Research on The Motivation of Users' Participation in Online Reviews on Catering O2O Platform

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Abstract

Driven by the exponential increase in internet usage, particularly in online shopping, traditional chain retail companies in China face the pressing need to actively pursue transformation as their sales growth slows and profitability declines amidst technological advancements and evolving consumer preferences. With the progress of science, technology and the vigorous development of network infrastructures, the sales growth of traditional chain retail companies has slowed down and the growth rate of profits has declined, so chain retail companies need to adapt to the characteristics of the times. It is urgent to actively seek the development of transformation. The essence of O2O (Online to Offline) is to integrate virtual network business and real business in the field of life consumption through Internet technology. The current study applied TAM model to research on the relationships between independent variables (the individual's pursuit of economic returns, reputation and self-efficacy) and dependent variable (users' willingness

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to participate in online review), while moderating by other users' perceived comment costs. The results shown that comment cost has a moderating effect on the effect of perceived usefulness on online comment intention (review), and all independent variables and dependent variable have significant relationships either directly or indirectly.

Keywords: Online to Offline (O2O), TAM, Comment Costs, SEM

การศึกษาแรงบันดาลใจการมีส่วนร่วมในการทบทวน
ช่องทางการส่งเสริมการผสมผสานธุรกิจจากออนไลน์
ไปสู่ออฟไลน์ (O2O) ของผู้ใช้

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บทคัดย่อ

การใช้อินเตอร์เน็ตที่เพิ่มขึ้นอย่างสูง โดยเฉพาะการใช้จ่ายออนไลน์นั้น ส่งผลให้บริษัทขายปลีกรูปแบบดั้งเดิมในประเทศจีนต้องเผชิญกับความต้องการเร่งด่วนที่จะแปรสภาพธุรกิจ เนื่องจากการเติบโตของยอดขายช้าลง และกำไรเกิดการถดถอย อันเป็นผลมาจากความก้าวหน้าทางเทคโนโลยีและความนิยมของผู้บริโภคที่เปลี่ยนไป ความก้าวหน้าทางด้านวิทยาศาสตร์ เทคโนโลยีและการพัฒนาโครงสร้างเครือข่ายพื้นฐานอย่างรวดเร็วนี้ ส่งผลให้การเติบโตของยอดขาดของบริษัทขายปลีกรูปแบบดั้งเดิมล่าช้าลง ประกอบกับมีกำไรน้อยลง บริษัทจำพวกนี้จึงต้องปรับตัวให้ทันกับกาลเวลาที่เปลี่ยนแปรไป มีความจำเป็นเร่งด่วนที่จะต้องพัฒนาการแปรสภาพจุดสำคัญของออนไลน์ไปสู่ออฟไลน์นั้น เป็นไปเพื่อบูรณาการธุรกิจเครือข่ายเสมือนจริงและธุรกิจจริงในวงการการบริโภคในชีวิตผ่านเทคโนโลยีอินเตอร์เน็ต งานวิจัยนี้ประยุคใช้โมเดลการยอมรับเทคโนโลยี เพื่อศึกษาหาความสัมพันธ์ระหว่างตัวแปรต้น (การแสวงหาผลตอบแทนทางเศรษฐกิจของบุคคล ชื่อเสียงและความสามารถของตน) กับตัวแปรตาม (ควายยินดีมีส่วนร่วมในการทบทวนออนไลน์ของผู้ใช้) ทั้งนี้ควบคุมโดยต้นทุนจากการตอบข้อความที่คิดว่าจะเกิดขึ้น ผลการวิจัยพบว่าต้นทุนจากการตอบข้อความมีอิทธิพลกำกับต่อผลของประโยชน์ที่คิดว่าจะเกิดขึ้นและตัวแปรตามมีความสัมพันธ์ที่มีนัยสำคัญไม่ว่าจะเป็นทางตรงหรือทางอ้อมก็ตาม

คำสำคัญ: ออนไลน์ไปสู่ออฟไลน์ (O2O), โมเดลการยอมรับเทคโนโลยี (TAM), ต้นทุนการตอบข้อความ, การตลาดผ่านเครื่องมือค้นหา (SEM)

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Introduction

Research Background

According to the People's Network of China (Zhao, 2020), as of March 2020, the number of internet users in China had reached 904 million, with an internet penetration rate of 64.5%. The number of online shopping users was reported to be 710 million. However, despite the progress in science, technology, and the vigorous development of network infrastructures, traditional chain retail companies have experienced a slowdown in sales growth and declining profit margins. Therefore, these companies need to adapt to the changing trends and actively seek transformation.

In August 2010, Alex Rampell, the founder of TrialPay, a payment company in the United States, proposed the concept of "online-to-offline" commerce (O2O). Essentially, O2O aims to integrate online and offline elements of the consumer experience by leveraging internet technologies. This integration enables the creation of new business models and facilitates the transition of online users into offline physical stores. A prime example of O2O in the catering industry is seen in Dianping's food and beverage reviews. Dianping first attracts user comments and reviews, subsequently attracting other restaurants to join their platform. While these reviews may possess subjective opinions from consumers, they also fulfill consumers' longing for authentic information.

It is important for chain retail companies to recognize the significance of O2O and its potential impact on their operations. By embracing this model, companies can better engage with their target market, establish stronger connections with customers, and enhance trust, ultimately improving sales performance.

Currently, many chain retail companies still rely on the Business-to-Customer (B2C) online shopping model. However, reconciling the traditional chain operation mode with e-commerce has proven challenging. In comparison, O2O presents advantages over the B2C model. By integrating online and offline elements, O2O can effectively target customers in specific markets, enhance customer understanding and familiarity with products, and improve trust, ultimately increasing sales turnover.

According to the "China Online Takeaway Market Special Survey and Investment Prospect Forecast Report 2017-2022" published by Zhiyan Consulting Network, in 2019, the internet catering takeaway market in China reached a scale of 331.3 billion yuan, with 320 million users and a growth rate of 30%. It is expected that by 2020, the market will reach 360 billion yuan. Although the growth rate of the online takeaway market has slightly decreased, it remains popular, and it is projected to continue growing at around 20% in the next two years. Furthermore, the scale of the internet catering takeaway market is estimated to exceed 400 billion yuan in 2020.

The continuous growth of the online takeaway market demonstrates its increasing popularity, even though the growth rate is slowing down. Nonetheless, it is still expected to maintain steady growth in the coming years. This indicates the potential for further development and opportunities within the market.

Customers can provide timely feedback to businesses through evaluations, enabling improvements and better alignment of products or services with customer needs (Homburg & Fürst, 2005). However, it is important to note that the O2O catering takeout model also faces certain limitations. These include payment risks, a lack of customer trust, and the prevalence of false information on the internet (Wang & Scrimgeour, 2021).

Statement of the Problem

In recent years, there have been ten new O2O catering companies emerging in the market, including "Elema, Baidu takeout, Stupid bear cooking, Home gourmet club, Word-of-mouth takeout (Tao Dian Dian), Line O, Downstairs 100, Meituan takeout, Life radius, No.1 takeout". Among these platforms, "Elema" and "Meituan takeout" are the most renowned. These takeout platforms offer great convenience for customers to order meals and other products or services from local businesses directly through the platforms. This allows customers to receive their orders at home, eliminating the need to settle for monotonous reheated fast food, snacks, or instant noodles. However, the online realm also presents certain risks, such as the disparity between the actual food received and the pictures displayed on websites or mobile applications, concerns regarding personal privacy protection, and potential payment vulnerabilities. These factors can significantly influence users' intention to utilize catering takeout services and their satisfaction with the platforms.

Customers often provide authentic feedback and share their genuine experiences through online platforms, enabling businesses to understand their needs better. This feedback is crucial for enhancing customer satisfaction, fostering loyalty, and driving profitability. According to Sun (2016), consumers' online reviews exert a substantial influence on the reputation of e-commerce companies' products. Consequently, companies should consider online comments when devising strategies for product development and service improvement. Online reviews possess both advantages and disadvantages for companies, and it is vital for businesses not to overlook their significance. For instance, companies could enhance the trust mechanism of online review systems, establish incentive mechanisms for online reviews, and utilize online reviews for marketing activities. Nevertheless, some customers may choose to refrain from participating in online reviews due to factors such as the fear of complexity or concerns over information leakage. Thus, exploring ways to mobilize customer enthusiasm and encourage universal participation in online reviews is an urgent and important issue to address. Therefore, the current study aims to investigate the motivational factors influencing users of O2O catering takeout platforms to engage in online reviews.

Research Objectives

With the increasing development of society and the increasing popularity of the network, more and more people buy and order takeout through the network platform, and so on, this kind of catering takeout O2O platform transaction brings convenience to people's lives, but also more economical and affordable products and services to save consumers' time and costs (Tang & Zhu, 2019). Therefore, it is imperative for O2O catering takeout platforms to thoroughly examine the motivations behind consumers' participation in online reviews. Based on their own experiences, consumers express their opinions, whether it be praise or criticism, at the bottom of products or services. These comments provide valuable insights for consumers to better comprehend the information about the products or services, thereby facilitating the decision-making process for other potential consumers. To drive profitability, businesses rely on positive reviews from customers to attract new users and expand their customer base. The customers' reviews to the merchant through the comment, and provide the opinion reference for other consumers, the good evaluation attracts more

customers, then, the consumers and the merchants can achieve the mutual benefit (Amed, Mukherjee, Das, & Datta, 2019). Simultaneously the online reviews can also make the consumer feel the self-valued, sincere reviews bring good reputation to themselves (Chen, Teng, & Chiou, 2020). By investigating the motivations that drive users of catering O2O platforms to engage in online reviews, companies can gain a profound understanding of consumer psychology. This understanding can be leveraged to not only boost sales of products or services but also enhance the visibility and reach of the company's outlets.

