

The Impact on Consumers of the Taobao-Merchant relationship during the Double 11 Promotion -using Game Theory Analysis

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Abstract:

This study examines the relationship between Taobao and merchants during the Double 11 shopping event, focusing on the distribution of profits between merchants and the platform and its impact on consumers. Based on primary and secondary research including questionnaires and interviews, this study shows that Taobao's stronger bargaining position leads to conflicts between merchants and the platform. In particular, Taobao, because of its higher bargaining power, has gained greater benefits from dividing profits with merchants. Its control over factors such as commissions, advertising and traffic, etc., leads to a decrease in merchants' profit margins, resulting in a greater impact on the price of goods than on the quality of goods. Although Double 11 boosts sales, this is detrimental to smaller merchants and reduces long-term satisfaction for both merchants and consumers.

Keywords: Double 11, Platform-Merchant Relationship, Profit Distribution, Bargaining Power, E-commerce Platform, Merchant Profitability, Price Sensitivity, Consumer Satisfaction

1. Introduction

With the advancement of technology, China's e-commerce sector is experiencing significant growth. For the first half of 2024, China's online retail sales totaled 7.1 trillion yuan (\$996 billion), representing a 9.8 percent increase from the previous year^[1-2].

Against the backdrop of booming e-commerce, numerous e-commerce platforms have emerged in China. An e-commerce platform enables buyers and

sellers to connect in an online trading environment. Essentially, a consumer should be able to browse products on an e-commerce platform, add items to their cart, and proceed to checkout^[3]. Among them, Taobao is one of the most established, incorporating its "sister" platform Tmall. By the end of 2018, Taobao's monthly active users had reached 699 million, while the number of merchants currently selling on Tmall has exceeded 200,000, and the number of new products released last year alone had reached 50 mil-

lion^[4]. If a merchant wants to run a business on the Taobao platform, they must go through a series of processes: sign in, pay a deposit, negotiate with the platform, and pay a commission when a profit is made, decide whether to buy advertising space and so on.

Before the rise of online shopping, brands expanded and penetrated markets through intermediaries like manufacturers, regional distributors, and retailers. This ensured a solid geographic location, population coverage, and customer base, generally with limited competition and a proper profit margin for merchants. Online selling offers Merchants broader market opportunities and the chance to achieve scale effects, but to maximize these, they need help from the platform in utilizing its power to overcome geographical and temporal constraints^[5]. To attract new customers and increase profits, the platform has launched various promotional strategies one after another. Among them, Shopping Day, which was first launched in 2009 with the concept of 11.11 Singles' Day, has had the most significant impact. The essence of this event is to attract consumers to shop by promoting sales and lowering prices, and to promote efficiency growth by increasing product sales^[6].

However, the platform itself is only a venue for online transactions, and merchants are the actual providers of goods. Consumers can only complete the transaction by choosing to buy goods from merchants. This means that the platform's activities to reduce prices must reach a specific cooperation strategy with merchants. The platform's power in this relationship lies in its substantial traffic and user base^[7], while the merchant controls the cost and price of the product. Consumers want to buy the most cost-effective products during promotions. If the platform pressures merchants to reduce prices by leveraging their exposure, the merchants' profit margins will decrease. If merchants forgo platform promotions, this may affect the promotion and sale of their products. This relationship between the platform and the merchant reflects the "bilateral game" or "cooperative game" model of Game Theory in the economy. In this model, both sides maximize their advantages and interests, but must achieve a mutually beneficial situation through cooperation and coordination. Due to the mutual constraints between the two parties,

the profit margins of the goods are directly related to each other, which will further affect whether consumers will buy the goods or not.

This study will utilize the Nash Bargaining model in Game Theory and incorporate the factor of bargaining power to analyze the competition between platforms and merchants. It will also use a questionnaire to collect consumers' opinions and attitudes about the price and quality of products sold during the Double 11 shopping period on Taobao, analyzing the impact of this merchant-platform conflict of interest on consumers.

2. Literature Review

2.1 Benefit analysis of merchants and platforms

There is a conflict between e-commerce platforms and merchants regarding cooperation strategies, particularly in the payment settlement process and the negotiation of pricing decisions between the two parties. He et al^[8]. It is worth noting that when merchants are onboarded to the platforms, commission fees of up to 15 to 20 percent are typically imposed, which adds a significant financial burden to small and medium-sized merchants already operating on low margins. In this study, the two authors also analyze how platforms utilize their dominant market position to impose pricing strategies that are beneficial to the platform but not in the interest of individual merchants, thereby creating competitive imbalances. Meanwhile, promotions designed by platforms to increase traffic and conversions do not always provide fair benefits to all participating merchants. Platforms may prioritize promotional strategies that benefit their business objectives, with only the most prominent or favored merchants benefiting from increased sales, and the interests of smaller merchants sometimes being sacrificed^[9]. This suggests that merchants do not hold absolute pricing power, and their pricing must align with the platform's promotional activities.

Additionally, platforms also have control over the traffic, which represents the number of visitors a web page receives. Khan^[10] examines how platforms can influence the exposure of merchants and their publicity, including advertisements, during large-scale promotions, thereby increasing competitive pressure among merchants. The

article also points out that platform-dominated promotions have the potential to harm merchants. In addition, Nuccio and Guerzoni^[11] claim that platforms have a monopoly on transactional data, which they use to enhance their competitive advantage, often prioritizing their own-branded products over those of third-party merchants. This asymmetry of data makes merchants heavily reliant on the platforms to gain access to consumers.

In digital marketplaces, a conflict exists between platforms and merchants over the distribution of benefits. Merchants are often dissatisfied with the platform's control over the process^[12]. Moreover, this conflict not only affects merchants' revenues but may also harm platforms' operations and reputation^[13]. It becomes crucial to establish a fair profit-sharing mechanism to maintain a positive relationship between the two parties.

2.2 The use of a Game Theory model to analyse this relationship

Game Theory is the application of mathematical models to the study of how players in a game, or decision-makers, make decisions in response to one another^[14]. Its goal is to forecast the outcomes of many decision-makers' choices by analyzing how they make strategic judgments under particular constraints. Since its initial proposal by John von Neumann and Oskar Morgenstern in 1944, Game Theory has grown to become a popular transdisciplinary theoretical framework in a variety of academic disciplines. The branches of Game Theory that comprise complete and imperfect information games, static and dynamic games, cooperative and non-cooperative games, and evolutionary game theory are the fundamental categories^[15].

