on purchase intention (INTE), whereas attitude (ATTI) showed no significant influence.

Simultaneously, BECO and SUBJ also had a direct positive impact on ethical consumer behavior (ETCO). Notably, the new factor SUST ("Ethics") was further confirmed as a significant component in the quadratic structure of ETCO. Hypothesis testing results showed that four out of six hypotheses were supported. Specifically, subjective norms and perceived behavioral controls had a positive and statistically significant impact on purchase intention, while attitudes showed no significant influence. Furthermore, subjective norms and perceived behavioral controls also had a direct positive impact on ethical consumer behavior, but the relationship between purchase intention and ethical consumer behavior was not confirmed.

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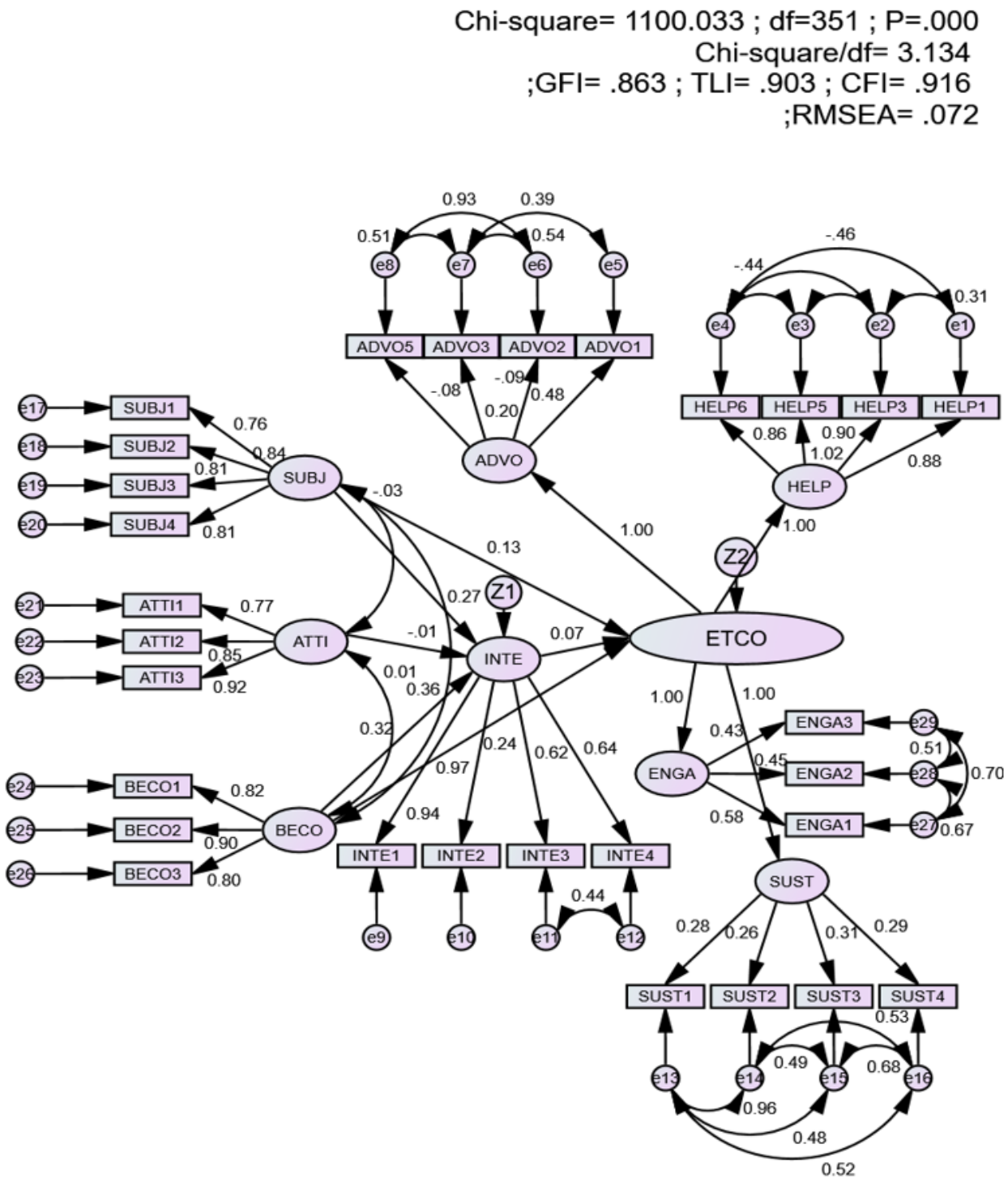

Figure 4.
SEM model analysis.

