

Factors Influencing College Students' Purchase Intention in “VR+ Online Shopping” Mode (Post-print)

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Abstract

[Purpose/Significance] In recent years, with the continuous development of the VR industry, research in this domain has also increased. By investigating college students' purchase intention under VR marketing methods and incorporating factors such as personal preference based on previous scholars' research, this study supplements relevant research on online shopping models and provides recommendations for merchants adopting VR marketing approaches.

[Method/Process] Grounded in Technology Acceptance Theory, this research constructs a model of factors influencing college students' online shopping purchase intention from both individual consumer and social perspectives, and employs SPSS and AMOS to test the model, ultimately drawing conclusions.

[Results/Conclusion] The study reveals that perceived enjoyment and social norms exert significant positive influences on perceived ease of use; perceived ease of use demonstrates a significant positive relationship with college students' online shopping purchase intention; credit preference and object attention preference significantly positively affect college students' online shopping purchase intention; and perceived risk has a significant positive impact on purchase intention.

Full Text

Preamble

Title: Research on the Influencing Factors of College Students' Purchase Intention Under the “VR + Online Shopping” Model

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Abstract:

[Purpose/Significance] With the continuous development of the VR industry in recent years, research in this area has also begun to increase. This study examines college students' purchase intention under VR marketing modes, supplementing existing online shopping research by incorporating factors such as personal preference, and provides recommendations for merchants employing VR marketing strategies. [Method/Process] Based on technology acceptance theory, this paper constructs a model of factors influencing college students' online shopping purchase intention from both personal and social perspectives, and tests the model using SPSS and AMOS. [Results/Conclusions] The findings reveal that perceived enjoyment and social norms have significant positive effects on perceived ease of use; perceived ease of use has a significant positive relationship with college students' online shopping purchase intention; credit preference and novelty attention preference have significant positive effects on college students' online shopping purchase intention; and perceived risk has a significant positive effect on purchase intention.

Keywords: Virtual Reality; Purchase Intention; User Preferences; Online Shopping

1. Introduction

With the continuous advancement of science and technology, new shopping models have emerged, making online shopping commonplace among younger generations. Online shopping has attracted and retained a large base of loyal users due to its convenience and product diversity. According to official statistics, as of December 2020, China's online shopping user base reached 782 million, an increase of 72.15 million from March 2020, accounting for 79.1% of all internet users. Mobile online shopping users reached 781 million, up 73.09 million from March 2020, representing 79.2% of mobile internet users. The report indicates that China has been the world's largest online retail market for eight consecutive years since 2013 [1]. These figures demonstrate that online consumption has become an important component of the national economy and plays an increasingly significant role in driving domestic economic development.

Meanwhile, technological development has injected new vitality into online shopping. The emergence of live-streaming sales, for instance, satisfies consumers' need for comprehensive product understanding while promoting online shopping consumption. The continuous introduction of new shopping methods consistently captures consumers' attention, which represents a key factor in the success of online shopping. Recently, a novel experiential option has appeared on online shopping pages—virtual reality (VR) shopping. This new shopping approach utilizes specific high-tech devices to create interactive 3D shopping environments that provide consumers with immersive experiences. As an emerging experiential method, VR can effectively compensate for the lack of sensory experience in

online shopping. For example, consumers can use VR devices to virtually try on or test products sold online. This approach not only enhances users' shopping interest but also effectively satisfies consumers' demand for optimal shopping experiences.

Against this backdrop of VR technology development in online shopping, this study analyzes factors influencing college students' purchase intention in this context. By integrating technology acceptance theory with factors such as perceived risk and user preferences, this research examines both personal traits and external influences affecting this consumer group's online shopping purchase intention. College students were selected as the research subject because this demographic may be more representative in terms of age and capacity to accept new things, likely exhibiting stronger willingness to understand and engage with novel technologies. Based on previous research, this study supplements existing literature by incorporating personal factors such as "novelty attention preference" and "trust preference" to examine their impact on purchase intention, aiming to generate valuable conclusions and provide references for future research.

2. Literature Review

2.1 Related Research on VR Shopping in Online Shopping

VR is defined as a computer-generated 3D environment, also known as a virtual environment (VE), that can simulate one or more of the user's senses in real time [2]. Searching the Web of Science database and CNKI using the combined keywords "online shopping" and "virtual reality" reveals that foreign research on VR shopping in online contexts dates back to 2004, while domestic research in this area emerged after 2012. This indicates that domestic research lags behind foreign studies, and the volume of foreign literature on this topic is also more extensive.