In analyzing the relationship between platforms and merchants, the Nash Bargaining Model is widely used by predecessors. Zhang and Chung^[16] studied the application of the Nash equilibrium in commission negotiation between e-commerce platforms and merchants. The research finds that larger platforms lead to lower margins for merchants, while consumers experience lower prices. Sharma and Jain^[17] further apply the Nash Bargaining Model to analyze how platforms can optimize merchant engagement by adjusting the service fee and advertising fee. This highlights the effectiveness of the negotiation model in

formulating strategies to promote long-term cooperation between platforms and merchants. Zhang, W. et al.^[18] explored the applicability of this type of model in multi-party benefit distribution, and proposed a strategy to use the model to balance the interests of all parties in a competitive market environment. In addition, Etro and Moresi's study^[19] utilizes the Nash model to simulate the platform's negotiation of interests with merchants under various market conditions.

2.3 Impacts on Consumers

In the platform transaction, besides the platform and the merchant, the consumer also plays a key role as the payer of the goods. Changes in the details of cooperation between the platform and the merchant will directly affect their respective profit margins. Once the elasticity of these profit margins changes, affecting the price, consumers will be the most directly affected party.

A study by He and Zhu has shown that the highly competitive online shopping market allows an extensive range of product and service categories to meet consumer demands and provide customer satisfaction^[20]. However, it can also lead to market monopolization, a decline in quality, and conflicts with consumer rights^[21]. Platforms and merchants may employ price discrimination methods that can distort the market equilibrium of consumers, leading to online stores paying higher fees^[22]. For example, monopoly behavior and price manipulation through the exclusion of other merchants from entering their markets may emerge when platforms resort to certain tactics, such as signing exclusivity agreements with specific retailers, which is not in the best interests of consumers^[23]. Additionally, it is possible that, to keep up with the platforms, merchants may downgrade the quality of their products and services to maintain their income levels^[24].

2.4 Research Gap

Previous interpretations and applications of game theory rarely mention the impact of merchants and platforms on consumers, and few scholars have researched China's Double 11 festival as a case study. Therefore, this study draws on the research framework of the Nash Bargaining Solution and combines it with bargaining power to discuss its impact on the final benefit-sharing between platforms

and merchants.

3. Methodology

Overview

This research question contains two key aims:

- 1) To analyze the interest game between platforms and merchants
- 2) To analyze the impact on consumers based on the game of interests between the two parties.

Based on these aims, secondary research and primary questionnaire research were undertaken, along with an interview with a merchant who has operated a shop on Taobao for three years. The questionnaire was designed to gather the opinions and attitudes of consumers, and the interview was conducted to provide first-hand information on the details of the cooperation between the platform and the merchant for this study.

3.1 Secondary Research

Since Taobao is the platform used in this research case study, its transaction data can be used to demonstrate the benefits merchants receive by using it wisely. More transactions mean there are more potential earnings and, thus, more intense engagement between the platform and merchants, as shown by the data from the Double 11 promotion festival in particular. With growing competition, tensions are likely to increase between the platform and merchants during busy events like Double 11.

Firstly, information about the Double 11 shopping festival was collected after reviewing relevant data online. Then, based on the literature review, existing studies on the co-operation mechanism between online shopping platforms and merchants, as well as consumers' online shopping experiences, were synthesized and analyzed. In a theoretical investigation of applied Game Theory, the bargaining power identified by Prasad, Shankar, and Roy^[25] has an impact on the negotiation outcome, which inspired the authors to introduce this variable into the game theory analysis. Additionally, Vulkan^[26] in his book mentions the Nash Bargaining Solution as a suitable approach for analyzing two-player games, which inspired the analysis in this study.

In addition, there is a high correlation between the litera-

ture review and the questionnaire design. Chen, Qian, and Wen's^[27] study highlighted that promotions on Double 11 are employed to increase turnover through various means, including price decreases. According to Cahaya et al.^[28], Consumers place considerable importance on the quality of goods, price, sales rules, and the credibility of advertisements for promotional goods, and a portion of dissatisfaction occurs. According to Syntun's data analysis, the consumer goods category on November 11th is also mixed^[29]. Considering this literature, the questionnaire design of this study takes into account consumers' perceptions of important factors, such as price and quality. It investigates whether there is a category difference in their Double 11 consumption.

Additionally, the author created a Reading Log to record and evaluate the information. A CRAAP test was applied to the literature to test the credibility of the five aspects used to verify the resources: Currency, Relevance, Authority, Accuracy, and Purpose. The cited literature and related marketing data in the study were gathered from authoritative websites, including Google Scholar, CNKI, the Chinese National Bureau of Statistics, and JSTOR, among others. They were published mainly within the last five years; thus, the reliability of the literature is high.

3.2 Primary Research

3.2.1 Questionnaire

The questionnaire was first conditionally screened. To ensure the questionnaire was inferential, the respondents had to be Taobao users who had participated in Double 11 within the past five years.

In order to assist in analyzing the impact of the conflict of interest between platforms and merchants on consumers in the Double 11 scenario, the questionnaire used single-choice questions, multiple-choice questions, and sorting questions to understand the consumers' buying behavior, purchasing intentions, purchase frequency, and the difference expenditures on different categories in Double 11. The questionnaire also included scale questions designed to test consumers' perception of the price and quality of Double 11, which helped to analyze the impact of the platform and merchants' benefits on specific consumers.

Considering the potential differences in age and gender among consumers, the questionnaire categorized these two items as variables to understand the respondents with-

in the sample and to assess the representativeness of the questionnaire data.

