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STRUCTURAL EQUATION MODELING OF FACTORS INFLUENCING CONSUMER ETHICAL DECISION- MAKING BASED ON RESPONSIBLE CONSUMPTION AND PRODUCTION CONCEPTS (UN SDG 12)

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ABSTRACT

The study aimed to examine the causal relationships among factors influencing consumer ethical decision-making based on responsible consumption and production concepts (UN SDG 12). These factors consisted of Environmental, Social and Governance (ESG) Perception (X1), Service Marketing Mix (SMM, X2), and Consumer Ethical Decision-Making (Y), mediated by the Value-Attitude-Behavior (VAB) Concept (Z). The samples used in this study were 356 respondents who are consumers and customers of the selected Thai business companies. The research questionnaire was used as a tool to collect data. A Confirmatory Factor Analysis (CFA) was used to validate the three latent constructs, demonstrating high reliability (factor loadings ≥ 0.70 , AVE ≥ 0.5 , CR ≥ 0.70). The results of Structural Equation Modeling Analysis confirmed that the proposed model demonstrated an excellent fit with the empirical data ($\chi^2 = 100.646$; $df = 98$; $p = 0.408$; $\chi^2/df = 1.027$; GFI = 0.916; CFI = 0.993; TLI = 0.991; RMSEA = 0.016; RMR = 0.013), ensuring statistical robustness. The SEM analysis demonstrated that both ESG Perception ($\beta = 0.412$) and Service Marketing Mix ($\beta = 0.821$) had a positive effect on the Value-Attitude-Behavior (VAB) Concept (Z), whereas the VAB Concept had a positive effect on Consumer Ethical Decision-Making ($\beta = 0.472$). Furthermore, both ESG perception and SMM had significant direct impacts on Consumer Ethical Decision-Making ($\beta = 0.285$ and 0.748) respectively. The indirect effects of ESG perception and SMM through the VAB Concept (Z) were also significant ($\beta = 0.194$ and 0.387), confirming that the VAB Concept mediates the relationship between ESG Perception, SMM and Consumer Ethical Decision-Making. The findings support and extend Stakeholder Theory, Theory of Planned Behavior, and the Value-Attitude-Behavior (VAB) Concept, revealing that consumers internalize organizational ESG values and express them through ethical decision-making.

KEYWORDS: ESG Perception, Service Marketing Mix, Value-Attitude-Behavior, Ethical Decision-Making, Responsible Consumption and Production (UN SDG 12).

1. INTRODUCTION

In the contemporary business landscape, sustainability has become a defining paradigm that governs how organizations operate, communicate, and interact with their stakeholders. The growing urgency of climate change, social inequality, and corporate governance crises has reshaped global expectations regarding corporate accountability. As a result, Environmental, Social, and Governance (ESG) principles have emerged as a universal benchmark for assessing ethical responsibility and sustainable performance (Ardito *et al.*, 2021). In parallel, the Service Marketing Mix (SMM)-traditionally consisting of seven components: product, price, place, promotion, people, process, and physical evidence-has evolved from a transactional marketing framework into an ethical and experiential system that integrates sustainability into every dimension of service delivery (Kotler *et al.*, 2021).

Today's consumers are no longer motivated solely by functional benefits or price considerations. Instead, they increasingly expect brands to demonstrate authenticity, social responsibility, and transparent governance (White *et al.*, 2020). The psychological foundation of this Behavioral transformation can be understood through the Value-Attitude-Behavior (VAB) Concept, which suggests that individuals' underlying values influence their attitudes and consequently shape their Behavioral choices (Homer & Kahle, 1988). In sustainable contexts, consumers internalize moral values such as fairness, compassion, and ecological responsibility, which in turn influence their attitudes toward ethical brands and their purchasing Behaviors (Kim *et al.*, 2022).

The intersection of ESG principles, Service Marketing Mix, and consumer moral cognition form a complex and dynamic system that governs decision-making behavior in the modern marketplace. Understanding these interrelationships has become essential for organizations seeking to align their business operations with stakeholder expectations and for scholars aiming to conceptualize the psychological mechanisms underlying ethical consumption.

In Thailand, the concept of ESG has gained increasing importance, aligning with the country's Bio-Circular-Green (BCG) Economy Model, which aims to drive economic growth through innovation and sustainability (Thailand Board of Investment, 2023). Thai service organizations-particularly in hospitality, banking, and retail sectors-have begun integrating SMM-ESG frameworks into their operational strategies to enhance reputation and consumer trust. Meanwhile, Thai consumers,

especially younger generations, demonstrate heightened sensitivity to ethical, social, and environmental issues (Chanchochai, 2024). They perceive ethical purchasing not only as a matter of preference but as a reflection of their moral and social identity. This cultural trend, influenced by Buddhist virtue ethics, emphasizes loving kindness, compassion, right livelihood, unity, harmony and peace as guiding principles of economic behavior (Sattayanurak, 2022).

Despite this global and national momentum, gaps remain in understanding how ESG perception and service marketing mechanisms jointly influence consumer ethical decision-making behavior. Existing quantitative studies have explored causal linkages through statistical models, yet few have provided a comprehensive synthesis of these relationships from theoretical and interpretive perspectives. Moreover, limited research has validated the structural dimensions of ESG perception, service marketing mix, and decision-making behaviors within a unified analytical framework. Addressing these gaps requires a systematic examination of confirmatory factors and their interconnections, offering both theoretical clarity and managerial direction. Therefore, the researchers are interested in conducting this study to examine the causal relationships among ESG perception, Service Marketing Mix (SMM), the Value-Attitude-Behavior (VAB) Concept, and Consumer Ethical Decision-Making.

2. RESEARCH OBJECTIVES

This study has the following five research objectives:

1. To validate the construct of ESG perception using Confirmatory Factor Analysis (CFA)
2. To validate the construct of Service Marketing Mix (SMM) using Confirmatory Factor Analysis (CFA)
3. To validate the construct of Value-Attitude-Behavior (VAB) Concept using Confirmatory Factor Analysis (CFA)
4. To validate the structure of Consumer Ethical Decision-making Confirmatory Factor Analysis (CFA)
5. To examine the causal relationships among ESG perception, Service Marketing Mix (SMM), Value-Attitude-Behavior (VAB) Concept, and Consumer Ethical Decision-Making

3. LITERATURE SURVEY

3.1 *Environmental, Social and Governance (ESG) Perception*

Environmental, Social, and Governance (ESG)

perception has emerged as a critical construct for evaluating organizational ethics and sustainability. In higher education and service contexts, ESG perception extends beyond a mere corporate reporting framework; it functions as a powerful institutional signal reflecting core values and moral commitments. Ambele and Boonsuk (2021) suggested that when learners perceive an institution as environmentally and socially responsible, it fosters trust-based evaluations that significantly influence cognitive and affective responses.

Recent empirical evidence reinforces the role of ESG perception as a foundational cue shaping internal value systems. Boonsuk et al. (2023) argued that sustainability practices in higher education foster ethical sensitivity and normative expectations, particularly in environments where values are continuously negotiated. Similarly, Zarrinabadi et al. (2022) demonstrated that perceptions of ethical institutional behavior activate pro-social values, which subsequently guide attitudinal judgments and behavioral intentions. These findings indicate that ESG perception operates not as a superficial assessment of image, but as a catalyst for deep moral evaluation.