Research Problem

In order to understand the motivation factors for catering O2O platform users to participate in online reviews, several points are put forward here, namely, the pursuit of economic returns (Wang & Scrimgeour, 2021), reputation (Raharjo, 2020), self-efficacy (Ahmad & Guzmán, 2021), review cost (Luo, Zhou, Song, & He, 2022), perceived ease of use and perceived usefulness (Bae & Han, 2020). According to the above research contents, the questions of this study are as follows:

(1) Do the variables of pursuit of economic return, reputation, self-efficacy, perceived usefulness, perceived ease of use, review cost and user's willingness to participate in online reviews have differences under different background variables?

(2) Does the pursuit of economic reward, reputation, self-efficacy, perceived ease of use, perceived usefulness, and review cost affect users' willingness to participate in online reviews?

(3) Does perceived usefulness mediate the relationship between (pursuit of economic reward, reputation, and self-efficacy) and users' willingness to participate in online reviews?

(4) Does perceived ease of use mediate the relationship between (pursuit of economic reward, reputation, and self-efficacy) and users' willingness to participate in online reviews?

(5) Does the cost of reviews moderate (perceived ease of use, perceived usefulness) and users' willingness to participate in online reviews?

(6) Is user's willingness to participate in online reviews influenced by the pursuit of economic rewards, reputation, self-efficacy, perceived ease of use, perceived usefulness, and cost of reviews?

Research Significance

The findings of the survey conducted by the China Internet Network Information Center (CNNIC) indicate that consumer reviews, whether for familiar or unfamiliar products, play a crucial role in the decision-making process of online shoppers. However, the willingness of users to actively contribute their own reviews remains low. Instead, most users prefer to browse through existing comments provided by other consumers. According to the CNNIC survey, among internet users who have engaged in online shopping, only 3.5% of them frequently share their online consumption experiences, while 19.8% occasionally share their experiences across multiple platforms or applications. These figures amount to a mere 23.3% of online consumers, indicating that a significant majority (76.7%) of online shoppers refrain from sharing their experiences. Considering this, it becomes imperative for e-commerce companies and platforms to explore the motivations behind consumer reviews and develop effective incentives in order to achieve sustainable development.

This study primarily examines the influence of economic incentives, reputation, self-efficacy, review costs, perceived ease of use, and perceived usefulness on the intention of O2O platform users to engage in online reviews. Theoretically, it provides practical guidance for future research on the motivations that drive O2O platform users to participate in online reviews. Studies have shown that the willingness of platform users to comment is influenced by technical factors (perceived ease of use and perceived usefulness) (Bae & Han, 2020), social factors (self-efficacy and reputation) (Ahmad & Guzmán, 2021; Raharjo, 2020) and individual user psychological factors (economic rewards and review costs) (Luo et al., 2022; Wang & Scrimgeour, 2021). This study confirms that the pursuit of economic returns, reputation, self-efficacy, review costs, perceived ease of use, and perceived usefulness are significant factors that influence users' engagement in online reviews. As a result, this study offers a theoretical framework for companies to explore and integrate these factors across various domains when conducting research on relevant phenomena.

Literature Review

Based on the classical technology acceptance model, this paper combines social cognitive theory, social exchange theory, achievement needs theory, Maslow's hierarchy of needs theory and the research results of Li (2021), and combines the characteristics of

catering O2O platform and users to construct catering O2O platform. Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) are defined as technology-related driving factors; Pursuit of Economic Return (ER), Cost of Review (CC), Reputation (SY) and Self-efficacy (SE) are defined as individual driving factors.

Technology Acceptance Model

The Technology Acceptance Model (Davis, 1989; Davis, Bagozzi, & Warshaw, 1989) is primarily employed to elucidate users' behavior in accepting and adopting new technologies and systems. Built upon the theory of reasoned action, this model emphasizes the impact of two key variables, namely perceived usefulness, and perceived ease of use, on users' intentions to use a particular technology or system. Lu and Xu (2005) posit that information technology acceptance research encompasses various models, each with distinct determinants of acceptance. Within this model, user attitudes are contingent upon perceived usefulness and perceived ease of use. These two variables can also be applied to explain users' intentions to engage in online word-of-mouth, as the review system of O2O catering platforms essentially functions as an information system. The willingness or attitude of users on e-commerce platform to post consumers' reviews is also closely related to users' perceived usefulness and perceived ease of use of the online review system (Duan, Gu, & Whinston, 2008), and this model can be well used to explain the online review intention of O2O catering platform users.

Yang, Wang, and Sun (2016) suggested that to enhance the effectiveness of online marketing, online merchants can enhance the performance of the online recommendation system by proactively providing explanations for recommended items to consumers, actively gauging consumers' satisfaction with the recommendation outcomes, and displaying detailed information about the recommended products. To reduce consumers' search costs and cater to their diverse needs, it is recommended to display diversified recommendation lists (Adomavicius & Tuzhilin, 2005). The recommendation algorithm can be optimized by prioritizing popular brands with a strong reputation and perceived quality, as well as recommending novel products in order to enhance the quality of the recommendation information. This approach can also improve perceived ease of use and perceived usefulness, ultimately increasing consumers' intention to adopt the recommendations (Zhou et al., 2010). Tao, Zhang, Yang, and Zhang (2017) indicated that while both the number of online reviews

and price have a positive influence on the diffusion of new products, there exists a negative interaction between the number of online reviews and price concerning product diffusion. Perceived usefulness acts as a partial mediator, meaning that the number and sentiment of online reviews impact the perceived usefulness, subsequently affecting the diffusion of new products. Additionally, Yan and Meng (2013) argued that online reviews with more extreme emotional expressions and longer texts have a positive effect on the perceived usefulness of online reviews.

Social Cognitive Theory

Social cognitive theory, developed by American psychologist Bandura in the late 1970s, is an educational theory that experienced rapid development in the 1990s. It incorporates cognitive elements into the traditional behaviorist personality theory, thereby establishing its distinctive social cognitive theory.

Social cognitive theory holds that social psychology is stored in people's minds in a certain structure, and there is a relationship between the structure and its parts. Zhu et al. (2010) have proposed that consumers, new technologies and adoption are a dialectical tripartite reciprocal decision system, and reviewed and analyzed several basic user acceptance models: Technology Acceptance Model (TAM) (Davis, 1989; Davis et al., 1989), Theory of Planned Behavior (TPB) (Ajzen, 1991), and Value-based Adoption Model (VAM) (H.-W. Kim, Chan, & Gupta, 2007). There are three theories to explain the existence of social cognitive information: The first one can be called feature theory, which holds that the relevant social psychological phenomena are represented by various features in people's long-term memory. When people are stimulated by relevant stimuli, they will analyze these features and compare them with the features and connections in long-term memory, so as to respond to some social psychological phenomena. The second is the prototype theory, which holds that the cognition formed by a certain social psychology can be regarded as the general representation of various specific phenomena of the social psychology, and it is the basic feature of the social psychology. The third is the exemplar theory, which holds that social psychological phenomena are stored in people's minds in the form of concrete examples, and they have a one-to-one correspondence with external phenomena. When people are stimulated by the corresponding stimulus, the stimulus information is encoded,

and the corresponding exemplar will be activated, thus producing a corresponding response to a certain social psychological phenomenon. Customers can get a better public image and a sense of social identity by commenting, and online comments can communicate with consumers with similar interests and generate a sense of belonging. Huang, Wang, Gu, and Peng (2011) proposed that innovation self-efficacy is an important incentive mechanism for individuals to innovate. After that, the predictive effect of innovation self-efficacy on innovative thinking, innovative behavior and creativity has attracted wide attention. Researchers from companies to schools have found that innovation self-efficacy has a positive predictive effect on innovation performance. Zhang (2015) believes that network self-efficacy has a predictive effect on deep learning, and there is a significant positive correlation between them. Specifically, there is a significant linear correlation between network self-efficacy and deep learning in the middle and low levels; in the middle and high levels of network self-efficacy, the increase of deep learning shows a downward trend, and there is a linear correlation between them. Xie, Shen, Yang, and Wu (2016) proposed that the application of online learning space can gradually improve college students' self-efficacy in online learning, and the application effect of black product is very significant: in the process of applying online learning space, the improvement effect of each dimension of college students' self-efficacy is different, among which the improvement effect of "ability sense", "effort sense" and "environment sense" is more significant. At the same time, the study found that "individual's sense of social presence in the learning space", "functional support of the network learning space" and "network learning behavior mode" are the main factors affecting the promotion effect of network learning self-efficacy.

Social Exchange Theory

This theory, proposed by (West & Turner, 2007), examines the rewards and costs associated with social interactions. It suggests that individuals who are most appealing to themselves are those who can offer the greatest benefits. People strive to maximize the rewards they receive from their social interactions. To receive rewards, individuals must also provide them. As the principle of human society is based on mutual assistance, others reciprocate with benefits. Therefore, the process of social interaction can be viewed as an exchange process.