Table 1: Sample distribution

Distribution of Questionnaire Samples			
Name	Choice	Frequency	Percentage(%)
Gender	Other	2	1.11
	Female	119	66.11
	Male	59	32.78
Age	Under 18 years old	51	28.33
	18~30 years old	35	19.44
	31~45 years old	50	27.78
	46~65 years old	43	23.89
	Above 65 years old	1	0.56
Total		100	100

The research questionnaire was produced through the Questionnaire Star website to collect quantitative data. It was distributed through WeChat groups using a QR code and shared among participants with others. Then respondents were asked to share it with others. After applying the theoretical research of Game Theory to the final collection of 250 respondents, 70 indicated that they had not participated in Taobao Double 11 promotions over the past five years. Therefore, the 180 valid questionnaires remaining after data cleaning served as the source of data analysis for this study.

3.2.2 Interview

In order to understand the game relationship between merchants and platforms during the Double 11 event, a Taobao merchant was interviewed. Interviewee A is a merchant who has participated in two Double 11 promotions on Taobao and sold advertising consumables on the platform for three years. His responses are therefore credible and reliable as an example of a Taobao Merchant. The Interview aims were to gather information about the “real-world” relationship between platforms and merchants, which cannot be accessed from the questionnaire or literature. It was also intended to gather information about Taobao Double 11 participation rules, how both parties bear the effects of price discounts, and to gather the general perspective of Merchants about trading on Taobao.

The interview questions focused on cost-benefit analysis, profit-sharing plans, promotional strategies, the impact on consumer behavior, and the important facets of the interaction between platforms and merchants during the Double 11 event. It also investigated advertising expenditures, platform improvement ideas, and operational difficulties as they were discussed with a Taobao merchant. Although the merchant interviewed is a small-scale seller whose personal perspective is relatively limited, to avoid bias, the interview information was compared with secondary research findings.

3.3.3 Ethical Consideration

Ethical considerations were taken into account in the study. The questionnaire and interviews ensured that the respondents' privacy was maintained and no personally identifiable information was collected. Also, completing the questionnaire was entirely optional, and responses were kept confidential and anonymous.

Informed consent explaining the purpose of the study, voluntary participation, and confidentiality of responses was also obtained. The researcher complied with relevant guidelines and regulations to ensure the ethical conduct of the research.

Results & Discussion

4.1 The “game” between the platform and mer-

chants

In online shopping, platforms, merchants, and consumers are interrelated. As shown in Figure 1, the platform as a

medium has a bilateral nature, connecting consumers and merchants.

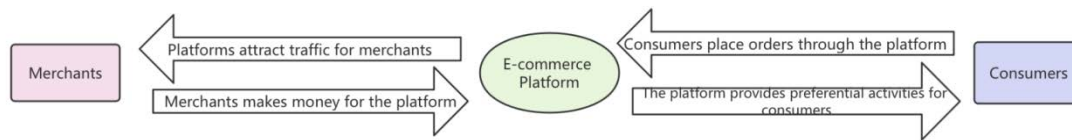


Figure 1. The relationship between E-commerce platform, merchants and consumers.

The process of shopping on the Taobao platform can be roughly divided into several parts, as shown in Figure 2. To establish a consumer base, merchants will typically choose to pay a portion of the commission as the cost of

joining the platform. Then, to attract more consumers, they will also consider purchasing advertising space. It can be seen that cooperation between the platform and merchants at this stage benefits both parties.

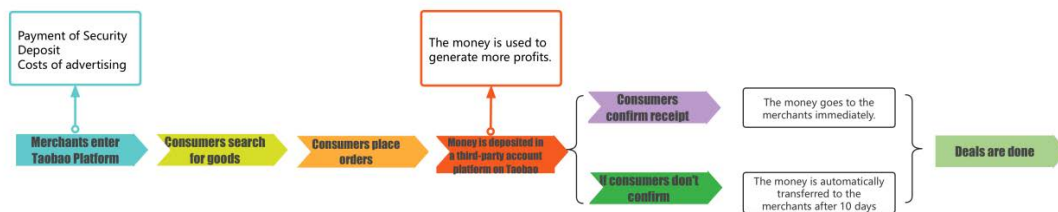


Figure 2. The process of completing a trade on Taobao platform.

4.1.1 Conflicts of interest distribution between platform and merchants

The interests of the Taobao platform and its merchants are first reflected in the commission and margin. According to a report by Zhang^[30], as an online trading platform with a dominant position, Taobao once established rules

to restrict or directly exclude operators from carrying out promotional activities independently on the platform, which hindered regular market competition and seriously damaged the legitimate rights and interests of merchants and consumers.

Figure 3 shows the expenses for a merchant to operate on the Tmall platform (a high-end store sales platform of Taobao).

Tmall settled flagship store fee standard				
Expense categories	Type of trademark	Expense Standard	Fee collection method	Method of repayment
Earnest money	R	50 thousand yuan	A one-time fee is required after settling in	Do not violate the business norms of Tmall, the deposit will be returned at the end of the year
	TM	100 thousand yuan		
Annual fee for software services	Merchant specific goods	30 thousand yuan	Payment of one year's fee upon move-in, and annually thereafter	Half of the technical service fee can be refunded after reaching 30 per cent of the required turnover standard;
		60 thousand yuan		100 per cent can be refunded when the full turnover is
Software service fee	Merchant sales and categories	0.3%-5%	Real-time deduction	none

Figure 3. Tmall settled flagship store fee standard

For Taobao merchants, an essential cost of opening a shop is the commission. The commission is the revenue earned by e-commerce platforms from the merchants. It is broadly divided into an “onboarding payment” and a percentage that Taobao sellers pay to the platform for every item that they sell on the platform. According to Wangyi^[31], the entry fee ranges from RMB 488 to RMB 10,000 per year, depending on the type of merchant’s shop. The specific

sales commission rate varies according to different product categories and sales volumes, typically ranging from 1% to 20%^[32]. Different merchants have different commission scales, depending on factors such as shop size and sales volume^[33]. The increase in commissions is even more pronounced during the Double 11 period^[34]. Additionally, according to the Taobao platform’s rules, payments made by consumers after placing an order,

which are paid immediately, are held by the platform for ten days instead of being directly transferred to merchants. Alibaba, the parent company of Taobao, includes financial services. During this period, the Taobao platform paid merchants late, and this money could be used for financial services and then used to make money. This enables the platform to generate cash flow and potentially earn interest income and service fees from the “held” funds belonging to merchants^[35].