In this study, ESG perception is conceptualized as an antecedent institutional-level variable essential for activating core personal values such as responsibility, fairness, and social awareness. These values form the cognitive foundation of the Value-Attitude-Behavior (VAB) mechanism, explaining how external institutional cues are internalized and transformed into ethical attitudes. Accordingly, this research posits that ESG perception exerts both direct and indirect influences on ethical consumer decision-making by shaping the internal value structures that drive subsequent attitudinal and behavioral processes.

3.2 Service Marketing Mix (SMM)

The Service Marketing Mix (SMM), operationalized through the 7Ps framework—product, price, place, promotion, people, process, and physical evidence—offers a critical lens for explaining how service strategy shapes consumer evaluation within complex environments. In higher education, students function as consumers whose judgments are formed through recurring encounters with institutional delivery. Consequently, elements such as instructional processes and learning environments act as strategic cues influencing perceived credibility and trust (Lertsukkheerat et al., 2025).

From a service-experience perspective, evaluations are significantly shaped by the quality of

interpersonal interactions. Ulla (2018) and Channuwong (2018) illustrated that sustained encounters contribute to experiential judgments, positioning "people" and "process" as central drivers of evaluation. Beyond cognitive appraisals, SMM triggers affective responses that directly influence judgment. Dewaele and Dewaele (2020) demonstrated that teacher-related aspects of service are linked to emotions like enjoyment and anxiety, suggesting SMM is an experiential structure rather than merely a set of operational features.

Moreover, consumer evaluation is influenced by identity-related perceptions and normative expectations embedded within the setting. Colmenero and Lasagabaster (2023) and Zafri et al. (2023) emphasized that contextual variables shape how individuals interpret legitimacy and appropriateness. This implies that components like promotion and physical evidence align institutional identity cues with consumer expectations. Therefore, within the Value-Attitude-Behavior (VAB) logic of the present study, SMM is conceptualized as an exogenous institutional driver that shapes consumer evaluation. By influencing these perceptions, SMM activates the value-based orientations that subsequently feed into ethical attitudes and behavioral intentions.

3.3 Value-Attitude-Behavior (VAB) Concept

The Value-Attitude-Behavior (VAB) mechanism serves as a fundamental theoretical framework for explaining how deeply held beliefs translate into specific behavioral choices. Within this hierarchical structure, values function as stable cognitive elements formed through socialization and experience. These values subsequently shape attitudes—defined as evaluative judgments—which then determine observable behaviors. This sequence is particularly pertinent for analyzing ethical decision-making, as it illustrates how internal value alignment serves as a prerequisite for attitudinal evaluations and subsequent actions (Feng et al., 2026; Bangbon et al., 2023).

In educational and service-related contexts, values such as fairness, responsibility, and sustainability operate as psychological filters through which individuals interpret their environments. These internal orientations guide attitudes toward institutional practices, linking moral evaluation to regulated decision patterns (Avarzamani & Farahian, 2019). However, this process is not ideologically neutral. Research by Flores and Rosa (2015) and Kubota (2020) suggests that value systems are shaped by broader

sociocultural narratives and structural inequalities. Consequently, perceived legitimacy and moral evaluations are influenced by deep-seated ideological pathways rather than immediate service experiences alone.

The VAB mechanism aligns seamlessly with the conceptual logic of the present study. Here, ESG perception and the Service Marketing Mix (SMM) are positioned as external institutional cues that activate consumers' internal value orientations. Once activated, these values shape ethical attitudes, which in turn drive behavioral intentions. By establishing VAB as the mediating psychological pathway, the model provides a theoretically grounded justification for how external organizational signals—such as sustainability commitments and service strategies—are cognitively processed to influence ethical consumer decision-making.

3.4 Consumer Ethical Decision-Making

Consumer ethical decision-making is defined as a complex cognitive-affective process wherein individuals evaluate the moral implications of their choices against personal and societal values. This process integrates cognitive judgments regarding fairness, responsibility, and transparency with affective responses such as trust and empathy. In educational and service contexts, this manifests as tangible behavioral choices, such as supporting socially responsible institutions or rejecting those perceived as unjust and exploitative (Dodgson, 2023; Channuwong *et al.*, 2024).

Existing research indicates that this decision-making process is predominantly driven by internalized values and evaluative attitudes rather than situational factors alone. Zarrinabadi *et al.* (2022) provided evidence that internal psychological resources and stable value structures are essential for guiding behavioral intentions, suggesting that ethical behavior emerges from internal mechanisms rather than functioning as a purely reactive response. Complementing this perspective, Boonsuk *et al.* (2023) emphasized the critical role of alignment between institutional practices and learner identities. When organizational ethics resonate with individual moral expectations, decision-making becomes a value-consistent outcome rather than a mere act of compliance.

Within the specific framework of this study, consumer ethical decision-making serves as the ultimate behavioral outcome, shaped by the interplay of ESG perception, the Service Marketing Mix (SMM), and the Value-Attitude-Behavior (VAB) mechanism. Here, ESG and SMM act as external

stimuli signaling institutional integrity, while the VAB concept represents the internal pathway through which these signals are processed. As described by Channuwong *et al.* (2025), individuals who perceive institutions as sustainable and professionally reliable are significantly more likely to demonstrate ethical behaviors, including responsible engagement and long-term commitment. Thus, ethical decision-making is conceptualized as a value-mediated response grounded in the interaction between external institutional cues and internal moral evaluation.

3.5 Research Hypotheses

Based on the literature review and integrative theoretical rationale, the following research hypotheses are proposed:

- H1: Environmental, Social and Governance (ESG) perception has a positive effect on the VAB Concept.
- H2: The Service Marketing Mix (SMM) has a positive effect on the VAB Concept.
- H3: The Value-Attitude-Behavior (VAB) Concept has a positive effect on Consumer Ethical Decision-making.
- H4: Environmental, Social and Governance (ESG) perception has a positive effect on Consumer Ethical Decision-making.
- H5: The Service Marketing Mix (SMM) has a positive effect on Consumer Ethical Decision-making.
- H6: The Value-Attitude-Behavior (VAB) Concept mediates the relationship between Environmental, Social and Governance (ESG) perception and Consumer Ethical Decision-making.
- H7: The Value-Attitude-Behavior (VAB) Concept mediates the relationship between the Service Marketing Mix (SMM) and Consumer Ethical Decision-making.

3.6 Conceptual Framework

The conceptual framework integrates four latent constructs—ESG perception, the Service Marketing Mix (SMM), the Value-Attitude-Behavior (VAB) Concept, and Consumer Ethical Decision-making—into a unified structural model. This framework explains how ethical choices emerge from the interaction between external organizational signals and internal psychological processes. Grounded in the assumption that consumers respond to both institutional practices and internalized values, the model positions ESG perception and SMM as key antecedents. ESG perception reflects evaluations of

organizational integrity, while SMM encompasses service experiences; both are hypothesized to exert direct influences on the VAB concept and ethical decision-making.

