ผลกระทบของมูลค่าที่ผู้บริโภครับรู้ต่อการบอกต่อปากต่อปาก: บทบาทตัวกลางของความเสี่ยงความเป็นส่วนตัวที่รับรู้ในการขายปลีกแบบผสมผสาน

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บทคัดย่อ

การศึกษานี้มีวัตถุประสงค์เพื่อ 1) ตรวจสอบว่าความเสี่ยงความเป็นส่วนตัวที่รับรู้มีอิทธิพลต่อมูลค่าที่รับรู้ (ด้านประโยชน์ใช้สอย ความเพลิดเพลิน และสังคม) และพฤติกรรมการบอกต่อปากต่อปากอย่างไร 2) วิเคราะห์บทบาทตัวแปรสื่อกลางของความเสี่ยงความเป็นส่วนตัวที่รับรู้ระหว่างมูลค่าที่รับรู้และการบอกต่อปากต่อปาก โดยมีรากฐานทางทฤษฎีมาจากทฤษฎีการคำนวณทางความเป็นส่วนตัวและทฤษฎีปฏิกิริยาตอบสนองทางจิตวิทยา งานวิจัยนี้ดำเนินการเชิงประจักษ์โดยใช้แบบสอบถามกับผู้บริโภคเครื่องนุ่งห่มแบบออมนิแชนเนลจำนวน 466 คน กรอบทฤษฎีที่นำเสนอได้รับการทดสอบโดยการวิเคราะห์ข้อมูลผ่านการสร้างสมการโครงสร้าง (SEM) ด้วยโปรแกรม AMOS

ผลการวิจัยพบว่า 1) ความเสี่ยงความเป็นส่วนตัวที่รับรู้ช่วยลดการประเมินมูลค่าด้านประโยชน์ใช้สอยและความเพลิดเพลินของผู้บริโภคอย่างมีนัยสำคัญ ขณะที่ผลกระทบต่อมูลค่าด้านสังคมไม่มีความสำคัญทางสถิติ 2) ความเสี่ยงความเป็นส่วนตัวที่รับรู้ยับยั้งพฤติกรรมการบอกต่อปากต่อปากอย่างมีนัยสำคัญ และ 3) ความเสี่ยงความเป็นส่วนตัวทำหน้าที่เป็นตัวแปรสื่อกลางในความสัมพันธ์ระหว่างมูลค่าที่รับรู้ (ด้านประโยชน์ใช้สอยและความเพลิดเพลิน) กับการบอกต่อปากต่อปาก ผลการวิจัยนี้เผยให้เห็นกลไกการสร้างสมดุลทางจิตวิทยาระหว่างการแสวงหามูลค่าทันทีของผู้บริโภคกับความกังวลเกี่ยวกับความเสี่ยงความเป็นส่วนตัว ซึ่งช่วยเสริมสร้างความเข้าใจทางทฤษฎีเกี่ยวกับพฤติกรรมความเป็นส่วนตัวและการสื่อสารแบบบอกต่อปากต่อปากในบริบทการค้าปลีกแบบออมนิแชนเนล การศึกษานี้ให้ข้อเสนอแนะที่มีคุณค่าแก่ผู้ค้าปลีกเครื่องนุ่งห่มในการปรับปรุงการกำกับดูแลข้อมูล เสริมสร้างความไว้วางใจจากผู้บริโภค และส่งเสริมการบอกต่อปากต่อปากในเชิงบวก

คำสำคัญ: การขายปลีกแบบออมนิแชนเนล อุตสาหกรรมเสื้อผ้า คุณค่าที่รับรู้ ความเสี่ยงด้านความเป็นส่วนตัวที่รับรู้ การบอกต่อปากต่อปาก

The Impact of Consumer Perceived Value on Word-of-Mouth: The Mediating Role of Perceived Privacy Risk in Omnichannel Retailing

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Abstract

This study aims to: 1) examine how perceived privacy risk influences perceived value (utilitarian,hedonistic and social) and word-of-mouth behavior; 2) analyze the mediating role of perceived privacy risk between perceived value and word-of-mouth. Grounded in privacy calculus theory and psychological reactance theory, we conducted an empirical study using a questionnaire survey of 466 omnichannel apparel consumers. The proposed theoretical framework was tested by analyzing the data through structural equation modeling (SEM) with AMOS.