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Table 7.
Results of hypothesis testing.

Hypotheses	Standardized Estimate	C.R.	S.E.	p-value	Result
Subjective norms positively influence ethical consumption intentions.	0.273	5.114	.078	0 .000	Supported
Attitude positively influences ethical consumption intentions.	−0.014	−0.289	.076	0.772	Not supported
Perceived behavioral control positively influences intentions for ethical consumption.	0.324	6.104	.078	0 .001	Supported
Ethical consumption intention positively influences ethical consumer behavior.	0.074	1.42	.031	0.155	Not supported
Subjective norms positively influence ethical consumer behavior.	0.129	2.411	.046	0.016	Supported
Perceived behavioral control positively influences ethical consumer behavior.	0.237	4.291	.048	0 .001	Supported

The study results show that subjective norms have a positive and statistically significant impact on ethical consumption intentions ($\beta = 0.273$; $p < 0.001$), while attitudes do not significantly affect this intention ($\beta = -0.014$; $p = 0.772$). Conversely, perceptions of behavioral control play a significant role, positively and strongly impacting ethical consumption intentions ($\beta = 0.324$; $p < 0.001$). However, ethical consumption intentions do not significantly affect ethical consumption behavior ($\beta = 0.074$; $p = 0.155$), indicating the existence of a gap between intention and behavior. Furthermore, subjective norms ($\beta = 0.129$; $p = 0.016$) and perceived behavioral control ($\beta = 0.237$; $p < 0.001$) both had a positive and statistically significant impact on ethical consumer behavior, confirming the crucial role of social factors and the ability to control behavior in promoting ethical consumer behavior

5. Conclusions and Discussions

5.1. Discussion of Research Results

Based on empirical results, this study demonstrates that the scale of ethical consumer behavior developed for the retail context in the Mekong Delta exhibits high reliability and conceptual validity, confirming its appropriateness for application in emerging markets. The identification of a new factor related to ethics and sustainability indicates that ethical consumer behavior is not merely a series of sporadic purchasing actions but is driven by a stable, long-term value system. The findings from the linear structural model reveal that subjective norms and perceived behavioral control positively and significantly influence both ethical consumer intentions and behaviors, emphasizing the importance of social influence and consumers' perceived capacity to act within the local environment. Conversely, attitudes toward ethical consumption did not significantly impact intentions, and ethical consumption intentions did not necessarily lead to actual behavior, providing empirical evidence of the common intention-behavior gap. This suggests that in the Mekong Delta, ethical buying behavior is more heavily influenced by social norms and contextual factors than by personal judgment or desire. Overall, the research enhances the explanatory power of the Theory of Planned Behavior within emerging markets and broadens the theoretical framework by emphasizing the central role of ethical orientation, specifically sustainability, as a core construct governing ethical consumption behavior among retail consumers in the region.

5.2. Limitations and Future Research Directions

Despite contributing to theory and methodology, this study has limitations affecting the interpretation. Data collection used a cross-sectional design and relied on self-reports from consumers, which may introduce perceptual biases and responses influenced by social norms, especially concerning ethically sensitive behaviors. The survey primarily targeted consumers shopping at supermarkets in specific localities within the Mekong Delta, limiting the generalizability of findings to other retail

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channels or socio-economic regions. Additionally, the newly identified factor related to ethical and sustainable orientation was validated only within this specific context. Further research is necessary to assess the scale's stability, repeatability, and comparability across different cultural and market environments.

Given these limitations, future research could expand the model by including psychological and emotional factors, consumer habits, digital media influence, and situational shopping characteristics, which significantly impact ethical consumer behavior but are not yet considered. Employing a longitudinal research design to track changes in intentions and behaviors over time will clarify formation mechanisms and reduce the gap between ethical consumer intentions and actions. Combining quantitative and qualitative methods is expected to provide deeper insights into how ethical values and sustainability orientations translate into actual purchasing behavior. This approach will also help refine measurement scales and broaden the theoretical framework of ethical consumer behavior, especially in developing economies.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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References