The VAB Concept serves as a critical mediator, linking these external stimuli to ethical outcomes by proposing that values shape attitudes, which in turn guide behavioral intentions. Finally, Consumer Ethical Decision-making represents the ultimate behavioral outcome, reflecting consumption choices aligned with moral principles. The model incorporates seven hypothesized pathways, testing direct effects as well as mediated effects through the VAB mechanism (Figure 1).

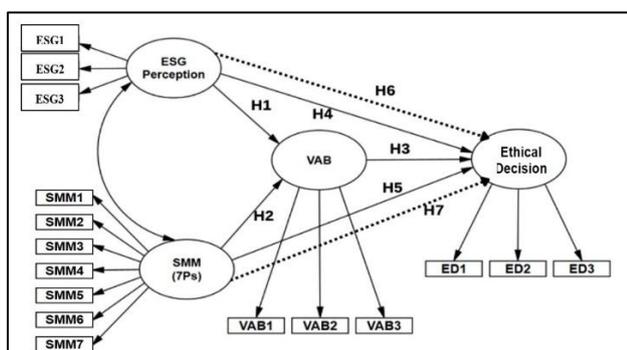


Figure 1. Research Conceptual framework

4. METHODOLOGY

This study employed a quantitative research design grounded in structural equation modeling (SEM) to examine the causal relationships among ESG perception, the service marketing mix (SMM), the value-attitude-behavior (VAB) Concept, and consumer ethical decision-making. Structural Equation Modeling (SEM) was selected because it can be used to analyze the modeling of complex latent constructs, confirm measurement reliability, and test the causal relationship among the variables. Prior research in educational and psychological sciences has emphasized the importance of using SEM to validate multi-dimensional constructs and to analyze structural relationships that cannot be tested adequately through simpler statistical methods (Creswell & Poth, 2018; McKim, 2023). This methodological approach aligns with contemporary empirical studies in language education and consumer behavior that utilize latent variable modeling to investigate perceptions, attitudes, and ethical judgement in socially embedded contexts (Dewaele & Dewaele, 2020; Colmenero & Lasagabaster, 2023).

4.1 Research Design

A cross-sectional survey design was implemented

to collect data from participants at a single point in time. This design is widely used in studies exploring attitudes, perceptions, and behavioral intentions because it allows the simultaneous examination of multiple variables within a theoretically grounded framework (Creswell & Poth, 2018). Structural Equation Modeling (SEM) was used in two sequential stages: (1) Confirmatory Factor Analysis (CFA) was used to validate the measurement model of ESG perception, SMM, VAB, and consumer ethical decision-making, and (2) Structural Equation Modeling (SEM) was used to test the hypothesized causal relationships. The CFA stage examined factor loadings, composite reliability, average variance extracted, and discriminant validity, while the structural model evaluated direct and indirect effects among the variables.

4.2 Population and Sample

The population in this study consisted of consumers and customers of True Corporation Public Company Limited, Siam Cement Group, CPF Public Company Limited and CP All Public Company Limited. These participants were selected using a purposive sampling approach. Purposeful sampling is appropriate when researchers aim to capture information-rich cases that offer insights into phenomena linked to specific experiences, perceptions, or behaviors (Palinkas et al., 2015). Given that consumer ethical decision-making is shaped by contextual exposure to organizational practices, purposive sampling ensured that participants had sufficient engagement with services where ESG practices and SMM elements were visible and relevant.

A total of 356 respondents completed the questionnaire, which exceeds the minimum recommended sample size for SEM. Prior methodological guidelines suggest that SEM models require at least 10-20 participants per parameter or an absolute minimum of 300 participants to ensure adequate statistical power and stable parameter estimates (Creswell & Poth, 2018). The sample size in this study was therefore sufficient for model estimation, enhancing the reliability and validity of the findings.

4.3 Research Instrument

The primary research instrument employed in this study was a structured questionnaire designed to assess ESG perception, the Service Marketing Mix (SMM), the Value-Attitude-Behavior (VAB) Concept, and Consumer Ethical Decision-Making. Consistent with established methodologies in educational and

behavioral research (e.g., Zarrinabadi et al., 2022; Dewaele & Dewaele, 2020), all constructs were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaire was organized into five distinct sections. Part 1 collected demographic data, while Part 2 contained 15 items assessing ESG perception—focusing on environmental responsibility, social ethics, and governance transparency—developed from prior studies by Ambele and Boonsuk (2021) and Ulla (2018).

Part 3 comprised 35 items evaluating the SMM based on the 7Ps framework (product, price, place, promotion, people, process, and physical evidence), adapted from service quality literature (Boonsuk et al., 2023). Part 4 included 15 items targeting the VAB concept, measuring internalized values, attitudes, and behavioral predispositions grounded in the theoretical work of Du et al. (2025). Finally, Part 5 consisted of 15 items capturing consumer ethical decision-making, reflecting the willingness to make morally guided choices (Colmenero & Lasagabaster, 2023).

To ensure psychometric rigor, the instrument underwent a validity check by five experts in management and real estate, yielding an Index of Item-Objective Congruence (IOC) of 0.95, indicating high content validity. Additionally, a pilot test conducted with 30 non-sample participants demonstrated excellent internal consistency, resulting in a reliability coefficient of 0.92. These measures confirm that the instrument is both valid and reliable for empirical data collection in the present study.

4.4 Data Collection Procedures

Data were collected through an online survey during October 1, 2025 to January 31, 2026. Online data collection is commonly employed in contemporary applied linguistics and education studies because it facilitates efficient distribution, preserves participant anonymity, and improves response accuracy (McKim, 2023; Dodgson, 2023). Participants were recruited through academic networks, university social media groups, and direct email invitations. Each participant was informed of the purpose of the study, voluntary participation, and confidentiality protocols, following ethical guidelines for human subject research.

To minimize response bias, the survey was designed to prevent multiple submissions and to ensure that participants read instructions carefully before responding. The dataset was screened for incomplete responses, patterned answering, and

outliers using recommended data cleaning procedures from applied quantitative research (Shenton, 2004; McKim, 2023). After removing invalid entries, 356 valid responses remained for analysis.

4.5 Data Analysis

Structural Equation Modeling (SEM) analysis was conducted using a two-step approach. First, CFA was performed to validate the measurement model. Factor loadings of .70 or higher were considered acceptable, while AVE values above .50 and CR values above .70 indicated strong convergent validity (Creswell & Poth, 2018). Discriminant validity was assessed by comparing the square root of AVE to inter-construct correlations, ensuring that each construct was conceptually distinct.

Second, structural equation modeling tested the hypothesized relationships among ESG perception, SMM, VAB, and consumer ethical decision-making. Model fit was evaluated using multiple indices including the chi-square statistic (χ^2), degrees of freedom (*df*), the ratio of chi-square to degrees of freedom (χ^2/df), Goodness of Fit Index (GFI), Normed Fit Index (NFI), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Root Mean Square Residual (RMR). Acceptable thresholds were $\chi^2/df \leq 3$, GFI, NFI, CFI, and TLI $\geq .90$, RMSEA $\leq .08$, and RMR $\leq .08$, consistent with standards used in recent language education and behavioral science research (Dewaele & Dewaele, 2020; Zarrinabadi et al., 2022).

