

# The Double-Eleven Shopping Festival and Online Sales: Evidence from China's E-Commerce Platforms

**Chenyu sun**

Georgetown Academy, Richmond,  
Canada  
chenyusun88@gmail.com

## Abstract:

Big promotional events are a driving force in online retail because they have influenced consumer behavior and altered the definition of platform competition. China's "Double Eleven" shopping festival is one of the world's largest e-commerce campaigns. It provides a unique environment for studying how concentrated promotional events affect online marketplaces. Using Double Eleven as a case study, this study investigates the impact of the company on online sales performance, paying close attention to platform competition, transaction scale, and customer purchasing patterns. The study's combination of case study and data analysis methods yields three important conclusions. First off, Double Eleven significantly boosts sales volume, and both consumer engagement and Gross Merchandise Volume (GMV) rise sharply. Second, by concentrating demand into specific categories and establishing cyclical buying patterns, it is redefining consumption patterns. Thirdly, it is linked to certain problems like merchant dependence, consumer fatigue, and waning brand loyalty, even though it supports the top-down position of dominant platforms. The research contributes to the comprehensive examination of the influence of extensive advertising campaigns in creating an online marketplace and offers significant insights for platforms, businesses, and policymakers seeking to strike a balance between immediate and long-term financial gain.

**Keywords:** Online promotion; Double Eleven; E-commerce platform; Consumer behavior.

## 1. Introduction

The rapid expansion of global e-commerce has altered consumer markets and business strategies.

Instead of merely serving as intermediaries, digital platforms are now ecosystems where innovation, competition, and consumption all occur simultaneously. In this regard, one of the best strategies

for boosting sales right away and influencing long-term customer behavior is to hold promotional events. Online retail in China has introduced a system of “festivalized” promotions that alter not only the timing of purchases but also the cultural rhythm of consumption itself, in contrast to traditional offline discount campaigns.

Among these promotional campaigns, the Double Eleven Shopping Festival has become the world’s largest online shopping event. Originally conceived by Alibaba in 2009 as a playful marketing tactic tied to a niche holiday for single people, Double Eleven quickly outgrew its symbolic roots. In its inaugural year, sales totaled approximately 52 million RMB. By 2017, Alibaba reported sales of 168.2 billion RMB within just 24 hours. The upward trajectory continued: 268.4 billion RMB in 2019, 498.2 billion RMB in 2020, and over 540.3 billion RMB in 2021. What started out as a company-specific initiative quickly evolved into a national commercial spectacle as rival platforms like JD.com, Pinduoduo, and even cross-border retailers created their own versions of mega-sales focused on or around November 11. And by 2024, although platforms such as Alibaba and JD.com have not disclosed their final turnover for many years, according to third-party estimates, the total turnover of major e-commerce platforms during the “Double Eleven” period in 2024 will reach about 1.44 trillion RMB, a year-on-year increase of about 26.6%.

Double Eleven is significant not only because of its record-breaking sales but also because of the way it has altered the structure of the digital economy. Consumers alter their purchasing habits by delaying purchases in order to take advantage of deals, which rewrites the demand curves for different product categories. Sometimes at the expense of long-term structural consistency, merchants realign their supply chains and marketing budgets to make sure they are most noticeable during the festival. Platforms see Double Eleven as a battlefield for technological advancement, showcasing advancements in recommendation engines, artificial intelligence, and logistics management.

The aims of this research are threefold. First, it analyzes the amplification effect of Double Eleven on total online sales and Gross Merchandise Volume (GMV). Second, it explores how the festival influences consumption patterns, particularly in terms of category concentration and cyclical purchasing behaviors. Third, it evaluates the broader consequences for competition among e-commerce platforms and merchants. The findings are relevant for both academics and practitioners: for scholars, the festival offers a natural experiment in market concentration and consumer psychology; for managers and policymakers, it provides insights into balancing the short-term profitability of promotions with long-term sustainability.

