

## A Literature Review of Consumer Purchase Behavior Based on O2O Business Model

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### Abstract

**With the increasing popularity of online shopping, consumer purchases in the O2O business model have become the focus of business and academia. This paper firstly summarizes the existing research results based on the research characteristics and research trends of consumer purchasing behavior. Secondly, the research characteristics of consumer purchasing behavior are discussed from two aspects: research methods and research content. Meanwhile, the research trends of consumer purchasing behavior are deeply analyzed from three dimensions: behavioral scene, behavioral characteristics and market dynamics. Finally, undertaking the research foundation of the predecessors, we propose the future research directions of this field.**

### Keywords

**Online shopping; O2O business model; Consumer purchase behavior.**

### 1. Introduction

The continuous rise of "Internet + industry" has promoted the vigorous development of the e-commerce market economy. The scale of the e-commerce market has gradually grown, and online shopping is particularly common. According to the China Electronics Research Center (100EC), as of June 2018, the number of online consumers reached 569 million, the online retail market reached 900 million yuan, and the transaction volume accounted for 22.7% of consumer retail sales. With the continuous change of network technology, the era of Web3.0 intelligentization is advancing. The e-commerce platform has spawned many business models (such as Amazon and eBay's B2C model; Taobao's C2C model), and the O2O business model has also followed. From Ai Rui Consulting's 2018 study, the market size of the O2O business model exceeded 361.1 billion yuan.

The concept of O2O business model originated in the United States. It is an emerging e-commerce model that combines offline business opportunities with the Internet platform to drive offline operations through online marketing (Wang Yingjie et al., 2015; Liu Wei, Xu Pengtao, 2016; Zhao Mei, 2017). Compared with the traditional B2C and C2C modes, the O2O business model has more room for development and higher commercial value (Wang Yingjie et al., 2015). Consumer buying behavior is directly related to the survival and development of O2O model platforms and businesses (Zhao Weiru, Wu Jinying, 2018). Predecessors have begun to focus on this emerging field and try to explore the main factors affecting consumers' purchasing behavior (Jiang Rui, 2017; Cui Bin et al., 2018; Zong Ping, 2019). Therefore, in the context of the O2O business model, this paper sorts out the existing research on consumer purchasing behavior, to clarify the main context and concerns, and provide reference and suggestions for future research directions.

### 2. Literature Characteristics of Consumer Purchasing Behavior

This article uses Webster and Watson's literature review method to search for the latest literature in the past three years in the database of HowNet, Weipu, EBSCO, etc., with the keyword "O2O business model" and "consumer purchase behavior". Except for a few classic literatures, the time span is 2016-2019. After searching and screening, there were 30 domestic related literatures, including 24 core journals (18 CSSCI source journals), mainly related to e-commerce, business economy, consumer

behavior, marketing management, consumer psychology and other disciplines. The source characteristics of the journal are shown in Figure 1.