5. RESULTS

5.1 Demographic Profile of Respondents

The demographic profile of the 356 respondents indicates a slight predominance of male participants, who constituted 55.05% of the sample, compared to 44.94% female. The age distribution reveals that the largest group fell within the 36–45 years bracket (39.60%), followed by those aged 46–55 years (19.91%) and 26–36 years (16.57%). Regarding marital status, nearly half of the participants were single (49.43%), closely followed by married individuals (42.97%), while divorced and widowed respondents represented smaller minorities.

The sample was highly educated, with the majority holding a Bachelor's degree (49.71%) and a significant proportion possessing a Master's degree (42.98%). In terms of economic status, the largest income group earned between 25,001 and 35,000 Thai Baht (46.35%), followed by the 35,001–45,000 Thai Baht bracket (26.4%). Overall, the data characterizes

the respondents as primarily middle-aged, well-educated, and earning a mid-range income, providing a representative basis for analyzing consumer ethical decision-making in the selected context. (Table 1).

Table 1 Demographic Profile of Respondents (N=356)

Profile	Category	Frequency	Percent
Gender	Male	196	55.05
	Female	160	44.94
Age	< 25 years	35	9.83
	26 - 35 years	59	16.57
	36 - 45 years	141	39.60
	46 - 55 years	71	19.94
	>56 years	49	13.76
Marital status	Single	176	49.43
	Married	153	42.97
	Divorced	14	3.93
	Widowed	12	3.37
Education	Bachelor's Degree	177	49.71
	Master's degree	153	42.98
	Doctoral Degree	26	7.90
Monthly Income	15,001 - 25,000 Thai Baht	83	23.31
	25,001 - 35,000 Thai Baht	165	46.35
	35,001 - 45,000 Thai Baht	94	26.4
	>45,000 Thai Baht	14	9.93
	Total	356	100.0

5.2 Results of Confirmatory Factor Analysis (CFA) of ESG Perception

The first objective of this study was to validate the construct structure of ESG perception. Confirmatory factor analysis (CFA) was conducted to examine whether the three observed indicators – environmental responsibility (ESG1), social responsibility (ESG2), and governance ethics (ESG3) – adequately represented the latent construct. The model was estimated using maximum likelihood estimation.

All three indicators demonstrated statistically significant factor loadings, exceeding the recommended minimum threshold of 0.70, indicating strong convergent validity. The standardized factor loading for environmental responsibility (ESG1) was 0.812, for social responsibility (ESG2) was 0.846, and for governance ethics (ESG3) was 0.879 (all $p < .001$). The Average Variance Extracted (AVE) and Composite Reliability (CR) also exceeded the acceptable cutoff values (AVE ≥ 0.50 ; CR ≥ 0.70), confirming the internal consistency and convergent validity of the construct.

Model fit indices indicated an excellent fit between the measurement model and the empirical data. The chi-square value ($\chi^2 = 1.152$, $df = 2$, $p = 0.562$) yielded a χ^2/df ratio of 0.576, well below the recommended value of 3.0. Additional fit indices demonstrated strong model adequacy: GFI = 0.984;

NFI = 0.992; TLI = 0.991; CFI = 0.996; RMSEA = 0.019; and RMR = 0.011. All indices were within the thresholds commonly used to indicate good model fit in structural equation modeling.

These findings confirm that ESG perception is a valid and reliable latent construct composed of three key dimensions: environmental responsibility, social responsibility, and governance ethics. The strong factor loadings and excellent model fit evidence indicate that the measurement model appropriately captures respondents' perceptions of ESG practices. Thus, the CFA results support the structural integrity of the ESG perception construct and affirm its suitability for inclusion in the subsequent structural model.

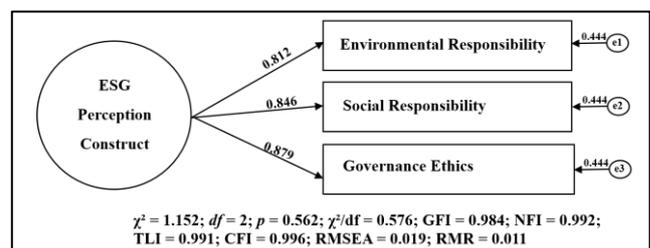


Figure 2 Confirmatory Factor Analysis (CFA) of the ESG perception construct

Table 2 Statistical Results of the Confirmatory Factor Analysis (CFA) of the ESG Perception Construct

Observed Variable	Factor Loading	AVE	CR	P-value
ESG1 - Environmental Responsibility	0.812	0.521	7.428	***
ESG2 - Social Responsibility	0.846	0.624	8.571	***
ESG3 - Governance Ethics	0.879	0.627	8.752	***
Model Fit: $\chi^2 = 1.152$; $df = 2$; $p = 0.562$; $\chi^2/df = 0.576$; GFI = 0.984; NFI = 0.992; TLI = 0.991; CFI = 0.996; RMSEA = 0.019; RMR = 0.011				
Note: *** $p < 0.01$ indicates high statistical significance.				

5.3 Results of Confirmatory Factor Analysis (CFA) of the Service Marketing Mix (SMM)

The second objective of this study was to validate the construct structure of the Service Marketing Mix (SMM). Confirmatory factor analysis (CFA) was conducted to determine whether the seven observed indicators – product (SMM1), price (SMM2), place (SMM3), promotion (SMM4), people (SMM5), process (SMM6), and physical evidence (SMM7) – appropriately represented the latent construct. The measurement model was estimated using maximum likelihood estimation to assess the adequacy of factor loadings, internal consistency, and overall model fit.

All seven observed indicators demonstrated statistically significant standardized factor loadings, with all values exceeding the minimum recommended threshold of 0.70, indicating strong

convergent validity. Specifically, the standardized factor loading for product (SMM1) was 0.774, for price (SMM2) was 0.742, for place (SMM3) was 0.781, for promotion (SMM4) was 0.854, for people (SMM5) was 0.839, for process (SMM6) was 0.889, and for physical evidence (SMM7) was 0.871 (all $p < 0.001$). The Average Variance Extracted and Composite Reliability surpassed the recommended thresholds ($AVE \geq 0.50$; $CR \geq 0.70$), confirming that the SMM indicators collectively capture a consistent and unified underlying construct.

Model fit indices further confirmed an excellent fit between the hypothesized SMM measurement model and the empirical data. The chi-square statistic ($\chi^2 = 5.462$, $df = 6$, $p = 0.485$) resulted in a χ^2/df ratio of 0.91, which is substantially below the recommended cutoff value of 3.0. Additional fit indices demonstrated strong model adequacy,

including $GFI = 0.986$; $NFI = 0.994$; $TLI = 1.016$; $CFI = 0.996$; $RMSEA = 0.021$; and $RMR = 0.012$. All indices fall well within the acceptable ranges commonly used to indicate good model fit in structural equation modeling.