The findings indicate that: 1) perceived privacy risk significantly reduces consumers' evaluations of utilitarian and hedonic value, while its impact on social value is not statistically significant; 2) perceived privacy risk significantly inhibits word-of-mouth behavior; and 3) privacy risk mediates the relationship between perceived value (utilitarian and hedonic) and word-of-mouth. The findings uncover the psychological balancing mechanism between consumers' pursuit of immediate value and concerns over privacy risk, enriching theoretical understanding of privacy behavior and word-of-mouth communication under the omnichannel retailing context. This study provides valuable implications for apparel retailers in optimizing data governance, enhancing consumer trust, and promoting positive word-of-mouth.

Keywords: Omnichannel retailing, Apparel industry, Perceived value, Perceived privacy risk, Word-of-mouth

Introduction

The concept of "omnichannel retailing" was first introduced in 2011 and has since garnered significant attention from both academia and industry. As Internet technologies and mobile payment systems advance rapidly, the retail sector is increasingly moving away from traditional single-channel approaches toward an omnichannel model. In this emerging retail environment, consumers can complete their shopping activities through multiple touchpoints, gaining greater convenience and personalized experiences. However, in implementing omnichannel strategies, retailers need to continuously collect, monitor, and effectively utilize consumer information across different sales channels to ensure consistent and personalized service experiences. Notably, some consumers may perceive the personalized services offered by firms as a form of “surveillance” of their behavior, which can trigger privacy concerns and result in heightened perceptions of privacy risk (Piotrowicz & Cuthbertson, 2014).

In the context of omnichannel retailing, perceived value is widely recognized as a critical factor influencing purchase decisions and customer loyalty, as well as a key indicator of firm success.Perceived value encompasses not only functional benefits of products but also hedonic and social values, among other multidimensional aspects, which collectively shape consumers’ attitudes and behaviors.In addition, word-of-mouth communication—an unofficial consumer-to-consumer information exchange—is crucial for establishing a brand's reputation and improving sales results. While prior studies have examined the link between perceived value and word-of-mouth, relatively little research has addressed the possible mediating effect of perceived privacy risk, especially in the context of omnichannel retailing, where this mechanism still requires empirical validation.Without understanding this mediating mechanism, retailers may invest in value-creation strategies that are undermined by unaddressed privacy concerns, ultimately wasting resources and eroding consumer trust.

According to data from the Ministry of Commerce of China (2024), China’s online retail sales reached 14 trillion yuan from January to November 2024, reflecting a year-on-year increase of 7.4%.This substantial market scale not only highlights the robust vitality of China’s digital economy.It is worth noting that, due to the distinct characteristics of China’s retail market in terms of consumer behavior, technological infrastructure, market competition patterns, and policy environment, the key drivers of omnichannel retail development validated in developed economies may exhibit different mechanisms of action and effects in the Chinese context.Therefore, exploring effective implementation pathways of omnichannel retailing and consumer behavior in China holds significant theoretical and practical value.

Based on this, this study examines how consumers’ perceived value influences their word-of-mouth (WOM) behavior via perceived privacy risk in omnichannel retail. Through theoretical modeling and empirical analysis, it deepens the understanding of how perceived value interacts with perceived privacy risk in shaping consumer behavior, while offering actionable insights for retailers to balance

customer experience with privacy protection. This supports the refinement of omnichannel marketing strategies and the promotion of positive brand word-of-mouth.

Research Objectives

1. To study the effects of different dimensions of consumers' perceived value (utilitarian, hedonic, and social) on perceived privacy risk.

2. To study the impact of perceived privacy risk on word-of-mouth behavior throughout the omnichannel customer shopping journey.

3. To study the mediating role of perceived privacy risk between the various dimensions of perceived value (utilitarian, hedonic, and social) and word-of-mouth behavior.

Research hypothesis

H1: Perceived utilitarian value in omnichannel retail negatively affects perceived privacy risk;

H2: perceived hedonic value in omnichannel retail negatively affects perceived privacy risk;

H3: perceived social value in omnichannel retail negatively affects perceived privacy risk;

H4: perceived privacy risk negatively affects word-of-mouth;

H5:Perceived privacy risk functions as a mediating variable in the relationship between omnichannel perceived utilitarian value and word-of-mouth;

H6: Perceived privacy risk functions as a mediating variable in the relationship between omnichannel perceived hedonic value and word-of-mouth;

H7: Perceived privacy risk functions as a mediating variable in the relationship between omnichannel perceived social value and word-of-mouth.