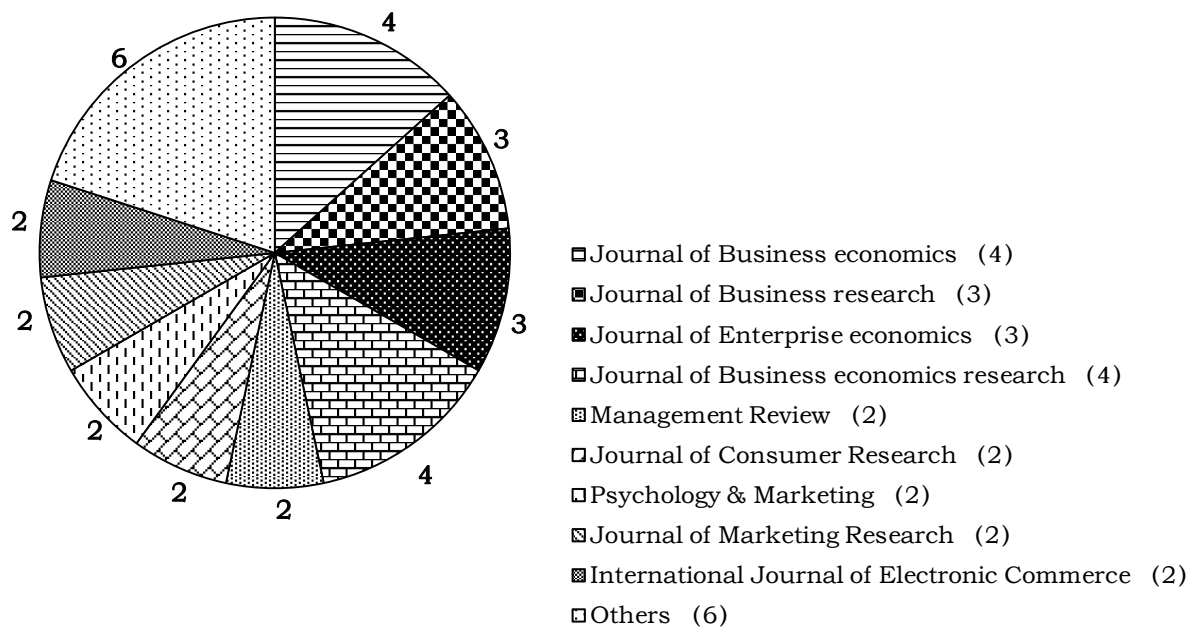


Figure 1. Journal Source Distribution Map

### 2.1 Research method characteristics of consumer purchasing behavior

The research methods in this research field mainly use literature analysis, expert interviews, questionnaires, scenario experiments, mathematical logic deduction and big data mining. Among the 30 papers collected, the researchers used the literature analysis method, and the questionnaire survey was the most used method in all studies (60%), followed by the logical deduction method (20%), as shown in Figure 2.

①According to the questionnaire survey method, Zhao Weiru and Wu Jinying (2017) constructed a structural equation model based on the data of the questionnaire, and analyzed the influencing factors of consumer satisfaction under the O2O model. N. L. Balasudarsun. et al (2018) studied the user behavior characteristics of planned shopping from questionnaire data. Cao Haiying (2018) used SPSS regression to analyze the influencing factors of consumers' green purchasing behavior through questionnaire data. I. CNwaizugbo and Ifeanyichukwu C.D (2016) used questionnaire data to study the characteristics of consumers' online shopping behavior in Anambra. Based on the O2O platform questionnaire data, Jiang Rui (2017) analyzed the impact of O2O user satisfaction on its willingness to repeat consumption. ②From the mathematical logic deduction analysis, Guo San Dang (2019) built a mathematical model to consider the impact of the proportion of strategic consumers on the decision-making of manufacturers in the market where short-sighted consumers and strategic consumers coexist. Song Zhiping (2018) derived the pricing strategy of online retailers from the perspective of consumers' limited time buying behavior. ③From the perspective of scenario experiment method, Wang Hanjun et al. (2018) designed a scenario experiment, analyzed the psychological motivation of strategy failure, and used criminal psychology to explore the key situations and mechanisms of CSR reputation failure. ④There are few expert interviews. Zeng Jianqiu and Wang Fan(2015) constructed a fuzzy evaluation matrix of O2O model user satisfaction based on the indicators of expert interviews. ⑤The analysis of big data mining is also limited. Liu Wei and Xu Pengtao (2016) have taken a different approach and identified the influencing factors of the usefulness of online reviews of O2O e-commerce platform by means of big data mining.

