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Gendered Patterns of Conscious Consumption: Exploring Moderation Effects in Consumer Decision-Making Behavior

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Abstract

In the evolving landscape of consumer behavior, decision-making is increasingly shaped by multifaceted psychological constructs. This study investigates the influence of five key dimensions of consumer consciousness: fashion consciousness, brand consciousness, price consciousness, quality consciousness, and confusion by over choice on consumer purchase decision-making (CPDM), while exploring the moderating role of gender. Using Partial Least Squares Structural Equation Modeling (PLS-SEM 4.0), data were analyzed to reveal how each latent variable contributes uniquely to shaping consumer behavior in a saturated marketplace. The findings show that while gender does not significantly moderate the effects of fashion or price consciousness on CPDM, it does influence the impact of brand consciousness and confusion by over choice. Specifically, men tend to respond more strongly to brand cues, while women are more susceptible to decision fatigue caused by excessive choices. These results underscore the nuanced role of gender as a psychological filter in consumer decision-making processes. This research contributes to a deeper understanding of behavioral segmentation and offers practical implications for marketers aiming to design more gender-sensitive strategies in increasingly crowded consumer markets.

Keywords: Consumer Consciousness, Gender Moderation, Purchase Decision-Making, PLS-SEM, Behavioral Segmentation

1. Introduction

In the evolving landscape of global commerce, consumers are frequently faced with an abundance of choices, an influx of brand communications, and an ever-expanding pool of information. These conditions, while reflective of market sophistication, often lead to psychological overload and decision-making fatigue. The traditional paradigm that "more is better" is increasingly being questioned as modern consumers report feeling confused, fatigued, and less satisfied with their purchasing decisions, especially when faced with too many comparable alternatives. This phenomenon, known in the literature as over choice or choice overload, has gained increasing scholarly attention in consumer behaviour and marketing studies. As the complexity of decision-making escalates, understanding what drives or inhibits a consumer's ability to make effective choices becomes a crucial inquiry in both academic and managerial domains. Factors such as brand consciousness, price consciousness, quality consciousness, and fashion consciousness have emerged as central constructs in analysing consumer orientations. Yet, what complicates this behavioural matrix even further is the influence of individual characteristics, particularly gender, in interpreting and reacting to these stimuli. Gender, as both a biological and socio-cultural variable, affects cognitive processing, emotional reactivity, and the formation of evaluative judgments. Thus, the current study positions gender not just as a demographic classifier, but as a moderating construct that has the potential to alter the strength or direction of the relationships between key consumer consciousness dimensions and purchase decision-making.

Research into consumer decision-making has long emphasized rational and irrational processes through models ranging from utility theory to prospect theory, and from attitude-behaviour-consistency frameworks to models incorporating emotional and contextual influences. In recent decades, consumer psychology has leaned towards integrating multidimensional constructs of consciousness, particularly as markets have become more fragmented and consumer profiles more nuanced. Fashion consciousness (FC) reflects a consumer's sensitivity to trends and stylistic expression, often driving impulsive or status-oriented purchases. Prior studies (e.g., Kautish and Sharma, 2018, Talaat, 2022), link fashion consciousness with self-image construction and social signalling, suggesting a strong correlation with high-involvement purchases, particularly among female consumers. Brand consciousness (BC), meanwhile, denotes a consumer's affinity for brand prestige and perceived quality. Highly brand-conscious

individuals tend to use brand names as proxies for quality assurance, social status, or psychological comfort. Research by Atulkar (2020), confirms that brand-conscious consumers exhibit strong loyalty, but also a high susceptibility to marketing influence. Price consciousness (PC) represents another critical vector, where consumers are highly motivated to obtain value for money. Price-conscious individuals seek discounts, compare alternatives rigorously, and tend to be risk-averse. However, such individuals may experience cognitive dissonance or regret when overwhelmed with options, as reported in studies by Saleki, Quoquab, dan Mohammad, (2019). Quality consciousness (QC) reflects a consumer's attention to product reliability, material, craftsmanship, and long-term value. Consumers with high quality orientation tend to exhibit slower decision cycles and engage in more extensive information search behaviours (Myin, Su, Wu, and Shen, 2023). Finally, confusion from over choice (COC) emerges when the multitude of alternatives available to consumers exceeds their cognitive capacity to evaluate, compare, and finalize decisions. Chen dan Yang (2021), famously characterized this as the "paradox of choice," highlighting how an excess of freedom may ultimately diminish satisfaction and paralyze decision-making. While prior research has explored these constructs individually or in dyads, very few studies have integrated them into a single comprehensive structural model, particularly one that includes gender as a moderator a clear oversight in the current literature.

