

From Circular Awareness to Purchase Intention: A Risk-Ease-Value-Emotion Process among Chinese Consumers in Digital Circular Fashion

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Article

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Abstract

Circular fashion depends not only on environmental awareness but also on whether consumers perceive recirculated apparel as trustworthy, easy to evaluate and transact, environmentally meaningful, and emotionally rewarding. This study develops an S-O-R-informed process model, complemented by the Technology Acceptance Model (TAM), to examine how circular-product awareness/appraisal, perceived risk, perceived ease of use, environmental value, and emotional value are associated with purchase intention. Survey data from 435 Chinese consumers were analysed using confirmatory factor analysis and structural equation modelling. Circular-product awareness/appraisal was associated with lower perceived risk and higher perceived ease of use and environmental value. Perceived ease of use was positively associated with environmental value, emotional value, and purchase intention, whereas perceived risk was negatively associated with emotional value and purchase intention. Emotional value showed significant indirect associations linking perceived risk, environmental value, and perceived ease of use with purchase intention. The findings are consistent with a dual-valence framework in which enabling and inhibiting evaluations converge through emotional value in digital circular-fashion decision making.

Introduction

The fashion industry remains highly resource intensive, with fast-fashion production and consumption increasing pressure on raw materials, emissions, wastewater, and post-consumer waste [1–3]. In China, expanding textile consumption and the rapid development of second-hand markets have intensified concerns about resource depletion and the sustainability of fashion consumption [4, 5].

Circular-economy (CE) approaches respond to these pressures by extending product life, improving resource efficiency, and reducing waste [6, 7]. In fashion, reuse, resale, repair, refurbishment, and recycling can keep garments in circulation for longer and reduce reliance on virgin resources. Yet these environmental gains depend on consumer participation: circular systems cannot function at scale if consumers remain unwilling to evaluate, trust, and purchase recirculated apparel [8, 9].

At the same time, circular fashion is becoming increasingly digital. E-commerce, resale applications, short-video platforms, livestream commerce, and social media now shape how consumers discover, compare, evaluate, and purchase circular-fashion products. In these environments, decisions depend not only on product attributes but also on information presentation, interface usability, trust mechanisms, transaction protection, and platform governance [10–13]. Digital conditions therefore form part of the consumption mechanism rather than merely the channel through which a purchase occurs.

Awareness of circular principles and sustainable product attributes is important, but favourable sustainability attitudes do not automatically translate into purchases. Prior research repeatedly identifies an attitude-behaviour gap in sustainable fashion, in which consumers may endorse environmental goals while remaining sensitive to price, quality, convenience, hygiene, authenticity, and uncertainty [11, 9, 14].

In digital circular-fashion settings, information quality, accessibility, credibility, and decision conditions can therefore widen or narrow the gap between positive appraisal and actual purchase intention [15, 16].

To address this problem, the present study uses an S-O-R-informed process perspective together with TAM. S-O-R provides the broader logic that upstream evaluations can shape internal cognitive and affective states before a behavioral response is formed [17, 18]. TAM contributes perceived ease of use as a technology-related belief that is especially relevant when apparel evaluation and transactions are platform mediated [19, 20]. Importantly, the model does not treat circular-product awareness as a literal external environmental stimulus. Instead, it is positioned as an upstream cognitive awareness/appraisal that initiates a sequence of risk, usability, value, and emotion evaluations.

Chinese consumers provide a salient context for examining these mechanisms because fashion discovery and transactions are increasingly platform mediated, while sustainable-fashion engagement remains heterogeneous across price sensitivity, platform experience, risk tolerance, and value orientation [21–23]. This setting therefore allows the study to examine how sustainability-related cognition is associated with purchase intention under digitally mediated market conditions.

Existing research has established that awareness, perceived risk, perceived value, and platform conditions matter for sustainable or second-hand fashion consumption [24, 10, 25, 9]. However, these factors are often examined as parallel antecedents. This leaves a more specific theoretical problem unresolved: how does an upstream understanding and appraisal of circular products become purchase intention when consumers simultaneously evaluate potential loss, transaction effort, environmental meaning, and emotional reward?

The study examines Chinese consumers in a highly platformized fashion market and tests three linked questions: (1) whether circular-product awareness/appraisal is associated with lower perceived risk and higher environmental value and perceived ease of use; (2) whether digital ease, environmental value, emotional value, and perceived risk occupy distinct positions in the formation of purchase intention; and (3) whether emotional value statistically transmits both enabling and inhibiting associations with purchase intention.

The contribution is not the simple combination of S-O-R and TAM or the demonstration that familiar predictors are statistically significant. Rather, the study specifies an ordered dual-valence conversion process. First, perceived risk represents a loss-oriented route that can suppress purchase intention directly and by weakening emotional value. Second, perceived ease of use and environmental value represent enabling routes that become more behaviorally consequential when they create positive emotional value. Third, perceived ease of use is repositioned from a purely technical adoption variable to a component of sustainability value formation in digital apparel consumption. Together, these mechanisms explain why favorable circular-fashion awareness may fail to become purchase intention even among digitally experienced consumers.

The remainder of the article reviews the digital circular-fashion context and relevant consumer literature, develops the integrated theoretical framework and hypotheses, describes the research design and SEM procedures, reports the empirical results, and then discusses theoretical contributions, managerial implications, limitations, and future research.

