

RESEARCH ARTICLE

The impact of TEMU on Korean consumers' purchasing behavior: An empirical analysis of psychological factors

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ABSTRACT

This study examines how digital platform environments shape Korean consumers' psychological responses and purchasing behaviors in the context of cross-border e-commerce, focusing on TEMU as a rapidly expanding marketplace. Grounded in the intersection of technology and psychology, the study conceptualizes the digital marketplace as an information and psychological environment that influences trust, perceived risk, immersion, and ultimately consumers' well-being and behavioral intentions. It further incorporates Korea's unique socio-cultural context—characterized by high uncertainty avoidance and strong concern for product authenticity—to explain how environmental cues beyond platform strategies affect consumer decision-making.

Using a conceptual model that integrates platform characteristics, promotion strategies, UI convenience, and environmental psychological variables, this study investigates how these factors shape three core psychological mechanisms: trust, perceived risk, and immersion. Immersion is defined as cognitive absorption consistent with flow-based theory, while perceived risk is conceptualized across performance, financial, and privacy dimensions. Survey data were collected from Korean consumers familiar with TEMU. The empirical results show that platform characteristics and UI convenience significantly enhance immersion and trust while reducing perceived risk. Promotion strategies influence behavioral intention indirectly through increased immersion rather than through direct effects. Trust emerges as the strongest predictor of purchase intention, while perceived risk shows a significant mediating effect, demonstrating how consumers' psychological environments translate digital cues into behavioral outcomes. Contextual moderators shaped by Korea's regulatory and cultural environment are also discussed.

Keywords: TEMU; platform characteristics; market characteristics; consumer characteristics; purchasing behavior

1. Introduction

1.1. Background

With the rapid advancement of global digital commerce, cross-border e-commerce platforms have become a central channel through which consumers interact with technological systems embedded in their broader social, cultural, and psychological environments. TEMU, as one of the fastest-growing cross-border retail platforms, provides a unique context for examining how digital interfaces, platform algorithms, and information structures shape consumers' psychological experiences during online shopping. In line with the

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journal's emphasis on the intersection of technology and psychology, this study positions the digital marketplace not merely as a transactional space but as a complex psychological environment—an environment that affects trust, perceived risk, immersion, and ultimately individuals' well-being and behavioral regulation. Understanding these mechanisms is particularly important in Korea, where strong uncertainty avoidance and heightened sensitivity to product authenticity shape how consumers interpret platform cues and make purchasing decisions.

1.2. Research objectives

As digital commerce becomes increasingly immersive and algorithmically mediated, consumers' psychological responses are shaped not only by platform features but also by the informational cues embedded in the online environment. Prior studies in technology and consumer psychology have shown that factors such as interface design, promotional stimuli, and logistics transparency can meaningfully alter users' trust, perceived risk, and emotional engagement. However, existing research has primarily emphasized platform-driven mechanisms while overlooking how the psychological environment of cross-border digital markets interacts with consumers' socio-cultural backgrounds. In the Korean context—characterized by high expectations for service quality, strong sensitivity to counterfeit risks, and rapid adoption of mobile shopping—the psychological environment created by platforms like TEMU may exert unique influences on consumers' evaluations and behavioral intentions. Despite TEMU's rapid growth, academic research on its psychological impact remains limited, revealing a significant gap that this study seeks to address.

1.3. Research questions

In addition, the rapid expansion of cross-border platforms such as TEMU has intensified academic interest in understanding how consumers form judgments under conditions of information asymmetry and environmental uncertainty. Although prior studies have examined consumer trust, service expectations, or risk perceptions toward foreign online retailers, few have systematically integrated these constructs within an environmental-psychology framework. Specifically, existing literature rarely considers how platform signals (e.g., product information transparency, delivery reliability, and promotion intensity) interact with consumers' culturally shaped expectations to influence immersion, trust formation, and risk evaluation. This gap is particularly salient in the Korean market, where consumers exhibit both strong digital literacy and heightened vigilance toward potential product quality issues. Therefore, a more comprehensive model that captures the technological, informational, and socio-cultural layers of the digital shopping environment is needed to explain how consumers interpret platform cues and translate them into behavioral intentions.

1.4. Research methodology

Moreover, psychological constructs such as trust, perceived risk, and immersion—central to understanding consumer behavior in digital environments—require more integrated examination within cross-border e-commerce contexts. Trust has been widely recognized as a crucial determinant of online purchasing intention, yet its formation is highly sensitive to environmental cues such as authenticity signals, logistics reliability, and platform governance. Perceived risk, encompassing performance, financial, and privacy dimensions, is particularly salient in cross-border transactions where consumers face greater uncertainty and weaker institutional familiarity. Meanwhile, immersion, conceptualized as cognitive absorption consistent with flow theory, shapes how consumers process information, evaluate promotional stimuli, and engage emotionally with platform interfaces. Despite their importance, few studies have simultaneously examined these three psychological mechanisms under the combined influence of platform design, information structure, and cultural expectations. This creates a theoretical opportunity for a

comprehensive model that explains how the psychological environment of digital marketplaces shapes subsequent behavioral intentions.