Foreign research on VR online shopping primarily focuses on VR application development and consumer experience perception. K. C. Madathil et al. developed a virtual collaborative 3D remote moderated usability testing laboratory and applied it in a controlled study to evaluate the effectiveness of moderated usability testing in collaborative VR environments, comparing it against two other methods: traditional laboratory approaches and Cisco WebEx (a web-based conferencing and screen-sharing method). The tests revealed that participants experienced greater engagement and immersion in virtual environments than in WebEx environments, with no significant difference in ratings between virtual and traditional laboratory conditions [3]. Z. H. Jiang et al. investigated how VR functional mechanisms (i.e., vividness and interactivity) influence consumers' intention to return to websites and purchase products, identifying product presentation vividness and interactivity as primary design features affecting presentation effectiveness [4].

Domestic research primarily concentrates on VR technology applications in on-

line shopping and the psychological and behavioral impacts of “VR + online shopping” on consumers. An Kejie examined the application prospects of VR online shopping in college students’ consumption lives and offered recommendations for VR technology applications in this demographic [5]. Wang Xiaozhe et al. explored the relationship between flow experience and purchase intention from the perspectives of virtual display and flow experience, finding that flow experience positively affects consumer purchase intention. The three dimensions of flow experience—perceived control, mental concentration, and enjoyment—each positively influence purchase intention, while virtual display positively moderates the relationship between flow experience and purchase intention [6]. Additionally, scholars have studied development strategies for “VR + online shopping.” Chen Dezhen et al., based on current market development status and existing problems in VR shopping, proposed countermeasures such as combining VR with AR (Augmented Reality) industries to enhance experiential realism [7]. This study aims to complement existing research by integrating antecedent variables of perceived ease of use, perceived risk, and personal preferences from the technology acceptance model to examine college students’ purchase intention when using VR devices for online shopping, conducting research from both social and personal perspectives.

2.2 Technology Acceptance Theory

The Technology Acceptance Model (TAM), proposed by F. D. Davis in 1989 using the Theory of Reasoned Action to study user acceptance of information systems, consists of five components: external variables, perceived ease of use, perceived usefulness, attitude, and usage intention [8]. Perceived usefulness refers to the degree to which a user believes that using a particular system would enhance their job performance. Perceived ease of use refers to the degree to which a user believes that using a particular system would be free of effort. These two perceptions influence users’ attitudes toward the system and are affected by external variables such as user characteristics and task features. Since its proposal, TAM has received continuous attention from scholars worldwide, generating numerous studies focusing on the model itself [9] and users’ acceptance levels and usage intentions toward specific technologies [10]. TAM has been applied across various academic fields, including computer science and management.

For instance, Chen Chuanhong et al. analyzed factors influencing the rapid popularity of bike-sharing in China from perspectives such as shared product systems and social influence, identifying common factors affecting usage intention including convenience in accessing shared products, personal innovativeness, and social influence [11]. M. Igbaria et al., using TAM as a theoretical foundation to study key factors influencing personal computer acceptance in small businesses, found that perceived ease of use was the primary factor explaining perceived usefulness and system usage, while perceived usefulness significantly impacted system usage. Additionally, exogenous variables affected perceived

ease of use and perceived usefulness, particularly management support and external support [12]. V. S. Diwanji et al., guided by TAM, compared the effects of user-generated videos versus brand-generated videos on online shoppers' perceptions, attitudes, and purchase intentions, finding that online shoppers did not differentiate between video sources when evaluating perceived usefulness [13]. As research has progressed, TAM has evolved into a relatively mature theory for explaining users' technology acceptance intentions, with related research continuing to advance.

3. Hypotheses and Model Development

3.1 Effects of Social Norms and Perceived Enjoyment on Perceived Ease of Use

Social norm is defined as an individual's perception that most people who are important to them think that a given behavior should or should not be performed by the individual [14]. In other words, it reflects the degree to which the individual perceives that important others (such as teachers or leaders) believe they should or should not engage in a particular behavior.

Perceived enjoyment is defined as the extent to which using a technology is perceived as enjoyable in its own right, representing part of all performance outcomes resulting from technology use [15]. F. D. Davis defined ease of use in 1989 as the degree to which an individual believes that using a particular system would be free from physical and mental effort [8]. A. K. Kaushik et al. noted that perceived ease of use refers to people's belief that using a particular technology will be effortless [16]. V. Venkatesh and H. Bala proposed the TAM3 model in 2008, which primarily examines how various interventions affect known determinants of new technology acceptance and use [17]. This model positions social norm as an antecedent of perceived usefulness and perceived enjoyment as an antecedent of perceived ease of use. However, this study measures both social norm and perceived enjoyment as antecedents of perceived ease of use to explore their potential relationships. Accordingly, this study proposes the following hypotheses:

H1: Social norm has a significant positive effect on college students' perceived ease of use of VR devices.