## 2. Theoretical Foundation: Promotional Events and Online Platform SalesSection Headings

### 2.1 Promotional Events in Marketing Research

The academic study of promotional events dates back to the late twentieth century. Blattberg and Neslin S.A argued that sales promotions affect three core dimensions of consumer behavior: brand choice, purchase timing, and stockpiling [1]. Subsequent studies confirmed that price reductions and limited-time offers can shift consumption forward in time, leading to “borrowing” effects from future periods [2]. In offline retail, this often produced only temporary boosts in demand. However, the digital transformation of retail has amplified the scale and complexity of promotional campaigns.

Digital promotions differ from their offline predecessors in two crucial respects. First, online platforms possess real-time data and algorithmic capabilities that allow them to tailor promotions to individual users [3]. show that algorithmic pricing not only increases conversion rates but also reshapes consumer expectations regarding fairness and personalization. Second, the digital infrastructure allows promotions to reach hundreds of millions of consumers simultaneously, magnifying their macroeconomic significance.

### 2.2 Platform Economics and Multi-Sided Markets

E-commerce sites are multi-sided markets, serving as a medium of interaction between consumers, merchants, advertisers, and logistics providers [4]. highlight how platforms manage network effects: the value for one group of users depends on the size and activity of other groups. The promotional activities such as Double Eleven reinforce these dynamics by creating huge, coordinated participation on both sides of the platform. To traders, the Double Eleven during the year can dictate yearly income patterns; to consumers, it becomes an aspect of culture; to websites, it gathers market supremacy.

### 2.3 Consumer Psychology and Behavioral Economics

Promotional activities take advantage of psychological processes that behavioral economics has extensively studied [5]. makes a distinction between “System one” (quick, intuitive) and “System 2” (slow, deliberate) thinking, pointing out that System 1 reactions are triggered by flash sales, countdown timers, and scarcity cues [6]. found that scarcity and urgency significantly increase perceived value, even when objective discounts are minimal. Further-

more, show that extensive online marketing increases herd behavior, which results in group changes in buying habits [7].

### 3. Methodology

The qualitative component complements numerical analysis by exploring the contextual and strategic dimensions of the festival. This involves content analysis of platform announcements, press releases, media coverage, and academic commentary. By examining official communications, marketing strategies, and consumer narratives, the qualitative approach captures the underlying mechanisms of promotional impact, including psychological triggers, perceived urgency, and brand positioning. The combination of qualitative and quantitative data ensures that both measurable effects and explanatory factors are considered, increasing the validity and interpretive depth of the findings.

This research paper should be considered a mixed-method research design, combining both the quantitative and qualitative data analysis methods with the case study to thoroughly explore the role of Double Eleven in terms of sales on online platforms. The rationale behind selecting a mixed-methods design is the fact that the e-commerce phenomena are both associated with the quantifiable transactional effects and subtle behavioral, strategic, and contextual aspects [8]. Through contextual interpretation and numerical data, the study will attempt to obtain a more holistic view of the impact of large-scale promotional activities on sales, consumption and platform dynamics.

The quantifiable component relies principally on ancillary data collected from multiple authoritative sources. Key metrics include Alibaba's annual GMV (Gross Merchandise Volume) reports, JD.com and Pinduoduo sales announcements, and industry datasets from consulting and market research firms. These data provide a robust foundation for analyzing trends in total sales, order volume, category distribution, and consumer engagement patterns over multiple years. The quantitative analysis also incorporates official government statistics on digital commerce and online retail, allowing for triangulation of platform-level metrics with broader market indicators. Statistical methods such as time-series analysis, growth rate computation, and cross-sectional comparison are employed to identify trends, peak periods, and anomalies related to Double Eleven activities.