Against this backdrop, this study aims to develop an integrated environmental-psychological model to examine how the digital marketplace environment of TEMU influences Korean consumers' psychological mechanisms and purchasing intentions. Specifically, the study investigates how platform characteristics, promotion strategies, and UI convenience shape three key psychological constructs—trust, perceived risk, and immersion—and how these constructs jointly determine consumers' behavioral intentions in cross-border online shopping. By incorporating Korea-specific socio-cultural expectations and uncertainty perceptions, the model reflects the technological, informational, and psychological layers of the consumer environment. Accordingly, the research addresses the following questions:

- (1) How do platform characteristics, promotion strategies, and UI convenience influence trust, perceived risk, and immersion within the psychological environment of cross-border digital marketplaces?
- (2) How do trust, perceived risk, and immersion interact to shape purchasing intention?
- (3) How does the Korean socio-cultural context condition these psychological pathways?

Through these inquiries, the study contributes to the literature by offering an environment-centered perspective on consumer psychology, clarifying the joint effects of trust, perceived risk, and immersion, and extending cross-border e-commerce research to incorporate psychological and cultural environment factors that have been largely overlooked.

2. Literature review

2.1. E-commerce overview

E-commerce has transformed global retail by enabling consumers and firms to interact within technologically mediated environments that transcend physical and temporal constraints. The World Trade Organization (WTO, 1998)^[1] defines e-commerce as the exchange of goods and services over electronic networks, encompassing B2B, B2C, and C2C transactions. With the increasing sophistication of digital technologies, online marketplaces now function not only as transactional infrastructures but also as information and psychological environments that shape user perceptions, decision-making processes, and behavioral regulation.

Cross-border e-commerce, in particular, has lowered geographical barriers and facilitated access to international products while simultaneously increasing consumers' exposure to uncertainty and information asymmetry. Li and Zhou (2020)^[2] emphasize that cross-border e-commerce promotes global trade mobility by reducing traditional logistical barriers. Platforms such as TEMU—operating under Pinduoduo—illustrate how algorithmic curation, pricing mechanisms, and global supply-chain integration jointly construct a digital environment that influences consumers' trust, perceived risk, and immersion. As noted by Guo et al. (2018)^[3], cross-border e-commerce platforms act as intermediaries embedded within complex regulatory and cultural contexts, where government policies and consumer-protection frameworks serve as critical environmental factors shaping user expectations and platform performance.

2.2. TEMU: A case study of cross-border e-commerce

TEMU, launched in 2022 by Pinduoduo, has rapidly emerged as a representative example of the new generation of cross-border e-commerce platforms. Its business model combines ultra-low pricing, high product variety, and algorithm-driven global supply-chain integration, allowing it to reach consumers across more than 40 countries within a short period. Industry analyses report that TEMU's global GMV surpassed

USD 5 billion by the third quarter of 2023, reflecting its strong operational scalability and competitive advantage in international logistics and procurement (Goldman Sachs, 2023, industry report)^[4]. Unlike earlier cross-border platforms, TEMU leverages centralized procurement, data-driven production coordination, and real-time algorithmic recommendations to construct an online environment that shapes users' psychological responses—particularly trust, perceived risk, and immersion.

Despite its rapid global expansion, TEMU faces unique challenges in markets such as South Korea, where domestic platforms like Coupang and Gmarket maintain strong consumer loyalty and set high expectations for service quality, delivery speed, and product authenticity. Existing research indicates that market maturity, regulatory structures, and culturally shaped consumer expectations strongly influence the acceptance of cross-border platforms (Li & Zhang, 2022)^[5]. Korean consumers, known for their high uncertainty avoidance and sensitivity toward counterfeit or low-quality goods, may interpret TEMU's low pricing and cross-border logistics through a heightened risk-perception lens. As a result, TEMU's success in Korea depends not only on competitive pricing or platform algorithms but also on how effectively it shapes the psychological environment—reducing perceived risk, enhancing trust cues, and fostering immersive user experiences that increase confidence in cross-border transactions.

2.3. Consumer behavior in E-commerce

Understanding consumer behavior is central to explaining why individuals engage with, trust, and ultimately purchase from digital commerce platforms. Classic theoretical frameworks such as the Theory of Planned Behavior (Ajzen, 1991)^[6] and the Technology Acceptance Model (Davis, 1986)^[7] emphasize that behavioral intentions arise from cognitive evaluations—including perceived usefulness, ease of use, attitudes, and perceived behavioral control. Building on these models, research in online and cross-border contexts has increasingly highlighted the importance of environmental psychological cues—such as information transparency, security signals, interface design, and promotional stimuli—in shaping consumer judgments (Pavlou, 2003)^[8].

