

# ***Understanding and Addressing Consumer Post-Purchase Dissonance in E-commerce: Influential Factors and Effective Measurements***

**Diyue Qi<sup>1,a,\*</sup>**

<sup>1</sup>*East China Normal University, Street500 Dongchuan Road, Shanghai, China*

*a.2019790667@qq.com*

*\*corresponding author*

**Abstract:** With the rapid development of technology and the widespread adoption of the Internet, e-commerce has become an integral part of people's daily lives. In e-commerce scenarios, consumers can browse and purchase goods anytime and anywhere, enjoying unprecedented convenience. However, at the same time, the issue of post-purchase dissonance has gradually become prominent. This paper aims to explore the influencing factors and management measures of consumer post-purchase dissonance psychology in e-commerce scenarios. The article first reviews the theory of post-purchase dissonance and the theory of perceived psychological contract violation-, providing a theoretical foundation for subsequent research. Then, through a literature review, it identifies multiple factors affecting consumer post-purchase dissonance, including customer service quality, costs incurred from returns, and uncertainties in online shopping. To effectively manage post-purchase dissonance, enterprise managers should focus on improving service quality, optimizing the return process, and reducing shopping uncertainties. Additionally, strengthening consumer education and enhancing their cognitive ability regarding product information and decision-making skills in shopping are also important ways to reduce post-purchase dissonance.

**Keywords:** Post-purchase dissonance, consumer psychology, e-commerce

## **1. Introduction**

In traditional shopping scenarios, post-purchase dissonance is an issue that cannot be ignored. While consumers shopping in physical stores can personally experience products and interact face-to-face with sales personnel, dissatisfaction or anxiety may still arise due to limited product selection, incomplete information, and cumbersome return processes. These factors can lead to post-purchase emotions such as regret, disappointment, or questioning one's decisions. Limited product selection means that consumers may not find products that fully meet their needs, and incomplete information can lead to misunderstandings or expectations not being met. Additionally, the return process in traditional shopping scenarios is usually cumbersome, requiring consumers to physically go to the store and provide proof of purchase, which increases consumer dissatisfaction and anxiety.

In e-commerce scenarios, consumer post-purchase satisfaction is crucial for business success. A rich selection of products, convenient shopping methods, and policies such as "seven-day returns without reason" and "community group buying" greatly enhance the consumer shopping experience.

However, post-purchase dissonance is becoming more apparent in the modern online shopping environment. Post-purchase dissonance refers to the dissatisfaction or anxiety consumers may feel after purchasing a product or service for various reasons, which can negatively affect a business's reputation and sales. Consumers using online shopping and social platforms receive a large amount of information about similar products before and after shopping, making them more likely to experience post-purchase dissonance. Additionally, modern online shopping policies like the seven-day no-reason return and community group buying, while providing more assurance for consumers, may also lead them to rethink their shopping decisions, increasing the likelihood of post-purchase dissonance. Therefore, understanding the causes of post-purchase dissonance and developing appropriate strategies to address it is crucial for enterprises. The theory of post-purchase dissonance originates from Leon Festinger's Cognitive Dissonance Theory, proposed in the mid-1950s. This theory suggests that when a person holds two or more interrelated but contradictory pieces of knowledge, they experience an uncomfortable state known as "dissonance." In the post-purchase phase, consumers may experience dissonance both cognitively and emotionally. Perceived psychological contract violation is another important theoretical foundation. This theory posits that there is an implicit contract between consumers and merchants, wherein consumers expecting to receive corresponding value or benefits from the merchant. When consumers perceive that the merchant has violated this contract, they feel a psychological contract violation, which subsequently affects their behavior. Based on related research and these two fundamental theories, this paper will delve into the reasons for consumer post-purchase dissonance in e-commerce scenarios and the strategies businesses can adopt to address it.