Literature Review and Conceptual Background

Digital Circular-Fashion Consumption

Circular fashion applies circular-economy principles to clothing consumption by extending product life through reuse, resale, repair, refurbishment, and recycling [26, 27]. As these practices become digitally mediated, consumers increasingly rely on platform information, search and filtering, reviews, reputation mechanisms, authentication, and transaction protection to evaluate non-new apparel [28–30]. Digital interfaces therefore affect not only transaction efficiency but also how consumers assess uncertainty, sustainability benefits, and the emotional experience of circular purchasing.

Chinese Consumers in Digital Circular-Fashion Markets

Chinese consumers encounter circular fashion through online resale, social commerce, short-video content, and other digital touchpoints. Prior research shows that participation is shaped by perceived value, trust, risk, and platform experience, while sustainable-fashion attitudes may remain weak predictors of purchase when practical barriers are salient [25, 22, 23]. This context is useful for examining whether circular-product awareness/appraisal is translated into purchase intention through distinct risk, usability, environmental-value, and emotional-value pathways.

Theoretical Positioning: An S-O-R-Informed Process with TAM

The S-O-R framework is useful here as a process logic rather than as a rigid relabeling exercise. It proposes that an upstream condition or evaluation can alter internal organism states that subsequently shape a behavioral response [17, 18]. In the present study, perceived risk, perceived ease of use, environmental value, and emotional value are treated as distinct internal evaluations that precede purchase intention. Circular-product awareness/appraisal is positioned upstream because it reflects what consumers know and believe about circular products before these more proximal judgments are formed.

TAM adds a specific digital-consumption mechanism. Perceived ease of use captures the expected effort required to search, compare, evaluate, verify, and transact through digital systems [19, 20]. In circular fashion, these tasks are consequential because product uncertainty is often higher than in conventional new-apparel retail. Perceived ease of use is therefore not treated as a substitute for

sustainability value or risk; it is a technology-related cognitive appraisal that can shape both value formation and behavioral intention.

The constructs are conceptually differentiated. Perceived risk is a loss-oriented cognitive appraisal concerning possible negative outcomes. Environmental value is an evaluative judgment about ecological benefit. Emotional value is an affective response involving pleasure, satisfaction, pride, or identification. Perceived ease of use is an effort-related technology belief. This differentiation is central to the model because the proposed contribution concerns how these distinct states are ordered and connected, not merely whether they correlate with purchase intention.

Conceptual Model

Figure 1 presents the proposed process model. Circular-product awareness/appraisal (ACP) is positioned upstream as a broad cognitive awareness/appraisal rather than as a literal external environmental stimulus. Perceived risk (PR), perceived ease of use (PEU), environmental value (EV), and emotional value (EmV) are conceptually differentiated internal evaluations, and purchase intention (PI) is the behavioral response. This positioning retains the empirical S-O-R/TAM structure while avoiding conceptual overreach.

The model specifies two linked evaluative routes. A negative, loss-oriented route is expected to operate through perceived risk, which should be associated with lower purchase intention directly and with lower emotional value. Positive enabling routes are expected to operate through perceived ease of use and environmental value, which should become more behaviorally consequential when they are associated with stronger emotional value. The model therefore tests an ordered dual-valence framework rather than a set of parallel predictors.

Hypotheses Development

Circular-Product Awareness/Appraisal, Risk, Environmental Value, and Ease of Use

The original scale label, Awareness of Circular Products (ACP), is retained for continuity with the instrument. However, its eight items extend beyond factual awareness to consumers' understanding and evaluation of access, quality, durability, price, and value. For conceptual precision, ACP is therefore interpreted in this study as circular-product awareness/appraisal rather than as simple environmental knowledge.

Greater circular-product awareness/appraisal should be associated with lower perceived risk because better understanding of product origin, condition, quality assurance, and recirculation processes can reduce ambiguity about hygiene, authenticity, functionality, and transaction outcomes [31, 10, 32]. The

same awareness/appraisal should be associated with stronger environmental value when consumers more clearly connect reuse and extended garment life with resource conservation and waste reduction [24].

Familiarity with circular-product characteristics, transaction rules, and evaluation procedures should also make digital search, comparison, verification, and purchasing feel easier to manage, consistent with the effort-related logic of TAM [20].

Based on the above analysis, the following hypotheses are proposed:

H1: Circular-product awareness/appraisal is negatively associated with perceived risk.

H2: Circular-product awareness/appraisal is positively associated with environmental value.

H3: Circular-product awareness/appraisal is positively associated with perceived ease of use.

Perceived Ease of Use, Value Formation, and Purchase Intention

Perceived ease of use (PEU) captures how simple and controllable consumers find platform search, evaluation, and transactions. TAM identifies perceived ease of use as a technology-related belief associated with adoption and behavioral intention [19, 20]. In circular-fashion platforms, low-friction navigation and clear transaction processes can therefore support participation.

Ease of use may also be associated with stronger environmental and emotional value because lower transaction friction can allow consumers to focus more readily on sustainability meaning and the consumption experience [33, 34].

Smooth, transparent, and controllable interactions can generate pleasure, satisfaction, and confidence, which may in turn support purchase intention.

Accordingly, PEU is expected to be positively associated with environmental value, emotional value, and purchase intention.

Based on the above analysis, the following hypotheses are proposed:

H4: Perceived ease of use is positively associated with environmental value.

H5: Perceived ease of use is positively associated with emotional value.

H6: Perceived ease of use is positively associated with purchase intention.

Environmental Value and Emotional Value

Environmental value (EV) reflects the perceived environmental benefit of circular consumption. When consumers believe that reuse and recirculation reduce waste and resource burdens, this rational evaluation can be accompanied by moral satisfaction, identification, and other positive emotions [35, 36]. Thus, stronger EV is expected to be associated with stronger emotional value.