In cross-border e-commerce, consumers face elevated uncertainty due to geographical distance, weaker institutional familiarity, and limitations in product inspection. These conditions heighten the roles of trust, perceived risk, and immersion, three psychological constructs central to this study. Trust functions as a cognitive belief that the platform will act reliably and fulfill its promises, while perceived risk encompasses performance, financial, and privacy-related uncertainties that consumers attempt to minimize in unfamiliar digital environments. Immersion, conceptualized as cognitive absorption within digital interfaces, affects how deeply consumers engage with platform content, interpret promotional cues, and form emotional responses that reinforce or weaken purchase decisions.

Compared to domestic markets, Korean consumers exhibit stronger expectations for logistics reliability, secure payments, and product authenticity, leading them to rely more heavily on psychological cues in evaluating cross-border platforms such as TEMU. Prior studies show that transparent return policies, enriched product information, and high usability interfaces can reduce perceived risk while simultaneously strengthening trust and immersive engagement (Kim & Lee, 2021; Yamini et al., 2023[9-10]). Therefore, consumer behavior in cross-border e-commerce can be understood as a process in which technological, informational, and cultural characteristics of the digital environment interact to shape psychological mechanisms that ultimately determine purchasing intentions.

2.4. Platform characteristics and consumer trust

Platform characteristics constitute core elements of the digital psychological environment that influence consumers' cognitive evaluations and behavioral judgments in e-commerce. Prior studies indicate that

system quality, interface usability, information transparency, and platform reliability are pivotal antecedents of trust, shaping consumers' expectations regarding the platform's competence and integrity (Madeja & Schoder, 2003; Zhang & Wu, 2021)[11,12]. In cross-border contexts, these platform characteristics become even more salient because consumers cannot physically inspect products, making them more dependent on digital cues such as logistics visibility, seller verification, return-policy clarity, and payment security.

In the case of TEMU, platform characteristics—particularly UI convenience, product information clarity, and algorithmic personalization—play a crucial role in forming trust within a psychologically uncertain environment. Transparent return policies, secure payment mechanisms, and consistent delivery performance reduce perceived risk while signaling platform accountability (Kim et al., 2024)[13]. Moreover, features such as intuitive navigation, rapid loading speed, reliable order tracking, and customer service responsiveness foster greater immersion, which in turn enhances consumers' confidence in the platform's reliability. Thus, platform characteristics shape trust not only directly through structural assurances but also indirectly through psychological pathways that reduce uncertainty and strengthen cognitive absorption during the shopping experience.

2.5. Market characteristics and consumer behavior

Market characteristics—including promotional strategies, logistics performance, and product variety—play an essential role in constructing the information and psychological environment in which consumers evaluate cross-border e-commerce platforms. Prior research indicates that promotions not only stimulate transactional motivations but also influence consumers' psychological states by increasing attention, emotional arousal, and perceived value (Gupta & Rathi, 2020)[14]. In cross-border contexts, the effectiveness of promotions depends heavily on consumers' trust in the platform and their interpretation of promotional credibility, particularly when unusually low prices may be perceived as signals of inferior quality.

Logistics performance constitutes another critical aspect of the market environment. Zhao and Sun (2021)[15] demonstrate that delivery speed, tracking transparency, and reliability directly shape consumers' perceived risk and trust. For Korean consumers—who are accustomed to highly efficient domestic delivery systems—logistics delays or uncertainty in cross-border shipping can trigger heightened risk perceptions and weaken trust in platforms like TEMU. Conversely, consistent delivery performance and transparent tracking systems provide psychological reassurance and strengthen consumers' willingness to engage with unfamiliar platforms.

Product variety also contributes to consumer engagement by expanding choice options and enhancing perceived value. Singh and Agarwal (2022)[16] argue that broad product assortments support immersion by encouraging exploration and sustained interaction with platform content. In TEMU's case, its extensive catalog increases opportunities for hedonic browsing and cognitive absorption, which facilitates trust formation and reduces uncertainty through continued exposure to platform cues. Thus, market characteristics influence consumer behavior not only through economic mechanisms but also through their effects on trust, perceived risk, and immersion within the broader psychological environment of cross-border e-commerce.

2.6. Trust, immersion, and psychological mechanisms in cross-border E-commerce

Trust, immersion, and perceived risk constitute the core psychological mechanisms through which consumers interpret and respond to digital marketplace environments, particularly in cross-border e-commerce. Trust reflects consumers' beliefs that the platform is competent, reliable, and acts in their best interest. Prior research consistently identifies trust as a key determinant of online purchasing decisions, especially when consumers lack direct experience with foreign sellers or products (Kim & Lee, 2021)[17]. In

cross-border settings, structural assurances such as secure payment systems, transparent return policies, and visible logistics tracking can significantly reduce uncertainty, thereby reinforcing trust.

Perceived risk, conceptualized across performance, financial, and privacy dimensions, has been shown to weaken consumers' willingness to engage in online purchasing (Pavlou, 2003)^[7]. Because cross-border transactions involve longer delivery times, unfamiliar regulatory environments, and limited product inspection, consumers rely more heavily on psychological cues when assessing risk. For Korean consumers—who tend to demonstrate high uncertainty avoidance—perceived risk plays an even more critical role, influencing not only trust but also their perception of platform reliability and safety.