## 2. Literature Review

Existing research has reviewed and analyzed factors that influence or lead to consumer post-purchase dissonance. Liu Yu [1] emphasizes that the rationality behind consumer online return behavior stems from post-purchase cognitive dissonance and perceived psychological contract violation, with return costs playing a crucial role in moderating this behavior. This is significant for revealing the internal mechanisms and influencing factors behind consumer return behaviors. Regarding customer service quality, Hayes [2] focuses on issues in the service industry, emphasizing the importance of service quality on post-purchase satisfaction. Jiang Lin [3], in his book "Consumer Behavior," provides extensive information on consumer behavior, highlighting how psychological factors of post-purchase dissonance can lead to decreased satisfaction, loyalty, and reduced willingness to repurchase. Luo Ziming [4], in his book "Consumer Psychology," conducts an in-depth study of consumer psychology, which helps understand the emotions of regret, self-blame, self-doubt, and dissatisfaction that arise from consumer post-purchase dissonance. Cao Mengle and Han Xiuqing [5] discuss consumer psychology, particularly in relation to the shopping experience. They explore how salespeople use psychological strategies to sell goods to specifically characterized customers and analyzed the psychological activities of customers during counter shopping, including selection, comparison, and decision-making processes.

In the online shopping environment, post-purchase dissonance continues to occur. Peng Huan's article [6] focuses on the uncertainties in online shopping, dividing them into product, seller, and shopping platforms. Understanding and reducing these uncertainties are crucial for enhancing customer satisfaction and trust in online shopping. Other factors affecting post-purchase dissonance are analyzed in Huang Changfang's article [7]. It investigates how price promotions in online shopping trigger post-purchase dissonance and unsatisfying reviews, emphasizing the impact of time pressure, timing of promotions, and the extent of post-promotion price adjustments on consumer post-purchase dissonance. Hajli, N [8] focuses on introduction to consumer behavior supported by in-depth, scientifically grounded coverage of key principles and Business & Economics, impulse buying

decisions consumers may make in online shopping for various reasons, such as promotional activities and social media influences, which can lead to post-purchase dissonance. Factors related to e-commerce platforms can also cause post-purchase dissonance; Kim [9] develop a theoretical framework describing the trust-based decision-making process a consumer uses when making a purchase from a given site, test the proposed model using a Structural Equation Modeling technique on Internet consumer purchasing behavior data collected via a Web survey, and consider the implications of the model. notes that operational strategies of e-commerce platforms, such as product descriptions, image quality, and after-sales service. Turban et al. [10] suggest that Word of mouth and other activities in social networking play a key role in affecting the attitude and behavior of the user. Therefore, taking advantage of social networking is the most essential attribute of SC. It can lead to irrational buying decisions due to social pressure, which is an important cause of post-purchase dissonance.

Additionally, regarding measures to address consumer post-purchase dissonance, Liu Yu [11] proposes methods for identifying opportunistic return behavior and emphasizes the importance of rule setting, enforcement, and cooperative supervision. These research findings are significant for e-commerce platforms to formulate reasonable return policies, improve consumer satisfaction, and maintain market order. Yang Yuehan [12] stresses the necessity of e-commerce platforms to protect consumers' rights to return and exchange and improve the consumer experience through measures like "speedy returns," while also mentioning the positive improvements in delivery times and consumer satisfaction. Wang Yajie [13] suggests addressing product quality, return policies, and after-sales service to enhance consumer satisfaction and reduce return rates. She also notes the need for businesses to strengthen the training and management of KOLs (Key Opinion Leaders) to prevent their live-selling behaviors from negatively influencing consumer return decisions.

### **3. Case Analysis of Consumer Behavior on E-commerce Platforms**

#### **3.1. Case Selection: Pinduoduo E-commerce Platform**

This paper selects the Pinduoduo platform to explore the causes of consumer post-purchase dissonance and corporates' response strategies within the context of e-commerce consumption, based on its distinctive business characteristics and prevailing issues. Compared to other mainstream e-commerce platforms like JD.com, Meituan, and Taobao, Pinduoduo exhibits a series of distinct business traits and differences. A primary characteristic of the Pinduoduo platform is its unique group buying model, which encourages customers to team up and purchase with lower prices, thereby attracting a large number of price-sensitive consumers. Additionally, Pinduoduo focuses on developing the lower-tier markets, particularly targeting rural and third- and fourth-tier city users, offering products and services suitable for these markets. The platform also incorporates attributes of social interactions. Pinduoduo's "group buying" model is based more on a socialized shopping experience, allowing consumers to obtain more discounts and rewards by sharing and inviting friends. This social shopping model enhances consumer engagement and interaction, aligns with the consumption needs of young people, and increases user participation and shopping enjoyment.