Based on the above analysis, the following hypotheses are proposed:

H7: Environmental value is positively associated with emotional value.

Perceived Risk as a Cognitive and Emotional Barrier

Perceived risk (PR) remains a central barrier in second-hand and circular fashion because concerns about hygiene, quality, authenticity, and functionality can undermine trust and psychological comfort [10]. Higher perceived risk is therefore expected to be associated with lower emotional value and lower purchase intention.

This inhibitory effect is particularly relevant online, where consumers depend on platform information, reviews, and assurance mechanisms to evaluate products that cannot be inspected physically [37].

Based on the above analysis, the following hypotheses are proposed:

H8: Perceived risk is negatively associated with emotional value.

H9: Perceived risk is negatively associated with purchase intention.

Emotional Value and Purchase Intention

Emotional value (EmV) captures pleasure, satisfaction, and emotional identification. Prior research shows that emotional and experiential value are associated with sustainable-fashion evaluations and purchase intention [38–40]. In digital circular fashion, positive emotion may therefore function as a proximal affective state linking favorable evaluations with purchase tendency.

H10: Emotional value is positively associated with purchase intention.

Methodology

Research Design

This study used a quantitative cross-sectional questionnaire design to examine associations among circular-product awareness/appraisal, perceived risk, perceived ease of use, environmental value, emotional value, and purchase intention in digital circular-fashion consumption. Structural equation modeling (SEM) was selected because the research questions concern relationships among multiple latent constructs measured by several observed indicators [41]. The cross-sectional design supports tests of association and indirect effects but does not establish temporal or causal ordering.

Sample and Data Collection

A total of 446 questionnaires were collected. Responses showing obvious abnormal patterns or clear indicators of invalid completion were removed before analysis, leaving 435 valid questionnaires. Respondents were adults aged 18–31 drawn from the target Chinese consumer population. Participation was voluntary and anonymous, and the data were used solely for academic research. The sample profile is shown in Fig. 2.

Measurement

All latent-variable measures were adapted from established scales and refined for the digital circular-fashion context. Awareness of circular products (ACP) contains eight items and captures consumers' understanding and evaluation of circular-product access, quality, durability, price, and value; perceived risk (PR) contains four items addressing quality, hygiene, authenticity, and return-related uncertainty; perceived ease of use (PEU) contains three items; and purchase intention (PI), environmental value (EV), and emotional value (EmV) each contain four items. A pilot test was conducted before the formal survey to assess wording clarity and contextual relevance. All items were measured on seven-point Likert scales ranging from 1 (strongly disagree) to 7 (strongly agree). Table 1 summarises the constructs, item numbers, sources, and contextual adaptations.

Table 1
Variable measurement scales and sources.

Construct	Item Number	Main Sources	Notes
ACP	8	[24]; [32]	Adapted to the context of circular fashion consumption
PR	4	[10]; [32]	Adapted to perceived quality, hygiene, authenticity, and return-exchange risks in circular fashion consumption
PEU	3	[19]	Used to measure the ease of use of digital platforms and transaction processes
PI	4	[40]; [13]	Adapted to the context of circular fashion consumption
EV	4	[32]; [34]	Adapted to the context of circular fashion consumption
EmV	4	[38]; [36]	Adapted to the context of circular fashion consumption

Data Analysis

Data were analyzed using SPSS 26.0 and AMOS 26.0 in a two-stage procedure comprising assessment of the measurement model followed by testing of the structural model. Preliminary factorability was supported by a Kaiser-Meyer-Olkin value of 0.895 and Bartlett’s test of sphericity (chi-square = 5618.363,

$p < 0.001$). Statistical significance was evaluated at $\alpha = 0.05$ using two-tailed p values unless otherwise stated.

Reliability was assessed with Cronbach's alpha. Confirmatory factor analysis (CFA) evaluated measurement-model fit; convergent validity was assessed through standardized factor loadings, composite reliability (CR), and average variance extracted (AVE), and discriminant validity was assessed with the Fornell-Larcker criterion [42, 43].

SEM was used to estimate the hypothesized structural paths [41]. Indirect effects were evaluated with 5,000 bias-corrected bootstrap resamples and 95% confidence intervals; an indirect effect was considered statistically supported when the confidence interval excluded zero [44]. AMOS reports very small p values as ***; these are reported as $p < 0.001$ rather than as exact values.

Ethics approval and informed consent

The study was conducted in accordance with the Declaration of Helsinki and received approval from the Institutional Review Board of Shaanxi Fashion Engineering University before data collection. The approval documentation did not assign a separate reference number. Informed and voluntary consent was obtained from all participants, and responses were collected anonymously.

Use of generative AI in manuscript preparation

OpenAI ChatGPT was used to assist with English-language editing, structural organization, and journal-format adaptation during manuscript preparation. No AI tool was used to collect, fabricate, alter, or analyse the study data or to generate statistical results. The authors remain responsible for the accuracy, interpretation, and final content of the manuscript.

Results

Descriptive Statistics

Supplementary Tables S1 and S2 summarize the descriptive statistics and correlations. PEU had the highest mean ($M = 5.039$, $SD = 1.520$), followed by ACP ($M = 4.999$, $SD = 1.343$), whereas PR had the lowest ($M = 2.948$, $SD = 1.406$). PI averaged 4.651 ($SD = 1.512$), EV 4.436 ($SD = 1.589$), and EmV 4.733 ($SD = 1.470$).