Additionally, advertising fees charged by online platforms have generally increased. The advertising revenue of Alibaba Group (the parent company of Taobao) continued to grow in 2023, especially in the third quarter. Alibaba’s advertising revenue reached approximately 300.7 billion yuan, ranking first in China’s advertising market^[36]. As a result, platforms have a negotiating advantage in terms of cooperation and intervention in the pricing of goods, which means that merchants’ costs go up and their profit margins are threatened.

4.1.2 The platform controls the visibility of merchants

From 4.1.1, the platform charges merchants in many ways, but merchants also rely on the platform for its potential to attract customers.

Figure 4 depicts the percentage of total yearly online shopping spending by consumers who placed orders on the Taobao platform on 11 November. Out of the 180 valid questionnaires, 32 respondents indicated that they would allocate more than half of their total yearly online shopping budget to this event, and 64 respondents would spend between 20% and 40% of their total online shopping budget. The attraction of Double 11 for consumers is thus shown. Moreover, Figure 5 shows that approximately 73% of consumers stated they would sometimes, often, or always delay their usual shopping and wait to place a larger order during Double 11, indicating the significant influence of the event.

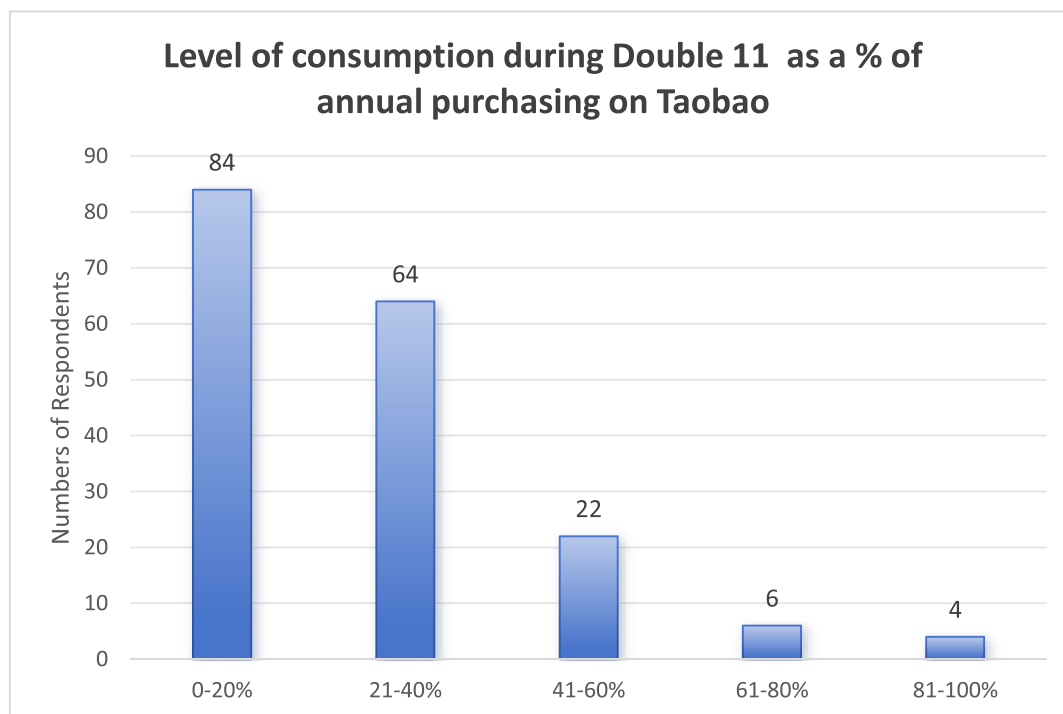


Figure 4. The amount of money spent on Taobao on Double 11 as a proportion of the year’s spending on Taobao (based on data from the past five years)

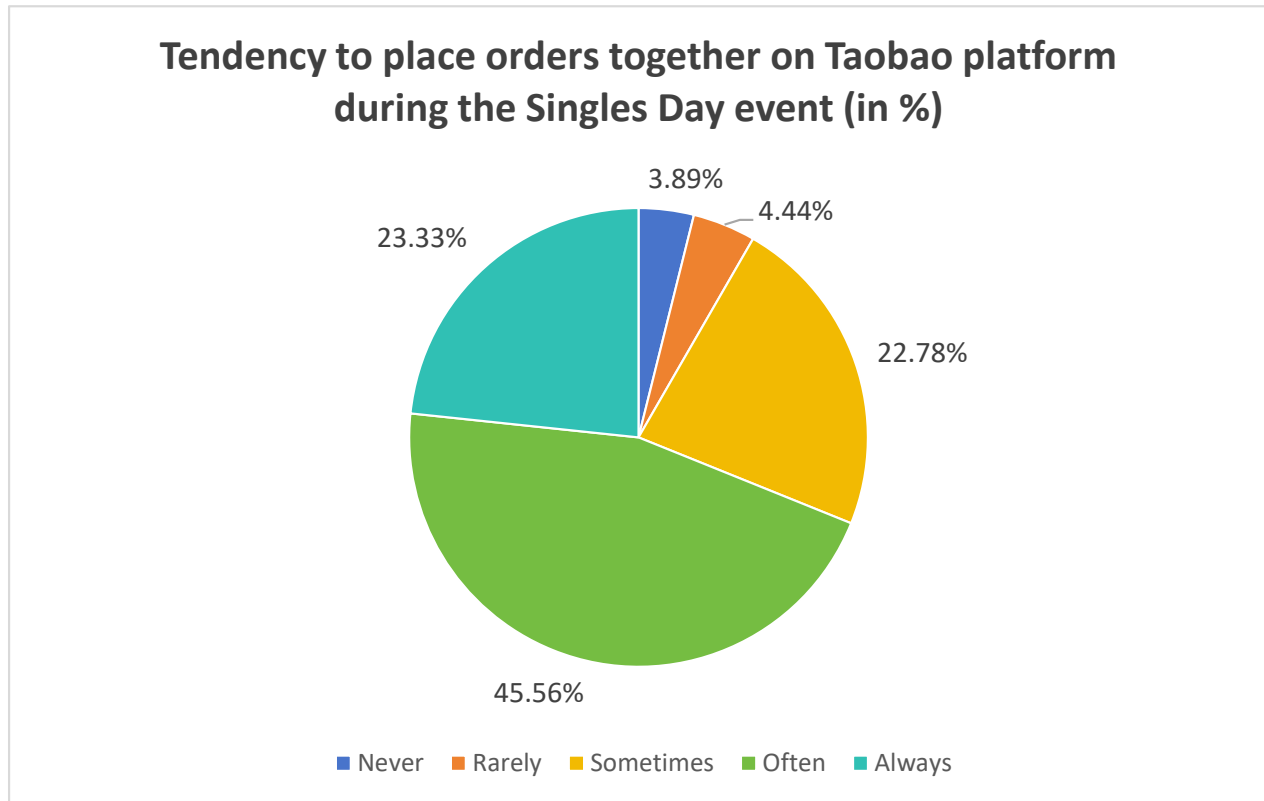


Figure 5. Tendency to place orders together on Taobao platform during the Singles Day event (in %)