According to a research report by Everbright Securities, between the second quarter of 2022 and the first quarter of 2023, among the four major Chinese e-commerce platforms (Meituan, Alibaba, JD Group, Pinduoduo), Pinduoduo's revenue growth rate of 36% to 64% exceeded the combined growth rates of the other three platforms, showing strong momentum. Guosheng Securities published a research report on Pinduoduo users and revealed that seventy percent of them shop on Pinduoduo because of the lower prices. Additionally, half of the researched users believe that group-buying acquaintances offer cheaper prices, and they can even recommend good products to each other. Nearly thirty percent of users felt that the large sales revenue signals that the products are worth the money.

As such, the primary reasons why users choose Pinduoduo are its cost-effectiveness and the socializing and entertaining attributes of the platform.

### 3.2. Challenges Faced by Pinduoduo E-commerce Platform

Despite the outstanding business performance of Pinduoduo, it also faces challenges in terms of brand perception, product quality, and user experience. Firstly, as it primarily targets price-sensitive consumers, the platform is relatively weaker in brand perception and the introduction of high-end brands, which somewhat limits the variety of products and the platform's market competitiveness. Secondly, Pinduoduo faces challenges in product quality control. Since the platform's procurement model involves direct purchasing from manufacturers without stringent auditing and screening, the quality of some products is not guaranteed, which can lead to inconsistencies and pose threats to the platform's reputation and consumer trust. Additionally, Pinduoduo's after-sales service system is relatively inadequate; some consumers report difficulties in returning or exchanging goods and resolving issues. These problems, to some extent, affect consumer shopping experience and satisfaction, making post-purchase dissonance more likely. A survey by Everbright Securities on major e-commerce platform app users showed that from the first quarter of 2022 to the first quarter of 2023, MAUs (monthly active users) on Pinduoduo have declined, and user satisfaction has decreased. At the end of 2023, the Black Cat Data Center released the "2023 'Double Eleven' Consumer Complaint Data Report," which showed that during the "Double Eleven" shopping period, Pinduoduo's complaint response rate was still below 20%, showing no significant improvement compared to 2022. The after-sales system is not adequately robust, and consumer demands are not being met timely. The author compiled data from the main complaint platforms during the 2023 "Double Eleven" period regarding the complaint rates and resolution rates for the five major e-commerce platforms and created the following diagram, which shows that Pinduoduo ranked third in terms of complaint volume, with a complaint resolution rate of only 7.6%, indicating that the efficiency of complaint handling needs further improvement.