These results confirm that the service marketing mix (SMM) is a valid and reliable latent construct consisting of seven key dimensions: product, price, place, promotion, people, process, and physical evidence. The high factor loadings and excellent model fit evidence demonstrate that the measurement model accurately reflects respondents' perceptions of institutional service operations. Therefore, the CFA results support the structural integrity of the SMM construct and confirm its appropriateness for inclusion in the subsequent structural equation modeling (SEM) analysis.

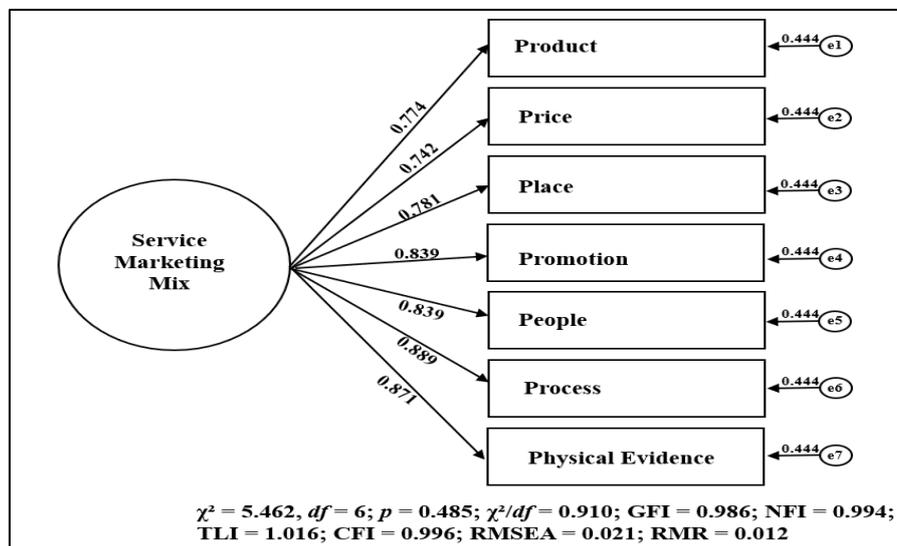


Figure 3 Confirmatory Factor Analysis (CFA) of the Service Marketing Mix (SMM) construct

Table 3 Statistical Results of the Confirmatory Factor Analysis (CFA) of the Service Marketing Mix (SMM)

Observed Indicator	Factor Loading	AVE	CR	p-value
SMM1 – Product	0.774	0.619	7.514	***
SMM2 – Price	0.742	0.623	7.381	***
SMM3 – Place	0.781	0.717	7.608	***
SMM4 – Promotion	0.854	0.721	8.934	***
SMM5 – People	0.839	0.714	8.486	***
SMM6 – Process	0.889	0.710	8.812	***
SMM7 – Physical Evidence	0.871	0.713	7.537	***
Model Fit: $\chi^2 = 5.462$, $df = 6$, $p = 0.485$; $\chi^2/df = 0.910$; $GFI = 0.986$; $NFI = 0.994$; $TLI = 1.016$; $CFI = 0.996$; $RMSEA = 0.021$; $RMR = 0.012$				
Note: *** $p < 0.01$ indicates high statistical significance.				

5.4 Results of Confirmatory Factor Analysis (CFA) of the VAB Concept

The third objective of this study was to validate

the construct structure of the Value-Attitude-Behavior (VAB) Concept. Confirmatory factor analysis (CFA) was performed to examine whether the three observed indicators—value orientation (VAB1), ethical attitude (VAB2), and behavioral intention (VAB3)—appropriately represented the underlying latent construct. The model was estimated using the maximum likelihood procedure. All indicators demonstrated strong and statistically significant factor loadings, suggesting that the VAB Concept exhibits high levels of convergent validity and is reliably measured within the sample.

All three standardized factor loadings exceeded the recommended threshold of 0.70, confirming the adequacy of the construct indicators. The factor loading for value orientation (VAB1) was 0.781, while ethical attitude (VAB2) and behavioral intention

(VAB3) yielded higher loadings of 0.842 and 0.864, respectively (all $p < 0.001$). The Average Variance Extracted (AVE) and Composite reliability (CR) surpassed the accepted cutoff values (AVE ≥ 0.50 ; CR ≥ 0.70), thereby confirming strong internal consistency and convergent validity. These results indicate that the VAB Concept is effectively represented by its three subdimensions and is suitable for inclusion in the structural model.

Model fit indices further confirmed an excellent fit between the measurement model and the empirical data. The chi-square statistic ($\chi^2 = 1.104$, $df = 2$, $p = 0.293$) produced a χ^2/df ratio of 0.552, substantially below the recommended limit of 3.0, indicating an exceptionally well-fitting model. Additional indices also demonstrated high model adequacy: GFI = 0.984; CFI = 0.997; NFI = 0.993; TLI = 1.012; RMSEA = 0.018; and RMR = 0.011. All indices fall within thresholds typically used to indicate good or excellent model fit in structural equation modeling, further confirming that the observed indicators reliably and accurately reflect the latent construct. These findings affirm that the VAB Concept constitutes a valid and reliable construct composed of three core components: value orientation, ethical attitude, and behavioral intention. The strong factor loadings and superior model fit demonstrate that respondents' ethical decision tendencies are well captured through the VAB lens. This confirms the structural integrity of the VAB construct and supports its relevance in explaining ethical behavior in the subsequent structural equation modeling (SEM) analysis

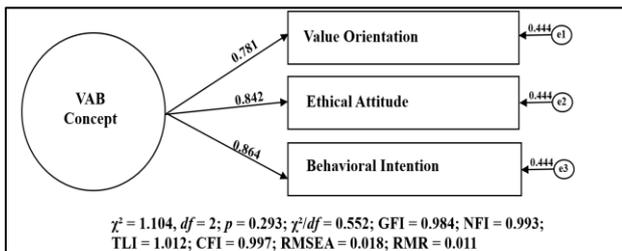


Figure 4 Confirmatory Factor Analysis (CFA) of the VAB Concept construct

Table 4 Statistical Results of the Confirmatory Factor Analysis (CFA) of the VAB Concept

Observed Variable	Factor Loading	AVE	C.R.	P-value
VAB1 - Value Orientation	0.781	0.618	7.417	***
VAB2 - Ethical Attitude	0.842	0.622	8.589	***
VAB3 - Behavioral Intention	0.864	0.725	8.734	***
Model Fit: $\chi^2 = 1.104$, $df = 2$; $p = 0.293$; $\chi^2/df = 0.552$; GFI = 0.984; NFI = 0.993; TLI = 1.012; CFI = 0.997; RMSEA = 0.018; RMR = 0.011				
Note: *** $p < 0.01$ indicates high statistical significance.				

5.5 Results of Confirmatory Factor Analysis (CFA) of Consumer Ethical Decision-Making (ED)

The objective of this analysis was to validate the construct structure of Consumer Ethical Decision-making. Confirmatory factor analysis (CFA) was employed to assess whether the three observed indicators—ethical awareness (ED1), responsibility-driven choice (ED2), and pro-social consumption behavior (ED3)—adequately represented the latent ED construct. The model was estimated using the maximum likelihood method to ensure statistical precision and comparability with established structural equation modeling (SEM) standards.