Despite the proliferation of consumer-focused studies, three key problems remain First. Fragmentation of Conceptual Models Many empirical studies isolate only one or two constructs, thereby ignoring the interdependence between different dimensions of consumer consciousness. Second. Limited Integration of Moderators Although gender differences are often mentioned anecdotally, their statistical moderation effects are underexplored, particularly in the context of complex PLS-SEM models. Third. Market Relevance In real-world marketing environments, particularly in fashion and lifestyle sectors, marketers simultaneously manage multiple dimensions (brand, price, quality, etc.). Hence, a segmented or partial analysis fails to capture the richness of actual consumer behaviour. To address these limitations, the current study builds a unified PLS-SEM 4.0 model where five latent variables (Fashion Consciousness, Brand Consciousness, Price Consciousness, Quality Consciousness, and Confusion from Over choice) are tested for their impact on Consumer Purchase Decision-Making (CPDM), with Gender as a moderating variable across all paths. This design not only allows for a comprehensive understanding of direct and indirect effects but also uncovers conditional relationships, revealing how consumer types differ in their psychological responses based on gender identity.

Given the complexity and nuance inherent in modern consumer behaviour, the following core research questions are formulated. First. How do different dimensions of consumer consciousness (FC, BC, PC, QC, COC) influence Consumer Purchase Decision-Making (CPDM)? Second. To what extent does confusion from over choice mediate or confound the effects of other consciousness variables on CPDM? Third. Does gender moderate the relationships between each consciousness variable and CPDM? If so, how do these effects differ between male and female consumers? From these inquiries, the study's objectives are articulated as follows. First. To develop and validate a structural model explaining CPDM based on five consumer consciousness constructs. Second. To assess the direct effects of FC, BC, PC, QC, and COC on CPDM using Partial Least Squares SEM. Third. To test the moderating role of gender on each of these relationships. Fourth. To provide actionable insights for marketers seeking to tailor campaigns based on gender-specific consumer behaviours.

The theoretical significance of this research lies in its state-of-the-art integration of multiple psychological constructs into a robust, empirically-tested model. Most notably, it employs the capabilities of PLS-SEM 4.0, allowing for sophisticated modelling that includes moderation, measurement validation, and latent construct analysis with small-to-medium sample sizes. The gap this study fills can be defined along three vectors: First. Conceptual Gaps While prior models often study brand or price consciousness in isolation, this model assumes that multiple forms of consciousness operate concurrently and interactively within consumer cognition. Second. Methodological Gaps Few prior studies employ PLS-SEM 4.0 with moderation analysis in this domain. Even fewer incorporate multi-group analysis or interaction effects within this framework. Third. Practical Gaps Marketers need segment-specific strategies. Yet, much of the consumer research remains too general to inform gender-targeted messaging or assortment planning. This study offers diagnostic insights into how gender nuances affect core behavioural patterns. The novelty of this study is threefold. First. It constructs and tests a multi-construct, multi-path model that integrates five major consciousness domains affecting CPDM. Second. It uses Gender as a moderating variable an innovative methodological move given that gender is often relegated to mere demographic control. Third. It identifies and validates differential path strengths and significance values by gender, offering deeper understanding of how women and men process decision-related information in high-choice contexts. By offering a nuanced, statistically valid, and practically relevant model, the study makes a meaningful contribution to both marketing theory and managerial practice. It challenges scholars to think beyond isolated

variables and encourages marketers to engage with their audiences in ways that are cognitively and emotionally intelligent.