From the above analysis, it can be seen that the promotional activities on the day of Double 11 have a significant positive impact on the profits of merchants and platforms, and there is an obvious “interest game” between the two sides in this process. However, this effect is not equally

distributed across all categories. Even when the overall benefit increases, the degree of impact on each category varies.

4.1.3 Parts of the category are most affected by Taobao platform activities on Double 11

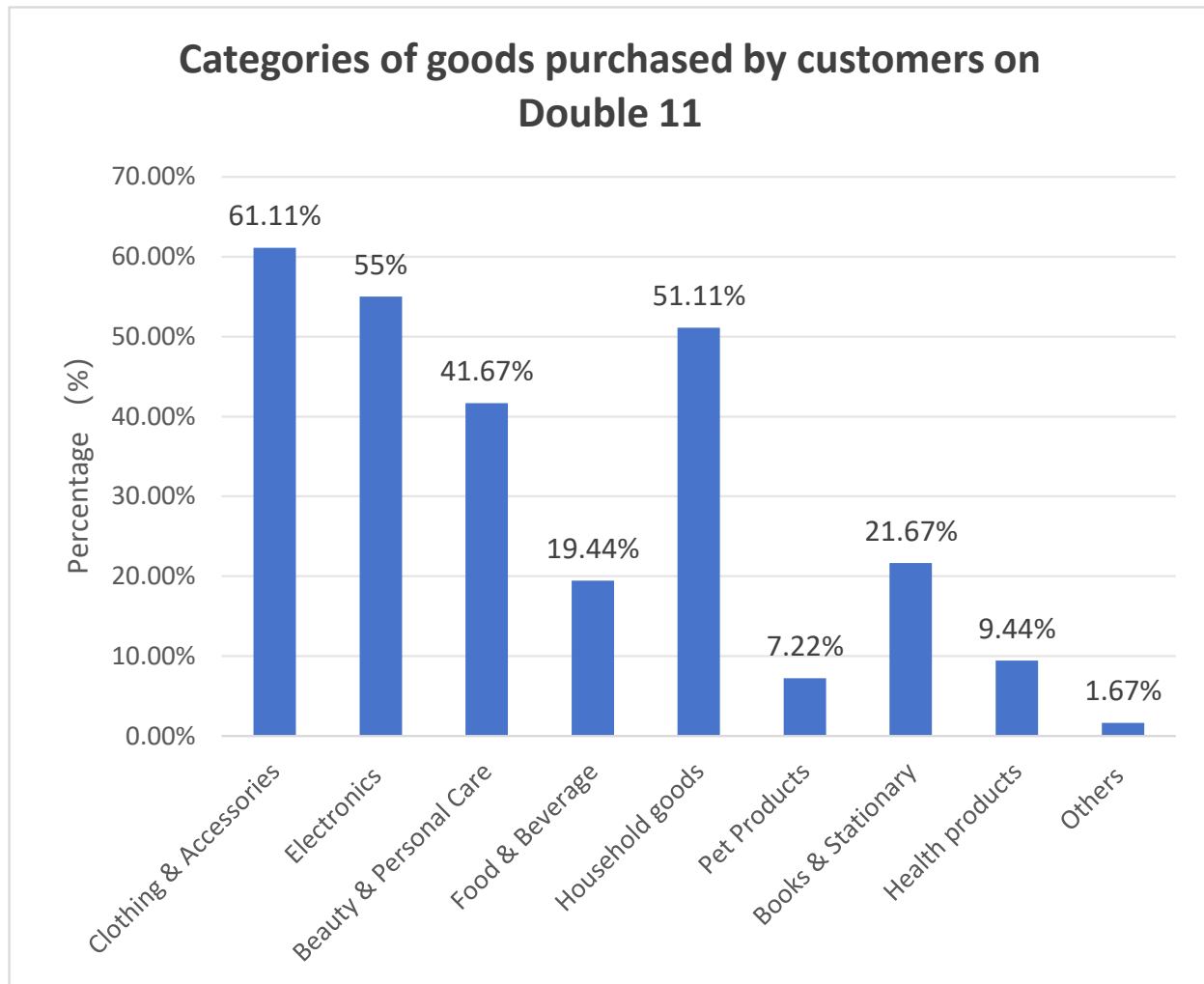


Figure 6. Categories of goods purchased by customers on Double 11

Figure 6 shows the consumer product categories that consumers purchased the most on Double 11. The top category is clothing and accessories (61.11%), followed by electronics (55%) and household goods (51.11%). From this, it can also be inferred that in these three areas, the price war between merchants will intensify, and the pressure to conduct business will increase. According to Interviewer A's answer, especially small and medium-sized enterprises lack strong bargaining power because they do not possess high economies of scale like large enterprises, and they also do not have a competitive advantage during Double 11.

Overall, the interests between the Taobao platform and merchants primarily include the platform's profitability and merchants' sales opportunities. The Taobao algorithm determines the exposure of merchants and therefore con-

trols traffic distribution, advertising bidding, and other mechanisms. The platform has the dominant position in this process. During such promotions as Double 11, this power is more evident. Furthermore, merchants will have different performance and revenue levels on the platform due to their different resources and strategies, especially for merchants selling clothes, electronics, and household supplies, as shown in Figure 6. Meanwhile, data reported by Syntun^{[29][21]} also supports this.