Immersion, defined as cognitive absorption within digital interfaces and rooted in flow theory, enhances consumers' engagement with platform content and strengthens positive psychological responses. High-quality interface design, personalized recommendations, interactive elements, and visually appealing layouts promote immersion, which in turn increases consumers' confidence and reduces perceived uncertainty. Studies show that immersive engagement fosters deeper information processing, reinforces positive emotional reactions, and enhances the perceived credibility of platform cues (Wang et al., 2022)^[18]. Thus, trust, perceived risk, and immersion operate jointly to form a comprehensive psychological mechanism through which consumers interpret the digital environment and develop purchase intentions in cross-border e-commerce.

2.7. Conclusion of literature review

The literature reviewed above highlights the central role of platform characteristics, market attributes, and psychological mechanisms in shaping consumer behavior within cross-border e-commerce environments. Platform characteristics—such as system quality, price competitiveness, user-interface design, information transparency, and logistical performance—serve as foundational signals that consumers use to evaluate platform reliability. Market attributes, including promotions, product variety, and delivery efficiency, further shape consumer perceptions by influencing the perceived value and convenience of online shopping.

From a psychological perspective, prior studies consistently demonstrate that trust, perceived risk, and immersion are critical determinants of consumers' behavioral intentions. Trust emerges when consumers perceive the platform as secure, competent, and reliable, while perceived risk reflects consumers' assessments of potential losses associated with cross-border transactions. Immersion, rooted in cognitive absorption and flow theory, enhances users' engagement with platform content, subsequently reducing uncertainty and reinforcing confidence in the online shopping environment. These psychological mechanisms jointly determine how consumers interpret platform cues, process information, and ultimately form purchase intentions.

Despite the extensive literature on e-commerce and consumer psychology, research remains limited in three areas. First, few studies integrate platform characteristics, market attributes, and psychological mechanisms into a unified analytical framework to explain consumer behavior in cross-border contexts. Second, existing studies rarely focus on emerging platforms such as TEMU, whose rapid global expansion and unique operational strategies present new theoretical and empirical questions. Third, consumer behavior in Korea—a high uncertainty-avoidance and digitally advanced market—remains underexplored in relation to cross-border platforms. Addressing these gaps is critical for understanding how consumers perceive, experience, and trust foreign e-commerce platforms operating in the Korean market.

In sum, this review provides a theoretical grounding for the present study by illustrating how platform features and market conditions influence trust, perceived risk, and immersion, which in turn affect purchase intentions. Building upon the identified research gaps, the following chapter develops a conceptual model

and hypotheses to empirically examine the psychological factors shaping Korean consumers' purchasing behavior toward TEMU.

3. Research model and hypotheses

The purpose of this study is to empirically examine how three sets of antecedent variables—TEMU's platform characteristics, market characteristics, and consumer characteristics—shape trust, immersion, and customer satisfaction, and how these psychological factors subsequently influence purchase intention. Drawing on relevant theories in e-commerce, consumer behavior, and digital platform environments, this research establishes a structural model that reflects the psychological mechanisms underlying Korean consumers' purchasing behavior on TEMU. Based on the conceptual framework and theoretical foundations, the research model is constructed as shown in **Figure 1**. The model assumes that platform, market, and consumer characteristics operate as primary antecedents that affect trust, immersion, and customer satisfaction, which in turn serve as mediating variables leading to purchase intention. By integrating these constructs, this study aims to provide a comprehensive understanding of how consumer perceptions evolve within the TEMU shopping environment and how these perceptions translate into behavioral decisions.

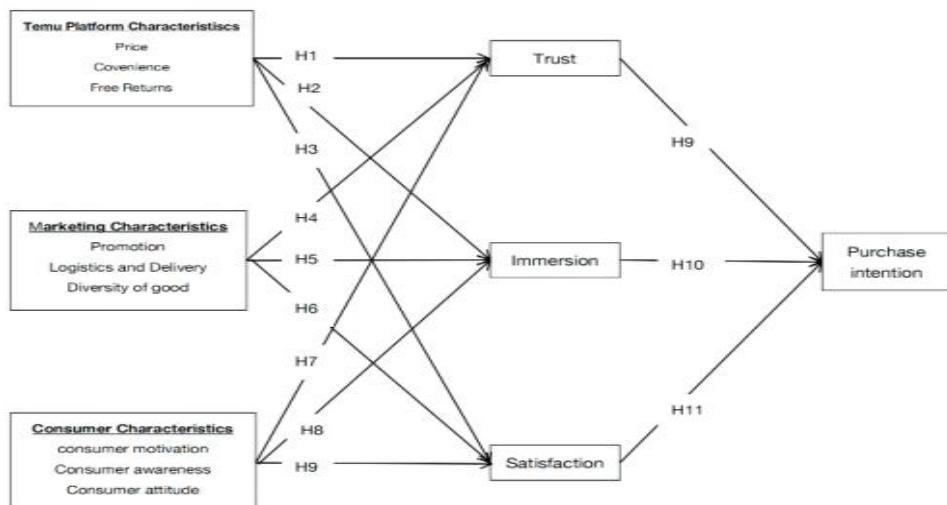


Figure 1. Research model.