Social exchange theory holds that social behavior as an exchange is a kind of reciprocal benefit behavior. When one party provides help and support to the other party, the other party has the obligation to return, but this obligation is not as clear as economic exchange. Social exchange theory assumes that people focus on relatively long-term interests and expectations for the future, rather than one-time exchanges (Cropanzano & Mitchell, 2005). O2O catering platform users publish consumer comments and expect the platform and other users in the community to be full of benefits. Usually, people tend to produce the willingness to exchange behavior through cost-benefit assessment. Only when all parties to the exchange can benefit from the exchange, and the perceived benefits are greater than the perceived costs, can such an exchange occur, and the interaction between them will be attractive and lasting. Under the influence of social transformation, the economic values of contemporary post-90s college students have undergone profound changes. The orientation of economic values is utilitarian, and the ideals are blurred in the treatment of money and ideals (Frey & Stutzer, 2002). On the issue of self-worth and social status, 51.56%, 41% and 58.81% of college students oppose money-oriented, ideals are secondary, improving the economic situation is the way to realize self-worth, and the advantages and disadvantages of economic conditions are the embodiment of social status (Longfield, Romas, & Irwin, 2006). These views show that most of the post-90s college students have their own ideals and pursuits. They hope to realize their life value in the process of realizing their ideals, and constantly improve their economic situation through their own efforts. Whether e-commerce platform users participate in consumer reviews or not, they often consider the gains and losses of participating in online community behavior from the perspective of cost-benefit, and only when they maximize the benefits and minimize the costs, they will actively participate in community activities. When consumers need reference information to choose restaurants, they also hope to get help from others. When consumers choose restaurants, they also want to repay others by posting their real consumption experience via comments. Fu and Wang (2015) pointed out that many online shopping websites have adopted different incentive measures, such as small economic returns, to encourage consumers to post online product reviews, hoping that these reviews will help consumers make purchase decisions and ultimately promote product sales, but there is no clear conclusion about the impact of economic

returns on online product review behavior. Based on the theory of social relations Based on the actual data of online reviews on two major shopping websites in China, this paper empirically tests the impact of small economic returns on online product reviews. The results show that, compared with social returns, online product reviews published in the form of small economic returns have higher ratings, but the depth of product reviews is shallower and the perceived usefulness of review readers is lower.

Achievement requires theory

The theory of achievement needs is a theory that studies people's needs for achievement, and it is an important part of the theoretical system of later behavioral science (McClelland, 1961). The representative is McClelland of the United States. This theory divides the basic needs of human beings into three kinds: achievement needs, power needs and friendship need, among which achievement needs play a vital role in the development of individuals, groups and society (Koestner, Lekes, Powers, & Chicoine, 2002). People with high achievement needs are generally concerned about the success or failure of their career, willing to take responsibility, they have clear goals, like creative work, and are not afraid of fatigue. The more of these types of people there are, the more likely the business is to succeed. Achievement needs can be cultivated and improved through effective educational means. Customers provide help to other consumers by posting comments, and feel that their comments are valuable and recognized by others. In social life, people often observe two kinds of phenomena: one kind of phenomenon is from the individual to the aggregate sense, that is, the individual reputation of members adds up the collective reputation, and the society can establish the reputation of the organization in the sense of "average probability" of the individual reputation of members of the organization; the other kind of phenomenon can be said to be just the opposite: individuals in the organization can take full advantage of the reputation that the organization has built up, either literally or in a way that is not worthy of the name. If the reputation of the organization is abused, the reputation of the organization will be destroyed, and the organization will lose its most important function. Guo, Wang, and Zhao (2014) believe that the primary factor affecting consumers' positive comments is consumers' perceived usefulness of the online reputation

system, followed by consumers' satisfaction with the shopping experience. The primary factor that affects consumers' negative comments is consumers' dissatisfaction with the shopping experience, followed by consumers' perceived usefulness of online reputation systems. Jin and Wang (2016) There have been "economic man", "social man", "self-actualization man" and "complex man" in the history of western management thought. The hypothesis of "economic man" holds that the goal of human beings is to maximize their personal interests based on material interests. Social man "assumes that people not only have the motivation and need to pursue income, but also need friendship, security, respect, belonging and power." Self-actualization "man" assumes that everyone needs to reach his potential. Only when one's potential and ability are brought into full play, can one feel the greatest satisfaction. These hypotheses of human nature have their own explanatory power and limitations, but any hypothesis of human nature does not lie in its right or wrong, but in its practical significance and application value.

Study flow chart
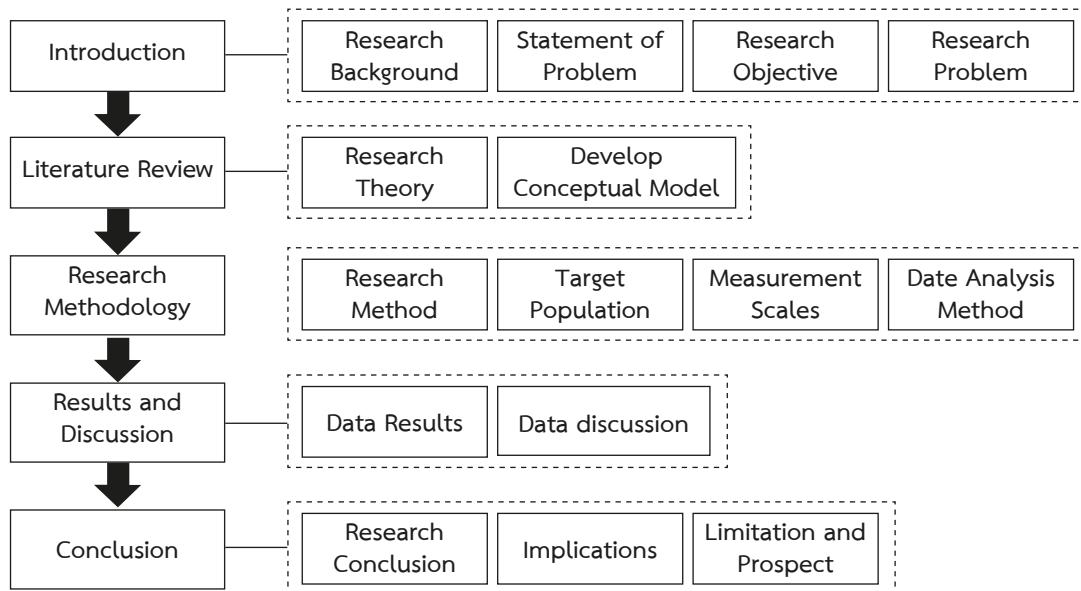
Figure 1: Study Flow Chart.

Research model and framework

According to the research of Xu, Zhao, Wu, Zhu, and Shao (2017), the motivation of user-generated content is closely related to technology drivers, social drivers and individual drivers. Liu, Lang, and Li (2013) believe that the motivation of micro-blog users to generate content is mainly influenced by three factors: social incentives, technical incentives and internal needs. Generally speaking, when technology and social humanities are well integrated, the application system can better meet the needs of users and achieve greater success, such as Apple's series of products. So, based on the technology acceptance model and social exchange theory, this paper attempts to build a research framework model for the user's willingness to comment on the O2O catering platform review system, as shown in Figure 2-2, in combination with the integrated model established by Xu et al. (2017), which affects the motivation of user-generated content. This paper argues that the motivation of users to publish consumer reviews on the O2O catering platform is mainly affected by three factors, namely, social motivation, psychological motivation and technical factors. Among them, users' social motivation mainly ref ers to users' motivation to publish consumer reviews under the influence of external social factors, which is closely related to consumers' desire to be recognized and concerned by the society (community), including the expectation of contacting friends with similar interests, the expectation of being respected by community members, the improvement of self-image and reputation, reciprocity, etc. Individual psychological motivation of users mainly refers to the motivation of publishing consumer reviews generated by the internal psychological needs of individual consumers, which is closely related to the self-awareness and internal needs of users. Such as the spirit of altruism, the perception of fun, the desire to be rewarded with points and so on. Technical motivation mainly refers to that when users publish consumer reviews online, they pay more attention to the usefulness, ease of operation and security of the online review system of e-commerce platform. At the same time, the three types of motivation often do not affect the user's behavior intention alone, they interact with each other and affect the user's comment intention together. That is to say, the user's individual psychological motivation, social motivation and technical motivation also have mutual influence, technical motivation will promote the generation of user's social motivation

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and psychological motivation, and user's psychological motivation will also promote the formation of social motivation. That is to say, social motivation and psychological motivation are not only the direct variables affecting the user's willingness to comment on the O2O catering platform, but also the intermediate variables of technical motivation. Li (2021) stated User's willingness to consume reviews directly affects the activity and effectiveness of the customer review system on the e-commerce platform, and ultimately affects the sales of commodity services on the platform. In-depth discussion of the different motivation configuration paths behind the participation of e-commerce platform users in consumer reviews has important theoretical and practical significance for optimizing the design and incentive mechanism of the customer review system on the platform.
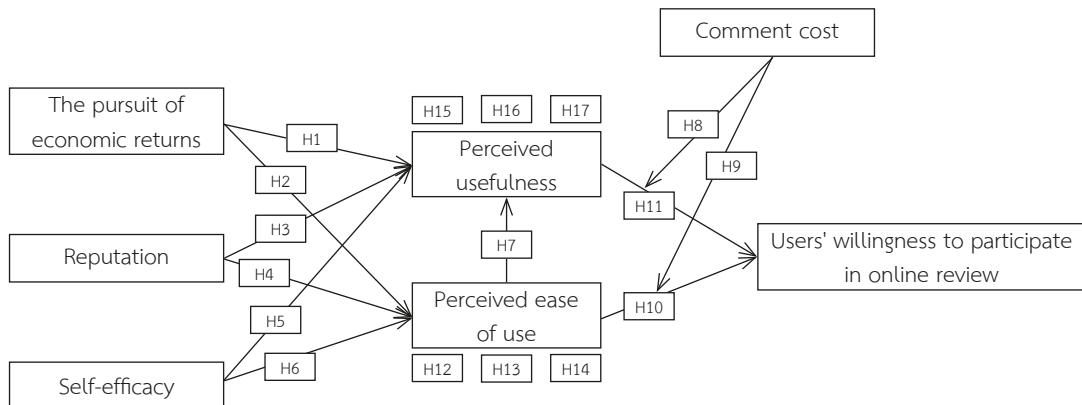
Figure 2: Conceptual Model of Research on Motivation of Users' Participation in Online Reviews on Catering 020 Platform.