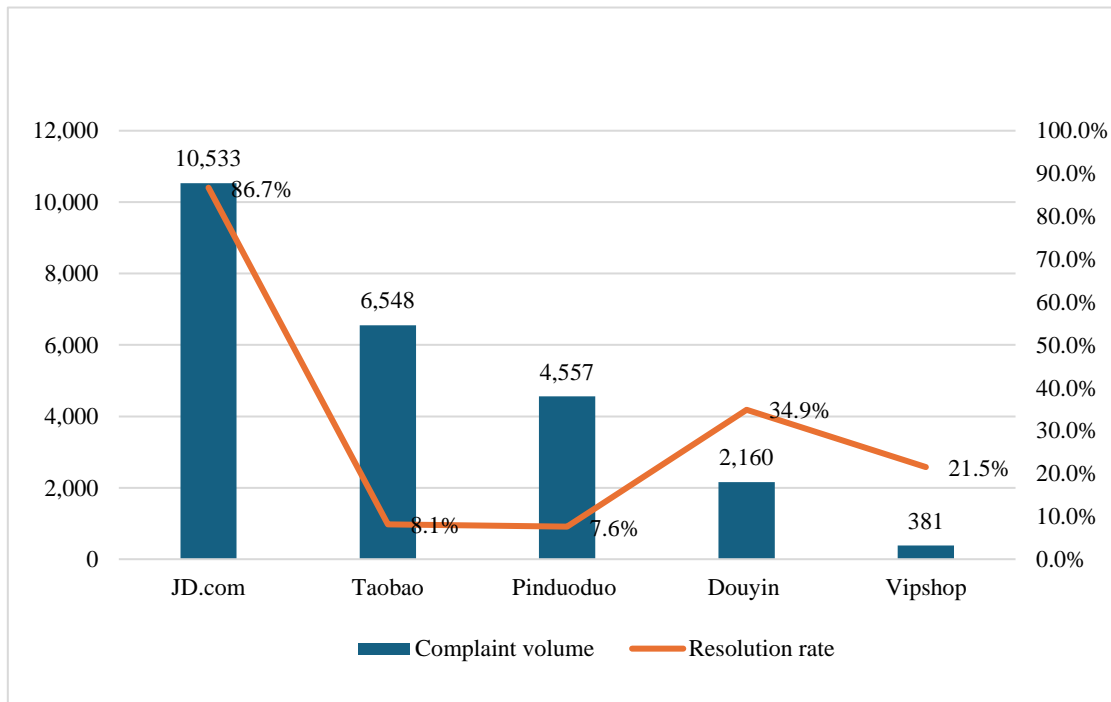


Figure 1: Customer Complaints Data of Five Major E-commerce Platforms During the "Double 11" Sales Season in 2023.

## 4. Concentrated Manifestations of Consumer Post-Purchase Dissonance Psychology

### 4.1. Community Group Buying and Consumer Expectation Deviations

In 2020, Pinduoduo launched three strategic products, "Kuai Tuan Tuan," "Pin Nei Gou," and "Pin Xiao Quan," which are central to Pinduoduo's efforts to capture the community group buying market share. These initiatives are also Pinduoduo's response to competing with Meituan in laying the groundwork for local offline services. In Pinduoduo's financial report of the first quarter in 2023, a notable data point was that the order volume for community group buying had achieved a 60% year-over-year increase. This significant growth not only proves the popularity of the community group buying model among consumers but also reflects the effective strategic layout of Pinduoduo in this field. However, at the same time, an issue that cannot be ignored has emerged: a 15% increase in consumer complaints about group-purchased goods.

This trend indicates that while community group buying offers consumers more shopping options and convenience, it can also lead to discrepancies between consumer expectations and actual product quality, mainly due to information asymmetry. Information asymmetry refers to a situation where some market participants have more information than others, which may lead to unfair transactions. In community group buying, consumers often rely on the recommendations and descriptions from group leaders or platforms to understand product information, which may not always be accurate or comprehensive. Since consumers cannot select and inspect the goods in person, they have to make purchase decisions based on the descriptions provided by the group leaders or platform. When there is a discrepancy between these descriptions and the actual product quality, a deviation between consumer expectations and reality occurs, triggering post-purchase dissonance. Due to the presence of information asymmetry in community group buying, consumers may have overly high expectations for product quality and features. When the products received fail to meet these expectations, consumers may experience negative emotions such as disappointment, regret, or anxiety.

Finally, logistics and delivery are also key factors contributing to the deviation between consumer expectations and reality. In community group buying, goods are typically delivered to consumers through centralized distribution. However, issues such as delays or damages during the delivery process can result in consumers receiving products that do not meet their expectations. This instability and uncertainty in logistics further exacerbate the discrepancies between consumer expectations and reality.