This model offers meaningful implications for understanding the psychological pathways that connect platform attributes and market conditions to shopping outcomes. The structural relationships guide the development of hypotheses explained below.

3.1. Operational definitions of variables

To ensure conceptual clarity and measurement consistency, this study adopts established definitions from prior literature and operationalizes all variables using validated multi-item scales.

3.1.1. Platform characteristics

Platform characteristics are defined as consumers' perceptions of TEMU's interface quality, convenience, pricing mechanism, transaction security, and functional efficiency. These characteristics represent core elements of the platform's internal service environment that shape users' evaluations and psychological responses. Prior studies indicate that price competitiveness, ease of navigation, and reliability of platform functions significantly influence user experience and trust formation in digital commerce contexts.

3.1.2. Market characteristics

Market characteristics refer to external environmental stimuli associated with TEMU's market operations, including promotional activities, logistics efficiency, product variety, and information transparency. These elements represent external cues that influence consumers' assessment of authenticity, reliability, and perceived benefits. Consistent with the Technology–Organization–Environment (TOE) framework, such market attributes influence consumers' psychological states by shaping expectations regarding performance and service reliability.

3.1.3. Consumer characteristics

Consumer characteristics encompass individual traits—such as motivation, awareness, and attitudes—that influence how consumers interpret platform and market stimuli. These characteristics reflect consumers' predispositions, prior experiences, and cognitive tendencies that shape their trust, level of engagement, and satisfaction with the platform. In digital consumption contexts, motivation and awareness have been shown to moderate the strength of platform-related perceptions.

3.1.4. Trust

Trust is defined as the consumer's belief that TEMU is reliable, honest, and capable of ensuring safe transactions. Trust reflects perceptions of credibility, integrity, and platform competence. Prior research highlights that trust plays a central role in reducing uncertainty and motivating online purchasing decisions.

3.1.5. Immersion

Immersion refers to a psychological state in which consumers experience deep engagement, concentration, and enjoyment during platform use. Immersion reflects users' cognitive absorption and emotional involvement while interacting with digital content. Higher immersion has been associated with stronger platform attachment and enhanced purchase motivation.

3.1.6. Customer satisfaction

Customer satisfaction is defined as the consumer's emotional evaluation arising from comparing expectations with actual experiences. It reflects perceived performance outcomes and overall contentment with the shopping process. Satisfaction is widely recognized as a key predictor of consumer retention and positive behavioral intentions.

3.1.7. Purchase intention

Purchase intention refers to the likelihood that a consumer will engage in future purchasing behavior on TEMU. It represents the final stage of decision-making in which consumers translate evaluations and psychological responses into behavioral tendencies. Prior models of consumer behavior identify purchase intention as the most immediate antecedent of actual buying actions.

3.2. Hypotheses development

Based on the theoretical foundations and the conceptual relationships among variables, the following hypotheses are proposed.

3.2.1. Platform characteristics and psychological factors

Platform characteristics are critical determinants of user experience in digital commerce environments. High-quality platform attributes—such as competitive pricing, convenient interface design, and secure transaction systems—enhance consumers' confidence in the platform and encourage positive psychological

responses. When platform features align with user expectations, trust is strengthened, immersion is facilitated, and satisfaction increases. Accordingly, the following hypotheses are developed:

- H1: TEMU's platform characteristics have a positive impact on trust.
- H2: TEMU's platform characteristics have a positive impact on immersion.
- H3: TEMU's platform characteristics have a positive impact on customer satisfaction.

3.2.2. Market characteristics and psychological factors

Market characteristics serve as important external cues that shape consumers' perceptions of platform reliability and authenticity. Promotional activities, logistics efficiency, and product variety function as signals that reduce uncertainty and enhance consumer confidence. Efficient market operations reinforce perceptions of credibility, stimulate engagement, and improve satisfaction with the purchasing experience. Therefore, the following hypotheses are proposed:

- H4: Market characteristics have a positive impact on trust.
- H5: Market characteristics have a positive impact on immersion.
- H6: Market characteristics have a positive impact on customer satisfaction.

3.2.3. Consumer characteristics and psychological factors

Individual consumer traits influence how environmental stimuli are interpreted and processed. Consumers with higher motivation, stronger awareness, and more favorable attitudes tend to perceive platforms more positively and experience stronger engagement. These characteristics support the formation of trust, facilitate immersive experiences, and contribute to a higher level of satisfaction. Thus, this study proposes the following hypotheses:

- H7: Consumer characteristics have a positive impact on trust.
- H8: Consumer characteristics have a positive impact on immersion.
- H9: Consumer characteristics have a positive impact on customer satisfaction.