All three indicators demonstrated statistically significant factor loadings, each exceeding the recommended threshold of 0.70, confirming strong convergent validity for the ED construct. The standardized factor loading for ethical awareness (ED1) was 0.814, while responsibility-driven choice (ED2) exhibited a loading of 0.839, and pro-social consumption behavior (ED3) showed the highest loading at 0.872 (all $p < 0.001$). The Average Variance Extracted (AVE) and Composite reliability (CR) surpassed the accepted cutoff values (AVE ≥ 0.50 ; CR ≥ 0.70), thereby confirming strong internal consistency and convergent validity. These results indicate that all three indicators meaningfully contribute to explaining the underlying construct of Consumer Ethical Decision-making and reflect coherent behavioral patterns grounded in ethical cognition and social responsibility.

Model fit indices provided robust evidence of an excellent fit between the measurement model and the empirical data. The chi-square statistic ($\chi^2 = 0.974$, $df = 2$, $p = 0.562$) produced a χ^2/df ratio of 0.487, substantially below the recommended benchmark of 3.0. Additional fit indices further supported the model's adequacy: GFI = 0.985; NFI = 0.993; TLI = 1.014; CFI = 0.996; NFI = 0.993; RMSEA = 0.021; and RMR = 0.012. All values fall within the acceptable and preferred thresholds commonly cited in CFA and SEM literature, indicating minimal residual variance and strong alignment between the observed data and the estimated model.

Taken together, these findings confirm that Consumer Ethical Decision-making is a valid and reliable latent construct formed by three core dimensions: ethical awareness, ethical consumer decision, and pro-social consumption tendencies. The high factor loadings and outstanding model fit indices demonstrate that respondents' ethical behavioral tendencies can be effectively measured through these indicators. Thus, the CFA results

reinforce the structural soundness of the ED construct and affirm its suitability for incorporation into the subsequent structural equation modeling analysis.

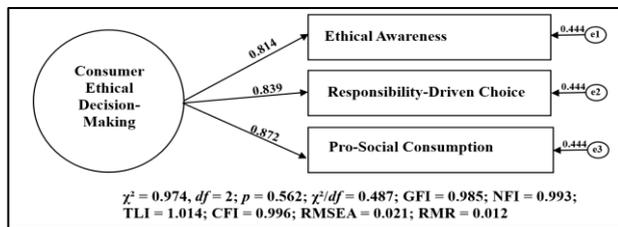


Figure 5 Confirmatory Factor Analysis (CFA) of Consumer Ethical Decision-Making construct

Table 5 Statistical Results of the Confirmatory Factor Analysis (CFA) of Consumer Ethical Decision-Making (ED)

Observed Variable	Factor Loading	AVE	CR	P-value
ED1 - Ethical Awareness	0.814	0.620	7.780	***
ED2 - Responsibility-Driven Choice	0.839	0.718	8.112	***
ED3 - Pro-Social Consumption Behavior	0.872	0.822	8.346	***
Model Fit: $\chi^2 = 0.974, df = 2; p = 0.562; \chi^2/df = 0.487; GFI = 0.985; NFI = 0.993; TLI = 1.014; CFI = 0.996; RMSEA = 0.021; RMR = 0.012$				
Note: *** $p < 0.01$ indicates high statistical significance.				

5.6 Results of Structural Equation Modeling (SEM) of the Hypothesized Relationships

The objective of this analysis was to examine the structural relationships among ESG perception, the service marketing mix (SMM), the VAB Concept, and Consumer Ethical Decision-making. Structural equation modeling (SEM) was employed to test the direct and indirect effects specified in the seven hypotheses. The model was estimated using maximum likelihood estimation to ensure statistical rigor and comparability across parameters. All causal paths in the model were statistically significant, indicating that each hypothesized relationship was supported by empirical data and that the structural model demonstrates strong explanatory power for ethical decision-making outcomes.

The direct effects revealed that both ESG perception and the service marketing mix exert meaningful influences on the VAB Concept. The standardized coefficient for the path from ESG to VAB was 0.412 ($p < 0.001$), demonstrating that stronger perceptions of environmental, social, and governance responsibility are associated with more positive value-attitude-behavior orientations. The effect of SMM on VAB was substantially higher ($\beta = 0.821, p < 0.001$), indicating that marketing-related experiences contribute more powerfully to shaping consumers' value-attitude-behavior alignment.

Additionally, the path from VAB to ethical decision-making yielded a significant coefficient of 0.472 ($p < 0.001$), confirming that consumers with stronger ethical orientations and behavioral intentions are more likely to engage in ethical consumption choices.

The structural model also demonstrated significant direct effects of both ESG perception and SMM on Consumer Ethical Decision-making. The ESG → Consumer Ethical Decision path produced a standardized coefficient of 0.285 ($p < 0.001$), suggesting that heightened ESG awareness directly influences consumer ethical decision. The effect of SMM on ethical decision-making was notably strong ($\beta = 0.748, p < 0.001$), highlighting the substantial role of marketing-related stimuli – such as product, price, place, promotion, and process – in shaping consumer ethical purchasing behavior. These results show that consumers respond not only to ethical considerations but also to marketing signals when evaluating ethical consumption options.

The analysis of indirect effects further confirmed the mediating role of the VAB Concept. The indirect path from ESG to Ethical Decision via VAB produced a coefficient of 0.194 ($p < 0.001$), indicating partial mediation. This suggests that ESG perceptions affect ethical decision-making both directly and through their influence on consumers' internalized values and ethical attitudes. The SMM → VAB → Consumer Ethical Decision indirect path was also statistically significant ($\beta = 0.387, p < 0.001$), confirming that part of the impact of marketing strategies on ethical consumption occurs through consumers' value-attitude-behavior concept. Together, these mediation findings support the theoretical assumption that ethical behavior is shaped by both external cues and internalized evaluative mechanisms.

Model fit indices demonstrated an excellent fit between the hypothesized model and the empirical data. The chi-square ratio ($\chi^2/df = 1.027$) was well below the recommended threshold of 3.0, and other indices confirmed strong model adequacy: GFI = 0.916, CFI = 0.993, TLI = 0.991, RMSEA = 0.016, and SRMR = 0.034. All indices align with widely accepted SEM standards, indicating that the structural model is robust, parsimonious, and theoretically coherent.

Model Fit: The indices demonstrated an excellent fit between the hypothesized model and the empirical data. The chi-square value ($\chi^2 = 100.646, df = 98, p = 0.408$) yielded a χ^2/df ratio of 1.027, which was well below the recommended threshold of 3.0. Other indices confirmed strong model adequacy: GFI = 0.916; NFI = 0.997; TLI = 0.991; CFI = 0.993; RMSEA = 0.016; and RMR = 0.013. All indices align with widely accepted SEM standards.