4.2 Demonstration of the formula for the relationship between the two sides of the game

To better illustrate the relationship between online shopping platforms and merchants during the game process, a simplified version of the mathematical formula is used to explain the final division of benefits and bargaining power

in the platform–merchant relationship.

According to Chen and Xu^[37], some big merchants often have the upper hand in bargaining and can negotiate lower

commission rates with a platform. Therefore, this point is also taken into account in this model and represented by k .

Definitions

Where:

- α is the share of profits for the platform.
- π is the total profit to be distributed.
- C_p and C_m are the costs incurred by the platform and merchant, respectively.
- π_p^* is the platform's reservation profit (profit without cooperation).
- π_m^* is the merchant's reservation profit (profit without cooperation).
- β is the bargaining power of the platform which ranges from 0 to 1.

Platform's Utility

$$U_p = \alpha(\pi - C_p)$$

Merchant's Utility

$$U_m = (1 - \alpha)(\pi - C_m)$$

Modified Nash Bargaining Objective

$$V = \left[(\alpha(\pi - C_p) - \pi_p^*)^\beta \times ((1 - \alpha)(\pi - C_m) - \pi_m^*)^{1-\beta} \right]$$

Derivative of V with Respect to α

$$\begin{aligned} \frac{\partial V}{\partial \alpha} &= \beta (\alpha(\pi - C_p) - \pi_p^*)^{\beta-1} (\pi - C_p) ((1 - \alpha)(\pi - C_m) - \pi_m^*)^{1-\beta} \\ &\quad - (1 - \beta) (\alpha(\pi - C_p) - \pi_p^*)^\beta ((1 - \alpha)(\pi - C_m) - \pi_m^*)^{-\beta} (\pi - C_m) = 0 \end{aligned}$$

Solving for α

$$\beta(\pi - C_p)((1 - \alpha)(\pi - C_m) - \pi_m^*)^{\beta-1} = (1 - \beta)(\alpha(\pi - C_p) - \pi_p^*)((1 - \alpha)(\pi - C_m) - \pi_m^*)^{\beta-1}$$

$$((1 - \alpha)(\pi - C_m) - \pi_m^*)^{\beta-1} = \frac{\beta(\pi - C_p)}{(1 - \beta)(\alpha(\pi - C_p) - \pi_p^*)}$$

Final Expression for α

$$\alpha = \frac{(1 - \beta)(\pi - C_m - \pi_m^*) + \beta(\pi - C_p - \pi_p^*)}{\pi - C_p + \pi_m^* - \pi_p^*}$$

The process of deduction reveals a positive correlation between the bargaining power of economic entities and their gains, specifically that the greater the bargaining power, the higher the share of profits will be.

When discussing the “interest game” between sellers and platforms, the influence of different interest distributions on price reductions is one of the key results of the game between the two sides. However, it is worth noting that price reductions not only affect the profit distribution of sellers and platforms but also directly affect the buying experience of consumers. Therefore, when analyzing the

market dynamics, it is necessary to consider how consumers are affected by price adjustments. The price paid by customers and what they receive in return are also important aspects of market price changes. Again, the bargaining power of the platform is more evident in the scenario of Double 11, as they can set the promotion rules that control the amount of traffic and, therefore, the revenue that the merchant store receives^[38].

4.3 Impacts on consumers

4.3.1 Aspects that consumers focus on when spending on the platform

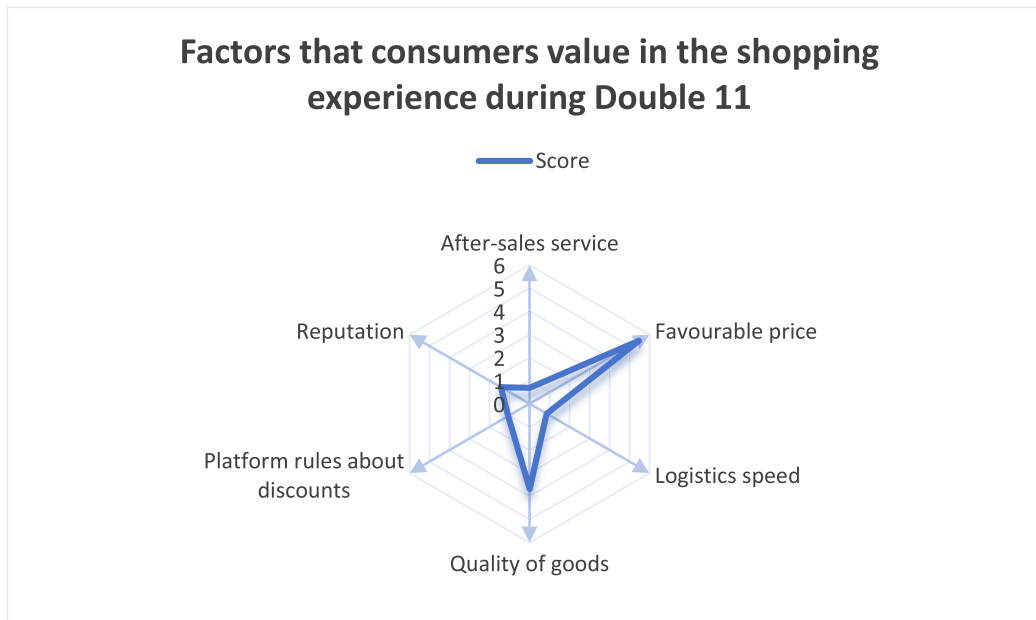


Figure 7. Factors that consumers value in the shopping experience during Double 11

From Figure 7, it can be seen that consumers attach the most importance to whether the price is favorable or not

when shopping online, with a combined score of 5.46, as indicated by the questionnaire data. The second-ranked factor is the quality of goods. Consumers do not attach as

much importance to after-sales service, speed of delivery, platform activity rules, and merchant reputation.