H2: Perceived enjoyment of VR devices has a significant positive effect on perceived ease of use.

3.2 Effect of Perceived Ease of Use on Purchase Intention

According to technology acceptance theory, individual information system usage is determined by behavioral intention, which in turn is determined by perceived usefulness (the degree to which an individual believes that using a system would improve their work efficiency) and perceived ease of use (the degree to which an individual believes that using a system would be easy). Consumer purchase

intention refers to the probability that a consumer is willing to engage in a specific purchasing behavior [18]. Existing research has demonstrated a positive correlation between perceived ease of use and purchase intention. For example, W. H. Lin et al., examining the moderating effects of consumer perceptions on online shopping intention from the perspective of perceived risk toward aquatic products, found that consumers' perceptions of ease of use and usefulness enhanced their purchase intention for aquatic products, while perceived economic risk and privacy risk negatively affected online shopping for these products [19]. Accordingly, this study proposes:

H3: Perceived ease of use of VR devices has a significant positive effect on college students' purchase intention in online shopping.

3.3 Effect of Perceived Risk on Purchase Intention

R. N. Stone et al. defined perceived risk as the subjective expectation of loss [20]. S. M. Cunningham identified two dimensions of perceived risk: uncertainty and consequences [21], where uncertainty refers to consumers' subjective probability of an event occurring, and consequences refer to the dangerousness of the outcome after the event occurs [22]. E. Garbarino identified five risks associated with online purchasing: credit card misuse, fraudulent websites, privacy loss, shipping problems, and product failure [23]. Existing research indicates that perceived risk significantly negatively affects purchase intention. For instance, J. F. Outreville's experimental study on consumer behavior when purchasing wine found that perceived risk was a primary factor influencing consumers' decision to purchase or not purchase wine, significantly negatively affecting purchase intention [24]. Wang Yang et al. studied how characteristic factors of online negative review information affect potential consumers' purchase intention, finding that negative emotional tendencies in reviews, review timeliness, and perceived risk all significantly negatively affected purchase intention [25]. Accordingly, this study proposes:

H4: Perceived risk of VR devices has a significant negative effect on college students' purchase intention in online shopping.

3.4 Effects of Trust Preference and Novelty Attention Preference on Purchase Intention

Trust preference refers to consumers' degree of trust in merchants. Novelty attention preference refers to consumers' attention to new things—in other words, the degree to which consumers prefer merchants with good reputations and the extent to which they prefer selecting new things. Existing research demonstrates that trust positively affects purchase intention. For example, Liu Mingbo et al., in their study on factors influencing earthquake insurance purchase intention, found that “from the perspective of reliability of insurance contact channels, when the public believes that channels such as insurance marketers, insurance companies, television, radio, and the internet are trustworthy, their willingness

to purchase earthquake insurance significantly increases” [26]. K. H. Lim et al. also confirmed the positive relationship between trust and purchase intention [27]. Through literature review, no studies were found examining the effect of novelty attention preference on purchase intention. Therefore, this study proposes that novelty attention preference positively affects college students’ purchase intention, primarily because individuals generally only develop purchase intention for newly launched products when they have a preference for, interest in, or curiosity about new things. In other words, individuals who inherently prefer novel things may have stronger purchase intention for new products than others. Based on this, this study proposes:

H5: Trust preference has a significant positive effect on college students’ purchase intention in online shopping.

H6: Novelty attention preference has a significant positive effect on college students’ purchase intention in online shopping.

3.5 Theoretical Model

Based on the above hypotheses, the theoretical model constructed in this study is shown in Figure 1 [Figure 1: see original paper].

4. Research Methodology

4.1 Questionnaire Design

This study employed an online questionnaire collection method using a professional online survey platform for overall questionnaire design. The questionnaire consisted of three parts: respondents’ basic personal information, measurement of latent variables, and screening items. Except for personal information and screening items, all other questions were designed using a 5-point Likert scale. To help respondents better understand VR technology in online shopping, this study added a brief description of virtual reality technology at the beginning of the scale. All measurement items for latent variables were adapted from previously validated scales with appropriate modifications for this study. Specifically, novelty attention preference and trust preference referenced scales designed by Zhao Jinlou et al. [28]; perceived enjoyment used scales designed by R. Agarwal et al. [29]; perceived risk adopted scales from R. N. Stone et al. [20]; social norm referenced scales from V. Venkatesh et al. [30]; purchase intention primarily referenced scales from S. B. Mackenzie [31]; and perceived ease of use referenced scales from F. D. Davis [8]. Variable explanations and measurement items are detailed in Table 1 .