Correlations were consistent with the proposed directions: PI correlated positively with ACP, PEU, EV, and EmV and negatively with PR. ACP correlated positively with EV and EmV and negatively with PR (Supplementary Table S2). These bivariate relationships were treated as preliminary associations rather than causal evidence.

Measurement Model Assessment

Reliability and Convergent Validity

Reliability results (Supplementary Table S3) showed Cronbach's alpha values from 0.805 to 0.898 across the six constructs; the overall alpha was 0.835.

CFA results (Fig. 3; Supplementary Table S4) indicated good fit: chi-square/df = 1.862, RMSEA = 0.045, GFI = 0.915, CFI = 0.951, NFI = 0.900, and IFI = 0.951. Standardized factor loadings ranged from 0.683 to 0.883.

CR values ranged from 0.806 to 0.899 and AVE values from 0.510 to 0.617, supporting convergent validity (Supplementary Table S5).

Discriminant Validity

Supplementary Table S6 shows that the square root of AVE for each construct exceeded its correlations with other constructs, satisfying the Fornell-Larcker criterion and supporting discriminant validity.

Structural Model Assessment and Hypothesis Testing

Figure 4, Table 2, and Supplementary Table S7 summarize the structural results. ACP was negatively associated with PR (H1: $\beta = -0.460$, $p < 0.001$) and positively associated with EV (H2: $\beta = 0.407$, $p < 0.001$) and PEU (H3: $\beta = 0.277$, $p < 0.001$). PEU was positively associated with EV (H4: $\beta = 0.171$, $p = 0.002$) and EmV (H5: $\beta = 0.321$, $p < 0.001$); EV was positively associated with EmV (H7: $\beta = 0.346$, $p < 0.001$); and PR was negatively associated with EmV (H8: $\beta = -0.340$, $p < 0.001$).

For purchase intention, PEU showed a positive association (H6: $\beta = 0.172$, $p = 0.004$), PR a negative association (H9: $\beta = -0.340$, $p < 0.001$), and EmV a positive association (H10: $\beta = 0.263$, $p < 0.001$). All ten hypothesized paths were statistically supported.

Table 2
Structural model estimates.

PEU			Unstandardized Estimate	S.E.	C.R.	P	Standardized Estimate
	<-- -	ACP	0.266	0.054	4.886	***	0.277
PR	<---	ACP	-0.435	0.058	-7.498	***	-0.46
EV	<---	ACP	0.478	0.067	7.099	***	0.407
EV	<---	PEU	0.208	0.066	3.149	0.002	0.171
EmV	<---	EV	0.299	0.046	6.46	***	0.346
EmV	<---	PR	-0.364	0.058	-6.219	***	-0.34
EmV	<---	PEU	0.338	0.057	5.967	***	0.321
PI	<---	PEU	0.188	0.066	2.864	0.004	0.172
PI	<---	PR	-0.377	0.072	-5.248	***	-0.34
PI	<---	EmV	0.273	0.074	3.7	***	0.263
Note: *** indicates $p < 0.001$.							

Indirect-Effect Analysis

Bootstrapping with 5,000 resamples (Table 3) supported three indirect associations through emotional value. The PR-PI indirect association through EmV was negative, whereas the EV-PI and PEU-PI indirect associations through EmV were positive. The 95% confidence intervals for all three indirect effects excluded zero. These results identify emotional value as a statistical convergence point for risk, environmental value, and digital ease, while the cross-sectional design precludes causal mediation claims.

Table 3
Bootstrap indirect-effect analysis.

Indirect Path	Indirect Effect	SE	Lower	Upper	P
PR→EmV→PI	-0.099	0.033	-0.178	-0.043	0.001
EV→EmV→PI	0.082	0.028	0.034	0.146	0.001
PEU→EmV→PI	0.092	0.033	0.037	0.169	0.001

Discussion

The results support the proposed conversion-process interpretation. Circular-product awareness/appraisal did not relate to purchase intention through a single sustainability route. Instead, it

was associated with lower perceived risk, greater perceived ease of use, and stronger environmental value, while these more proximal evaluations were linked to emotional value and purchase intention in different ways. The pattern is consistent with the argument that circular-fashion adoption depends on the joint management of uncertainty, digital effort, sustainability meaning, and affect.

Awareness/Appraisal Creates Actionable Confidence

ACP had its strongest standardized association with perceived risk ($\beta = -0.460$), while also showing positive associations with environmental value and perceived ease of use. This pattern suggests that product-related understanding may become behaviorally useful when it helps consumers make sense of both the garment and the transaction. In circular fashion, information about origin, condition, quality assurance, recirculation, price, and transaction rules can simultaneously reduce uncertainty and increase the perceived feasibility of participation [10, 32]. The finding therefore positions awareness/appraisal as a more proximal evaluative resource than general pro-environmental orientation alone.

Ease of Use Participates in Sustainability Value Formation

Perceived ease of use was positively associated with purchase intention, but its theoretical importance was broader than the direct TAM path. PEU was also positively associated with environmental value and emotional value. This pattern indicates that digital friction may shape how consumers interpret sustainable apparel rather than merely whether they can complete a transaction. When searching, comparing, verifying, and purchasing are difficult, sustainability benefits may remain cognitively distant; when the process is clear and controllable, consumers may have more capacity to attend to environmental meaning and positive experience.