3.2.4 Psychological factors and purchase intention

Trust, immersion, and satisfaction function as core psychological mechanisms that directly influence consumers' purchasing decisions. Trust reduces perceived uncertainty and increases transactional confidence. Immersion enhances emotional involvement and strengthens consumer–platform attachment. Satisfaction signals positive evaluation of the overall experience, motivating repeat purchases. Based on these established relationships, the following hypotheses are proposed:

- H10: Trust positively influences purchase intention.
- H11: Immersion positively influences purchase intention.
- H12: Customer satisfaction positively influences purchase intention.

4. Data analysis and results

4.1. Data collection and descriptive statistics

A total of 350 questionnaires were distributed to Korean consumers who had used the TEMU platform within the past three months. After removing incomplete or invalid responses, 310 valid samples were retained for analysis (valid response rate: 88.6%). Descriptive statistics of the respondents are shown in **Table 1**.

Table 1. Descriptive statistics of participants.

Variable	Category	Frequency	Percentage (%)
Gender	Male	163	52.58
	Female	147	47.42
Age	18 years or below	64	20.65
	18–25 years old	31	10.00
	26–30 years old	64	20.65
	31–40 years old	44	14.19
	41–50 years old	56	18.06
	51 years or above	51	16.45
Education	High school or below	85	27.42
	College graduate	125	40.32
	University graduate	60	19.35
	Master's degree	32	10.32
	Doctorate	8	2.58

Descriptive Statistics Summary:

Gender Distribution: 52.5% of the respondents were male, and 47.4% were female.

Age Distribution: The majority of respondents (30.6%) were in the 20-30 age group, followed by 14.1% in the 31-40 age group. Educational Background: 86.5% of respondents had at least a university degree. TEMU Usage Frequency: Most respondents (72.4%) used TEMU at least once a month, indicating strong engagement with the platform.

4.2. Reliability and validity analysis (EFA)

Cronbach's α coefficients for all constructs exceeded 0.7, indicating strong internal reliability. KMO values were above 0.7 and Bartlett's test was significant ($p < 0.001$), confirming suitability for factor analysis. **Table 2** summarizes these results.

Table 2. Reliability analysis results.

Factor	Cronbach's α	KMO	Bartlett's χ^2 (p)	Variance Explained (%)
Platform Characteristics	0.838	0.846	1271.468 (p=.000)	25.26
Market Characteristics	0.841	0.844	1245.183 (p=.000)	25.17
Consumer Characteristics	0.832	0.834	1097.806 (p=.000)	25.05
Trust	0.873	0.810	627.467 (p=.000)	72.61
Immersion	0.845	0.810	390.878 (p=.000)	76.45
Satisfaction	0.832	0.704	370.099 (p=.000)	74.94
Purchase Intention	0.887	0.814	711.789 (p=.000)	75.07

Exploratory Factor Analysis (EFA) was also conducted to assess the factor structure of the survey items. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.834, indicating that the data were suitable for factor analysis. Bartlett's Test of Sphericity ($\chi^2 = 3920.874$, $p < .001$) confirmed that the correlation matrix was not an identity matrix, further supporting the suitability of the data for factor analysis.

4.3. Correlation analysis

Pearson correlation analysis indicates that all constructs are significantly correlated at the 0.01 level and all coefficients remain below 0.85, confirming the absence of multicollinearity. Due to width limitations, the full correlation matrix (**Table 4**) is provided separately.

Table 3. Correlation analysis results.

Results of Pearson Correlation Analysis															
	Mean	Standard Deviatio	Price	Convenience	Free Return	Diversity of Good	Logistics and Delivery.	Promotion	Motivation	Awareness	Attitude	Trust	Immersion	Satisfaction	Purchase
Price	3.570	1.097	1												
Convenience	3.628	1.018	.402**	1											
Free Return	3.571	1.089	.359**	.363**	1										
Diversity of Good	3.727	0.984	.394**	.429**	.474**	1									
Logistics and Delivery.	3.554	1.067	.314**	.249**	.306**	.300**	1								
Promotion	3.555	1.108	.379**	.302**	.287**	.267**	.467**	1							
Motivation	3.515	0.958	.287**	.340**	.341**	.267**	.462**	.457**	1						
Awareness	3.519	0.974	.293**	.376**	.372**	.293**	.499**	.500**	.831**	1					
Attitude	3.535	1.106	.267**	.353**	.362**	.277**	.436**	.481**	.416**	.514**	1				
Trust	3.560	1.075	.349**	.264**	.306**	.293**	.524**	.444**	.460**	.536**	.554**	1			
Immersion	3.599	1.070	.309**	.275**	.276**	.266**	.499**	.544**	.462**	.510**	.451**	.507**	1		
Satisfaction	3.509	1.078	.350**	.287**	.290**	.315**	.461**	.440**	.437**	.461**	.373**	.502**	.442**	1	
Purchase	3.441	1.142	.350**	.206**	.289**	.251**	.475**	.444**	.459**	.424**	.451**	.524**	.475**	.481**	1

* p<0.05 ** p<0.01

Based on the data analysis results, it is evident that platform characteristics and market traits significantly influence consumers' trust, immersion, and satisfaction, which ultimately drive purchasing behavior. Specifically, platform characteristics such as price and convenience, along with market traits like promotions and logistics, play a crucial role in shaping consumers' psychological factors.