Scope of the Study

1. Grounded in privacy calculus theory and psychological reactance theory, this study explores how distinct dimensions of perceived value specifically utilitarian, hedonic, and social value influence consumers' word-of-mouth behavior in the context of omnichannel apparel retailing.

2. Population Scope: The study focuses on Generation Z consumers aged 20 and above in Henan Province, China, who have experience with omnichannel shopping in the apparel industry.

3. Time Scope: The research will be conducted from July 2025 to October 2025.

Research Framework

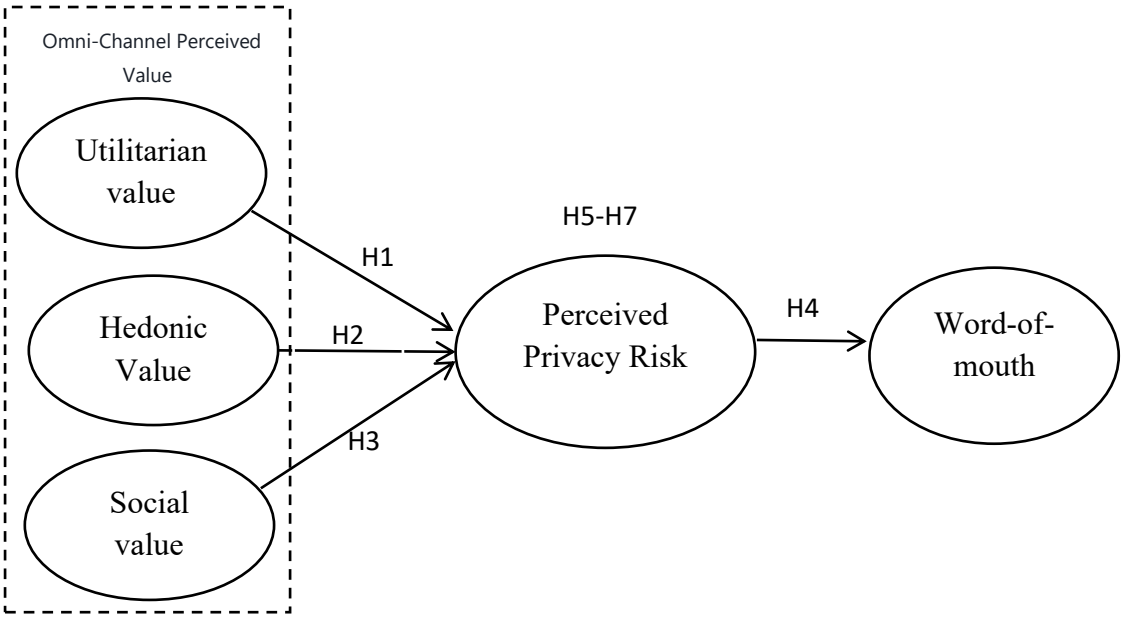


Figure 1 Conceptual Framework

Literature Review

Perceived Privacy Risk

Perceived risk was initially defined as the uncertainty and potential loss that consumers feel during the decision-making process. In other words, when faced with purchasing choices, consumers often cannot be entirely certain that their decisions are correct, generating a degree of psychological unease. As research progressed, perceived risk has been conceptualized as a multidimensional construct, including financial risk, performance risk, social risk, time risk, and privacy risk (Mitchell, 1999). Among these, privacy risk has emerged as a critical dimension in digital environments and is recognized as a key factor influencing consumer behavior.

During the last few years, the swift advancement of Internet and digital technologies has significantly reshaped various industries.The retail sector has experienced a significant evolution, transitioning from conventional retail formats to the integrated model of omnichannel retailing. Omnichannel retailing integrates offline stores, e-commerce platforms, mobile applications, social media, and other touchpoints to provide consumers with a continuous and seamless shopping experience (Verhoef et al., 2015). In this process, consumers can freely switch across platforms, enjoying higher convenience and precise personalized services. However, to achieve cross-channel data integration and consistency, retailers must collect, track, and analyze consumers' personal information and behavioral data across channels. While this data-driven service model enhances customer experience and operational efficiency, it also significantly increases the risk of personal information

being disclosed, misused, or leaked, thereby triggering consumers' privacy concerns and perceived privacy risk (Bleier et al., 2020).