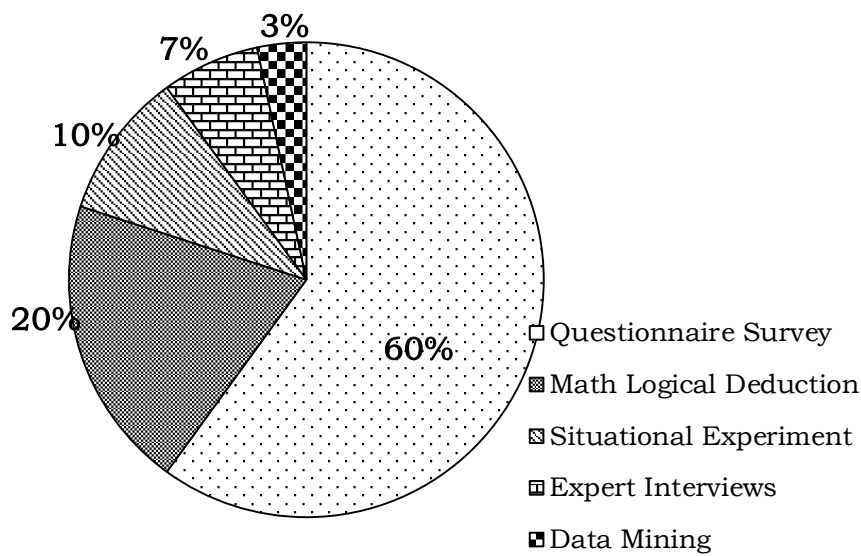


Figure 2. Methodology Distribution Map

**2.2 Research content characteristics of consumer purchasing behavior**

**(1) Research content subject characteristics**

The research content of consumer purchasing behavior can be divided into theoretical research and applied research according to the macro-subject level of its research. It can be seen from the statistical data in Table 1 that there is less single theoretical research and more emphasis on application-level research.

①Theoretical level: Wang Hanjun et al. (2018) used cognitive dissonance theory to analyze the psychological motivation of strategy failure from product characteristics. Ricky Y. K. Chan and Lorett B. Y. Lau (2001) examined the applicability of the cultural environment to the conclusions of purchasing behavior studies from the perspective of planned behavior theory. Xu Xinliang et al. (2018) tested the relationship between consumer interaction, consumer brand emotion and purchase behavior based on the interactive ritual chain theory. Zhang Wei (2018) constructed a theoretical framework for the influencing factors of purchasing behavior. ②Application level: Tan Yucong (2019) starts from the user's point of view and discusses the purchase behavior of group purchase consumers with perceived value of customers, so as to propose marketing strategies for group purchasers. Jung Lee and L. G. Pee (2018) provide guidance for the practice management of online retailers by distinguishing the impact of various consumer ratings. Guo Sandang et al. (2019) proceeded from the practical guidance, discussed the applicable scope of the manufacturer's group purchase limit strategy, and proposed the optimal operation strategy of the manufacturer. Manish Kumar (2016) summarized consumer behavior characteristics through interviews and conducted marketing recommendations for online retailers. Liu Rongting (2019) analyzed the impact of the network economy on consumer behavior and proposed policy recommendations for expanding household consumption in the network environment.

Table 1. Statistical overview of research literature on consumer purchasing behavior

Items	Research content characteristics					
	Research body			Research nature		
Hierarchical division	Theoretical research	Applied research	Both	Qualitative research	Quantitative research	Both
Literatures	7	13	10	2	8	20
Proportion	23.34%	43.33%	33.33%	6.66%	26.67%	66.67%
Total	30/100%			30/100%		

## (2) Nature of research content

The research content of consumer purchasing behavior can be divided into qualitative analysis and quantitative analysis according to the nature of its research. According to the statistics of 30 articles, most studies focus on quantitative research, and there are few studies on single certain analysis, as shown in Table 1.