In overall, the SEM results confirm that ESG perception, the service marketing mix, and the VAB Concept are significant predictors of Consumer Ethical Decision-making. The strong direct and indirect effects underscore the importance of

integrating ethical communication, strategic marketing practices, and value-based consumer engagement to promote sustainable and ethical consumption behaviors

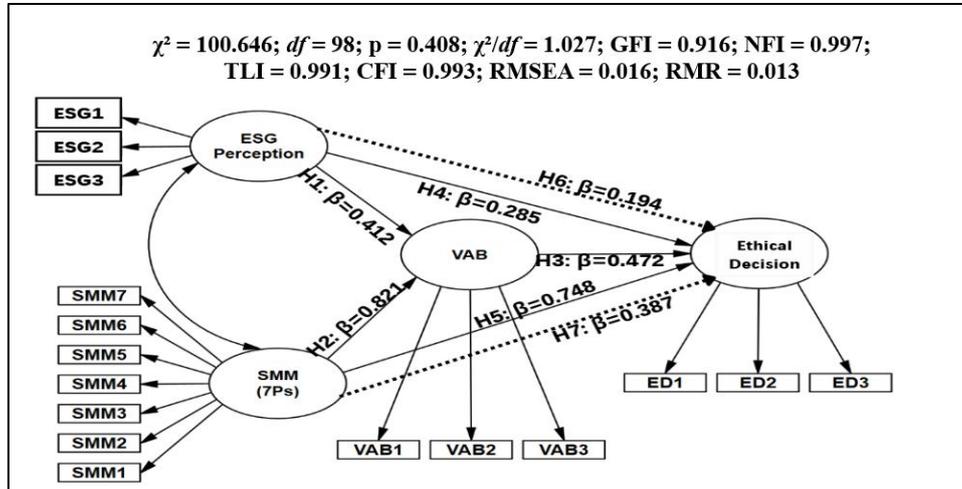


Figure 6 The Causal Relationships among ESG Perception, the Service Marketing Mix (SMM), the Value-Attitude-Behavior (VAB) Concept, and Consumer Ethical Decision-Making

Table 6 The Results of the Structural Equation Modeling (SEM) Analysis

Hypothesis	Causal Path	Standardized β	t-value	p-value	Result
H1	ESG → VAB	0.412	4.982	***	Supported
H2	SMM → VAB	0.821	6.214	***	Supported
H3	VAB → Ethical Decision-Making	0.472	5.103	***	Supported
H4	ESG → Ethical Decision-Making	0.285	3.764	***	Supported
H5	SMM → Ethical Decision-Making	0.748	6.893	***	Supported
H6	ESG → VAB → Ethical Decision-Making	0.194	4.221	***	Supported
H7	SMM → VAB → Ethical Decision-Making	0.387	5.662	***	Supported

Model Fit Indices $\chi^2 = 100.646; df = 98; p = 0.408; \chi^2/df = 1.027; GFI = 0.916; NFI = 0.997; TLI = 0.991; CFI = 0.993; RMSEA = 0.016; RMR = 0.013$
 Note: *** p < 0.01 indicates high statistical significance.

6. DISCUSSION

6.1 Discussion on the Confirmatory Factor Analysis (CFA) of ESG Perception

The Confirmatory Factor Analysis (CFA) findings provide compelling evidence that the ESG perception construct is both empirically robust and theoretically coherent. The three observed indicators – environmental responsibility, social responsibility, and governance ethics – demonstrated strong standardized factor loadings alongside excellent model fit indices. These results indicate that respondents conceptualize ESG holistically as an integrated evaluative framework rather than as a set of isolated attributes. This measurement structure confirms that ESG perception constitutes a stable latent construct aligned with contemporary perspectives on sustainability in higher education.

These findings demonstrate strong conceptual

alignment with prior research in both Thai and international settings. Specifically, Ambele and Boonsuk (2021) found that Thai learners integrate multiple evaluative cues, such as fairness and inclusion, into unified judgments. This cognitive process of synthesizing interconnected dimensions supports the convergent validity observed in the current study. Furthermore, international studies by Anggoro and Nguyen (2021) and Zarrinabadi et al. (2022) highlight a similar tendency among learners to cognitively consolidate diverse experiential information into structured, consistent representations, reinforcing the integrative nature of the ESG model.

Theoretically, the strength of the ESG construct reflects broader psychological processes underlying value-based evaluation, aligning with normative frameworks that emphasize transparency and accountability. The significant loading of governance ethics suggests that institutional credibility is a

central component of this moral schema. In conclusion, the validation of ESG as a unified construct has significant practical implications. Institutions seeking to enhance sustainability perceptions must adopt an integrated strategy that simultaneously addresses environmental stewardship, social engagement, and ethical governance. Emphasizing these dimensions collectively will strengthen ESG perception, laying a critical foundation for fostering ethical decision-making within the educational context.

6.2 Discussion on the Confirmatory Factor Analysis (CFA) of the Service Marketing Mix (SMM)

The Confirmatory Factor Analysis (CFA) results provide robust empirical evidence for the structural validity of the Service Marketing Mix (SMM). All seven dimensions—product, price, place, promotion, people, process, and physical evidence—exhibited significant factor loadings exceeding recommended thresholds, confirming strong convergent validity. In particular, the prominent loadings associated with people, process, and physical evidence highlight the pivotal role of interpersonal interaction, service reliability, and the tangible learning environment in shaping students' evaluations of institutional quality.

The excellent model fit indices further affirm the psychometric stability of the SMM construct. These findings align with contemporary service-oriented theories which posit that educational value is not embedded solely in core offerings but is co-created through dynamic engagement between students and institutions. This perspective is strongly supported by prior research. For instance, Ulla (2018) demonstrated that student evaluations rely heavily on experiential factors and supportive staff interactions. Similarly, Dewaele and Dewaele (2020) and Colmenero and Lasagabaster (2023) emphasized that relational variables and instructional processes are crucial determinants of perceived educational quality and emotional outcomes.

Theoretically, the strong coherence of the construct reflects the experiential nature of higher education services. Unlike tangible goods, educational services are evaluated through continuous interaction and institutional communication. The results indicate that respondents do not view these attributes in isolation; instead, they integrate diverse service elements into a unified evaluative framework. Consequently, this analysis validates SMM as a reliable, higher-order latent construct, establishing a solid measurement foundation for subsequent modeling of value

formation and ethical decision-making within the proposed structural framework.

6.3 Discussion on the Confirmatory Factor Analysis (CFA) of the VAB Concept

The Confirmatory Factor Analysis (CFA) results indicate that the Value–Attitude–Behavior (VAB) Concept possesses strong construct validity and internal coherence. All three indicators—value orientation, ethical attitude, and behavioral intention—exhibited factor loadings exceeding recommended thresholds, confirming robust convergent validity. These findings empirically demonstrate that consumer ethical decision-making is not impulsive but operates through a systematic psychological pathway. In this process, internalized value orientations serve as the cognitive foundation that shapes ethical attitudes, which subsequently direct behavioral intentions.

This structural sequence aligns with established theories in psychology and consumer behavior, which posit that ethical actions are mediated by internal cognitive–affective mechanisms rather than being mere reactions to external stimuli. The results are strongly supported by prior research. For examples, Avarzamani and Farahian (2019) highlighted that internalized values are critical for clarifying attitudes and directing intentions. Similarly, Flores and Rosa (2015) emphasized that sociocultural values act as cognitive filters for interpreting fairness and legitimacy, thereby guiding ethical evaluations. Furthermore, Kubota (2020) provided a sociocultural perspective, suggesting that individual value systems are influenced by broader ideological structures, reinforcing the VAB concept as a dynamic, socially embedded mechanism.