The analytical framework of this study is organized along three primary dimensions:

- 1). Sales Amplification – This dimension examines the extent to which Double Eleven boosts transactional activity. Metrics include GMV growth, the number of orders processed, and transaction frequency. Analysis compares baseline performance in non-promotion periods with the

spikes observed during and immediately after Double Eleven, providing insight into the short-term amplification effect of concentrated promotions.

- 2). Consumption Patterns – Here, the focus is on consumer behavior and purchase characteristics. Metrics such as average order value, category-specific sales, and temporal purchase cycles are analyzed to identify changes in demand distribution. This includes the study of high-value vs. low-value product categories, traditional vs. emerging categories (e.g., electronics, FMCG, luxury, fresh food), and shifts in consumer purchasing timing. Patterns such as pre-purchase deposit behaviors and “cart-stocking” tendencies are examined to understand how promotions shape the rhythm and concentration of consumer activity [9].

- 3). Market Competition – The third dimension evaluates how Double Eleven affects competition among e-commerce platforms and merchants. This involves analyzing platform-level strategies, such as discount policies, recommendation algorithms, and marketing expenditures. Market concentration metrics, merchant reliance on mega-sales, and brand equity dynamics are also considered. Qualitative evidence from merchant interviews and media reports supplements numerical metrics, highlighting strategic responses to promotional pressures and competitive positioning.

By integrating these three dimensions, the methodology provides a comprehensive framework for understanding both the immediate sales impact and the broader implications for consumer behavior and platform strategy. Furthermore, the mixed-methods design allows the study to identify causal relationships, feedback loops, and emergent patterns that might not be observable through a single-method approach. The combination of statistical rigor with narrative analysis ensures that conclusions are both empirically grounded and contextually rich, offering actionable insights for academics, platform managers, and policymakers alike.

## 4. The Impact of Double Eleven on Online Sales

### 4.1 Amplification of Sales Volume

The most visible effect of Double Eleven is the dramatic amplification of sales volume. Alibaba's GMV alone rose from 52 million RMB in 2009 to 540.3 billion RMB in 2021, representing compound annual growth of over 100% in the festival's early years. To put this surge into perspective, Alibaba's average daily GMV in non-promotional months typically amounts to only several tens of billions of RMB, meaning that sales concentrated in just 24 hours of Double Eleven can equal or even exceed the

platform's performance over an entire week of regular trading. This stark contrast illustrates the extraordinary ability of the event to concentrate consumer demand and merchant activity within a highly compressed timeframe. JD.com reported sales exceeding 349 billion RMB during its 2021 Double Eleven campaign, further underscoring the event's industry-wide significance. These figures demonstrate not only the sheer scale of the festival but also its resilience, as growth continued even during the COVID-19 pandemic.

## 4.2 Reshaping of Consumption Patterns

Double Eleven also reshapes consumer behavior [7], showing that over 70% of Chinese consumers delay major purchases until the festival, particularly in categories such as electronics, home appliances, and fashion. The concentration of demand creates cyclical purchasing patterns, where sales in non-promotional months decline as consumers await November discounts. This has implications for inventory management, as merchants must forecast demand spikes months in advance.

Moreover, product category distribution has shifted over time. While early festivals were dominated by consumer electronics, recent years have seen growth in fast-moving consumer goods, cosmetics, and health products. This diversification reflects both changing consumer preferences and platform strategies to broaden the scope of participation.

## 4.3 Platform Competition and Market Concentration

Double Eleven intensifies competition among platforms. Alibaba continues to dominate, but JD.com has differentiated itself through logistics speed, while Pinduoduo appeals to price-sensitive consumers through group-buying models. Smaller platforms face difficulties in attracting attention during the festival, leading to market consolidation.

At the same time, merchant dependency increases. Many small and medium-sized enterprises (SMEs) rely on Double Eleven for a significant share of annual revenue, but this dependence can be risky. High advertising costs, steep discounts, and logistical pressures reduce profit margins, raising concerns about long-term sustainability.