4.4. Hypothesis testing (Regression analysis)

Regression analysis results show that platform and market characteristics significantly influence trust, immersion, and satisfaction. Consumer characteristics show partially significant paths. Trust, immersion, and satisfaction each have significant effects on purchase intention.

Table 4. Hypothesis testing results.

Hypothesis	Path	Result
H1–H6	Platform & Market Characteristics → Trust / Immersion / Satisfaction	Supported
H7–H9	Consumer Characteristics → Psychological Factors	Partially Supported
H10	Trust → Purchase Intention	Supported
H11	Immersion → Purchase Intention	Supported
H12	Satisfaction → Purchase Intention	Supported

The results of the hypothesis testing consistently support the impact of platform characteristics, market traits, and consumer psychological factors on purchasing behavior. Platform features such as price and convenience, market factors like promotions and logistics services, and consumer trust and satisfaction collectively drive purchasing behavior. TEMU should continue to optimize its platform functionalities and market strategies, particularly by enhancing consumer trust and satisfaction, in order to improve purchase intention.

5. Discussion and conclusion

5.1. Key findings

This study examined the impact of TEMU's platform characteristics, market traits, and consumer psychological factors on Korean consumers' purchasing behavior. The key findings are as follows:

Platform Characteristics: Factors such as price, convenience, and free return policies have a significant positive impact on consumer trust, satisfaction, and purchase intention. This supports prior research, which suggests that optimizing platform features enhances consumer engagement and loyalty.

Market Characteristics: Promotional activities, logistics efficiency, and product variety also significantly impact consumer psychological factors, particularly trust and satisfaction. Promotions, in particular, play a crucial role in attracting price-sensitive consumers, which aligns with existing literature on the effectiveness of promotions in e-commerce.

Psychological Factors: Trust, satisfaction, and immersion mediate the relationship between platform characteristics, market traits, and purchase intention. These factors highlight the importance of fostering positive psychological responses to influence consumer behavior effectively.

Consumer Characteristics: Consumer traits such as motivation and attitude moderate how platform and market characteristics influence purchasing behavior. Motivated consumers tend to trust the platform more and show higher satisfaction, which in turn enhances their purchase intentions.

5.2. Contribution of the study

This study contributes to the literature by expanding the understanding of how consumer psychology interacts with platform and market characteristics in the context of cross-border e-commerce. It provides theoretical insights into how e-commerce platforms can enhance consumer trust and satisfaction, which ultimately drives purchasing behavior. By emphasizing the role of psychological factors, the study sheds light on how platforms can design strategies that resonate with consumers' needs and emotions, leading to stronger consumer engagement.

Moreover, this research offers actionable recommendations for TEMU and other cross-border e-commerce platforms, providing practical guidance for optimizing platform features, improving market strategies, and aligning with consumer expectations to enhance purchase behavior.

5.3. Implications for practice

Based on the findings, the following recommendations are made for TEMU and other cross-border e-commerce platforms:

Enhance Platform Features: Improving price competitiveness, user convenience, and offering flexible return policies are essential to boosting consumer trust and satisfaction. These elements are key drivers of purchase intention and should be prioritized to create a seamless shopping experience.

Strengthen Market Promotions: Regular promotional activities, especially those aimed at price-sensitive consumers, will significantly increase consumer engagement. Additionally, optimizing logistics efficiency and expanding product variety can enhance consumer satisfaction and immersion, further strengthening customer loyalty.

Focus on Consumer Psychology: E-commerce platforms should focus on enhancing trust and satisfaction by providing transparent product information, reliable customer service, and personalized recommendations. Improving user experience and increasing consumer immersion can foster long-term loyalty and increase repeat purchases.

5.4. Policy implications

For policymakers, this study offers the following suggestions:

Regulatory Improvement: Governments should ensure transparency and fairness in cross-border e-commerce platforms, promoting consumer protection and fostering a trustworthy online shopping environment. Regulatory frameworks that ensure platform accountability and fair business practices will enhance consumer confidence.

Promote Cross-Border Logistics Standardization: Governments should support initiatives to standardize cross-border logistics processes. Streamlining international logistics can reduce operational costs for platforms and improve delivery efficiency, benefiting both consumers and e-commerce businesses.

Invest in Consumer Education: Policymakers should invest in educating consumers about e-commerce platforms, especially in the context of cross-border transactions. Building consumer trust through education and awareness campaigns will help consumers make informed purchasing decisions and reduce perceived risks.

5.5. Limitations and future research directions

Although this study provides valuable insights, several limitations should be considered:

Sample Limitations: The sample was limited to 300 Korean consumers. Future studies could expand the sample to include consumers from other regions or countries to increase the generalizability of the findings. A more diverse sample would offer broader insights into the global applicability of the results.