This finding extends the role of PEU from technical convenience to value formation. It does not imply that usability creates environmental benefits; rather, usability affects whether those benefits are accessible and psychologically salient during the decision process. That distinction clarifies why technology acceptance is relevant to circular fashion without turning a sustainability model into a generic e-commerce model.

Emotional Value Is the Convergence Point of Positive and Negative Routes

The indirect-effect results provide the most distinctive evidence for the proposed framework. Environmental value showed a positive indirect association with purchase intention through emotional value, consistent with the view that recognition of ecological benefit becomes more behaviorally consequential when accompanied by personally felt reward. Perceived ease of use likewise showed a positive indirect association through emotional value. In the opposite direction, perceived risk was negatively associated with purchase intention both directly and indirectly through lower emotional value.

Because these estimates are based on cross-sectional data, they are interpreted as statistical indirect associations rather than causal mediation.

Emotional value therefore functions as a convergence point rather than as one more parallel predictor. Positive evaluations of sustainability and usability become more actionable when they create satisfaction, pride, confidence, or identification, while risk suppresses intention partly by eroding those feelings. This helps explain why consumers can endorse circularity in principle yet hesitate to buy when the transaction feels uncertain or emotionally unrewarding [38, 36].

Apparel-Specific Implications of the Risk Route

Perceived risk remained a substantial direct barrier to purchase intention. This is especially relevant in circular apparel because hygiene, condition, authenticity, residual performance, and return uncertainty are closely tied to the physical garment and cannot always be resolved through digital presentation alone [10, 45]. The results suggest that sustainability communication cannot compensate for unresolved product uncertainty. Assurance mechanisms and positive experience must operate together.

Theoretical Contributions

First, it specifies an ordered dual-valence conversion process rather than presenting awareness, risk, technology beliefs, and value as independent predictors. Prior research has established that these factors matter, but the present model explains how they are connected: upstream circular-product awareness/appraisal is associated with a negative risk route and positive usability/value routes, and these routes converge before purchase intention is formed. This process-level explanation is more precise than a general claim that 'more awareness is associated with more sustainable purchasing.'

Second, the study clarifies the role of perceived ease of use in sustainable apparel consumption. TAM is not used simply to add a familiar technology variable. The findings show that PEU is associated with environmental value and emotional value as well as purchase intention. The theoretical implication is that platform usability can influence the accessibility and salience of sustainability benefits during apparel decision-making. Digital usability is therefore part of the evaluative context in which circular-fashion value is constructed.

Third, the study identifies emotional value as the statistical mechanism linking otherwise different evaluations. Environmental value and PEU were positively associated with purchase intention partly through stronger emotional value, whereas perceived risk was negatively associated with purchase intention partly through lower emotional value. Emotional value thus connects cognition and affect across both enabling and inhibiting routes. This provides a more specific account of the sustainable-fashion attitude-behavior gap: favorable environmental beliefs may remain insufficient when risk is high, usability is poor, or the purchase fails to produce personally meaningful emotional value. These contributions retain the S-O-R/TAM framework and empirical paths while defining the conceptual roles of the constructs more narrowly.

Managerial Implications

For circular-fashion platforms and apparel brands, the results indicate that adoption should be managed as an integrated assurance-usability-value system. First, platforms should reduce perceived risk through transparent product histories, condition grading, authentication, hygiene information, seller credibility signals, return guarantees, and clearly communicated dispute procedures. These mechanisms are especially important for second-hand and recirculated apparel, where consumers cannot fully inspect products before purchase.

Second, platform usability should be treated as part of the sustainability experience. Search and filtering functions, product comparison, checkout, payment, customer service, and after-sales processes should minimise friction and make circular products easy to understand and evaluate. When consumers can navigate transactions with confidence, they are more able to focus on environmental meaning and derive positive emotional value from the purchase experience.

Third, sustainability communication should connect environmental benefits with personally meaningful experiences. Messages that explain how resale, reuse, and extended product life reduce waste can be combined with style expression, discovery, affordability, and the satisfaction of making a responsible choice. The results suggest that environmental information is most likely to support purchase intention when it becomes emotionally salient rather than remaining an abstract ethical claim.

Limitations and Future Research

This study has several limitations. First, the findings should be interpreted within the context of the studied sample and research setting, rather than generalized beyond similar circular-fashion contexts without further validation. The cross-sectional design identifies statistically significant associations but does not establish strong causal ordering among the constructs. Longitudinal or experimental designs should further examine whether changes in product information, platform usability, or risk cues influence value formation and purchase intention over time.

Second, the study relies on self-reported perceptions and intentions; therefore, common-method and social-desirability biases cannot be completely ruled out. Future research could combine survey responses with behavioral indicators, such as clickstream data, verified transactions, repeat purchases, or experimentally observed choices, to provide a more comprehensive understanding of consumer behavior.

Third, although the ACP construct is conceptualized as circular-product awareness/appraisal in this study, its measurement incorporates both awareness-related perceptions and product appraisal dimensions, including access, quality, durability, price, and value. Future research could further differentiate these components, such as factual circularity knowledge, product-related evaluations, accessibility perceptions, price/value judgments, and sustainability awareness, to examine their distinct roles within circular-fashion decision-making processes.

Fourth, the sample focuses on Chinese consumers aged 18–31, which may limit the generalizability of the findings to other age groups and cultural contexts. Comparative research across countries, generations, and market environments could examine whether the proposed dual-valence framework operates similarly under different circular-fashion infrastructures and consumer norms.