[1] O. Akintimehin, I. Phau, R. Ogbechie, and A. Oniku, "Investigating boycotts and buycotts as antecedents towards attitude and intention to engage in ethical consumption," *International Journal of Ethics and Systems*, vol. 38, no. 4, pp. 661-681, 2022. https://doi.org/10.1108/IJOES-06-2021-0117

[2] K. H. Brunk and C. Blümelhuber, "One strike and you're out: Qualitative insights into the formation of consumers' ethical company or brand perceptions," *Journal of Business Research*, vol. 64, no. 2, pp. 134-141, 2011. https://doi.org/10.1016/j.jbusres.2010.02.009

[3] I. A. Davies and S. Gutsche, "Consumer motivations for mainstream "ethical" consumption," *European Journal of Marketing*, vol. 50, no. 7/8, pp. 1326-1347, 2016. https://doi.org/10.1108/EJM-11-2015-0795

[4] A. G. Andrei, P. Gazzola, A. Zbuchea, and V. A. Alexandru, "Modeling socially responsible consumption and the need for uniqueness: A PLS-SEM approach," *Kybernetes*, vol. 46, no. 8, pp. 1325-1340, 2017. https://doi.org/10.1108/K-03-2017-0103

[5] M. J. Carrington, B. Neville, and R. Canniford, "Unmanageable multiplicity: Consumer transformation towards moral self coherence," *European Journal of Marketing*, vol. 49, no. 7/8, pp. 1300-1325, 2015. https://doi.org/10.1108/EJM-06-2014-0379

[6] L. Zollo, S. Yoon, R. Rialti, and C. Ciappei, "Ethical consumption and consumers' decision making: The role of moral intuition," *Management Decision*, vol. 56, no. 3, pp. 692-710, 2018. https://doi.org/10.1108/MD-10-2016-0745

[7] S. Yoon, "Testing the effects of reciprocal norm and network traits on ethical consumption behavior," *Asia Pacific Journal of Marketing and Logistics*, vol. 32, no. 7, pp. 1611-1628, 2020. https://doi.org/10.1108/APJML-08-2017-0193

[8] O. Johnson and V. Chattaraman, "Signaling socially responsible consumption among millennials: An identity-based perspective," *Social Responsibility Journal*, vol. 17, no. 1, pp. 87-105, 2021. https://doi.org/10.1108/SRJ-02-2019-0074

[9] W. Nadeem, M. Juntunen, F. Shirazi, and N. Hajli, "Consumers' value co-creation in sharing economy: The role of social support, consumers' ethical perceptions and relationship quality," *Technological Forecasting and Social Change*, vol. 151, p. 119786, 2020. https://doi.org/10.1016/j.techfore.2019.119786

[10] J. G. Carrier, *Think locally, act globally: The political economy of ethical consumption. In G. De Neve, P. Luetchford, J. Pratt, & D. C. Wood (Eds.), Hidden hands in the market: Ethnographies of fair trade, ethical consumption, and corporate social responsibility*. Bingley, UK: Emerald Group Publishing, 2008.

[11] S. Ghvanidze, N. Velikova, T. H. Dodd, and W. Oldewage-Theron, "Consumers' environmental and ethical consciousness and the use of the related food products information: The role of perceived consumer effectiveness," *Appetite*, vol. 107, pp. 311-322, 2016. https://doi.org/10.1016/j.appet.2016.08.097

[12] A. Delistavrou, H. Katrandjiev, H. Sadeh, and I. Tilikidou, "Exploring ethical consumption in different geographical places," *EuroMed Journal of Business*, vol. 14, no. 3, pp. 221-238, 2019. https://doi.org/10.1108/EMJB-10-2018-0059

[13] H. B. B. Doyduk, *Business ethics, marketing ethics, consumer ethics, sustainable consumption and corporate social responsibility in Turkey. In S. Ozturkcan & E. Y. Okan (Eds.), Marketing management in Turkey*. Bingley, UK: Emerald Publishing, 2018.