In December 2023, the Black Cat Complaint Platform disclosed a collective complaint titled "Refusal to Fulfill Contractual Agreements by the Operator of Kuai Tuan Tuan Mini Program under Pinduoduo (PDD.O)." The initiator of the complaint stated that although the merchant had been banned, there had been no substantial progress regarding refunds. The less than one-year-old "Duo Duo Grocery" had already received up to 4,733 complaints, not only concerning "returns" and "refunds" but also involving accusations of "deceiving consumers" and "false advertising." To reduce complaint rates and enhance consumer satisfaction, Pinduoduo could strengthen supervision over group leaders and the platform to ensure the reliability and accuracy of product descriptions. It could also optimize the logistics and delivery processes to reduce delays and damage and enhance after-sales service, meanwhile involve consumer education to improve the shopping experience and satisfaction levels of consumers.

### 4.2. Price Discounts and Quality Concerns

Pinduoduo's "2023 Consumer Trend Report" reveals an interesting and complex phenomenon: while the proportion of sales of low-priced goods continues to rise, the rate of returns due to quality issues has also increased by 8%. This data reflects the dual impact behind Pinduoduo's low-price strategy.



Firstly, Pinduoduo's low-price strategy is undoubtedly a crucial means to attract consumers and boost sales. In the competitive e-commerce market, price-sensitive consumers are often drawn to low-priced goods. Thus, Pinduoduo's strategy has been successful, driving the growth of merchandise sales. However, the low-price strategy also brings a series of problems, among which concerns over product quality are most prominent. In general, customers believe that the price of a product directly relates to the quality. When the price of goods is significantly lower than the market price, consumers inevitably worry that there might be underlying quality issues or that the product value is overstated. Such suspicions are not unfounded but are based on consumers' understanding of market price information and past shopping experiences. These concerns become particularly evident after shopping. When consumers find that the actual quality of the goods deviates from their expectations, post-purchase dissonance naturally arises, leading to dissatisfaction and disappointment. To alleviate these quality concerns and post-purchase dissonance, Pinduoduo needs to maintain its low-price strategy while strengthening product quality oversight and enhancing consumer trust. On one hand, Pinduoduo could establish a stringent quality inspection mechanism to ensure that although the prices are budget-friendly, the quality remains reliable. On the other hand, Pinduoduo could offer more consumer protection measures, such as clear return and exchange policies and high-quality after-sales services, to help consumers resolve potential issues after shopping and enhance the shopping experience. In doing so, Pinduoduo would not only maintain its pricing advantage but also enhance consumer trust, ensuring a pleasant and satisfying shopping experience for sustained and healthy growth.

### **4.3. Return Policy and Consumer Protection**

Among the frequently received feedback of the Pinduoduo platform for the first half of 2023, its return policy catches public attention. Although official data show that Pinduoduo successfully controlled the overall return rate to within 5%, this figure seemingly demonstrates the platform's strict quality control and high consumer satisfaction. Whereas, about 10% of the feedback is about the troublesome return processes and tight time frame. This data highlights the key problem in the execution of the return policy. The existing complicated return policy not only increases the difficulty for consumers but also invisibly extends customers' waiting time, leading to dissatisfaction and anxiety during the return process. Moreover, overly restrictive time limits can also prevent consumers from finding timely solutions after discovering issues with products.

Thus, the simplicity of the return process is crucial for the consumer experience. In consumer psychology, the ease and efficiency of operations are important factors affecting consumer satisfaction. A cumbersome return process can increase the difficulty for consumers, prolong their waiting time, and thus trigger dissatisfaction and anxiety. Therefore, Pinduoduo could enhance the return experience by optimizing the return application interface, simplifying the review process, and providing convenient return methods, thereby reducing the operational difficulty for consumers. Secondly, the setting of return time limits also needs to consider consumer rights and psychological expectations; fairness and the feeling of having expectations met are key factors influencing consumer attitudes. When constrained by the time limit for conducting returns and refunds, consumers may feel that their rights are being infringed upon, leading to dissatisfaction and complaints. Thus, Pinduoduo should set reasonable return time limits to ensure that consumers can enjoy their rights to return within a fair timeframe. Additionally, Pinduoduo should pay attention to consumer feedback and suggestions, using them as a crucial basis for improving return policies. By collecting and analyzing consumer feedback, Pinduoduo can understand the pain points and needs of consumers during the return process, allowing for more precise policy adjustments. Also, consumer feedback can help evaluate the effectiveness of the return policy, continuously refining and optimizing the policy to meet consumer expectations and needs.