# 5. Extended Effects and Potential Challenges

## 5.1 Consumer Fatigue and Brand Loyalty

While Double Eleven continues to break sales records annually, there is increasing evidence of consumer fatigue. Surveys from e-commerce market research firms indicate

that a significant proportion of consumers feel overwhelmed by the sheer volume of deals, tiered discounts, and complex participation rules that require extensive pre-event planning [10]. Consumers often need to track pre-sales deposits, flash sales, coupon stacking, and time-limited offers, creating cognitive load and decision fatigue. As a result, consumers' focus shifts from evaluating product quality, brand identity, and long-term value to merely securing the lowest price at the right moment.

This shift has critical implications for brand loyalty. Traditional brand equity, built on consumer trust and repeated positive experiences, can erode when purchases are dominated by discount-driven behavior [11]. Empirical studies in Chinese e-commerce suggest that repeated exposure to mega-promotions reduces brand differentiation in the eyes of price-sensitive consumers, encouraging opportunistic switching between brands based solely on temporary price advantages [12]. Additionally, frequent mega-promotions can anchor consumer price expectations downward, creating pressure on brands to continuously discount, which may undermine long-term profitability. Additionally, frequent mega-promotions can anchor consumer price expectations downward, creating pressure on brands to continuously discount, which may undermine long-term profitability. A further concern is that once consumers become accustomed to heavily discounted prices, they often resist returning to regular pricing. This behavioral "reference price effect" means that promotional events reset consumers' internal benchmarks for what constitutes a "fair" price, making it difficult for brands to sustain full-price sales outside of festival periods.

## 5.2 China-Chain and Logistics Pressure

The operational challenges posed by Double Eleven are extraordinary. Millions of parcels must be picked, packed, and delivered within a highly condensed timeframe, typically spanning only a few days. Leading logistics providers, such as Alibaba's Cainiao and JD Logistics, have invested heavily in automated warehouses, smart sorting systems, and predictive delivery algorithms to manage this surge. Despite these technological advances, bottlenecks still occur, particularly in regional hubs and rural delivery areas, highlighting limitations in current infrastructure scalability [4].

Inventory management is also under pressure from supply chains. Months in advance, merchants must accurately predict demand while weighing the risk of overstock against missed sales opportunities. This can result from poor inventory management, which can lead to excess stock, capital waste, or stock outs that annoy customers and damage a brand's reputation. It is also impossible to ignore the environmental aspects of packaging and shipping. Concerning sustainability, it is estimated that during Singles Day, the amount of packaging waste (cardboard,



plastic, and promotional packaging) increased noticeably more than usual. Moreover, the exceptionally high return rates associated with mega-promotions further aggravate this issue. Each returned item typically requires additional repackaging, reverse logistics, and disposal of damaged materials, amplifying the overall waste footprint. This cycle not only undermines sustainability efforts but also imposes hidden costs on merchants and logistics providers.

### 5.3 Cross-Border E-Commerce and Global Influence

Double Eleven's influence extends well beyond China. AliExpress, Lazada, and Tmall Global have expanded the festival to Southeast Asia, Europe, and North America, making it a global online shopping event. Increased brand exposure and the opportunity to reach a large number of customers abroad are two benefits of cross-border adoption.

However, there are other problems that the international market introduces. The apparent clearance of the customs, irregular delivery time, and fluctuations in the price of shipping should also be overcome by cross-border logistics and will worsen customer experience. The other barrier is compliance with regulations and the way international sales would be required to conform to local taxation, importation regulations and consumer protection regulations. In addition, there still exists a problem of trust as foreign consumers might not know the reputations of Chinese platforms resulting in greater returns and customer service requirements. All these make the operational planning more complicated, and the risk management approaches more complex.