Hypotheses:

H1 pursuit of economic return has a positive effect on perceived usefulness.

H2 pursuit of economic return has a positive effect on perceived ease of use.

H3 Reputation has a positive effect on perceived usefulness.

H4 Reputation has a positive effect on perceived ease of use.

H5 self-efficacy has a positive effect on perceived usefulness.

H6 self-efficacy has a positive effect on perceived ease of use.

H7 perceived ease of use has a positive effect on perceived usefulness.

H8 comment cost plays a significant moderating role in perceived usefulness and users' willingness to participate in online reviews.

H9 comment cost plays a significant moderating role in perceived ease of use and user willingness to participate in online reviews.

H10 perceived ease of use has a direct positive impact on users' willingness to participate in online reviews.

H11 Perceived Usefulness has a direct positive impact on users' willingness to participate in online reviews.

H12 perceived ease of use played a significant mediating role between the pursuit of economic returns and the willingness of users to participate in online reviews.

H13 perceived ease of use played a significant mediating role between reputation and users' willingness to participate in online reviews.

H14 perceived ease of use played a significant mediating role between self-efficacy and users' willingness to participate in online reviews.

H15 perceived usefulness plays a significant mediating role between the pursuit of economic returns and the willingness of users to participate in online reviews.

H16 perceived usefulness plays a significant mediating role between reputation and users' willingness to participate in online reviews.

H17 perceived usefulness played a significant mediating role between self-efficacy and users' willingness to participate in online reviews.

Research methodology

Research methods

Based on the main research objectives and contents of this paper, the main research means and methods used in this research are literature research, questionnaire survey.

Through the network questionnaire, 50 questionnaires were sent out to conduct a pre-test. After conducting data analysis on the pre-test survey questionnaire, both reliability and validity were found to be within an acceptable range. This indicates that the questionnaire

items effectively reflect the purpose of this study, allowing for the commencement of formal testing. The questionnaire could be used. According to the suggestion of Tinsley and Tinsley (1987), the ratio of the number of items to the number of samples in factor test analysis should be between 1:5 and 1:10. At least 300 samples were collected and used in this study.

The research is carried out through the following research methods, as follows:

Literature research method: It mainly summarizes the research status and trends of users' self-efficacy, perceived usefulness, perceived ease of use, review cost and reputation between platforms, and pursuit of economic returns, focusing on their theoretical connotations, structural dimensions and measurement indicators, influencing factors, and correlations. And then construct the theoretical framework of this study.

Questionnaire Method: This study employs the Likert (1932) five-point scale design or measurement purposes. Respondents indicate their level of agreement with each question on a personal basis, using the following scale: "Strongly Disagree" (1 point), "Disagree" (2 points), "Neutral" (3 points), "Agree" (4 points), and "Strongly Agree" (5 points). A higher total score indicates a higher degree of agreement from respondents. Additionally, to maintain the authenticity of the measurement, the questionnaire items within each dimension are randomly arranged, preventing the influence of respondent answering habits. Based on the data collected from interviews and considering various factors, a questionnaire addressing repurchase intention is developed. After appropriate modifications, the questionnaire is distributed, and subsequently, SPSS statistical software is utilized to analyze the data, thereby testing the hypotheses and deriving final conclusions and recommendations.

Target populations

This study takes the consumers who have used the catering O2O platform and posted comments as the research objects. The study incorporates reviews from both 2021 and previous years. The researcher chooses the takeout groups through multiple WeChat groups, because most of the consumers are people who often order takeout and have more activities in online comments. By convenience sampling, researcher joined WeChat groups established by nearby catering businesses for their customer base. The participants in these groups had placed at least one takeaway order.

Measurement Scales

The scale used in this study is a questionnaire widely used and verified by scholars at home and abroad. All the scales adopted a 5-point scoring system, with 1-5 points representing "1-strongly disagree", "2-disagree", "3-no opinion", "4-agree" and "5-strongly agree" respectively, allowing respondents to make choices according to their true feelings. Specific scale sources are as follows:

Data analysis method

Based on the above research framework and assumptions, this study used SPSS version 23 to conduct narrative statistical analysis, reliability and validity analysis, correlation analysis, regression analysis and moderating analysis on the collected data. Data analysis is as follows:

(1) Sample descriptive statistics: First of all, analyze the demographic variables of the sample, and use SPSS to get the sample number and percentage of each variable, so as to understand the personal background information of the collected sample and the distribution of demographic variables related to work.

(2) Reliability and validity analysis: To ensure the stability and consistency of the questionnaire, reliability analysis was conducted. In this study, Cronbach's α coefficient is employed to assess the reliability of each variable in the questionnaire. A higher value of Cronbach's α indicates a stronger correlation between the items in the scale and the measured variables, thus reflecting higher internal consistency. The Cronbach's alpha is greater than 0.9 indicates very good reliability; values between 0.8 and 0.9 indicate good reliability; Values between 0.7 and 0.8 indicate acceptable reliability, values between 0.6 and 0.7 indicate need to be carefully considered, values between 0.5 and 0.6 indicate poor reliability, and values below 0.5 suggest deletion (George & Mallery, 2003); Validity analysis is used to examine whether the items can accurately measure the latent variables. Therefore, before the regression, exploratory factor analysis was used to test the validity of the construction. KMO sample test and Bartlett sphere test was used. The criterion was that the closer the KMO value was to 1 and the significance of Bartlett sphere test was less than or equal to 0.05, the more appropriate factor analysis was.

(3) Correlation between variables: Before studying formal validation of hypotheses, it is necessary to understand the correlation between variables. This study uses Pearson correlation analysis to explore the correlation between self-efficacy, reputation, perceived ease of use, perceived usefulness, review cost and pursuit of economic returns, and to observe whether the relationship conforms to the expected trend of this hypothesis.

(4) Amos Structure Equation Model (SEM): this study uses SEM to measure the model fit and test each hypothesis proposed in Chapter 2 as well as the tests for mediating and moderating effects.

Results and Discussion

Descriptive analysis

The questionnaire was conducted in the form of online questionnaire and distributed by questionnaire star software. After collecting the data, SPSS software is used for data analysis.

Descriptive statistics refers to the activities of using tabulation, classification, graphics and calculation of general data to describe the characteristics of data. When doing data analysis, it is generally necessary to make descriptive statistical analysis of the data first, so as to measure the various characteristics of each sample represents, and then make in-depth analysis. A total of 310 valid samples were collected in this paper, and the basic information of the respondents was described and analyzed from the aspects of gender, age, occupation, education, monthly income, catering O2O platform, frequency of use, and whether online comments will be conducted. See the following table for details.

Table 1: Description and analysis of basic information

Attribute	Category	Number	Percentage
Gender	Male	145	46.8
	Female	165	53.2
Age	Under 18 years old	5	1.6
	18~25	40	12.9
	26~30	47	15.2
	31~40	117	37.7
	41~50	101	32.6
Occupation	Full-time student	43	13.9
	Production personnel	1	0.3
	Salesperson	9	2.9
	Marketing/public relations personnel	105	33.9
	Customer service staff	107	34.5
	Administrative/logistics personnel	1	0.3
	Human resources personnel	1	0.3
	Finance/Audit Staff	2	0.6
	Civilian/clerical staff	2	0.6
	Technical/R&D personnel	1	0.3
	Management personnel	7	2.3
	Teacher	16	5.2
	Advisory/Consultancy	2	0.6
	Professionals	2	0.6
	Other	11	3.5
Academic qualifications	Junior college and below	12	3.9
	Undergraduate	21	6.8
	Master	161	51.9
	Doctor and higher	116	37.4

Table 1: Description and analysis of basic information (Continue)

Attribute	Category	Number	Percentage
Monthly income	Less than 2000 RMB	22	7.1
	2000-4000 RMB	22	7.1
	4000-6000 RMB	25	8.1
	6000-9000 RMB	123	39.7
	More than 9000 RMB	118	38.1
Catering O2O platform	Dianping	12	3.9
	Meituan/Meituan takeout	55	17.7
	Erlema	23	7.4
	WeChat Catering Mini Program	112	36.1
	Independent app for catering businesses	102	32.9
	Other	6	1.9
Frequency of use	3 or more times per day	7	2.3
	Once a day	23	7.4
	Once every 3 days	42	13.5
	Once every 5 days	113	36.5
	Once every 7 days	125	40.3
Will there be an online evaluation?	Every time	104	33.5
	Once in a while	182	58.7
	Never	24	7.7

Note: collated by the author of this study

It can be seen from the above table that the gender ratio of the respondents in this survey is 165 women, accounting for 53.2%, and 145 men, accounting for 46.8%, indicating that the proportion of men and women in this survey is relatively balanced.