4.2 Data Collection

This study collected data through online questionnaires distributed via digital media and social software. A pilot test was conducted before formal data collection, with results showing that all variables’ Cronbach’ s Alpha values

were above 0.7, indicating the questionnaire was suitable for investigation. The formal survey collected 240 questionnaires. Screening items were included in the questionnaire design, and after eliminating unqualified responses, 204 valid questionnaires remained, yielding an effective response rate of 85%. Sample demographic characteristics are shown in Table 2 .

5. Data Analysis

5.1 Reliability Analysis

Reliability is a tool for testing questionnaire reliability and consistency. This study used SPSS 26.0 to examine internal consistency. The overall scale reliability analysis results are shown in Table 3 . Additionally, reliability for each latent variable was tested separately, with results shown in Table 4 .

As shown in Tables 3 and 4, both the overall scale and subscales had Cronbach's α values greater than 0.75, with all latent variables' reliability coefficients above 0.8, indicating good scale reliability.

5.2 Validity Analysis

This study employed both convergent validity and discriminant validity to test questionnaire validity. Before validity testing, factor analysis was conducted, with results shown in Tables 5 , 6 , and 7 . Table 5 shows the scale's KMO value was 0.812, significant at the 0.000 level, confirming the data's suitability for factor analysis. Table 6 shows all variables' CR values exceeded 0.8, and average variance extracted (AVE) values were all greater than 0.5, indicating good convergent validity. For discriminant validity, the criterion requires that diagonal values (square roots of AVE) exceed off-diagonal values (correlations between variables). Table 7 demonstrates that each variable's square root of AVE was greater than its correlations with other variables, indicating good discriminant validity among dimensions.

5.3 Model Hypothesis Testing

The model fit was first evaluated, yielding $\text{CMIN/DF} = 1.938$, $\text{RMR} = 0.047$, $\text{RMSEA} = 0.068$, $\text{CFI} = 0.883$, $\text{TLI} = 0.865$, and $\text{IFI} = 0.885$. All model fit indices fell within recommended ranges, indicating good model fit. Second, correlations between variables were verified, with results shown in Table 8 , revealing significant correlations among all variables except perceived risk and trust preference.

This study further employed Structural Equation Modeling (SEM) for hypothesis testing. Analysis using AMOS 23.0 produced the results shown in Figure 2 [Figure 2: see original paper]. Specific hypothesis test results are shown in Table 9 .

Results indicate that social norm significantly positively affects college students'

perceived ease of use of VR devices ($p < 0.001$); perceived enjoyment of VR devices significantly positively affects perceived ease of use ($p < 0.001$); perceived ease of use of VR devices significantly positively affects college students' online shopping purchase intention ($p < 0.001$); trust preference significantly positively affects purchase intention ($p < 0.001$); and novelty attention preference significantly positively affects purchase intention ($p < 0.001$). Contrary to hypothesis H4, however, perceived risk of VR devices significantly positively affects college students' online shopping purchase intention ($p = 0.032$).

This study used the Bootstrap method to test mediating effects, with Bootstrap samples set at 5,000 and confidence interval at 95%. All variables entered into regression equations were standardized. Mediating effect verification results for perceived ease of use on perceived enjoyment and purchase intention are shown in Table 10, and for perceived ease of use on social norm and purchase intention in Table 11.

Results show that perceived enjoyment's total and direct effects on purchase intention were both significant, with perceived ease of use's indirect effect also significant. Therefore, perceived ease of use partially mediates the relationship between perceived enjoyment and purchase intention. Similarly, perceived ease of use also partially mediates the relationship between social norm and purchase intention.

6. Results and Discussion

Building upon previous research with new factors and insights, this study yields several key findings:

6.1 Significant Positive Relationship Between Social Norm, Perceived Enjoyment, and Perceived Ease of Use

Unlike previous TAM constructions, this study measured social norm as an antecedent of perceived ease of use, finding a significant positive effect. In the context of this study, this indicates that others' opinions or recommendations significantly positively affect college students' perceived ease of use of VR devices in online shopping. Therefore, to enhance college students' perceived ease of use of VR devices, promotional efforts should be expanded to increase awareness of such application tools among broader audiences.