### 5.4 Sustainability and Policy Considerations

Sustainability is emerging as a crucial dimension in the operation of mega-promotional events. The Chinese government has actively encouraged the promotion of "green consumption," urging e-commerce platforms to adopt environmentally friendly packaging, reduce energy consumption, and optimize transportation routes. Some platforms have piloted initiatives such as reusable packaging, carbon-offset logistics, and eco-friendly product labeling. Despite these initiatives, widespread implementation remains limited, primarily due to cost pressures and the inherent complexity of coordinating sustainability measures across millions of transactions and thousands of merchants [13]. Future policy developments may impose stricter regulations on packaging materials, transportation emissions, and energy use in fulfillment centers, fundamentally reshaping the design of promotional events. Platforms will need to balance the commercial imperative of driving sales with environmental responsibilities, integrating sustainability into marketing strategies, supply chain

design, and consumer engagement campaigns.

## 6. Conclusion

This study examined the Double Eleven shopping festival as a representative case of large-scale promotional events in digital retail. It demonstrated that Double Eleven significantly boosts sales performance, reshapes consumer behavior, and intensifies platform competition. However, it also generates challenges, including consumer fatigue, reduced brand loyalty, and merchant over-dependence.

The study has certain limitations. Data access is largely concentrated on leading platforms such as Alibaba and JD.com, which may overlook important dynamics on smaller or emerging platforms, including Pinduoduo or Douyin e-commerce. In addition, consumer behavior is discussed mainly from a transactional perspective, while the psychological mechanisms shaping decisions during large-scale promotions—such as impulse buying, perceived scarcity, and post-purchase satisfaction—remain insufficiently measured and quantified.

Future research could expand the scope by comparing domestic mega-promotions like Double Eleven with international events such as Black Friday, thereby highlighting cultural and strategic differences in consumer engagement. Further exploration of how artificial intelligence, recommendation algorithms, and big data shape promotional effectiveness would also be valuable. Finally, long-term sustainability should be assessed, not only in terms of profitability but also environmental challenges, including packaging waste, carbon emissions, and supply chain pressures.

## References

- [1] Blattberg, R. C., and S. A. Neslin. *Sales Promotion: Concepts, Methods, and Strategies*. Prentice Hall, 1990.
- [2] Gedenk, Karen, S. A. Neslin, and Kusum L. Ailawadi. "Sales Promotion." 2009.
- [3] Qiu, L., Y. Huang, P. V. Singh, and K. Srinivasan. "Personalization, Consumer Search and Algorithmic Pricing." 2025.
- [4] Hagiu, Andrei, and Julian Wright. "Multi-sided platforms." *International Journal of Industrial Organization*, vol. 43, 2015, pp. 162-174.
- [5] Kahneman, Daniel. *Thinking, Fast and Slow*. Farrar, Straus and Giroux, 2011.
- [6] Zamfir, Mirela D. "Scarcity Effect and Consumer Decision Biases: How Urgency Influences the Perceived Value of Products." 2024.
- [7] Wang, and Hambur. "Peer Effects and Herd Behavior: An Empirical Study Based on the 'Double 11' Shopping Festival." 2024.

- [8] Ballerini, Jacopo, Dennis Herhausen, and Alberto Ferraris. "How commitment and platform adoption drive the e-commerce performance of SMEs: A mixed-method inquiry into e-commerce affordances." 2023.
- [9] Pei, Y., M. Xie, Q. Yang, Y. Liao, and Y. Wu. "Effect of Consumer Strategic Behavior on Online Presale Strategy." 2021.
- [10] BCG. Smarter Retailer Promotions for a Saturated Market. 2023.
- [11] Lim, W. M., and F. Guzmán. "How does promotion mix affect brand equity? Insights from a mixed-methods study of low involvement products." 2022.
- [12] Liu, K. Price Competition Reduction Strategies in Chinese B2C E-Commerce Markets: A Case Study. MIT Thesis, 2022.
- [13] Alibaba Group. Alibaba Group Carbon Neutrality Action Report. Alibaba Sustainability, 2021.