The highest age ratio of the respondents in this survey is over 31 years old, with 218 people, accounting for 70.3%. According to the occupational proportion of the respondents in this survey, the largest number of occupations is customer service personnel, with 107 people, accounting for 34.5%, followed by marketing public relations personnel, with 105 people, accounting for 33.9%. In this survey, the largest number of respondents with master's degree is 161.The proportion reached 51.9%, and the least number was junior college and below, with 12 people, accounting for 3.9%. The highest proportion of monthly income of the respondents in this survey is 6000 - 9000 RMB, the number of people is 123, accounting for 39.7%, followed by more than 9000 RMB, the number of people is 118, accounting for 38.1%, the lowest proportion is less than 2000, the number is 22, accounting for 7.1%. Therefore, most of the respondents in this survey have a monthly income of more than 6000 RMB. Among the platforms chosen by the respondents in this survey, the highest proportion is WeChat catering application, with 112 people, accounting for 36.1%, followed by independent app, with 102 people, accounting for 32.9%. In this survey, the most frequent use of takeaway software was once every 7 days, with 125 respondents, accounting for 40.3%, and the least frequency was three or more times a day, with only 7 respondents, accounting for 2.3%. Among the respondents, the highest proportion was occasional, with 182 people, accounting for 58.7%, followed by every time, with 104 people, accounting for 33.5%, and the least was never participating in comments, with only 24 people, representing 7.7%, indicating that most of them would participate in comments and research on takeaway platforms, and only a few people never participated.

Normality test

According to H.-Y. Kim (2013), the following table can be obtained. The mean value of each measurement item is between 2.19 and 3.94, the standard deviation is between 0.88 and 1.365, and the absolute value of skewness is less than 2. The absolute value of kurtosis is less than 7. It shows that each measurement item conforms to normal distribution. See the following table for details.

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Table 2: Description and analysis of each measurement topic

	N	Mean value	Standard deviation	Skewness	Kurtosis
R1	310	3.64	1.279	-0.897	-0.200
R2	310	3.62	1.213	-0.852	-0.053
R3	310	3.52	1.365	-0.699	-0.652
R4	310	3.66	1.333	-0.91	-0.315
SE1	310	3.52	1.187	-0.286	-0.894
SE2	310	3.51	1.114	-0.181	-0.827
SE3	310	3.53	1.248	-0.386	-0.906
PER1	310	3.68	1.139	-1.009	0.414
PER2	310	3.79	0.880	-0.523	0.079
PER3	310	3.64	1.279	-0.877	-0.171
CC1	310	2.19	1.064	0.604	-0.354
CC2	310	2.19	1.161	0.679	-0.504
CC3	310	2.21	1.182	0.819	-0.174
PU1	310	3.82	0.989	-0.27	-1.045
PU2	310	3.76	1.112	-0.449	-0.78
PU3	310	3.77	1.048	-0.441	-0.718
PU4	310	3.71	1.02	-0.451	-0.379
PEU1	310	3.93	1.066	-0.69	-0.269
PEU2	310	3.93	1.065	-0.57	-0.645
PEU3	310	3.85	1.121	-0.668	-0.228
PEU4	310	3.94	1.071	-0.665	-0.339
WTP1	310	3.73	1.100	-0.909	0.408
WTP2	310	3.85	1.023	-1.033	0.958
WTP3	310	3.84	1.012	-0.946	0.903
WTP4	310	3.8	1.188	-0.789	-0.112

Note: collated by the author of this study

Reliability analysis

Reliability Analysis uses Cronbach's (Cronbach's Alpha) reliability coefficient to check the consistency of the research variables of the questionnaire on each measurement item. It is generally believed that the Cronbach's Alpha coefficient must be greater than 0.7 for a variable to have good reliability.

Table 3: Reliability analysis

Dimension	Item	CITC	Cronbach's Alpha after the item was deleted.	Cronbach's Alpha
Reputation	R1	0.862	0.861	0.911
	R2	0.798	0.885	
	R3	0.751	0.902	
	R4	0.784	0.889	
Self-efficacy	SE1	0.687	0.81	0.846
	SE2	0.72	0.782	
	SE3	0.738	0.763	
The pursuit of economic returns	PER1	0.688	0.727	0.816
	PER2	0.688	0.758	
	PER3	0.678	0.756	
Comment cost	CC1	0.755	0.821	0.872
	CC2	0.749	0.824	
	CC3	0.763	0.812	
Perceived usefulness	PU1	0.753	0.85	0.884
	PU2	0.721	0.863	
	PU3	0.782	0.838	
	PU4	0.74	0.854	
Perceived ease of use	PEU1	0.633	0.816	0.84
	PEU2	0.717	0.779	
	PEU3	0.681	0.795	
	PEU4	0.665	0.802	
Willingness to comment online	WTP1	0.819	0.844	0.894
	WTP2	0.78	0.86	
	WTP3	0.739	0.874	
	WTP4	0.739	0.877	

Note: collated by the author of this study

It can be seen from the above table that the Cronbach's Alpha coefficient of each dimension is greater than the standard of 0.7, indicating that the variables have good internal consistency reliability. CITC is greater than 0.5, indicating that the measurement items meet the requirements of the study. From the point of view of "deleting the Cronbach's Alpha value of the item", deleting any item will not cause the increase of the Cronbach's Alpha value, which also shows that the variable has good reliability.

Exploratory factor analysis

SPSS23.0 was used for exploratory factor analysis to conduct KMO and Bartlett's sphericity test on the scale. The results are shown in the following table:

Table 4: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.906
Bartlett's spherical test	Approximate chi-square	4708.684
	df	300
	Sig.	.000

Note: prepared by the author of this study

From the above table, it can be seen that KMO = 0.906, greater than 0.7, and the test value of Bartlett's sphericity is significant (Sig. < 0.001), indicating that the questionnaire data met the prerequisite requirements of factor analysis. Therefore, for further analysis, the principal component analysis method is used for factor extraction, and the common factor is extracted by taking the eigenvalue greater than 1 as the factor, and the factor rotation is analyzed by using the maximum variance orthogonal rotation. The analysis results are shown in the table below.

Table 5: Total variance interpretation

Ingredient	Initial eigenvalue			Extract the sum of the load squares			The sum of the squares of the rotating loads		
	Total	Percent variance	Cumulative percentage	Total	Percent variance	Cumulative percentage	Total	Percent variance	Cumulative percentage
1	9.224	36.898	36.898	9.224	36.898	36.898	3.224	12.897	12.897
2	2.121	8.486	45.384	2.121	8.486	45.384	3.079	12.318	25.215
3	1.850	7.400	52.783	1.850	7.400	52.783	2.869	11.478	36.693
4	1.594	6.374	59.158	1.594	6.374	59.158	2.753	11.010	47.703
5	1.568	6.270	65.428	1.568	6.270	65.428	2.466	9.865	57.568
6	1.436	5.745	71.173	1.436	5.745	71.173	2.331	9.324	66.892
7	1.220	4.880	76.053	1.220	4.880	76.053	2.290	9.161	76.053
8	.550	2.200	78.254						

Note: Extraction method: principal component analysis.
prepared by the author of this study.

Table 6: Results of factor analysis

	Ingredient						
	Reputation	Willingness to comment online	Perceived usefulness	Perceived ease of use	Comment cost	Self-efficacy	The pursuit of economic returns
R2	0.872						
R1	0.863						
R4	0.803						
R3	0.801						
WTP1		0.818					
WTP2		0.813					
WTP4		0.805					
WTP3		0.788					
PU3			0.788				

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Table 6: Results of factor analysis (Continue)

	Ingredient						
	Reputation	Willingness to comment online	Perceived usefulness	Perceived ease of use	Comment cost	Self-efficacy	The pursuit of economic returns
PU2			0.77				
PU4			0.757				
PU1			0.734				
PEU2				0.764			
PEU4				0.763			
PEU3				0.729			
PEU1				0.702			
CC3					0.861		
CC1					0.855		
CC2					0.837		
SE3						0.841	
SE1						0.83	
SE2						0.776	
PER2							0.839
PER1							0.815
PER3							0.783

Note: collated by the author of this study

It can be seen from the above table that there are seven factors in total, and the total explanatory power reaches 75.013%, which is more than 50%, indicating that the seven factors selected have good representativeness. The factor load of each measurement item is greater than 0.5, and the cross load is less than 0.4, and each item falls into the corresponding factor.