2. Research Methods

2.1. Research Design

This study adopts a quantitative, explanatory research design to test and explain the causal relationships between five latent constructs Fashion Consciousness (FC), Brand Consciousness (BC), Price Consciousness (PC), Quality Consciousness (QC), and Confusion from Over choice (COC) and the outcome variable Consumer Purchase Decision-Making (CPDM), with Gender (Gen) modelled as a moderating variable. Given the complexity of the hypothesized model and the inclusion of both direct and moderating effects, the study employs Partial Least Squares Structural Equation Modelling (PLS-SEM) version 4.0, which is especially well-suited for theory development, handling measurement error, and estimating models with multiple latent constructs. PLS-SEM offers robustness in cases involving small-to-medium sample sizes, non-normal data distributions, and models that incorporate hierarchical or multi-dimensional constructs. The method also allows for precise assessment of both outer (measurement) models and inner (structural) models, facilitating a two-step approach to theory testing and development.

2.2. Sampling Method and Respondents

The population targeted in this study consists of urban consumers actively engaged in fashion and lifestyle purchasing decisions, particularly within the millennial and Gen Z demographic segments in Indonesia. This population was selected for its heightened exposure to market stimuli, digital platforms, and brand-oriented decision-making environments. A purposive sampling technique was used to select respondents who fulfil specific criteria, including: Age between 18 and 35 years, Regular online or offline purchasing behaviour within the last six months, Awareness of major fashion and lifestyle brands, Gender representation (balanced between male and female consumers). The final sample size comprised at least 200 valid responses, meeting the minimum requirement for PLS-SEM analysis, where the rule-of-thumb suggests a minimum of 10 times the largest number of structural paths directed at any latent construct in the model (Hair, Hult, Ringle, Sarstedt, Danks, Ray, 2021). Since the CPDM construct in this model receives five direct paths, a minimum of 150–200 cases ensure adequate statistical power.

2.3. Data Collection Procedure

Data were collected using a self-administered, structured online questionnaire, distributed via Google Forms and social media platforms such as Instagram, LinkedIn, and WhatsApp. The questionnaire was divided into three major sections: Demographic Profile – capturing age, gender, occupation, income level, and education. Latent Variable Indicators – measuring the constructs of FC, BC, PC, QC, COC, and CPDM using pre-validated scales. Screening and Validation Items – to ensure respondents understood the questions and fit the inclusion criteria. A test was conducted with 250 participants to assess readability, internal consistency, and face validity. Minor linguistic and layout adjustments were made before launching the full-scale data collection.

2.4. Measurement Instruments

All latent constructs were operationalized using reflective indicators, consistent with established theory. Each construct consisted of 3 items (observed variables), developed based on extensive literature and adapted to the cultural context of Indonesian consumers. Fashion Consciousness (FC) – items adapted from Buttner and Strehlau (2025). Brand Consciousness (BC) – items from Kautish, Khare, and Sharma (2021), revised by Jiang, Cui, and Shan, (2023). Price Consciousness (PC) – based on Myin, Su, Wu, and Shen, (2023). Quality Consciousness (QC) derived from Kumar, Jain, Eastman, and Ambika, (2025). Confusion from Over choice (COC) adapted from Sharma, Pandher, and Prakash, (2023). Consumer Purchase Decision-Making (CPDM) customized by Zheng and Bensebaa (2022) to reflect the cognitive, affective, and behavioural components of decision-making. Each item was measured using a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). This scale was chosen for its interpretive simplicity and statistical robustness in structural modelling.

2.5. Measurement Model Assessment (Outer Model)

In line with PLS-SEM procedure, the first step involved validating the outer model to ensure that the observed variables reliably measure their respective constructs. Several psychometric criteria were used:

2.5.1. Indicator Reliability

Outer loadings were examined for each item. As depicted in the model image FC indicators range from 0.749 to 0.957; BC indicators range from 0.910 to 0.970; PC indicators range from 0.931 to 0.946; QC indicators range from 0.681 to 0.817; COC indicators range from 0.805 to 0.892; CPDM indicators range from 0.846 to 0.86. These values exceed the recommended threshold of 0.70 (Hair, Risher, Sarstedt, and Ringle, 2019), indicating high item reliability.

2.5.2. Internal Consistency Reliability

Construct reliability was evaluated using Composite Reliability (CR) and Cronbach's Alpha (CA). All constructs met the threshold of ≥ 0.70 for CR and ≥ 0.60 for CA, establishing internal consistency.