①From the aspect of qualitative analysis, Wang Yufei et al. (2018) analyzed the problem of O2O business model take-out platform, and believed that optimizing the take-out platform to obtain a broader market is the key to the survival of the enterprise. Manish Kumar (2016) analyzed consumer online shopping attitudes and behavioral characteristics through literature review and interview surveys. ②In terms of quantitative research, Zhao Weiru and Wu Jinying (2017) constructed a structural equation model based on the data of the questionnaire to analyze the influencing factors of consumer satisfaction under the O2O model. D. Charumathi., and Dr. S. Sheela Rani. (2017) examined consumer's most popular online shopping sites, online shopping preferred products, and perceptions of online shopping risks. Zhao Mei (2017) based on the questionnaire data, the behavior research of consumers in the online take-away market, the main influencing factors affecting consumers' purchasing behavior. Aiai Zhang (2018) analyzed the questionnaire data to explore the factors that influence consumer online shopping impulse consumption. Cao Haiying (2018) analyzed the data and used SPSS software regression modeling to analyze the factors affecting green purchasing behavior.

## 3. Research Trends in Consumer Buying Behavior

The research trends of consumer purchasing behavior can be divided into three levels: antecedent research (consumer behavior scene), media analysis (consumer behavior characteristics), and result orientation (consumer market dynamics), as shown in Figure 3. Consumer purchasing behavior research mechanism focuses on consumer behavior scenarios and consumer behavior characteristics, while consumer market dynamics research covers less, mainly based on forecasting methods and strategy analysis.

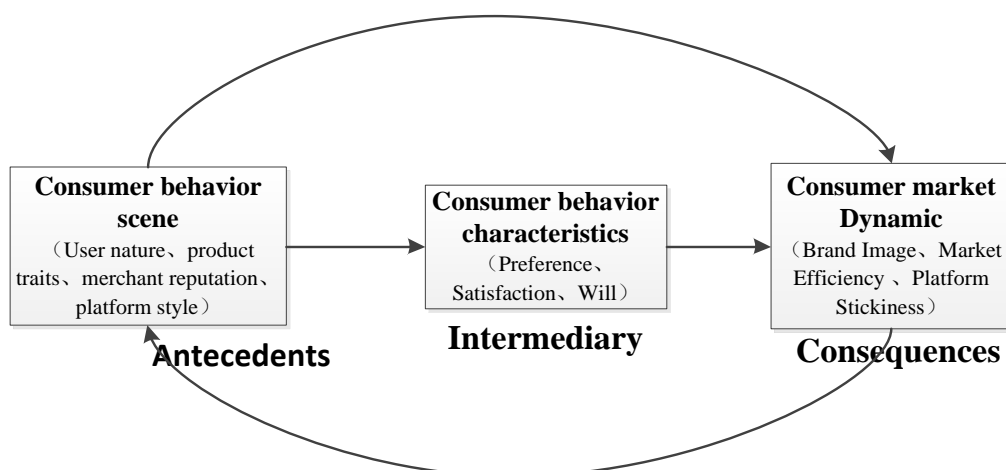


Figure3 Closed-loop Effect of Consumer Purchasing Behavior Research Mechanism

### 3.1 Consumer Behavior Scenario Study (Antecedent Research)

The study of consumer behavior scenarios is mainly reflected on user characteristics, product characteristics, business reputation, cultural environment and so on. Cao Haiying (2018) found that user characteristics (ecological values, perceived self-efficacy, and group pressure) affect purchase intentions, but consumer purchase intentions are not significantly related to purchase behavior. Mohamed M. Mostafa (2007) investigated the impact of user characteristics (cultural values and psychological factors) on consumer buying behavior. Zong Ping (2019) believes that online store

reputation, product cost performance and service attitude are the key factors affecting consumers' purchasing behavior. Ricky Y. K. Chan and Loretta B. Y. Lau (2001) argue that user purchase behavior differences are due to cultural environmental differences.