Previous studies have demonstrated that perceived privacy risk not only undermines consumers' trust and satisfaction with online channels but also negatively affects their usage intention, purchase intention, and even word-of-mouth behavior. Therefore, in the omnichannel context, perceived privacy risk constitutes an important psychological mechanism for explaining differences in consumer behavior, and strategies to manage and mitigate it have increasingly become a central focus for both academia and industry.

Consumer Perceived Value

One of the fundamental ideas in marketing that is most frequently used and researched is consumer perceived value(CPV). Based on their opinions of what they get and what they contribute, consumers assess a product's overall usefulness. This definition has been widely accepted and has served as the foundation for subsequent research. A systematic review of the literature indicates that the concept of CPV has evolved from unidimensional to multidimensional, and later toward a combination of both unidimensional and multidimensional perspectives.

From a multidimensional perspective, the PERVAL model proposed by Sweeney and Soutar (2001) is representative. They argued that when evaluating products, consumers consider both the functional performance (utilitarian value) and the enjoyment gained from the experience (emotional value), as well as the effects on their social image (social value). Subsequently,Rintamäki, Kanto, Kuusela, and Spence (2006) introduced an integrative model of perceived value, identifying utilitarian, hedonic, and social value as its three fundamental dimensions, and underscoring the dynamic interplay and equilibrium among these dimensions within the consumer decision-making process.Building on this foundation, the current study examines utilitarian, hedonic, and social value as independent variables to investigate their underlying mechanisms affecting consumer behavior within an omnichannel context.

Word-of-Mouth

Word-of-mouth denotes the non-commercial, interpersonal exchange of information regarding a brand, product, or service.Higie et al. (1987) emphasized that WOM is a spontaneous form of communication through which customers convey information about retailers, brands, products, or services, either orally or through formal channels. Subsequent studies have consistently highlighted the non-commercial and interpersonal nature of WOM communication. Anderson (1998) defined WOM as an informal, person-to-person information exchange about brands, products, organizations, or services, distinct from company-driven commercial communications. From a marketing perspective, Westbrook (1987) characterized WOM as "informal communication among consumers regarding ownership, usage, or attributes of specific goods, services, and their sellers."

In conclusion, Word-of-Mouth (WOM) is a spontaneous, non-commercial, and informal interpersonal communication through which individuals share their perceptions and experiences

regarding brands, products, or services. WOM is characterized by its spontaneity, high credibility, and strong social influence, playing a pivotal role in shaping consumer attitudes, purchase intentions, and brand loyalty.

Related Studies

Existing research has confirmed that consumer perceived value significantly influences word-of-mouth behavior (De Matos & Rossi, 2008); however, studies on the mediating mechanism of privacy risk perception remain relatively scarce.According to Privacy Calculus Theory, consumers weigh “privacy loss” against “perceived benefits” when using digital products or services. When consumers perceive that the value offered by a service—such as convenience, enjoyment, or social connection—exceeds the potential privacy risks, they are more likely to continue using the platform or service, even if they are aware of possible information disclosure. Research has shown that users often derive psychological benefits from the entertainment, social capital, and emotional support provided by social media, which outweigh their concerns about privacy breaches, thereby weakening perceived privacy risk (Zhu, Zhang, & Yao, 2019). Additionally, The user's over-optimistic assessment of social media benefits may lead to biases in risk judgment, thereby further diminishing privacy protection awareness.This psychological mechanism suggests that an increase in perceived value may indirectly influence subsequent consumer behavior by lowering perceived privacy risk.

Perceived privacy risk is considered a critical psychological variable for consumers in digital and omnichannel environments, significantly negatively affecting trust, satisfaction, and loyalty intentions. Further studies indicate that when consumers perceive high value and low privacy risk in their omnichannel experience, they are more likely to develop positive emotions and trust, leading to proactive engagement in positive word-of-mouth communication (Park & Kim, 2020).Meanwhile, psychological reactance theory posits that when individuals perceive their freedom of choice to be restricted, it often motivates them to restore that freedom. This psychological state, driven by the need to resist threats and regain autonomy, is referred to as "psychological reactance." It typically leads individuals to develop negative attitudes toward the source of the threat, such as dissatisfaction, discomfort, and switching intentions (Cheah et al., 2022).