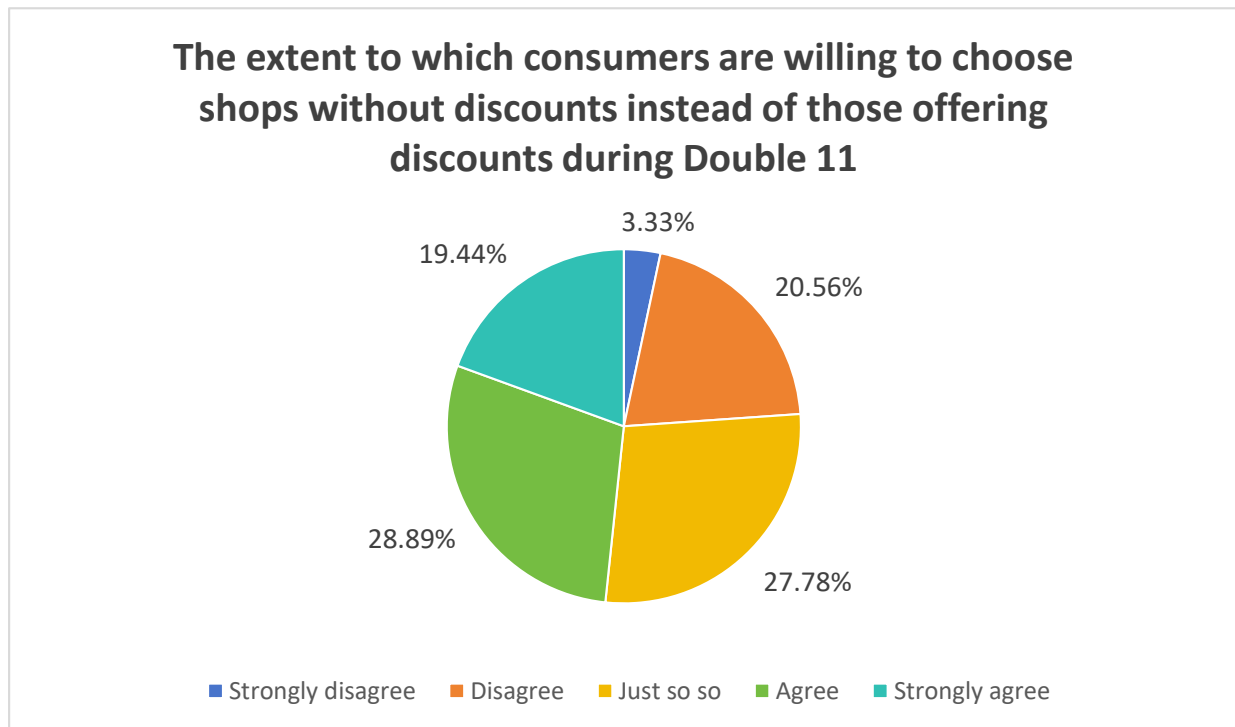


Figure 8. The extent to which consumers are willing to choose shops without discounts instead of those offering discounts during Double 11.

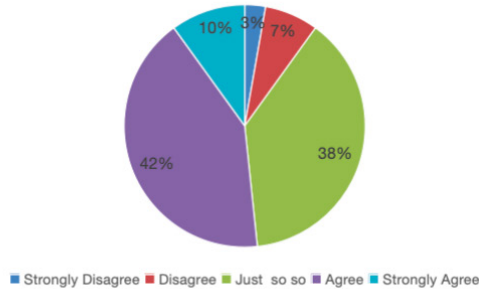
As price is one of the important factors that attracts consumers to spend money on the Double 11, Figure 8 shows how sensitive they are to the price of goods. Approximately 24% of consumers stated that they would purchase the same product elsewhere if they could find it at a lower price.

The “game” of distributing benefits between merchants and platforms may affect the price. Since consumers are highly price-sensitive, consumer behavior will also have an impact on the game between merchants and platforms to a certain extent.

The law of demand states that when the price of a typical good rises, demand typically declines, and vice versa^[39]. Price increases resulting from the interest game between platforms and merchants erode consumers’ purchasing power and reduce demand, which could ultimately harm the sales of both parties. Conversely, if prices decline, merchants’ and platforms’ profit margins are reduced, potentially impacting sustainability and service quality over time, even though demand may rise^{[40][65]}.

4.3.2 Consumers suffer as platforms and merchants compete for profits

The extent to which consumers believe that products bought from the Double 11 event were cheaper than usual.



The extent to which consumers believe that double 11 discounts are increasing year by year.

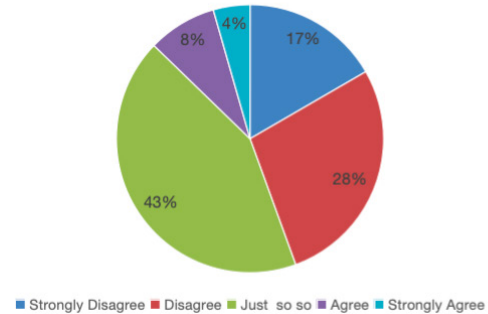


Figure 9. The extent to which consumers believe that products bought from the Double 11 event were cheaper than usual and the extent to which consumers believe that Double 11 discounts are increasing year by year.

The extent to which consumers agree that the quality of goods purchased during Double 11 is worse

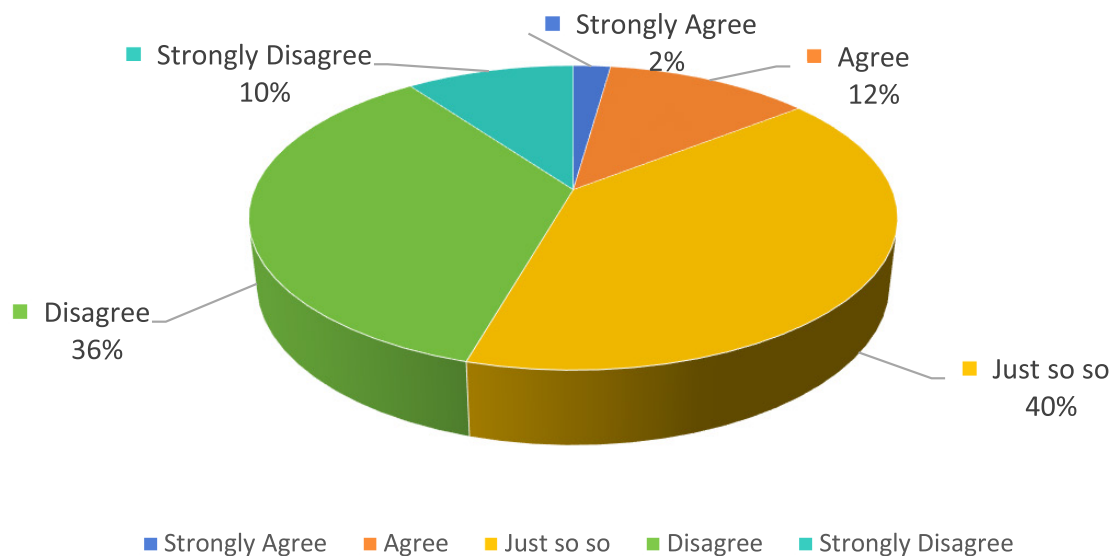


Figure 10. The extent to which consumers agree that the quality of goods purchased during Double 11 is worse