### **3.2 Consumer Behavior Characteristics Research (Media Analysis)**

Consumer behavior characteristics are mainly reflected on user preferences, satisfaction, and willingness to purchase. ArunKumar SivaKumar and Abirami Gunasekaran (2017) found that consumer innovation, perceived effectiveness (interests, risks, attitudes and intentions) influence consumer buying behavior. Jiang Rui (2017) analyzed the impact of O2O model user satisfaction on its willingness to repeat consumption. N. L. Balasudarsun et al (2018) discussed the impact of social factors on user preferences. Zhao Weiru, Wu Jinying (2017) explored the influencing factors of consumer satisfaction in the O2O model. Raj Arora and Joe Singer (2006) also examined the factors influencing consumer satisfaction and consumer willingness. Tan Yucong (2019) analyzes the composition of the perceived value characteristics of online users' group purchases from the perspective of user perception and the impact on consumers' purchasing behavior. Jung Lee and L. G. Pee (2018) explore how users can differentiate the same consumer ratings in different buying environments, proving that rating impacts vary with scale and type of assessment.

### **3.3 Consumer Behavior Market Dynamics (Results Oriented)**

The research on consumer market dynamics involves less, focusing on forecasting and strategy, and analyzing the impact on market dynamics. Sun Zengbing (2018) found that consumer behavior characteristics have different effects on market dynamics under certain circumstances. D. Charumathi and Dr. S. Sheela Rani (2017) believe that understanding consumer buying behavior can help control the impact on the e-commerce market. Guo Sandang et al (2019) proposed that in the market of short-sighted and strategic consumers coexisting, the proportion of strategic consumers has a greater impact on manufacturers' decision-making. Raj Arora and Joe Singer (2006) studied the impact of satisfaction and customer value on follow-up attitudes and return intentions. Xu Xinliang et al (2018) examined the relationship between consumer interaction, consumer brand sentiment and purchase behavior from the perspective of brand marketing of new media environment. Jung Lee and L. G. Pee (2018) explained the consumer rating scale and background, and found that the marginal effect of the consumer's rating on the market decreases as the rating increases, while the marginal effect of the rating difference decreases as the rating difference increases.

## **4. Analysis and Prospect of Research Status**

Through the analysis and combing of existing research, it is not difficult to find that the following problems still exist in the research of consumer purchases, which are worthy of deep discussion. The specific performance is as follows:

First, in terms of research methods, most of the existing literatures use sample survey and cross-sectional data analysis. Such methods have lacked multi-dimensional, multi-level and dynamic tracking of consumer behavior research. Since consumer purchasing behavior is conducted in an interactive environment and involves a comprehensive evaluation of diversified factors, future research should shift from static analysis to dynamic analysis of multi-party interactions, considering the use of multi-layer linear models and tracking data to explore consumer behavior characteristics for firm performance and the impact of market dynamics.

Secondly, in terms of research content, the current research mainly analyzes the influencing factors of consumer purchasing behavior from the theoretical framework, and the strategic research on consumer behavior combined with application practice and corporate marketing perspective has not paid enough attention. Although a small amount of literature puts forward the countermeasures of merchants and platforms from the perspective of consumer strategy game, the follow-up research should deeply explore the important role of consumer purchasing behavior strategy mechanism in O2O business model for strategic marketing.



Third, in terms of the universality of the research conclusions, the existing literature mainly studies the consumer behavior in specific populations and consumption scenarios, and lacks the diffusion research on the general population and the overall consumer market practice scene. How do consumer behavioral characteristics influence market trends and the relationship between consumer buying decisions? All of these problems require the development of a comprehensive scale based on market trends and group characteristics in the future to form research conclusions that are adapted to the general practical application scenarios.

## 5. Conclusion

The rise of the O2O business model not only incorporates new elements and features into the consumer buying experience, but also provides new ways and means for companies to develop marketing strategies. The research on consumer behavior in the context of O2O business model is still in the initial stage. The conclusions of the study are divided, and the problem of extensibility needs to be solved urgently. For example, the prediction of market dynamics and the lack of strategy research are lacking. How to use consumer behavior mechanism to achieve long-term the marketing strategy needs to be further deepened. Combining the research results of predecessors, I strive to inspire others. We believe that future research can be based on brand, sales, consumer welfare and other perspectives, and how to quantify and predict the impact of consumer buying behavior on consumer market dynamics.

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