[14] M. Gandhi and N. Kaushik, "Socially responsive consumption behaviour–an Indian perspective," *Social Responsibility Journal*, vol. 12, no. 1, pp. 85-102, 2016. https://doi.org/10.1108/SRJ-08-2014-0110

[15] L. E. Villa Castaño, J. Perdomo-Ortiz, W. F. Durán León, S. Dueñas Ocampo, and F. G. Arredondo Trapero, "Measuring socially responsible consumption: A study of Colombia–Mexico," *Academia Revista Latinoamericana de Administración*, vol. 31, no. 3, pp. 553-568, 2018. https://doi.org/10.1108/ARLA-12-2016-0356

[16] L. K. Lades, "Impulsive consumption and reflexive thought: Nudging ethical consumer behavior," *Journal of Economic Psychology*, vol. 41, pp. 114-128, 2014. https://doi.org/10.1016/j.joep.2013.01.003

[17] X. Deng, "Understanding Chinese consumers' ethical purchasing decision-making process: A combination of qualitative and quantitative study," *Geoforum*, vol. 67, pp. 204-213, 2015. https://doi.org/10.1016/j.geoforum.2015.03.018

[18] A. Oke, J. Ladas, and M. Bailey, "Ethical consumers: an exploratory investigation of the ethical food consumption behaviour of young adults in the North East of Scotland," *British Food Journal*, vol. 122, no. 11, pp. 3623-3638, 2020.

[19] M. Ertz, F. Durif, A. Lecompte, and C. Boivin, "Does "sharing" mean "socially responsible consuming"? Exploration of the relationship between collaborative consumption and socially responsible consumption," *Journal of Consumer Marketing*, vol. 35, no. 4, pp. 392-402, 2018. https://doi.org/10.1108/JCM-09-2016-1941

[20] E. Wang, N. An, X. Geng, Z. Gao, and E. Kiprop, "Willingness to pay for ethical consumption initiatives," *Journal of Integrative Agriculture*, vol. 20, no. 4, pp. 1012–1020, 2021.

[21] S. Goswami, "Ethics as a dynamic social process in emerging economies," *Journal of Business Ethics*, vol. 202, no. 4, pp. 789–805, 2025.

[22] N. Guimarães-Costa, A. Oliveira, and A. Veloso, "Ethical decision-making in organizations," *Journal of Business Ethics*, vol. 120, no. 3, pp. 349–361, 2014.

[23] A. Lindblom, T. Lindblom, and H. Wechtler, "Ethical leadership and employee outcomes," *Journal of Business Ethics*, vol. 130, no. 3, pp. 705–720, 2015.

[24] S. McCartney, "Ethics and sustainable organizational development," *Business Ethics Quarterly*, vol. 25, no. 3, pp. 421–435, 2015.

[25] J.-H. Ryu, J.-H. Lee, and S.-L. Kang, "Non-stationary temperature extremes in South Korea: An extreme value analysis of global warming impacts," *Atmospheric Research*, p. 108388, 2025. https://doi.org/10.1016/j.atmosres.2025.108388

[26] A. Mohammed, A. Al-Swidi, and S. M. Rafiul Huque, "Ethical consumption and consumer motivation," *Journal of Retailing and Consumer Services*, vol. 67, p. 102986, 2022.

[27] A. Junaidi, U. Salim, and Rofiaty, "Consumer decision-making models in ethical consumption," *Journal of Consumer Behaviour*, vol. 21, no. 3, pp. 495–509, 2022.

[28] T. M. Daly, J. W. Hohmann, and T. W. Sloan, "Consumer decision making and ethical behavior," *Journal of Consumer Behaviour*, vol. 2, no. 2, pp. 98–111, 2003.

[29] A. M. Puteri and N. M. Suki, "Cost–benefit evaluation in ethical consumption," *Journal of Consumer Behaviour*, vol. 21, no. 1, pp. 101–114, 2022.

[30] M. Ertz, "Toward an integrative framework for ethical consumption," *Journal of Consumer Behaviour*, vol. 15, no. 6, pp. 559–572, 2016.

[31] S. Elhoushy and M. A. Ribeiro, "Socially responsible consumers and stockpiling during crises: the intersection of personal norms and fear," *Social Responsibility Journal*, vol. 20, no. 1, pp. 180-203, 2024. https://doi.org/10.1108/SRJ-01-2023-0011

[32] M. A. Long and D. L. Murray, *Consumer convergence and collective motivations for purchasing ethical products. In Alternative agrifood movements*. Bingley, UK: Emerald Group Publishing, 2014.