Factor analysis of validation (convergent validity)

There are 7 dimensions in this paper, including 25 measurement items. After using Amos 23.0 to perform confirmatory factor analysis, the following figure and table are obtained.
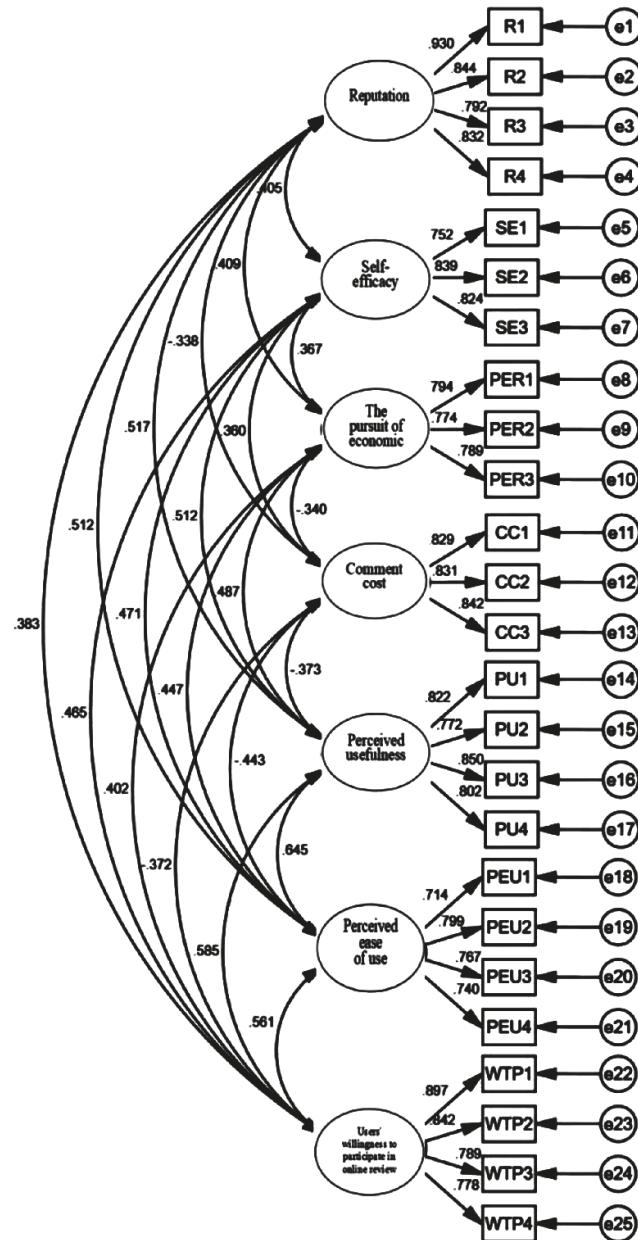

Figure 3: Confirmatory factor analysis.

Table 7: Validation of factor analysis results

Variables	Item	Factor load	CR	AVE
Reputation	R1	0.93	0.913	0.724
	R2	0.844		
	R3	0.792		
	R4	0.832		
Self-efficacy	SE1	0.752	0.847	0.649
	SE2	0.839		
	SE3	0.824		
The pursuit of economic returns	PER1	0.794	0.829	0.617
	PER2	0.774		
	PER3	0.789		
Comment cost	CC1	0.829	0.873	0.696
	CC2	0.831		
	CC3	0.842		
Perceived usefulness	PU1	0.822	0.885	0.659
	PU2	0.772		
	PU3	0.85		
	PU4	0.802		
Perceived ease of use	PEU1	0.714	0.842	0.571
	PEU2	0.799		
	PEU3	0.767		
	PEU4	0.74		
Willingness to comment online	WTP1	0.897	0.897	0.685
	WTP2	0.842		
	WTP3	0.789		
	WTP4	0.778		

Note: collated by the author of this study

It can be seen from the above table that the factor load of the measurement items of each variable is greater than 0.6, the component reliability (CR) is greater than 0.7, and the average extraction of variation (AVE) is greater than 0.5, indicating that each variable has convergent validity.

Discriminant validity

This study used the more rigorous AVE method to evaluate the discriminant validity (Fornell & Larcker, 1981), the AVE root of each factor must be greater than the correlation coefficient of each paired variable, indicating that the factors have discriminant validity. The AVE square root of each factor was greater than the standardized correlation coefficient outside the diagonal, so the study still had discriminant validity, and the oblique lower triangle was the correlation coefficient. See the following table for details:

Table 8: Discriminant validity

	Reputation	Self-efficacy	The pursuit of economic returns	Comment cost	Perceived usefulness	Perceived ease of use	Willingness to comment online
Reputation	0.851						
Self-efficacy	.349**	0.806					
The pursuit of economic returns	.372**	.302**	0.785				
Comment cost	-.315**	-.298**	-.292**	0.834			
Perceived usefulness	.456**	.441**	.418**	-.325**	0.812		
Perceived ease of use	.451**	.396**	.378**	-.383**	.558**	0.756	
Willingness to comment online	.338**	.397**	.359**	-.334**	.518**	.488**	0.828

Note: collated by the author of this study

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Structural equation modeling

(1) Structural equation model analysis

The calculation is performed using AMOS23.0, and the estimation is performed using the maximum likelihood method, and the results are shown in the following figure.
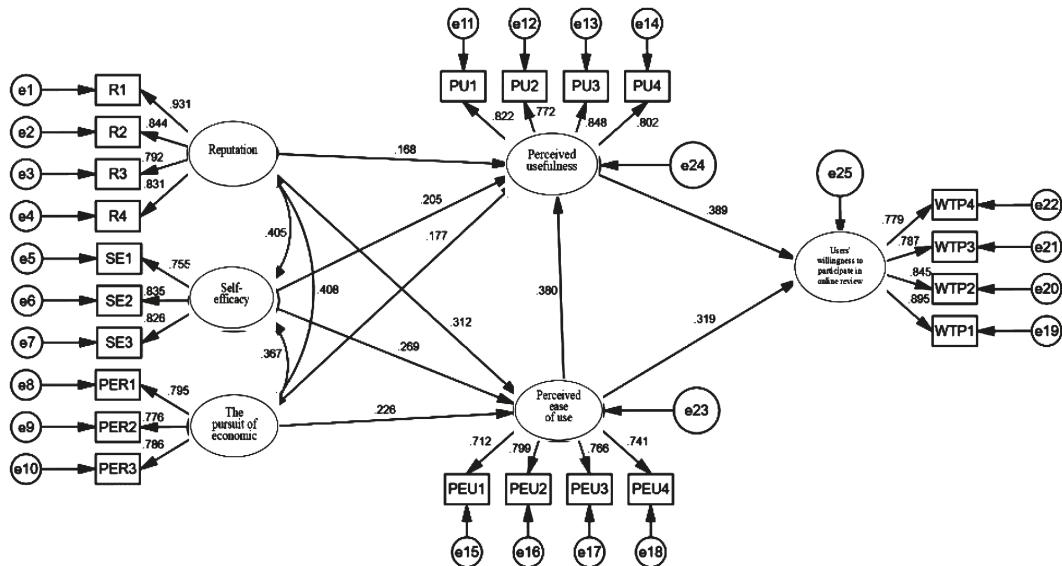

Figure 4: Structural Equation Model Analysis.

(2) Model fit

It can be seen from the following table that CMIN/DF is 1.195, which is less than the standard of 3, GFI, AGFI, NFI, TLI, IFI and CFI all reach the standard of 0.9 or more, RMR is 0.050, which is less than 0.08, RMSEA is 0.025 and less than 0.08, and all fitting indexes are in line with the general research standards. Therefore, it can be considered that this model is well matched.

Table 9: Structural model fit

Model fitting index	Optimal standard value	Statistical value	Fit the situation
CMIN/DF	<3	1.195	good
RMR	<0.08	0.050	good
GFI	>0.9	0.938	good
AGFI	>0.9	0.921	good
NFI	>0.9	0.944	good
IFI	>0.9	0.990	good
TLI	>0.9	0.989	good
CFI	>0.9	0.990	good
RMSEA	<0.08	0.025	good

Note: collated by the author of this study

3) Path coefficient

It can be seen from the following table that reputation has a significant positive impact on perceived ease of use (β = 0.312, p < 0.05), and the hypothesis is valid; self-efficacy has a significant positive impact on perceived ease of use (β = 0.269, p < 0.05), and the hypothesis is valid; The pursuit of economic return has a significant positive effect on perceived ease of use (β = 0.226, p < 0.05), and the hypothesis is valid;

Reputation has a significant positive effect on perceived usefulness (β=0.168, p < 0.05), the hypothesis holds; self-efficacy has a significant positive effect on perceived usefulness (β=0.205, p< 0.05), the hypothesis holds; the pursuit of economic rewards has a positive and significant effect on perceived utility (β=0. 177, p <0; Perceived ease of use has a significant positive effect on perceived usefulness (β=0.38, p<0.05), and the hypothesis is valid;

Perceived ease of use has a significant positive effect on online review intention (β = 0.319, p < 0.05), and perceived usefulness has a significant positive effect on online review intention (β = 0.389, p < 0.05);

Table 10: Path coefficient

Path			Normalization factor	Non-normalized coefficient	S.E.	C.R.	P	Hypotheses
Perceived ease of use	<---	Reputation	0.312	0.199	0.042	4.73	***	H4 Support
Perceived ease of use	<---	Self-efficacy	0.269	0.228	0.058	3.968	***	H6 Support
Perceived ease of use	<---	The pursuit of economic returns	0.226	0.189	0.057	3.332	***	H2 Support
Perceived usefulness	<---	Reputation	0.168	0.114	0.041	2.775	0.006	H3 Support
Perceived usefulness	<---	Self-efficacy	0.205	0.186	0.056	3.297	***	H5 Support
Perceived usefulness	<---	The pursuit of economic returns	0.177	0.159	0.055	2.865	0.004	H1 Support
Perceived usefulness	<---	Perceived ease of use	0.38	0.408	0.078	5.216	***	H7 Support
Willingness to comment online	<---	Perceived ease of use	0.319	0.414	0.101	4.096	***	H10 Support
Willingness to comment online	<---	Perceived usefulness	0.389	0.471	0.092	5.128	***	H11 Support

Note: prepared by the author of this study

Mediating effect

In this study, Bootstrapping was used to verify the mediating effect. Studies have shown that if the bootstrap confidence interval does not contain 0, the corresponding indirect effect exists.