Finally, this study examines digital circular fashion at a general platform level. Future research could distinguish among different digital channels, including resale applications, livestream commerce, short-video recommendation, social commerce, brand-operated take-back platforms, and online–offline integrated retail, while further examining actual purchase behavior, repurchase behavior, and word-of-mouth outcomes [46].

Conclusion

This study examines how circular-fashion awareness/appraisal is associated with purchase intention in digital consumption. Circular-product awareness/appraisal was associated with lower perceived risk and stronger perceived ease of use and environmental value; ease of use and environmental value were positively associated with emotional value; and risk was negatively associated with intention both directly and through emotional value. The central contribution is therefore a dual-valence association framework rather than a simple awareness-intention relationship. The findings show that digital usability, environmental meaning, perceived risk, and emotional value occupy distinct but connected positions in circular-fashion decision making. For practice, they imply that circular apparel platforms and brands need both assurance and experience: products and transactions must feel trustworthy, while sustainable purchasing should also feel easy, meaningful, and emotionally rewarding.

Declarations

Competing interests

The authors declare no competing interests.

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Author Contribution

X.S. conceived and designed the study, conducted data collection, performed data analysis, prepared the figures and tables, interpreted the results, and wrote the original manuscript. M.M. contributed to conceptualization, supervision, validation, resources, and manuscript review and editing. Both authors read and approved the submitted manuscript.

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Data Availability

The de-identified data and survey instrument supporting the findings of this study are available from the corresponding author on reasonable request.

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Figures

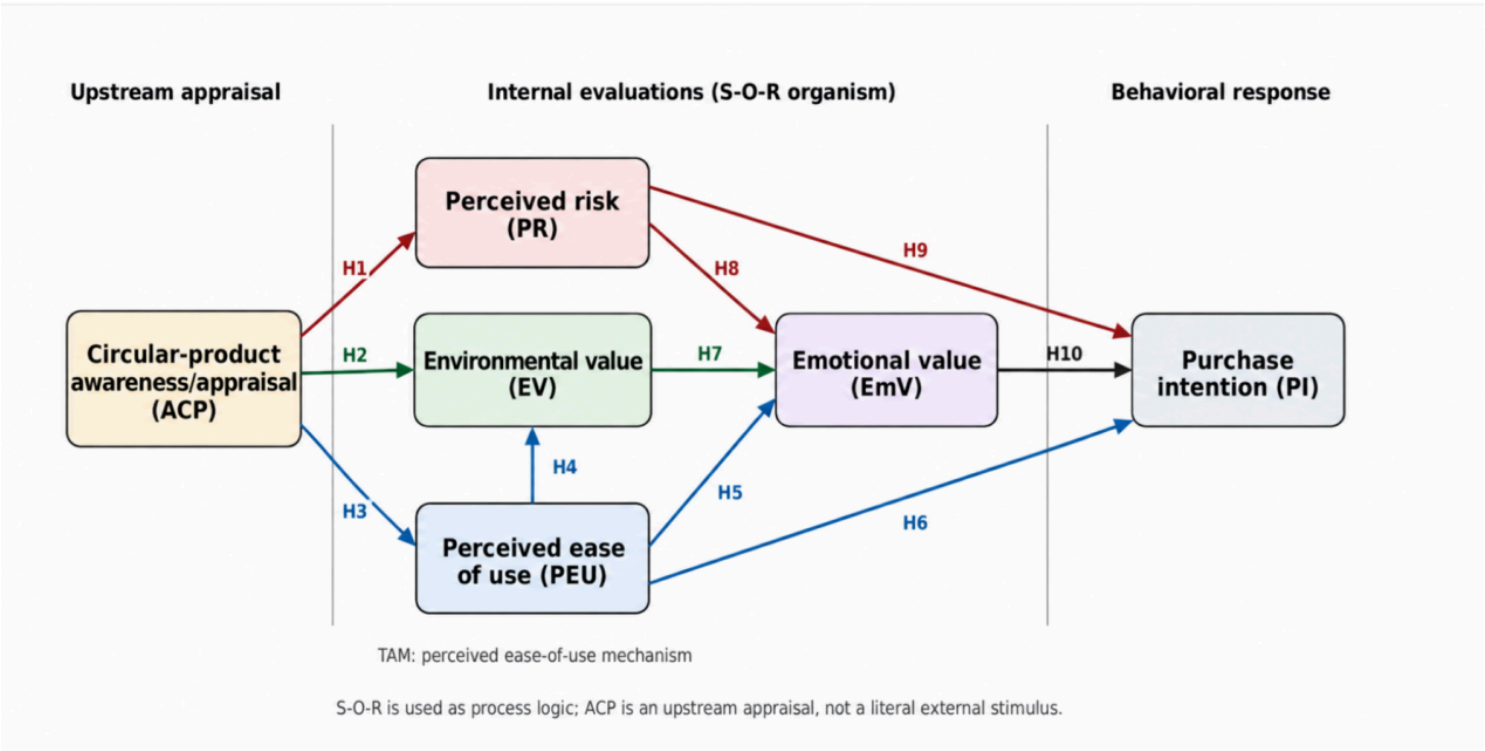


Figure 1

Proposed research model.