Research Methodology

Population

The target population of this study consisted of Generation Z consumers in Henan Province, China, aged 20 to 30 years, who had shopped for clothing through omnichannel retailing in the past year. Two criteria were applied to select the population: (1) respondents must have had omnichannel clothing shopping experience within the past year, and (2) respondents must belong to the Generation Z cohort.

Sample

This study employed a non-probability convenience sampling method to select respondents who met the inclusion criteria. Based on Cochran's formula, assuming an unknown population size, a minimum sample size of 385 was calculated at a 95% confidence level with a maximum allowable error of 5%. In the end, 466 valid answers were gathered via an online survey.

Questionnaire Design

This questionnaire consists of three parts ：

1. Screening for Omnichannel Shoppers

This section defined omnichannel shopping experience and included questions regarding prior omnichannel shopping, product types purchased, number of channels used, and channel types. This ensured participants' correct understanding of the survey content.

2. Measurement of Variables

All variables in this study were measured using a five-point Likert scale, All measurement scales employed in this study are adapted from validated instruments and have received ethical approval.perceived value including functional, hedonic, and social dimensions was measured using items adapted from Rintamäki et al. (2006). Perceived privacy risk was assessed based on the scale developed by Quach et al. (2022). and word-of-mouth is measured based on Sharma et al. (2024).

3. Demographic Information

Demographic information about the respondents was gathered, including their gender, age, occupation, degree of education, and how often they had shopped omnichannel in the previous six months.

Reliability and Validity Testing

1. This study employed the Item-Objective Congruence method to assess the content validity of the questionnaire. The questionnaire focused on the influence of perceived value (covering utilitarian value, hedonic value, and social value) on consumer word-of-mouth behavior in an omnichannel context, comprising a total of 16items. To ensure content validity, five professors in relevant fields were invited to independently evaluate the alignment of each item with the research objectives. The evaluation results showed that the Item-Objective Congruence index for all items ranged between 0.8 and 1.0, with an average IOC of 0.89, all exceeding the standard threshold of IOC > 0.5. The findings indicate that the questionnaire demonstrates good content validity and is suitable for subsequent research.

2. A pilot test was conducted by distributing 40 offline questionnaires to the target group (this sample was not included in the formal analysis), with 36 valid questionnaires collected, resulting in a valid response rate of 90%. The reliability test results revealed that Cronbach's Alpha coefficients for all five variables exceeded 0.8, indicating strong internal consistency and high measurement reliability for the variable scales.

Data Collection and Analysis

Data were collected online from Generation Z consumers in Henan Province who had engaged in omnichannel clothing shopping in the past year. Structural Equation Modeling (SEM) was used to test main effects, investigate mediating effects, and evaluate validity and reliability. In particular, the analysis assessed the mediating function of perceived privacy risk and the impact of perceived value dimensions (utilitarian, hedonic, and social) on word-of-mouth activity.

Research Results

Results of Measurement Model Testing

This study conducted a comprehensive assessment of both the reliability and convergent validity of the measurement instruments to ensure the robustness of the constructs used.Cronbach's α and composite reliability (CR) were computed for reliability. The results indicated that all CR values exceeded 0.8, and all Cronbach's α coefficients were above 0.8. Standardized factor loadings and average variance extracted (AVE) were investigated in relation to convergent validity. Every item factor loading was higher than 0.7, and every AVE value was higher than 0.5.