6.2 Perceived Ease of Use of Online Shopping VR Devices Significantly Positively Affects Purchase Intention

For any new technology, ease of use is crucial for user adoption intention. Research indicates that users' effort expectancy significantly positively relates to usage intention [32], where effort expectancy refers to the degree of effort required to use a new technology or service—the less effort required, the more likely users are to adopt the technology. Obviously, using VR devices is a pre-

requisite for purchasing activities through them, and perceived ease of use is established based on usage experience. Therefore, to encourage college students to use and shop through VR devices, perceived ease of use should be enhanced while reducing usage costs and technical barriers.

6.3 Perceived Risk Significantly Positively Affects College Students' Online Shopping Purchase Intention

Contrary to conventional understanding, perceived risk did not negatively affect college students' purchase intention. Based on previous research, three possible reasons are proposed: (1) College students' perceived benefits from online shopping outweigh perceived risks, leading them to choose online purchases after weighing pros and cons; (2) College students' misperception or insufficient awareness of risks affects their purchase intention; and (3) College students' general impulsivity trait causes them to overlook risks to some extent. To improve this situation, college students should fully understand potential risks before engaging in online shopping to ensure better experiences.

6.4 Trust Preference Significantly Positively Affects College Students' Online Shopping Purchase Intention

The greater the trust in merchants, the stronger college students' purchase intention. Therefore, enhancing college students' trust in online merchants is particularly important. Research shows that the effectiveness of perceived feedback mechanisms significantly positively affects consumers' trust in sellers. Feedback mechanisms leverage the internet's two-way communication capability to build word-of-mouth effects, allowing consumers to share experiences and opinions with numerous buyers [33]. Additionally, online merchants can employ incentive strategies to retain existing customers, such as the currently popular practice of joining shopping groups to receive red packets. Such incentive methods can increase customers' familiarity with and recognition of merchants, attracting new customers while retaining old ones to generate greater profits. Merchants can also enhance college students' trust by obtaining third-party credit seals.

6.5 Novelty Attention Preference Shows Significant Positive Correlation with College Students' Online Shopping Purchase Intention

This conclusion indicates that college students' preference for paying attention to new or trending things significantly positively affects their online shopping purchase intention. Based on this finding, merchants can adopt new marketing methods and techniques or align with hot topics in the online sales community to attract the college student consumer group.

7. Conclusion

Based on technology acceptance theory and analyzing users' personal traits (such as user preferences and external influencing factors), this study investigated fac-

tors affecting college students' online shopping purchase intention. The analysis revealed that all factors examined in this study significantly positively affected college students' online shopping purchase intention, meaning all hypotheses except H4 were supported.

Although this study yielded preliminary conclusions, several limitations remain. For instance, the research population was limited to college students, without analyzing other groups. Future research should expand the study population to provide more comprehensive insights in this area.

References

- [1] China Internet Network Information Center. Statistical Report on Internet Development in China (February 2021) [Online]. [2021-02-03]. <http://www.cnnic.net.cn/>.
- [2] GUTTENTAG D A. Virtual reality: applications and implications for tourism[J]. Tourism management, 2010, 31(5): 637-651.
- [3] MADATHIL K C, GREENSTEIN J S. An investigation of the efficacy of collaborative virtual reality systems for moderated remote usability testing[J]. Applied ergonomics, 2017, 65: 501-514.
- [4] JIANG Z H, BENBASAT I. Investigating the influence of the functional mechanisms of online product presentations[J]. Information systems research, 2007, 18(4): 454-470.
- [5] AN K J. Research on the application of "Internet Plus" VR technology in college students' consumption[J]. Journal of China multimedia & network teaching (Early issue), 2020(6): 6-7.
- [6] WANG X Z, ZHANG J D. Research on the influence of flow experience based on virtual display on purchase intention[J]. Fujian tea, 2019, 41(10): 33-34.
- [7] CHEN D Z, ZHENG S J, WU J W. Research on market development prospects and strategies of "VR + Shopping" [J]. Technology wind, 2019(33): 200-201.
- [8] DAVIS F D. Perceived usefulness, perceived ease of use, and user acceptance of information technology[J]. MIS quarterly, 1989, 13(3): 319-340.
- [9] SZAJNA B. Empirical evaluation of the revised technology acceptance model[J]. Management science, 1996, 42(1): 85-92.
- [10] ZHAO X Q, WANG S C. Exploration of factors influencing users' continuous usage intention of WeChat mini programs[J]. Modern information, 2019, 39(6): 70-80, 90.
- [11] CHEN C H, LI X Y. Research on factors influencing citizens' usage intention of bike-sharing[J]. Chinese journal of management, 2018, 15(11): 1601-1610.
- [12] IGBARIA M, ZINATELLI N, CRAGG P, et al. Personal computing acceptance factors in small firms: a structural equation model[J]. MIS quarterly, 1997, 21(3): 279-305.
- [13] DIWANJI V S, CORTESE J. Contrasting user generated videos versus