Combining the two charts in Figure 9 shows that 52% of consumers felt that prices dropped during the Double 11 promotion period compared to other periods, but 45% felt that the price reductions were not sustained as the annual Double 11 campaign progressed.

However, not everything in the Double 11 event is sold at a lower price than the normal selling price. Some merchants use false price tags to attract customers and encourage them to spend money, which is a common practice^[41].

In 2015, during the “Double 11” holiday, monitoring data revealed that 52.99% of promoted product prices increased before the event and then decreased during the event, while 75.52% of popular products followed a similar trend. Some commodity items saw price increases of more than 200%, indicating serious price fraud^[42]. This can be interpreted as merchants having lower margins and higher costs, and to achieve a higher profit margin, they increase their revenue by raising prices, thereby suggest-

ing a “false discount” during the event.

Although consumers benefited from lower prices, the quality of goods purchased on Double 11 was also affected, as shown in Figure 10. Here, 2.22% of consumers were strongly dissatisfied and 12.22% were dissatisfied with the overall quality of goods.

Mankiw^{[40]72} states that when a retailer decides to raise prices due to rising costs, this can result in a decline in demand, as customers become less inclined to make a purchase. The merchant may experience a decline in revenue as demand decreases, potentially resulting in a drop in sales volume and market share. Higher pricing may also incite rivals to engage in price wars or introduce replacement goods, which would put merchants under even more pressure from competitors.

Due to these potential adverse effects, some merchants opt not to raise prices. To maintain their profits as profit margins shrink, merchants may reduce production costs by lowering the quality of their goods. However, according to the results, the response of Taobao Double 11 merchants to cope with the reduced profit space is more about adjusting prices rather than reducing quality.

Evaluation

In evaluating the primary research, the number of questionnaires collected formed the first component. A total of 250 questionnaires were collected. To ensure the accuracy of the results, the questionnaire was screened for Taobao platform consumers, and 180 valid questionnaires were ultimately obtained. The coverage of the questionnaire was not as extensive as it could have been due to some uncontrollable factors, including the limitations of the data sources, the diversity of the study population, and time and geographical constraints. However, valuable inferences can still be drawn. During the analysis, the author carefully utilized the available data and combined it with secondary literature to enhance the reliability and validity of the results.

For the literature review part, although literature from 2020 to 2024 is widely used in this thesis, the arguments and issues raised in some articles may also be less relevant due to the rapidly changing development of online shopping platforms. In addition, as the Taobao platform no longer officially releases sales data for the Double 11 event

since 2019, the revenue and traffic trends are unavailable, which increases the difficulty of fully understanding the picture. For this reason, although some of the data relies on unofficial websites and numerous media reports, the author’s extensive search of multiple resources, as well as their comparison, evaluation, and verification, also adds to the credibility of the data selected for this dissertation.

Furthermore, the utilization of Game Theory in this study is simplified. It is used solely to demonstrate the positive correlation between bargaining power and the final distribution of benefits. However, there are other complex models related to Game Theory in this field, such as information asymmetry, strategy interaction, and repetitive games, which have more in-depth explanatory potential for analyzing the game relationship between platforms and merchants.

Conclusion

This study examines the impact of Taobao’s approach to cooperation with retail merchants during the Double11 shopping spree and its effect on consumers. The article reveals the game of interest between merchants and the platform, as well as its impact on the consumer buying experience during large-scale promotional events.

It reveals a clear game between the Taobao platform and merchants in the distribution of benefits. The platform regulates merchants’ operating costs and market exposure by setting up commission ratios, advertising fees, controlling visibility to consumers, and other measures. This affects retailers’ profit margins and, to some extent, customers’ shopping experience. Although the Double 11 campaign can attract a large number of consumers and boost revenues for both platforms and merchants, merchants face a competitive disadvantage due to the strong position of platforms in distributing benefits.

Moreover, the distribution of benefits between platforms and merchants during the Double 11 promotion is not entirely fair. By controlling the distribution of traffic and advertising resources, platforms tend to support large merchants, while small merchants face greater competitive pressure.

Low-priced, high-quality goods are the focus of Double 11. However, this is not always the reality, and some

products can be more expensive either just before or even during the promotion period. In addition, due to price wars with other sellers under fierce competition and conflicting interests with the platform, merchants may compromise the quality of their goods to achieve a certain profit margin. Despite the discounts available to consumers during the event, the results of the questionnaire indicate that the issues of declining product quality and inflated prices are contributing to consumer dissatisfaction. Therefore, the overall impact on consumers is likely to be inflated prices, followed by poorer quality goods.

Overall, although the cooperation model between Taobao and its merchants increases sales growth and market share in the short term, it may have a negative impact on merchant revenue and customer satisfaction in the long term. It is recommended that the Taobao platform implement a fairer profit distribution system in future promotions, strengthen support for small merchants, and enhance the quality assurance of goods to achieve a multi-win situation for the platform, merchants, and consumers.

The research conducted in this study will provide valuable insights for optimizing Taobao's Double 11 and similar large-scale promotional events, and establish a theoretical basis for e-commerce platforms to formulate successful strategies that benefit all parties.

The research conducted in this study will provide useful insights for the optimization of Taobao's Double 11 and similar large-scale promotional events and provide a theoretical basis for e-commerce platforms to formulate successful strategies that benefit all parties.

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