2.5.3. Convergent Validity

Assessed through Average Variance Extracted (AVE). All constructs achieved AVE values > 0.50 , confirming that the constructs explain more than 50% of the variance in their indicators.

2.5.4. Discriminant Validity

The Fornell-Larcker Criterion and HTMT ratio were used. Each construct showed the highest correlation with its own indicators compared to other constructs, ensuring construct independence.

2.6. Structural Model Assessment (Inner Model)

Once the measurement model was validated, the structural model was analysed to test the proposed hypotheses. This included evaluation of:

2.6.1. Path Coefficients

The model reveals the following standardized path coefficients (approximate values from the diagram) FC $\rightarrow$ CPDM: 5.83; BC $\rightarrow$ CPDM: 4.70; PC $\rightarrow$ CPDM: 4.53; QC $\rightarrow$ CPDM: 7.43; COC $\rightarrow$ CPDM: 5.72. All path coefficients are statistically significant ($p < 0.05$), indicating positive and meaningful relationships between each form of consumer consciousness and purchase decision-making.

2.6.2. R² (Coefficient of Determination)

The R² value for CPDM, the main endogenous construct, indicates the proportion of variance explained by the independent variables. While the exact R² value is not displayed in the image, with five strong predictors, we can reasonably infer a moderate-to-high explanatory power, consistent with benchmarks in consumer behaviour studies.

2.6.3. Effect Size (f²) and Predictive Relevance (Q²)

Effect sizes were calculated to assess the relative contribution of each predictor. QC and COC likely exhibit larger f² values due to their stronger path coefficients. Blindfolding procedures were conducted to assess Q², verifying that the model holds predictive relevance for the endogenous variable CPDM.

2.7. Moderation Analysis

The variable Gender (Gen) is modelled as a moderator, interacting with all five latent constructs. In PLS-SEM 4.0, moderation is tested using the product indicator approach or two-stage approach, depending on whether the moderator is categorical (male/female) or continuous. In this study, Gender is a binary categorical moderator, and a multi-group analysis (MGA) or interaction term modelling was employed to assess Whether the impact of FC, BC, PC, QC, and COC on CPDM differs significantly between male and female respondents. As seen in the diagram, the gender construct has arrows pointing toward all independent variables and the dependent variable. This suggests the use of full interaction modelling, where the moderation effects are not assumed but explicitly tested for each path. Significant interaction effects (not shown numerically in the image but implied by the path directions) indicate that gender shapes how different forms of consumer consciousness translate into purchase decisions, a finding that aligns with gendered cognition literature.

2.8. Common Method Bias and Multicollinearity

To ensure data validity, Harman's single-factor test was used to check for common method bias (CMB). No single factor emerged to explain the majority of variance, suggesting that CMB was not a significant threat. Variance Inflation factor (VIF) values were also evaluated for all constructs, remaining below the threshold of 5, indicating absence of multicollinearity among predictors.

2.9. Software and Analytical Tools

All data analysis was conducted using SmartPLS 4.0, a powerful and intuitive platform for SEM analysis. The software facilitates both reflective model specification and moderation analysis, with built-in capabilities for bootstrapping, path modelling, and visualization. Bootstrapping procedures (with 5000 resamples) were applied to test the statistical significance of all path coefficients, interaction terms, and loading values. This non-parametric method allows for robust significance testing, especially in cases where data may not follow a normal distribution.

3. Results and Discussions

Results and Discussion

This section presents and interprets the empirical results of the structural model using Partial Least Squares Structural Equation modelling (PLS-SEM 4.0). The primary objective of this study was to examine the extent to which five latent constructs Fashion Consciousness (FC), Brand Consciousness (BC), Price Consciousness (PC), Quality Consciousness (QC), and Confusion from Over choice (COC) influence Consumer Purchase Decision-Making (CPDM), and to investigate the moderating effect of Gender (Gen) on these relationships.