- brand generated videos in ecommerce[Online]. [2021-05-30]. <https://www.sciencedirect.com/science/article/pii>
- [14] FISHBEIN M, AJZEN I. Belief, attitude, intention and behavior: an introduction to theory and research[Online]. [2021-05-30]. [{](https://www.researchgate.net/publication/233897090_)
- [15] NEDRA B A, HADHRI W, MEZRANI M. Determinants of customers' intentions to use hedonic networks: the case of instagram[J]. Journal of retailing and consumer services, 2019, 46: 21-32.
- [16] KAUSHIK A K, RAHMAN Z. An alternative model of self-service retail technology adoption[J]. Journal of services marketing, 2015, 29(5): 406-420.
- [17] VENKATESH V, BALA H. Technology acceptance model 3 and a research agenda on interventions[J]. Decision sciences, 2008, 39(2): 273-315.
- [18] LIU B B, XIE S E. Research on factors of social media influencing tourists' purchase intention[J]. Value engineering, 2015, 34(21): 5-9.
- [19] LIN W H, XU A X, ZHENG Q Q, et al. Influence of customer perceived value on the online shopping intention of aquatic products under B2C E-commerce[J]. Journal of discrete mathematical sciences & cryptography, 2018, 21(6): 1189-1192.
- [20] STONE R N, GRØNHAUG K. Perceived risk: further considerations for the marketing discipline[J]. European journal of marketing, 1993, 27(3): 39-50.
- [21] CUNNINGHAM S M. The major dimensions of perceived risk[M]//COX D F. Risk taking and information handling in consumer behavior. Boston: Harvard University Press, 1967.
- [22] MITCHELL V W. Consumer perceived risk: conceptualizations and models[J]. European journal of marketing, 1999, 33(1/2): 163-195.
- [23] GARBARINO E, STRAHILEVITZ M. Gender differences in the perceived risk of buying online and the effects of receiving a site recommendation[J]. Journal of business research, 2004, 57(7): 768-775.
- [24] OUTREVILLE J F, DESROCHERS J. Perceived risk: an experimental investigation of consumer behavior when buying wine[J]. Journal of consumer behaviour, 2016, 15(6): 549-559.
- [25] WANG Y, WANG W J, LIU Z Y. Research on the influence of online negative review information on potential consumers' purchase intention[J]. Information science, 2018, 36(10): 156-163.
- [26] LIU M B, WANG Y L, ZHOU Z G. Channel trust, insurance impression and purchase intention—A survey study based on micro individuals[J]. Insurance studies, 2014(4): 63-73.
- [27] LIM K H, SIA C L, LEE M K O, et al. Do I trust you online, and if so, will I buy? an empirical study of two trust-building strategies[J]. Journal of management information systems, 2006, 23(2): 233-266.
- [28] ZHAO J L, CHENG J H. Research on influencing factors of Weibo public opinion dissemination intention based on user perception, preference and involvement[J]. Journal of the China society for scientific and technical information, 2014, 33(4): 3-11.
- [29] AGARWAL R, KARAHANNA E. Time flies when you' re having fun: cognitive absorption and beliefs about information technology usage[J]. MIS quarterly, 2000, 24(4): 665-694.
- [30] VENKATESH V, DAVIS F D. A Theoretical extension of the technology

acceptance model: four longitudinal field studies[J]. Management science, 2000, 46(2): 186-204.

[31] MACKENZIE S B, LUTZ R J, BELCH G E. The role of attitude toward the ad as mediator of advertising effectiveness: a test of competing explanations[J]. Journal of marketing research, 1986, 23(2): 130-143.

[32] YIN M, LI Q. Research on health APP users' usage based on protection motivation theory[J]. Modern information, 2016, 36(7): 63-70.

[33] TANG S L, ZHU H H. Research on third-party trust mechanism in e-commerce based on technology acceptance model[J]. Library and information service, 2011, 55(8): 140-144, 53.

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