The Bootstrap method was run 5000 times in AMOS23.0 to obtain the level values of Bias-Corrected and Percentile at 95% confidence, as shown in the following table.

Table 11: Mediating Effects' Test

	Standardized effect values	Bias-Corrected 95%CI		Percentile 95%CI	
		Lower	Upper	Lower	Upper
Total indirect effect					
Reputation_Willingness to comment online	0.211	0.141	0.296	0.138	0.292
Self-efficacy_Willingness to comment online	0.205	0.117	0.295	0.116	0.294
The pursuit of economic returns_ Willingness to comment online	0.174	0.093	0.266	0.092	0.264
Indirect effect					
Reputation_Perceived usefulness_ Willingness to comment online H16	0.065	0.019	0.132	0.014	0.124
Reputation_Perceived ease of use_ Willingness to comment online H13	0.1	0.047	0.172	0.045	0.169
Self-efficacy_Perceived usefulness_ Willingness to comment online H17	0.08	0.026	0.154	0.023	0.149
Self-efficacy_Perceived ease of use_Willingness to comment online H14	0.086	0.035	0.165	0.031	0.156
The pursuit of economic returns_ Perceived usefulness_Willingness to comment online H15	0.069	0.019	0.139	0.134	0.01
The pursuit of economic returns _ Perceived ease of use Willingness to comment online H12	0.072	0.023	0.15	0.144	0.003

Note: collated by the author of this study

It can be seen from the above table that the indirect effect value of reputation_perceived usefulness_online review intention is 0.065, which does not include 0 in the Lower and Upper value intervals of Bias-Corrected and Percentile95% CI, indicating the existence of indirect effect; The indirect effect value of reputation_perceived ease of use_online review intention is 0.1, which does not include 0 in the Lower and Upper value intervals of Bias-Corrected and Percentile95% CI, indicating the existence of indirect effect; The indirect effect value of reputation_perceived ease of use_perceived usefulness_online review intention was 0.046, which did not include 0 in the Lower and Upper value intervals of Bias-Corrected and Percentile95% CI, indicating the existence of indirect effect;

The indirect effect value of self-efficacy, perceived usefulness, online review intention was 0.08, which did not include 0 in the Lower and Upper value intervals of Bias-Corrected and Percentile95% CI, indicating the existence of indirect effect; The indirect effect value of self-efficacy, perceived ease of use, online review intention was 0.086, which did not include 0 in the Lower and Upper value intervals of Bias-Corrected and Percentile 95% CI, indicating the existence of indirect effect; The indirect effect value of self-efficacy, perceived ease of use, perceived usefulness, online review intention was 0.04, which did not include 0 in the Lower and Upper value intervals of Bias-Corrected and Percentile95% CI, indicating the existence of indirect effect; The indirect effect value of pursuing economic return, perceived usefulness_online review intention is 0.069, which does not include 0 in the Lower and Upper value intervals of Bias-Corrected and Percentile 95% CI, indicating the existence of indirect effect;

The indirect effect value of pursuing economic reward, perceived ease of use, online review intention is 0.072, which is not included in the Lower and Upper value intervals of Bias-Corrected and Percentile95% CI. Indicating the existence of indirect effect; the indirect effect value of pursuing economic return, perceived ease of use, perceived usefulness, online review intention is 0.033, which does not include 0 in the Lower and Upper value intervals of Bias-Corrected and Percentile95% CI, indicating the existence of indirect effect.

In general, all hypotheses of mediating effects (H12, H13, H14, H15, H16, H17) are supported.

Moderating effect

(1) A test of the moderating effect of review cost on perceived usefulness on online review intention.

With gender, age, occupation, education, monthly income, catering O2O platform, frequency of use and whether online evaluation will be conducted as control variables, perceived usefulness as independent variable, review cost as adjustment variable and online review intention as dependent variable, SPSS is used to conduct adjustment test to obtain the following table.

Table 12: Moderating Effects' Test

	Willingness to comment online			
	M1	M2	M3	M4
	β	β	β	β
Gender	0.055	0.026	0.024	0.019
Age	0.097	0.055	0.049	0.067
Occupation	-0.117	-0.069	-0.06	-0.067
Academic qualifications	0.08	0.018	0.018	0.002
Monthly income	0.193*	0.1	0.101	0.111
Catering O2O platform	0.029	-0.011	-0.044	-0.034
Frequency of use	-0.08	-0.038	-0.025	-0.04
Will there be an online evaluation	-0.134*	-0.142*	-0.124*	-0.109*
Perceived usefulness		0.434***	0.404***	0.399***
Comment cost			-0.138**	-0.172**
Perceived usefulness * Comment cost				-0.164**
R2	0.165	0.318	0.334	0.359
R2 Change	0.165	0.153	0.015	0.025
F	7.441***	15.577***	14.975***	15.151***

Note. *p<0.05; **, p<0.01; ***, p<0.001
collated by the author of this study

It can be seen from the above table that perceived usefulness X comment cost has a significant positive effect on online comment intention (β= -0.164, p < 0.05), indicating that comment cost has a moderating effect on the effect of perceived usefulness on online comment intention, and the H8 hypothesis is true.

(2) A test of the moderating effect of review cost on perceived ease of use on online review intention.

With gender, age, occupation, education, monthly income, catering O2O platform, frequency of use, and whether online evaluation will be conducted as control variables, perceived ease of use as independent variables, review cost as adjustment variables, and online review willingness as dependent variables, the following table is obtained by using SPSS for moderating test.

Table 13: Moderating Effects' Test

	Willingness to comment online			
	M1	M2	M3	M4
	β	β	β	β
Gender	0.055	0.033	0.03	0.021
Age	0.097	0.046	0.042	0.058
Occupation	-0.117	-0.061	-0.053	-0.055
Academic qualifications	0.08	0.023	0.024	0.009
Monthly income	0.193*	0.137	0.136	0.134
Catering O2O platform	0.029	-0.019	-0.052	-0.011
Frequency of use	-0.08	-0.026	-0.015	-0.023
Will there be an online evaluation	-0.134*	-0.077	-0.064	-0.051
Perceived ease of use		0.384***	0.347***	0.313***
Comment cost			-0.147**	-0.184**
Perceived ease of use*Comment cost				-0.177**
R2	0.165	0.273	0.29	0.318
R2 Change	0.165	0.108	0.017	0.028
F	7.441***	12.523***	12.219***	12.627***

Note. *p<0.05;**, p<0.01; ***, p<0.001

Collated by the author of this study

It can be seen from the above table that perceived ease of use X review cost has a significant negative impact on online review intention (β = -0.177, p < 0.05), indicating that review cost has a moderating effect on the impact of perceived ease of use on online review intention, and the H9 hypothesis is true.

Conclusion

Research conclusion

This paper mainly discusses the impact of the pursuit of economic returns, reputation, self-efficacy, review cost, perceived ease of use and perceived usefulness on the willingness of O2O platform users to participate in online reviews. In this study, the following conclusions are drawn by combing the literature, building the theoretical model of the study, designing and collecting questionnaires, and analyzing the data.

(1) The variables of (pursuit of economic return, self-efficacy, cost of reputation review, perceived ease of use, perceived usefulness) have significant effects on the willingness of users to participate in online reviews.

(2) The pursuit of economic returns, reputation, self-efficacy, perceived ease of use, perceived usefulness, and cost of reviews) are the influencing factors of users' willingness to participate in online reviews, and there is a significant positive correlation between them. When these factors are higher, the significance of users' participation in online reviews is stronger.

(3) Perceived usefulness (Pursuit of economic reward, self-efficacy, reputation) plays a partial mediating role on users' willingness to participate in online reviews, perceived usefulness as a mediating variable will have a partial impact on (pursuit of economic reward, self-efficacy, reputation) and user's willingness to participate in online reviews, when the user's pursuit of economic rewards, self-efficacy and reputation is higher. The more intention the user's willingness to participate in online reviews.

(4) The perceived ease of use (In pursuit of economic returns, Self-efficacy, reputation) play a partial mediating role on users' willingness to participate in online reviews. As a mediating variable, it has a partial impact on the relationship between the independent variable and the dependent variable. When the independent variable is more positive, the dependent variable is more positive.

(5) The cost of comments plays a moderating role on users' willingness to participate in online reviews, and users who participate in online reviews will consider their review costs what effects their online review willingness.

Implications of the study

According to the research findings, several factors, namely the pursuit of economic returns, reputation, self-efficacy, review cost, perceived ease of use, and perceived usefulness, have an impact on users' participation in online reviews. Therefore, businesses should focus on these aspects to enhance users' willingness to engage in online reviews, gain insights into customer needs, and tailor their strategies accordingly to encourage maximum customer participation.