[33] J.-F. Toti and A. M. Sánchez Romero, "Understanding how ethical claims in advertising affect subjective ambivalence toward buying ethical products," *European Journal of Marketing*, vol. 57, no. 12, pp. 3125-3161, 2023. https://doi.org/10.1108/EJM-11-2020-0831

[34] M. Yu, D. Cao, and J. Y. Tan, "CSR-consumption paradox: Examination of UK apparel companies," *Journal of Fashion Marketing and Management: An International Journal*, vol. 23, no. 1, pp. 124-137, 2019. https://doi.org/10.1108/JFMM-02-2018-0021

[35] K. White, R. Habib, and D. J. Hardisty, "How to SHIFT consumer behaviors to be more sustainable: A literature review and guiding framework," *Journal of Marketing*, vol. 83, no. 3, pp. 22-49, 2019. https://doi.org/10.1177/0022242919825649

[36] J. Kang, C. Liu, and S. H. Kim, "Environmentally sustainable textile and apparel consumption: The role of consumer knowledge, perceived consumer effectiveness and perceived personal relevance," *International Journal of consumer studies*, vol. 37, no. 4, pp. 442-452, 2013. https://doi.org/10.1111/ijcs.12013

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 10, No. 1: 1063-1080, 2026
DOI: 10.55214/2576-8484.v10i1.11842

[37] K. Sharif, "Investigating the key determinants of Muslim ethical consumption behaviour amongst affluent Qataris," *Journal of Islamic Marketing*, vol. 7, no. 3, pp. 303-330, 2016. https://doi.org/10.1108/JIMA-01-2015-0001

[38] I. Ajzen, "The theory of planned behavior," *Organizational Behavior and Human Decision Processes*, vol. 50, no. 2, pp. 179-211, 1991. https://doi.org/10.1016/0749-5978(91)90020-T

[39] P. C. Stern, T. Dietz, T. Abel, G. A. Guagnano, and L. Kalof, "A value-belief-norm theory of support for social movements: The case of environmentalism," *Human Ecology Review*, vol. 6, no. 2, pp. 81-97, 1999.

[40] K. Aquino and A. Reed II, "The self-importance of moral identity," *Journal of personality and social psychology*, vol. 83, no. 6, pp. 1423–1440, 2002. https://doi.org/10.1037/0022-3514.83.6.1423

[41] S. Sharma and G. Singh, "Exploring consumers' social media engagement in addressing plastic pollution," *Social Responsibility Journal*, vol. 20, no. 5, pp. 898-918, 2024. https://doi.org/10.1108/SRJ-12-2022-0530

[42] J. E. Ha-Brookshire and P. S. Norum, "Willingness to pay for socially responsible products: case of cotton apparel," *Journal of consumer Marketing*, vol. 28, no. 5, pp. 344-353, 2011. https://doi.org/10.1108/07363761111149992

[43] N. T. K. Chi, "Ethical consumption behavior towards eco-friendly plastic products: Implication for cleaner production," *Cleaner and Responsible Consumption*, vol. 5, p. 100055, 2022. https://doi.org/10.1016/j.clrc.2022.100055

[44] O. Ogiemwonyi and M. T. Jan, "The correlative influence of consumer ethical beliefs, environmental ethics, and moral obligation on green consumption behavior," *Resources, Conservation & Recycling Advances*, vol. 19, p. 200171, 2023. https://doi.org/10.1016/j.rcradv.2023.200171

[45] J. F. Hair, W. C. Black, B. J. Babin, and R. E. Anderson, *Multivariate data analysis*, 7th ed. Upper Saddle River, NJ: Pearson, 2010.

[46] J. F. Hair, W. C. Black, B. J. Babin, and R. E. Anderson, *Multivariate data analysis*, 8th ed. Boston, MA: Cengage Learning, 2019.

[47] Y. Yi, T. Gong, and J. Yu, "Impact of exchange relationship between service organization and customers on customer citizenship behavior," *Korean Studies of Business Administration*, vol. 33, no. 6, pp. 1810-1845, 2004.

[48] M. Groth, "Customers as good soldiers: Examining citizenship behaviors in internet service deliveries," *Journal of Management*, vol. 31, no. 1, pp. 7-27, 2005. https://doi.org/10.1177/0149206304271375

[49] M. Seo, S. Cheon, and J. Ahn, "A study on the role of technological, functional customers on customer engagement behavior and citizenship behavior"," *Journal of Korean Marketing Association*, vol. 14, no. 4, pp. 91-126, 2009.

[50] D. Berki-Kiss and K. Menrad, "The role of perceived consumer effectiveness and trust in ethical food consumption," *British Food Journal*, vol. 124, no. 3, pp. 864–883, 2022.

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 10, No. 1: 1063-1080, 2026
DOI: 10.55214/2576-8484.v10i1.11842