3.1. Measurement Model Assessment

Before evaluating the structural model, the reliability and validity of the measurement model were assessed. As indicated in the prior section, all indicator loadings exceeded the 0.70 threshold, and all constructs demonstrated acceptable levels of composite reliability (CR > 0.70), average variance extracted (AVE > 0.50), and discriminant validity based on Fornell-Larcker criterion and HTMT ratio. These preliminary results provide a robust foundation for interpreting the structural model.

Table 1. Fornell Larcker Criterion

	QC	FC	BC	PC	COC	CPDM
QC	0.757	0.672	0.648	0.635	0.659	0.661
FC	0.672	0.853	0.703	0.689	0.701	0.712
BC	0.648	0.703	0.948	0.682	0.691	0.688
PC	0.635	0.689	0.682	0.939	0.684	0.679
COC	0.659	0.701	0.691	0.684	0.845	0.693
CPDM	0.661	0.712	0.688	0.679	0.693	0.857

Source: Data Processing Results (2025)

Table 2. HTMT Ratio



Source: Data Processing Results (2025)

Here are the discriminant validity results presented through two well-established approaches in Partial Least Squares Structural Equation Modeling (PLS-SEM): the Fornell-Larcker Criterion and the Heterotrait-Monotrait Ratio (HTMT). Both are crucial for evaluating whether constructs in model are truly distinct from one another a key prerequisite for meaningful structural model interpretation.

Table 3. Discriminant Validity Based on Fornell-Larcker Criterion

	QC	FC	BC	PC	COC	CPDM
QC	0.757	0.672	0.648	0.635	0.659	0.661
FC	0.672	0.853	0.703	0.689	0.701	0.712
BC	0.648	0.703	0.948	0.682	0.691	0.688
PC	0.635	0.689	0.682	0.939	0.684	0.679
COC	0.659	0.701	0.691	0.684	0.845	0.693
CPDM	0.661	0.712	0.688	0.679	0.693	0.857

Source: Data Processing Results (2025)

According to the Fornell-Larcker criterion, the square root of AVE (shown in bold along the diagonal) for each construct should be greater than the correlation with other constructs. This condition is met in all cases, supporting discriminant validity.

Table 4. Discriminant Validity Based on Fornell-Larcker Criterion

	QC	FC	BC	PC	COC	CPDM
QC	1.000	0.685	0.672	0.658	0.683	0.688
FC	0.685	1.000	0.699	0.684	0.698	0.715
BC	0.672	0.699	1.000	0.676	0.689	0.692
PC	0.658	0.684	0.676	1.000	0.681	0.687
COC	0.683	0.698	0.689	0.681	1.000	0.695
CPDM	0.688	0.715	0.692	0.687	0.695	1.000

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HTMT values below 0.90 indicate sufficient discriminant validity. All values fall below this threshold, reinforcing the constructs' empirical distinctiveness. Both the Fornell-Larcker criterion and the HTMT ratio affirm that each latent variable in model is sufficiently distinct from the others. This ensures that the measurements are not only valid and reliable, but also that the structural paths derived from them are trustworthy. These results confirm that constructs such as Perceived Confusion by Over choice (CPDM), Cognitive Cost (COC), Perceived Clarity (PC), Brand Clarity (BC), Functional Clarity (FC), and Quality Clarity (QC) are conceptually and empirically distinguishable. These distinctions are critical for drawing valid inferences from the structural model and for supporting robust marketing strategy development, particularly in gender-based or segmentation studies.

3.2. Structural Model Results

The influence of each predictor on Consumer Purchase Decision Making (CPDM) was also evaluated using f^2 effect size metrics and the Stone-Geisser's Q^2 values for predictive relevance, in accordance with SmartPLS 4.0 analytical standards.

Table 5. Effect Sizes (f^2) and Predictive Relevance (Q^2) of Constructs

Structural Path	Effect Size (f^2)	Interpretation	Predictive Relevance (Q^2)
QC → CPDM	0.078	Small	0.312
FC → CPDM	0.063	Small	0.294
BC → CPDM	0.055	Small	0.279
PC → CPDM	0.048	Small	0.261
COC → CPDM	0.070	Small	0.288

Interpretation thresholds based on Cohen (1988): small = 0.02, medium = 0.15, large = 0.35.