Table 1 Reliability and Validity Analysis

Scale	Item	Cronbach's Alpha	CR Value	AVE Value	Factor Loading
Utilitarian Value	UV1	0.815	0.817	0.598	0.803
	UV2				0.775
	UV3				0.741
Hedonic Value	HV1	0.820	0.820	0.603	0.749
	HV2				0.799
	HV3				0.780
Social Value	SV1	0.815	0.819	0.602	0.762
	SV2				0.721
	SV3				0.840
Perceived privacy risk	PPR1	0.848	0.845	0.645	0.833
	PPR2				0.751

Scale	Item	Cronbach's Alpha	CR Value	AVE Value	Factor Loading
Word-of-Mouth	FE3	0.841	0.842	0.572	0.823
	WOM1				0.722
	WOM2				0.779
	WOM3				0.779
	WOM4				0.743

Table2 presents the discriminant validity. The correlations among perceived utilitarian value, perceived hedonic value, perceived social value, perceived privacy risk, and word-of-mouth behavior are all lower than the square roots of their respective AVEs , indicating that good discriminant validity is established.

Table 2 Discriminant Validity Table for the Scale

	Social Value	Hedonic Value	Utilitarian Value	Perceived privacy risk	Word-of-Mouth
Social Value	0.776				
Hedonic Value	0.589	0.777			
Utilitarian Value	0.505	0.525	0.774		
Perceived privacy risk	-0.414	-0.502	-0.483	0.803	
Word-of-Mouth	0.227	0.276	0.266	-0.55	0.756

Overall, the indicators of validity, reliability, and discriminant validity all meet acceptable standards, providing a solid and reliable foundation for subsequent data analysis, such as hypothesis testing and structural equation modeling analysis.

Results of the model fit

Table 3 Model Fit Indices

	X^2/df	RMSEA	IFI	TLI	CFI	GFI	AGFI
Criteria	<3	<0.08	>0.9	>0.9	>0.9	>0.9	>0.9
Fit Results	2.772	0.062	0.950	0.938	0.950	0.936	0.910

Table 3 presents the model fit indices. As shown, the χ^2/df value is 2.772, which is less than 3. The RMSEA value is 0.062, below the 0.08 threshold. The values of IFI, TLI, CFI, GFI, and AGFI are 0.950, 0.939, 0.950, 0.936, and 0.910, respectively, all exceeding 0.90. Overall, these results indicate that the model demonstrates a satisfactory fit.

Results of Main Effect Testing

The path analysis results presented in Table 4 indicate that perceived utilitarian value in omnichannel retail has a negative effect on perceived privacy risk. Similarly, perceived hedonic value in omnichannel retail negatively influences perceived privacy risk. In turn, perceived privacy risk is negatively correlated with word-of-mouth. It is noteworthy that the hypothesized negative effect of perceived social value in omnichannel retail on perceived privacy risk was not supported by the results.

Table 4 Path Analysis

Hypothesis	Path			β	S.E.	C.R.	P	Result
H1	Perceived privacy risk	<---	Utilitarian Value	-0.277	0.099	-4.264	***	Supported
H2	Perceived privacy risk	<---	Hedonic Value	-0.300	0.110	-4.224	***	Supported
H3	Perceived privacy risk	<---	Social Value	-0.098	0.087	-1.443	.149	Not Supported
H4	Word of Mouth	<---	Perceived privacy risk	-0.550	0.035	-9.595	***	Supported

Results of Mediation Effect Testing

The results in Table 5 show that perceived privacy risk functions as a mediating variable in the relationship between perceived utilitarian value in omnichannel retail and word-of-mouth. Similarly, perceived privacy risk mediates the relationship between perceived hedonic value in omnichannel retail and word-of-mouth. However, Hypothesis 7 that perceived privacy risk mediates the relationship between perceived social value in omnichannel retail and word-of-mouth was not supported.

Table 5 Mediation Effect Path Analysis

Mediating Path	β	S.E.	P	95% Confidence Interval	
				LLCI	ULCI
Utilitarian Value ⟶ Perceived privacy risk ⟶ Word of Mouth	0.152	0.044	0.000	0.073	0.244
Hedonic Value ⟶Perceived privacy risk ⟶ Word of Mouth	0.165	0.046	0.000	0.079	0.263
Social Value ⟶ Perceived privacy risk ⟶ Word of Mouth	0.054	0.040	0.170	- 0.022	0.134

Conclusion and Discussion

The findings of this study reveal that both utilitarian and hedonic values in the omnichannel context significantly reduce perceived privacy risk, while social value does not show a statistically significant effect. Specifically, when consumers perceive high efficiency and convenience from cross-channel integration (e.g., inventory visibility, fast checkout, personalized recommendations) or immersive emotional experiences, their concerns about potential privacy risks are significantly reduced. This finding aligns with the perspective of Privacy Calculus Theory, suggesting that utilitarian and hedonic values in an omnichannel context serve as important psychological mechanisms for mitigating perceived privacy risk. However, In contrast to what was anticipated, Perceived privacy risk was not greatly impacted by social value. This may be due to consumers' habituation to social interactions in digital environments, making their perception of privacy risk more influenced by utilitarian or emotional value. Additionally, the immediacy and salience of social value may be insufficient, as the sense of belonging or social satisfaction it provides typically requires long-term accumulation, limiting its prominent role in privacy trade-offs.