## 5. Conclusion

In e-commerce consumption scenarios, post-purchase dissonance has become an issue that cannot be ignored, with its influencing factors being complex and varied. Elements such as product selection, information acquisition, and the return process can all trigger consumer dissatisfaction and anxiety. As the online shopping environment offers a rich selection of goods and convenient shopping methods, there appears new challenges such as post-purchase dissonance. This paper has probed into the causes of post-purchase dissonance, including information overload regarding products, the impact of return policies, and the violation of the psychological contract between consumers and sellers. Through reviewing and analyzing relevant literature, we have identified that service quality, marketing strategies, and consumer psychological factors are all significant contributors to post-purchase dissonance.

In response to these issues, businesses should adopt proactive management measures to alleviate consumers' post-purchase dissonance. These include improving service quality, optimizing the return process, enhancing consumer information education, and developing more precise marketing strategies. Additionally, marketing managers should pay attention to consumers' psychological needs and actively establish and maintain trust relationships with consumers to avoid violating the psychological contract. Overall, post-purchase dissonance is an urgent problem to be addressed in the e-commerce consumption scenario. By thoroughly researching its influencing factors and formulating corresponding management strategies, businesses can not only enhance consumer post-purchase satisfaction and loyalty but also strengthen their competitiveness and achieve sustainable development. Therefore, for e-commerce businesses, recognizing and effectively resolving issues of post-purchase dissonance is of paramount importance.

## References

- [1] Liu, Y. (2022). *Research on the mechanism of consumer online shopping return behavior from a post-purchase dissonance perspective*. *Business Economics*, (6), 52-55+179. <https://doi.org/10.19905/j.cnki.syjj1982.2022.06.009>
- [2] Hayes, L. (1998). *Service takes a holiday*. *The New York Times*, C1.
- [3] Jiang, L. (2007). *Consumer behavior* (pp. 156-177). Science Press.
- [4] Luo, Z.M. (2007). *Consumer psychology* (3rd ed., pp. 104-153). Tsinghua University Press.
- [5] Cao, M.L., & Han, X.J. (2001). *Consumer psychology*. Hebei University Press.
- [6] Peng, H. (2023). *Research on the structure of uncertainty in online shopping and its impact on return intention*. *Hebei University of Science and Technology*. <https://doi.org/10.27107/d.cnki.ghbku.2023.000297>
- [7] Huang, C.F. (2016). *Research on the impact of massive price reduction promotions on consumer post-purchase dissonance and post-purchase evaluations on online shopping platforms*. *Finance World*, (36), 345. <https://doi.org/10.16266/j.cnki.cn11-4098/f.2016.24.300>
- [8] Hajli, N. (2013). *Online consumer behavior: Theory and research in social media, advertising, and e-tail*. Routledge.
- [9] Kim, D. J., Ferrin, D. L., & Rao, H. R. (2009). *A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents*. *Decision support systems*, 44(2), 544-564.
- [10] Liang, T. P., & Turban, E. (2011). *Introduction to the special issue social commerce: a research framework for social commerce*. *International Journal of electronic commerce*, 16(2), 5-14.
- [11] Liu, Y. (2022). *Research on consumer return behavior in the online shopping environment*. *Zhongnan University of Economics and Law*. <https://doi.org/10.27660/d.cnki.gzczu.2020.001640>
- [12] Yang, Y.H. (2023). *Backstabbed by return rates, Douyin e-commerce cries foul*. *Beijing Business Today*, (003). <https://doi.org/10.28036/n.cnki.nbjxd>
- [13] Wang, Y.J. (2022). *Research on the influence of KOLs on consumer return behavior in the context of live-streaming e-commerce*. *Hebei Enterprise*, (4), 38-40. <https://doi.org/10.19885/j.cnki.hbqy>