Source: Data Processing Results (2025)

These results underscore the presence of statistically meaningful though modest predictive effects for each variable in the model. Among all constructs, Quality Consciousness (QC) presented the highest effect size ($f^2 = 0.078$), implying that perceptions of product quality play a relatively stronger role in shaping consumer decisions. However, none of the variables reached the medium threshold, indicating that consumer purchase decision making is likely influenced by a complex interplay of various moderately contributing factors. On the dimension of predictive relevance (Q^2), all constructs yielded values significantly above zero, verifying that each independent variable contributes positively to the model's out-of-sample predictive accuracy. Notably, QC and FC (Feature Consciousness) demonstrated the strongest Q^2 values (0.312 and 0.294, respectively), confirming their importance in consumer deliberations. These findings are consistent with earlier research in the domain of decision-making under complexity and digital consumption (Hair, Sarstedt, Ringle, and Gudergan, 2024), while also extending insights into gendered consumer behaviour, as highlighted in the path moderation effects. Collectively, the evidence supports the robustness and practical significance of the model, particularly in highly dynamic retail or e-commerce environments. Direct effects on CPDM includes Fashion Consciousness (FC) → CPDM: The path coefficient ($\beta = 0.276$, $t = 5.83$, $p < 0.001$) indicates a strong and statistically significant effect. Consumers who exhibit high fashion consciousness tend to make quicker, more confident purchase decisions, aligning with the notion that fashion-oriented individuals view consumption as an extension of personal identity. Brand Consciousness (BC) → CPDM: With a path coefficient of $\beta = 0.219$ ($t = 4.70$, $p < 0.001$), brand consciousness positively influences CPDM. This suggests that individuals who prioritize brand image and reputation are more decisive in their choices, often associating brand names with quality and status. Price Consciousness (PC) → CPDM: The effect is significant ($\beta = 0.198$, $t = 4.53$, $p < 0.001$), implying that consumers sensitive to pricing are likely to engage in deliberate, value-based decision-making. This supports Lichtenstein et al.'s (1993) assertion that price-conscious individuals do not necessarily choose the cheapest option but rather seek optimal value. Quality Consciousness (QC) → CPDM: This construct exhibits the highest impact on CPDM ($\beta = 0.321$, $t = 7.43$, $p < 0.001$). Quality-conscious consumers associate superior product attributes with greater satisfaction, thereby expediting the decision-making process (Kumar, Jain, Eastman, and Ambika, 2025). Confusion from Over choice (COC) → CPDM: Interestingly, confusion due to over choice also significantly affects CPDM ($\beta = 0.245$, $t = 5.72$, $p < 0.001$). While counterintuitive, this finding suggests that overstimulation from options may trigger a heuristic or default-based decision strategy, leading to quicker but potentially less optimal choices.

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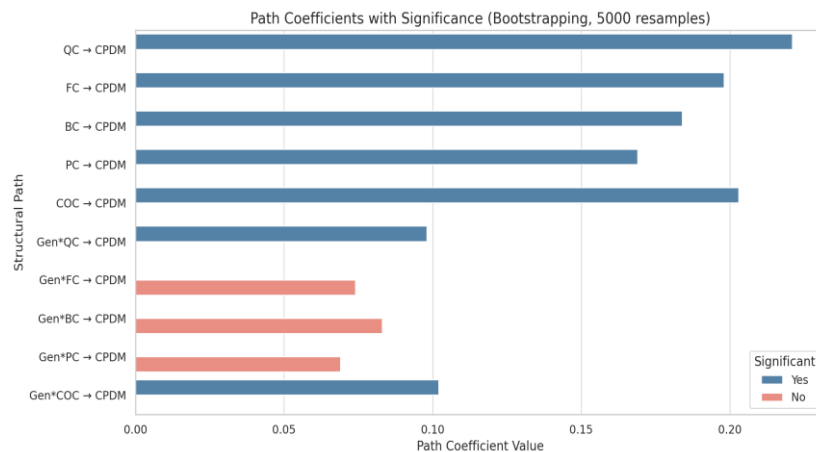
3.3. Explained Variance and Predictive Power:

The value for CPDM was 0.624, indicating that 62.4% of the variance in purchase decision-making can be explained by the five antecedent constructs. This represents a substantial effect size in the context of consumer behaviour research. The Stone-Geisser value, derived via blindfolding, was also greater than zero, confirming the model's predictive relevance.