Furthermore, prior research has highlighted that privacy concerns can reduce satisfaction and psychological security, thereby inhibiting positive word-of-mouth (WOM) or even triggering negative WOM (Park & Kim, 2020). Consistent with these findings, This study shows that WOM behavior is significantly impacted negatively by perceived privacy risk. Stated differently, when consumers perceive higher privacy risks in an omnichannel environment, their willingness to use services decreases, and the likelihood of recommending or sharing information with others is reduced. This finding aligns with the core tenets of Psychological Reactance Theory: when individuals perceive threats to their freedom or control over information, they develop reactance motivations, which may manifest as refusal, avoidance, or even negative communication to restore a sense of autonomy (Brehm, 1966). In omnichannel settings, activities such as data collection, user profiling, and cross-platform tracking can be perceived by consumers as privacy intrusions, triggering psychological reactance that undermines trust and commitment to the brand and ultimately suppresses WOM behavior.

The findings further indicate that perceived privacy risk serves as a significant mediator in the relationship between omnichannel perceived value and word-of-mouth (WOM). Specifically, both utilitarian and hedonic values enhance WOM indirectly by mitigating perceived privacy risk, while social value does not demonstrate a notable mediating effect. Specifically, the functional convenience provided by utilitarian value (e.g., search, payment, and fulfillment efficiency) and the enjoyment derived from hedonic value enhance perceived benefits, thereby diminishing the weight of privacy risk and promoting positive WOM. These results align with the predictions of both Privacy Calculus Theory and Psychological Reactance Theory. In contrast, social value does not indirectly influence WOM through privacy risk, likely because it relies more on social recognition and image motivations to directly affect WOM rather than operating through risk dilution. Interestingly, hedonic value has a marginally stronger indirect effect than utilitarian value, suggesting that immediate immersion and emotional satisfaction provide a more pronounced buffer against perceived privacy risk and are therefore more likely to translate into observable WOM.

Suggestions

Suggestions for the Use of Research Findings

The findings of this study offer practical insights for both enterprises and policymakers. In terms of consumer relationship management, the significant inhibitory effect of perceived privacy risk on word-of-mouth (WOM) behavior suggests that companies should strengthen data security and privacy protection when implementing personalized recommendations and targeted marketing. Specific measures include formulating transparent privacy policies, clearly explaining data usage purposes, and adopting robust technical safeguards to enhance consumers'sense of security and trust. These efforts can not only mitigate the negative impact of privacy concerns but also foster positive WOM communication and strengthen brand loyalty. From a long-term perspective, proactive privacy protection helps enterprises build a differentiated competitive advantage in the omnichannel retail environment.

For industry and policymakers, this study highlights the importance of balancing commercial value creation with privacy protection. Regulatory authorities should improve relevant laws and regulations, establish stricter data collection and usage standards, and clarify corporate responsibilities in information protection. At the same time, policymakers should encourage enterprises to adopt advanced technologies (e.g., data encryption and anonymization) and promote cross-industry collaboration on information security. These steps will help create a fair, transparent, and sustainable omnichannel market environment, providing institutional support for the healthy development of the industry.

Recommendations for Future Research

Expand sample diversity.Future studies should include consumers from different cities, age groups, and cultural backgrounds to enhance the representativeness and generalizability of the findings.

Optimize research methods.Longitudinal or experimental designs can be introduced to track changes in consumer behavior and explore causal relationships. In addition, qualitative approaches such as focus group interviews can be used to gain deeper insights into the psychological mechanisms behind consumer decision-making.

Broaden research contexts.Subsequent research may apply the theoretical framework of this study to other industries or cultural settings to examine its external validity and practical applicability.

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