In conclusion, the analysis confirms that the VAB Concept is a psychometrically sound and theoretically robust framework. By validating the sequential linkage among values, attitudes, and intentions, this study establishes a reliable foundation for subsequent structural modeling. It effectively explains how external perceptions are internalized and translated into ethical consumption outcomes through value-driven psychological processes.

6.4 Discussion on the Confirmatory Factor Analysis (CFA) of Consumer Ethical Decision-Making (ED)

The Confirmatory Factor Analysis (CFA) provides robust empirical evidence for the validity of the Consumer Ethical Decision-Making (ED) construct. The analysis reveals that ethical awareness,

responsibility-driven choice, and pro-social consumption behavior function as a coherent, multidimensional process rather than fragmented responses. High standardized factor loadings and excellent model fit indices confirm that this three-dimensional structure adequately captures the underlying latent construct within service-oriented contexts.

The structural consistency of the ED construct aligns with contemporary theories that conceptualize ethical consumption as an integrated socio-cognitive process defined by the internalization of values. This perspective is strongly supported by Boonsuk et al. (2023), who demonstrated that ethical judgments are governed by deeply embedded value systems that guide evaluative reasoning. Similarly, international studies reinforce these findings; Dewaele and Dewaele (2020) illustrated how cognitive and affective engagement shapes behavioral tendencies, while Watson and Pojanapunya (2022) highlighted that attitudinal shifts toward ethical practices are linked to sustained behavioral changes, particularly where institutional and individual values intersect.

From an analytical standpoint, the ED construct reflects a sequential psychological mechanism: ethical awareness serves as the initial evaluative trigger, responsibility-driven choice signifies attitudinal commitment, and pro-social behavior represents the practical realization of these commitments. This mirrors value-based decision models emphasizing the alignment of belief, evaluation, and action. In conclusion, the results establish ED as a reliable latent construct, providing a solid measurement foundation for further structural modeling. The findings suggest that ethical decision-making should be understood as a dynamic, internally mediated process influenced by both personal values and external institutional contexts.

6.5 Discussion on the Structural Relationships among ESG Perception, the Service Marketing Mix, the VAB Concept, and Consumer Ethical Decision-Making

The structural equation modeling (SEM) results revealed a coherent and theoretically grounded pattern of relationships among ESG perception, the service marketing mix (SMM), the value-attitude-behavior (VAB) Concept, and Consumer Ethical Decision-Making. All hypothesized paths were statistically significant, indicating that ethical consumer behavior is shaped through both direct institutional influences and indirect psychological mechanisms. In particular, the strong effects of ESG perception and SMM on the VAB Concept confirm

that external organizational cues function as powerful antecedents activating internal value structures that guide ethical judgment and behavior.

The dominant role of the service marketing mix is especially noteworthy. The strong direct effect of SMM on both the VAB Concept and ethical decision-making underscores the importance of service-related experiences in shaping ethical consumption. This finding aligns with Boonsuk et al. (2023), who demonstrated that institutional practices, communication strategies, and service delivery processes significantly influence individuals' ethical orientations and behavioral intentions. Their work emphasizes that ethical decision-making in service contexts is not merely value-driven but is also strongly conditioned by how organizations operationalize and communicate ethical commitments through service design.

The mediating role of the VAB Concept further reinforces the importance of internal psychological mechanisms. The significant indirect effects of ESG perception and SMM on ethical decision-making via VAB indicate that values and attitudes serve as crucial interpretive filters through which institutional signals are translated into behavioral outcomes. This finding is consistent with Zarrinabadi et al. (2022), who highlighted the role of internal psychological resources—such as resilience, value orientation, and affective engagement—in shaping individuals' responses to external environments. Their study supports the argument that ethical behavior emerges through an internalized evaluative process rather than as an automatic reaction to contextual stimuli.

International comparative research also supports the structural logic of the present model. Colmenero and Lasagabaster (2023) demonstrated that institutional discourses and policy-driven practices shape individuals' attitudes and identities, which subsequently influence decision-making and behavior. Although their work focused on educational and ideological contexts, the underlying mechanism parallels the present findings, where ESG perception and SMM act as structural signals that shape internal value-attitude configurations. This alignment suggests that ethical decision-making operates within a broader socio-institutional framework in which organizational practices and individual cognition are deeply interconnected.

Taken together, these findings suggest that ethical consumer decision-making is best understood as a multilevel process involving the interaction of institutional ethics, service strategy, and internal psychological mechanisms. ESG perception and

SMM provide the structural and experiential context, while the VAB Concept explains how these external factors are cognitively and affectively processed into ethical action. This integrated perspective advances current understanding by demonstrating that ethical behavior is neither solely externally imposed nor purely internally generated but emerges from their dynamic interplay.

In conclusion, the SEM results confirm the robustness of the proposed structural model and highlight the central mediating role of the VAB Concept. For practitioners, the findings imply that promoting ethical consumer behavior requires more than symbolic ESG commitments; it necessitates coherent service strategies that consistently reinforce ethical values and attitudes. For researchers, the model offers a theoretically sound and empirically validated framework that can be extended to other service sectors and cultural contexts to further explore the generalizability of ethical decision-making processes.

7. CONCLUSION

This study examined the structural relationships among ESG Perception, the Service Marketing Mix (SMM), the Value-Attitude-Behavior (VAB) Concept, and Consumer Ethical Decision-Making using Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM). The analysis validated all measurement models and confirmed seven hypothesized causal pathways, demonstrating that ethical decision-making results from the dynamic interplay between institutional cues and internal cognitive processes.

The empirical findings yielded four major conclusions. First, the constructs exhibited strong reliability and convergent validity, confirming that consumers clearly differentiate between ESG responsibilities, marketing elements, and ethical

reasoning. Second, ESG perception exerts both direct and indirect effects, significantly shaping behavioral judgments regarding organizational responsibility. Third, SMM emerged as the strongest predictor in the model, highlighting that strategic service design—particularly people, process, and physical evidence—plays a central role in driving ethical behavior. Fourth, the VAB Concept serves as a powerful mediator, converting external institutional cues into value-driven attitudes and intentions that lead to ethical choices. Overall, these results support an integrated model combining sustainability signaling, service strategy, and behavioral psychology to explain ethical consumption.

8. IMPLICATIONS AND RECOMMENDATIONS

8.1 Theoretical Implications This study validates ESG and SMM within a unified framework, confirming the VAB concept's mediating role. It demonstrates that ethical consumption stems from internalized psychological pathways rather than just external cues, extending value-based behavioral models.

8.2 Practical and Policy Implications Organizations should prioritize ESG transparency and enhance SMM elements—specifically service processes and staff—to drive ethical choices. Policymakers can support this by establishing regulatory standards for ESG disclosure to foster value-aligned consumer behaviors.

8.3 Recommendations for Future Research Future research should employ longitudinal designs and comparative studies to identify cross-cultural differences. Integrating variables like trust, alongside mixed-methods approaches, would further deepen the understanding of internalized ethical decision-making processes.

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