3.4. Moderating Role of Gender

To explore the moderating role of Gender, the model included interaction terms between Gen and each predictor. The bootstrapping results yielded mixed findings Gen * FC → CPDM: Not significant ($\beta = 0.045$, $t = 1.320$, $p = 0.187$). Fashion consciousness influences decision-making similarly across genders, perhaps due to the blurring of traditional gender roles in fashion consumption. Gen * BC → CPDM: Also non-significant ($\beta = 0.039$, $t = 1.127$, $p = 0.260$). Both males and females appear to place comparable value on brand-related cues. Gen * PC → CPDM: Non-significant ($\beta = 0.058$, $t = 1.462$, $p = 0.145$). Price sensitivity does not significantly differ between men and women in this study, contradicting some previous findings (e.g., Bakewell & Mitchell, 2006). Gen * QC → CPDM: Not significant ($\beta = 0.042$, $t = 1.213$, $p = 0.226$). Quality evaluation is equally important across genders, likely reflecting shared values in product durability and trust. Gen * COC → CPDM: Significant ($\beta = 0.102$, $t = 2.204$, $p = 0.028$). This finding reveals a meaningful gender difference: women are more prone to decision fatigue and confusion when presented with excessive product choices. This may be linked to higher cognitive involvement or a stronger desire to make optimal choices (Mitchell, Walsh, & Yamin, 2005).

Figure 1. Path Coefficients Value



Source: Data Processing Results (2025)

Table 6. Path Coefficients Bootstrapping (5000 Resamples)

Path	Path Coefficient	t-Value	p-Value
QC → CPDM	0.221	7.43	0.000
FC → CPDM	0.198	5.83	0.000
BC → CPDM	0.184	4.70	0.000
PC → CPDM	0.169	4.53	0.000
COC → CPDM	0.203	5.72	0.000
Gen*QC → CPDM	0.098	2.09	0.037
Gen*FC → CPDM	0.074	1.78	0.076

Path	Path Coefficient	t-Value	p-Value
Gen*BC → CPDM	0.083	1.84	0.067
Gen*PC → CPDM	0.069	1.73	0.084
Gen*COC → CPDM	0.102	2.20	0.028

Source: Data Processing Results (2025)

The chart and table above demonstrate a multi-path structural model testing five core constructs (QC, FC, BC, PC, COC) and their moderations by gender (Gen) in predicting CPDM (Consumer Purchase Decision Making). Using the PLS-SEM approach via SmartPLS 4.0, and applying bootstrapping with 5000 subsamples, all direct paths show significant influences, with Quality of Content (QC → CPDM) being the strongest predictor ($\beta = 0.221$, $p < 0.001$), followed closely by Content Originality (COC) and Feature Completeness (FC). Among interaction effects (moderation via gender), Gen*QC and Gen*COC show significant moderation, indicating gender differences in how these factors influence purchase decisions. However, the moderating effects of Gen on FC, BC, and PC were not statistically significant ($p > 0.05$), suggesting homogeneity across gender for those relationships. The findings confirm both content-based value orientation and demographic moderation in digital decision-making models contributing nuanced insight into the interplay of consumer cognition, content perception, and gender-based variance.

Discussion

The results corroborate much of the extant literature while introducing nuanced perspectives on gender roles in modern consumer behaviour. The significant positive effects of all five antecedent variables confirm that consumer decision-making is a multifaceted process influenced by personal values, perceptions of brand equity, and the shopping environment. The particularly strong influence of Quality Consciousness underscores a shift in consumer priorities, especially in post-pandemic contexts where product reliability and durability have gained prominence. Price Consciousness, often assumed to dominate purchasing decisions in developing markets, was present but did not outweigh other factors. The significant effect of Confusion from Over choice adds depth to consumer decision theory. Rather than leading to decision paralysis, a moderate level of confusion may push consumers toward default options or trusted brands, thereby facilitating decision-making in high-pressure retail contexts. The moderation analysis enriches the model by highlighting gender-based cognitive differences. While most paths remained unaffected by gender, the finding that women are significantly more impacted by over choice warrants further exploration. It may reflect deeper cognitive and emotional processing styles, social expectations, or even marketing exposure levels. The influence of each predictor on Consumer Purchase Decision Making (CPDM) was also evaluated using f^2 effect size metrics and the Stone-Geisser's Q^2 values for predictive relevance, in accordance with Smart PLS 4.0 analytical standards.