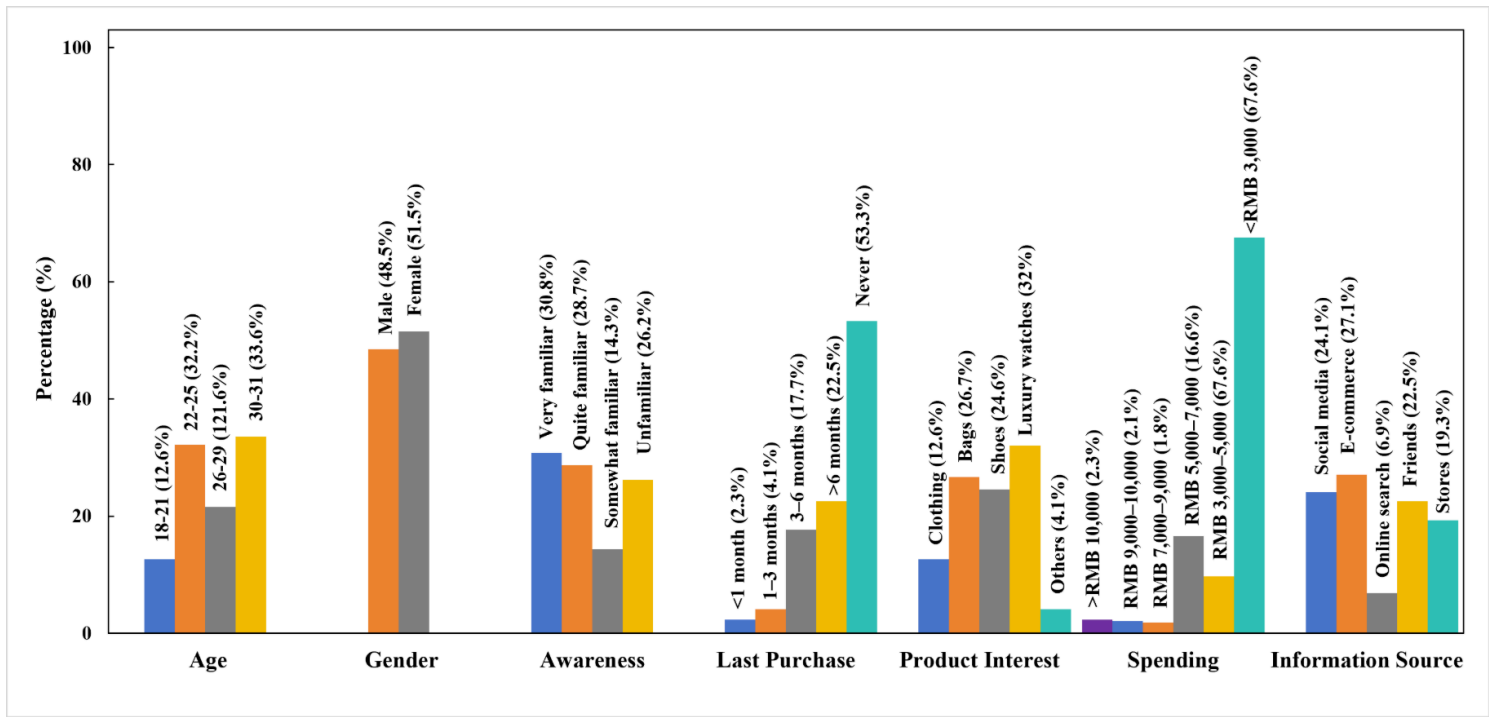


Figure 2

Sample profile.