For instance, taking the pursuit of economic returns as an example, customers are concerned about whether engaging in online reviews will yield economic benefits. In response, businesses can offer incentives in the form of favorable reviews and rewards to customers who provide genuine feedback based on their real experiences. This approach also serves as a means of promoting the business, as customers often share their feedback on the platform. As customers' account levels gradually increase and they receive positive evaluations from existing customers, trust and recognition from the wider audience can be gained. This allows customers to establish a good reputation on the platform and derive a sense of value from their contributions.

Comment cost is another important factor influencing customer participation in online reviews. Given that online reviews primarily entail time cost, customers evaluate whether participating in reviews is simple and convenient, allowing them to avoid devoting excessive time and effort. If engaging in online reviews is perceived as a casual task that does not demand significant time investment, customers will be more inclined to participate. Additionally, providing benefits to customers further enhances their motivation to engage in online reviews. The activities, such as incentivizing with positive reviews and cashback, create a perception of simplicity, convenience, and utility among customers. Consequently, this significantly boosts customers' willingness to participate in online reviews. Platforms and merchants should therefore design effective activities to stimulate greater participation in platform reviews.

Research Limitation and Prospect

Firstly, convenience sampling used in sample selection may have certain limitations.

Secondly, this study employed specific measurement tools and data analysis techniques, which themselves may have inherent limitations such as variations in reliability and validity due to different measurement tools. Future research could explore more precise and effective measurement approaches to address these limitations.

Additionally, external validity limitations should be clearly acknowledged. The findings of this study may be limited to specific populations or contexts; thus, caution should be exercised when generalizing the results to other populations or contexts. Future research could enhance external validity by expanding the sample size and diversifying the study settings.

Finally, despite efforts made to ensure the accuracy of data collection and analysis procedures, errors and biases may still exist. Future research could employ stricter methods to validate and improve the reliability and validity of data.

In future studies, it is recommended to further investigate these limitations and provide insights for improvement, such as employing more precise measurement tools, increasing sample size and diversity, improving study designs, and expanding the scope of research.

The present study acknowledges the existence of certain limitations and aims to address these constraints and expand the scope of our research in future investigations.

For instance, long-term tracking studies could be considered to gain a better understanding of the long-term impact and trends of our research. This approach would facilitate the observation of changes and developments, providing more reliable and comprehensive empirical evidence to support the durability and stability of our research findings.

Future research endeavors may explore and apply novel technologies and methodologies to broaden the boundaries of the research field. For example, incorporating technologies such as artificial intelligence, big data analytics, and machine learning can unearth deeper insights and perspectives, offering fresh research perspectives.

By further extending and deepening the existing body of work, future studies aspire to contribute more significantly to the advancement of the field. This would aid in propelling knowledge progression and furnish valuable guidance and recommendations for decision-makers and professionals in relevant domains.

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References

Adomavicius, G., & Tuzhilin, A. (2005). Toward the next generation of recommender systems: a survey of the state-of-the-art and possible extensions. *IEEE Transactions on Knowledge and Data Engineering, 17*(6), 734-749. doi:10.1109/TKDE.2005.99

Ahmad, F., & Guzmán, F. (2021). Consumer skepticism about online reviews and their decision-making process: The role of review self-efficacy and regulatory focus. *Journal of Consumer Marketing, 38*(5), 587-600.

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes, 50*(2), 179-211.

Amed, S., Mukherjee, S., Das, P., & Datta, B. (2019). Triggers of positive eWOM: exploration with web analytics. *Marketing Intelligence & Planning, 37*(4), 433-450.

Bae, S. Y., & Han, J. H. (2020). Considering cultural consonance in trustworthiness of online hotel reviews among generation Y for sustainable tourism: An extended TAM model. *Sustainability, 12*(7), 2942.

Chen, M.-Y., Teng, C.-I., & Chiou, K.-W. (2020). The helpfulness of online reviews: Images in review content and the facial expressions of reviewers' avatars. *Online Information Review, 44*(1), 90-113.

Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of management, 31*(6), 874-900.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly,* 319-340.

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management science, 35*(8), 982-1003.

Duan, W., Gu, B., & Whinston, A. B. (2008). Do online reviews matter?—An empirical investigation of panel data. *Decision support systems, 45*(4), 1007-1016.

Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. In: Sage Publications Sage CA: Los Angeles, CA.

Frey, B. S., & Stutzer, A. (2002). What can economists learn from happiness research? *Journal of Economic literature, 40*(2), 402-435.

Fu, D., & Wang, K. (2015). The Effect of Review Returns on online product Reviews: A Social Relationship Perspective. *Electronic Commerce Research, 18*(11), 1-12.

Guo, K., Wang, H., & Zhao, Y. (2014). Antecedents of Consumers' Comments through Online Reputation System: An Empirical Study Based on TAM. *Management Review, 26*(09), 180-190.

Homburg, C., & Fürst, A. (2005). How organizational complaint handling drives customer loyalty: an analysis of the mechanistic and the organic approach. *Journal of Marketing, 69*(3), 95-114.

Huang, C., Wang, X., Gu, Y., & Peng, J. (2011). College Students' Self-efficacy. *China Classification*.

Jin, C., & Wang, H. (2016). Economic Return, Power Acquisition and self-actualization: A Study of the Motivation of Private College Sponsors in China. *Education Development Research, 36*(21), 64-69.

Kim, H.-W., Chan, H. C., & Gupta, S. (2007). Value-based adoption of mobile internet: an empirical investigation. *Decision support systems, 43*(1), 111-126.

Kim, H.-Y. (2013). Statistical notes for clinical researchers: assessing normal distribution (2) using skewness and kurtosis. *Restorative dentistry & endodontics, 38*(1), 52-54.

Koestner, R., Lekes, N., Powers, T. A., & Chicoine, E. (2002). Attaining personal goals: self-concordance plus implementation intentions equals success. *Journal of personality and social psychology, 83*(1), 231.

Li, Y. (2021). Research on the Configuration of Users' Intention to Comment on E-commerce Platform. *Technical Economy and Management Research, 2021*(01), 56-59.

Likert, R. (1932). A technique for the measurement of attitudes. *Archives of psychology*.

Liu, Y., Lang, Y., & Li, L. (2013). Research on the motivation of Weibo users to generate content. *library and information service, 57*(10), 51.

Longfield, A., Romas, J., & Irwin, J. D. (2006). The self-worth, physical and social activities of graduate students: A qualitative study. *College Student Journal, 40*(2), 282-293.

Lu, Y., & Xu, H. (2005). A comparative study of technology acceptance models and their related theories. *Scientific and technological progress and countermeasures, 22*(10), 176-178.

Luo, H., Zhou, W., Song, W., & He, X. (2022). An Empirical Study on the Differences between Online Picture Reviews and Text Reviews. *Information, 13*(7), 344.

McClelland, D. C. (1961). *Achieving society* (Vol. 92051): Simon and Schuster.

Raharjo, G. P. A. (2020). Brand heritage, corporate reputation and brand image on buying intention. *Journal of Applied Management and Business, 1*(1), 11-16.

Sun, N. (2016). Analysis of Factors Affecting Consumer Online Review Behavior. *Journal of Hubei Correspondence University, 29*(21), 99-100+177.

Tang, M., & Zhu, J. (2019). Research of O2O website based consumer purchase decision-making model. *Journal of Industrial and Production Engineering, 36*(6), 371-384.

Tao, X., Zhang, X., Yang, J., & Zhang, Z. (2017). Online Review, Research on the Relationship between Perceived Usefulness and New Product Diffusion. *China Soft Science, 2017*(07), 162-171.

Tinsley, H. E., & Tinsley, D. J. (1987). Uses of factor analysis in counseling psychology research. *Journal of counseling psychology, 34*(4), 414.

Wang, O., & Scrimgeour, F. (2021). Consumer adoption of online-to-offline food delivery services in China and New Zealand. *British Food Journal, 124*(5), 1590-1608.

West, R., & Turner, H. L. (2007). Introducing Communication Theory. 392-409.

Xie, Y., Shen, C., Yang, X., & Wu, W. (2016). Research on the effect of online learning space on improving self-efficacy. *China Audio-Visual Education, 2016*(01), 34-40.

Xu, X., Zhao, Y., Wu, M., Zhu, Q., & Shao, Y. (2017). An empirical study on user loss behavior of social networking sites from the perspective of SOR Theory. *Journal of Information, 36*(7), 188-194.

Yan, Q., & Meng, Y. (2013). Factors Affecting the Perceived Usefulness of Online Reviews—An Empirical Study Based on Online Film Reviews. *Chinese Journal of Management Science, 21*(S1), 126-131.

Yang, Y., Wang, Y., & Sun, G. (2016). Marketing Effect of Network Recommendation System on Consumers-Perspective of Technology Acceptance Model. *China Circulation Economy, 30*(02), 98-107.

Zhang, Q. (2015). Research on the Correlation between College Students' Self-efficacy and Deep Learning in e-Learning Environment. *Electrochemical education research, 36*(04), 55-61.

Zhou, T., Kuscsik, Z., Liu, J.-G., Medo, M., Wakeling, J. R., & Zhang, Y.-C. (2010). Solving the apparent diversity-accuracy dilemma of recommender systems. *Proceedings of the National Academy of Sciences, 107*(10), 4511-4515.

Zhu, G., Ma, L., Sangwan, S., & Lv, Y. (2010). Theoretical and Empirical Research on Consumer Adoption Based on Social Cognitive Theory. *Nankai Management Review, 13*(03), 12-21.