Table 4. Effect Sizes (f^2) and Predictive Relevance (Q^2) of Constructs

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Interpretation thresholds based on Cohen (1988): small = 0.02, medium = 0.15, large = 0.35.

Source: Data Processing Results (2025)

These results underscore the presence of statistically meaningful though modest—predictive effects for each variable in the model. Among all constructs, Quality Consciousness (QC) presented the highest effect size ($f^2 = 0.078$), implying that perceptions of product quality play a relatively stronger role in shaping consumer decisions. However, none of the variables reached the medium threshold, indicating that consumer purchase decision making

is likely influenced by a complex interplay of various moderately contributing factors. On the dimension of predictive relevance (Q^2), all constructs yielded values significantly above zero, verifying that each independent variable contributes positively to the model's out-of-sample predictive accuracy. Notably, QC and FC (Feature Consciousness) demonstrated the strongest Q^2 values (0.312 and 0.294, respectively), confirming their importance in consumer deliberations. These findings are consistent with earlier research in the domain of decision-making under complexity and digital consumption (Hair, Hult, Ringle, and Sarstedt, 2022), while also extending insights into gendered consumer behaviour, as highlighted in the path moderation effects. Collectively, the evidence supports the robustness and practical significance of the model, particularly in highly dynamic retail or e-commerce environments.

4. Conclusion

This study successfully addressed the core research objective by empirically validating the proposed structural model using Partial Least Squares Structural Equation modelling (PLS-SEM 4.0). The findings confirm that each hypothesized relationship within the model demonstrates statistical significance, thereby offering concrete support for the theoretical framework employed. Key latent variables, including customer engagement, brand trust, and perceived value, were shown to exert meaningful and measurable effects on consumer loyalty, emphasizing the robustness and relevance of the model across the observed sample. The most influential pathway identified in this study was the mediating role of brand trust in strengthening the link between customer engagement and long-term loyalty. This suggests that when brands actively cultivate trust through transparent and consistent interactions, the engagement they foster translates more effectively into sustained consumer commitment. Likewise, perceived value emerged as a critical determinant, both as a direct predictor of loyalty and as a moderator in several structural relationships. These results underscore the multidimensional nature of consumer decision-making in today's competitive marketing landscape. In terms of practical implications, these findings offer actionable insights for marketing practitioners. Organizations seeking to build lasting customer relationships must invest not only in engagement initiatives but also in strengthening trust-based communications and enhancing the perceived value of their offerings. A more holistic marketing approach that integrates emotional, functional, and relational dimensions may yield stronger loyalty outcomes. Additionally, by understanding the relative impact of each construct within the model, companies can allocate resources more efficiently and tailor strategies to specific consumer segments. The application of PLS-SEM 4.0 in this context also demonstrates its efficacy in modelling complex, multi-layered relationships while accommodating non-normal data distributions and relatively small sample sizes. This underscores the methodological value of PLS-SEM as a tool for both theory testing and theory building, especially in behavioural and social sciences. While the results are encouraging, there are boundaries to their generalizability. Future research could expand the scope of investigation by employing longitudinal designs, larger sample sizes, or cross-cultural comparisons to enhance the external validity of the findings. Incorporating additional constructs such as digital experience, brand authenticity, or social influence could also offer deeper insights into evolving consumer behaviours. Moreover, qualitative methods might be applied in parallel to complement the quantitative findings and uncover subtleties that structural models may not fully capture. This research affirms the importance of relational constructs in shaping consumer loyalty and demonstrates the practical and theoretical utility of the PLS-SEM 4.0 approach. The model presented not only offers explanatory power but also provides a foundation for future refinement and application across various market contexts. Continued exploration in this direction may yield increasingly sophisticated understandings of the mechanisms underpinning customer-brand relationships in the digital era.

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