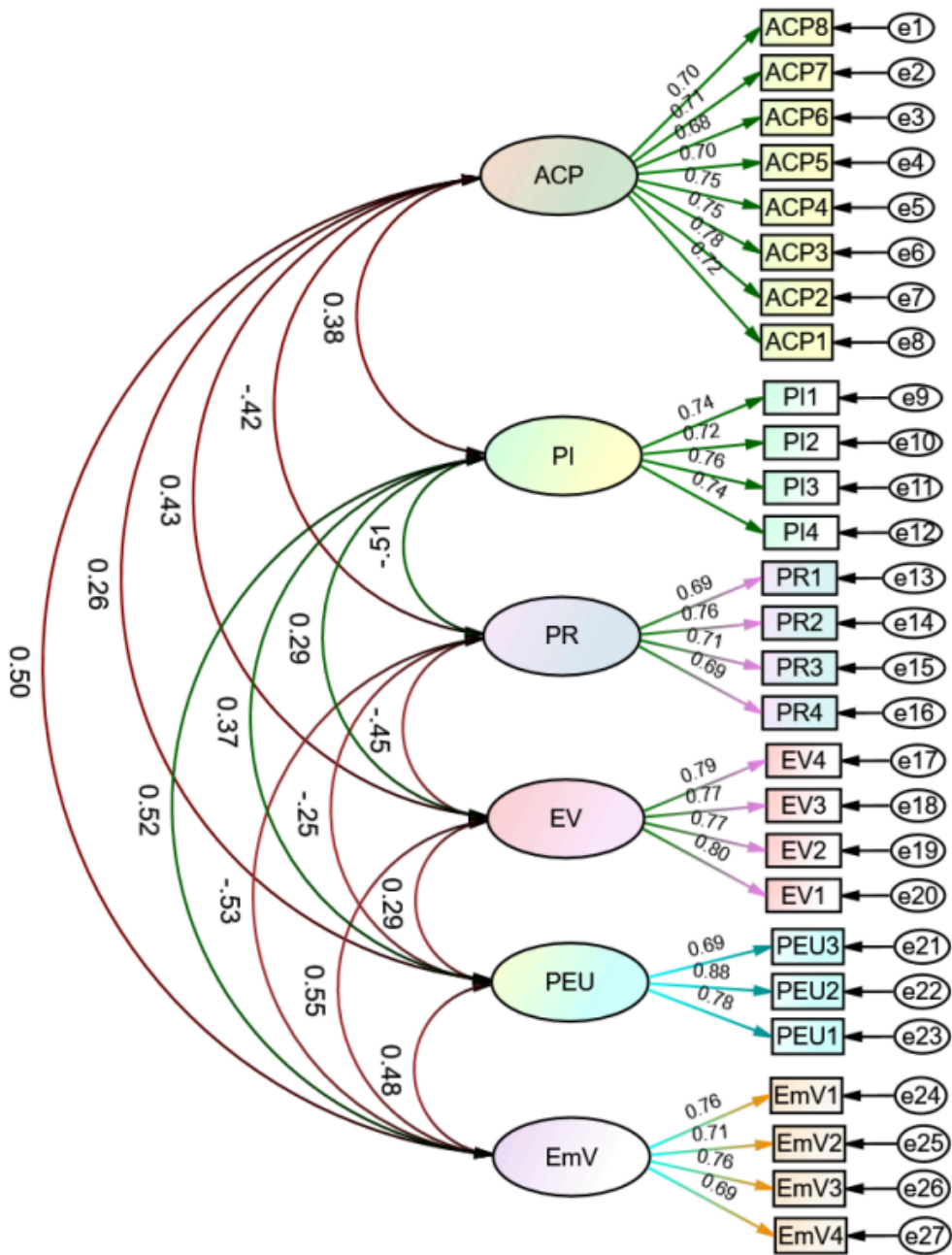


Figure 3

Confirmatory factor analysis of the measurement model.

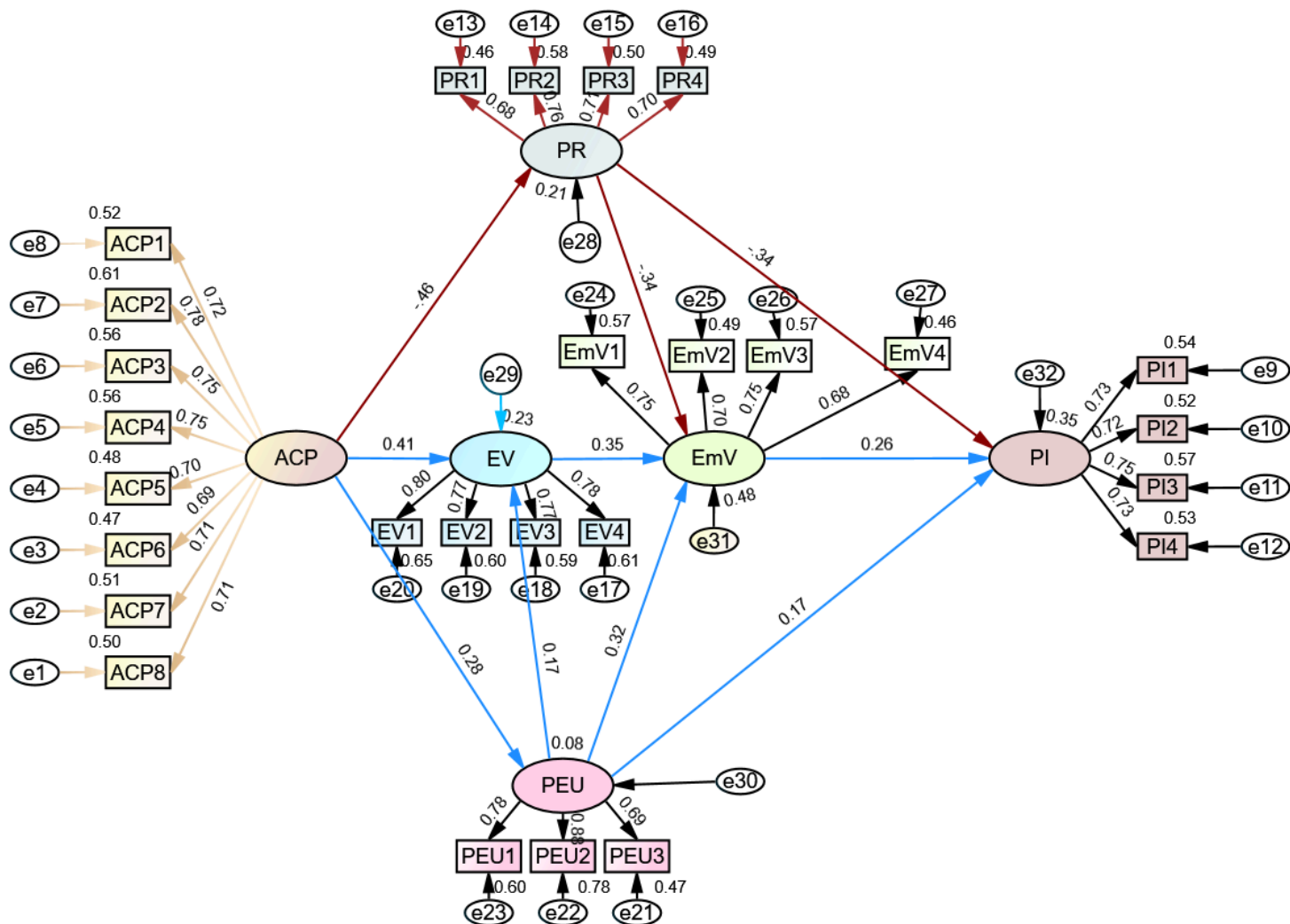


Figure 4

Standardized path coefficients of the structural model.