Self-Report Bias: The study relied on self-reported data, which may be subject to biases such as social desirability or recall bias. Future research could use behavioral data or experimental designs to validate these findings and provide a more objective analysis of consumer behavior.

Cultural Differences: This study focused on the Korean market, and consumer behavior may vary across different cultures. Future research could explore how cultural differences influence consumer behavior in different regions and compare results across various countries to identify cross-cultural patterns.

Longitudinal Studies: Future research could explore the long-term effects of platform and market characteristics on consumer loyalty and repeat purchasing behavior. Understanding the long-term impacts will help platforms refine their strategies for sustaining consumer engagement over time.

5.6. Conclusion

In conclusion, this study emphasizes the critical role of platform characteristics, market traits, and consumer psychological factors in shaping the purchasing behavior of Korean consumers. The findings offer practical recommendations for cross-border e-commerce platforms, particularly TEMU, to optimize their operations and align with consumer needs, thereby enhancing consumer engagement and trust. By improving platform features, strengthening market promotions, and focusing on consumer psychology, platforms can effectively drive purchase intentions and foster long-term customer loyalty in competitive markets.

6. Conclusion and recommendations

6.1. Summary of findings

This study explored the impact of TEMU's platform characteristics, market traits, and consumer psychological factors on the purchasing behavior of Korean consumers. The key findings are as follows:

Platform Characteristics: Key factors such as competitive pricing, user convenience, and free return policies significantly influence consumer trust, satisfaction, and purchase intention. This confirms the importance of optimizing platform features to enhance consumer engagement and loyalty.

Market Characteristics: Market traits like promotional activities, logistics efficiency, and product variety have a notable effect on consumer psychological factors, especially trust and satisfaction. Promotions, particularly, are essential in attracting price-sensitive consumers, supporting the findings of previous studies on the influence of price-related promotions.

Consumer Psychological Factors: Trust, satisfaction, and immersion mediate the relationship between platform characteristics, market traits, and purchase intention. These psychological factors highlight the need for platforms to create positive emotional responses to influence consumer behavior effectively.

6.2. Practical recommendations

Based on the study's findings, the following recommendations are provided for TEMU and other cross-border e-commerce platforms:

Optimize Platform Features: TEMU should focus on enhancing price competitiveness, user convenience, and offering flexible return policies to increase consumer trust and satisfaction. A seamless shopping experience will significantly drive purchase intentions and foster customer loyalty.

Strengthen Market Promotions: Cross-border e-commerce platforms should implement regular promotional activities, especially targeting price-sensitive consumers. Additionally, improving logistics efficiency and expanding product variety will further enhance consumer satisfaction and engagement.

Focus on Consumer Psychology: E-commerce platforms should aim to boost consumer trust and satisfaction by providing transparent product information, reliable customer service, and personalized recommendations. A positive user experience can deepen consumer immersion and encourage repeat purchases, leading to higher customer retention rates.

6.3. Recommendations for policymakers

For policymakers, this study provides the following suggestions:

Regulatory Improvements: Governments should focus on ensuring transparency and fairness in cross-border e-commerce platforms, enhancing consumer protection. Strong regulatory frameworks can help promote trust and provide a safe shopping environment for consumers.

Promote Cross-Border Logistics Standardization: Efforts to standardize cross-border logistics can reduce operational costs and improve the efficiency of international shipments. This would benefit both consumers and e-commerce businesses, making global transactions smoother and more reliable.

Invest in Consumer Education: Governments should promote consumer education initiatives that help build trust in cross-border e-commerce platforms. Educating consumers about e-commerce processes and their rights can help mitigate perceived risks and foster informed purchasing decisions.

6.4. Limitations and future research directions

This study, while valuable, has several limitations:

Sample Limitations: The study's sample was limited to 300 Korean consumers, which may limit the generalizability of the findings. Future research could expand the sample to include consumers from other regions or countries to verify the results across different cultural and market contexts.

Self-Report Bias: The reliance on self-reported survey data could introduce biases. Future research could consider behavioral data or experimental designs to validate these findings and provide more objective insights into consumer behavior.

Cultural Differences: This study focused specifically on the Korean market. Given the influence of cultural differences on consumer behavior, future research could explore how consumer behavior varies across different regions and cultures, offering comparative insights into cross-border e-commerce.

Long-Term Consumer Loyalty: Future research could investigate the long-term effects of platform and market characteristics on consumer loyalty and repeat purchases. Understanding how consumer trust and satisfaction evolve over time can provide deeper insights into how platforms can sustain engagement and loyalty.

6.5. Conclusion

In conclusion, this study highlights the significant role of platform characteristics, market traits, and consumer psychological factors in shaping Korean consumers' purchasing behavior. The findings offer practical recommendations for cross-border e-commerce platforms, especially TEMU, to refine their platform features, optimize market strategies, and address consumer psychological needs. By enhancing consumer trust and satisfaction, platforms can effectively drive purchase intentions and cultivate long-term customer loyalty in competitive markets.

Conflict of interest

There is no conflict of interest.

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