

The Impact of Live E-commerce Marketing Strategies on Consumers' Purchase Intention —— An Empirical Study Based on JD.com

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Abstract

This study examines the influence of live streaming e-commerce marketing methods on consumers' purchase intentions, using the JD.com platform as a case for empirical analysis. Data were gathered via surveys and evaluated employing quantitative research methodologies to elucidate the impact of various marketing strategies on customer decision-making. The research findings indicate that live streaming hosting, time-sensitive discounts, and interactive live broadcasts significantly enhance consumers' buy intentions, with time-sensitive discounts having the most pronounced effect. The research findings assist JD.com and other e-commerce platforms in refining live-broadcast marketing strategies and enhancing consumer conversion rates.

Key words

E-commerce, Consumer Purchase Intention, Live Streaming Hosting Influencers, Limited Time Discount, Live Interactivity.

1. INTRODUCTION

1.1. Introduction

In recent years, the swift advancement of Internet technology and the proliferation of mobile devices have propelled live e-commerce in China, establishing it as a significant method for businesses to engage consumers. Live e-commerce has significantly enhanced the consumer purchasing experience via real-time engagement, time-sensitive promotions, and more methods. JD.com, a prominent e-commerce platform in China, actively engages in live e-commerce and enhances its development through a robust supply chain and logistics system. JD.com's financial report indicates that its live e-commerce revenues surged over 200% year-on-year, emerging as a significant catalyst for business growth. Nonetheless, despite JD.com's considerable accomplishments in live e-commerce, the influence of various live marketing methods on consumers' purchasing intents need additional investigation.

Electronic commerce Live streaming aims to engage consumers' purchasing behaviors via interactive involvement and limited-time promotions. The influence of live streaming presenters is a vital component in the principles of live streaming e-commerce, capable of impacting viewers' purchasing inclinations. Professionalism, rapport, and the credibility of the live streaming host augment consumers' purchasing inclinations.(Liu et al., 2021). A promotional strategy in live streaming e-commerce involves time-sensitive discounts that lower costs at specific intervals, instilling a sense of urgency in consumers and influencing their purchasing decisions (Zhang et al., 2020). In JD.com live broadcasts, interaction mostly consists of textual, expressive, or spoken communication between the streamer and the spectator. Enhancing interaction during live broadcasts can elevate customer engagement and hence augment buy intention (Wang et al., 2019). The efficacy of these marketing strategies in JD.com live broadcasts need further validation through empirical study.

1.2. Problem Statement

An innovative business concept, live-streaming e-commerce, has gradually evolved and grown in China in response to the fast development of the Internet and the improvement of customer needs. JD.com, as a giant in China's e-commerce, has also quickly established a live-streaming e-commerce department. Although JD.com's live-streaming e-commerce has brought great revenue impact to the development of enterprises, there is little research on the impact of its marketing strategies on consumers' purchase intentions. The impact of essential marketing tools, such as live streaming hosting, time-sensitive discounts, and engagement throughout the live-streaming process, has not been thoroughly examined on the JD.com platform. Specifically, the mechanism of marketing strategies such as live streaming host influence, limited-time discounts, and live broadcast interactivity in JD.com's platform has not been fully explored. In addition, which strategy has the most significant impact on consumers' purchase intention lacks empirical support.

This study aims to comprehensively analyze the impact of JD.com's live e-commerce marketing methods on consumer purchasing intentions, investigate the operational mechanisms of various strategies, and identify the most impactful strategies, thereby offering a theoretical foundation and practical guidance for JD.com and other e-commerce platforms to enhance their marketing approaches.

1.3. Research Questions

Q1: Do the main marketing strategies of JD.com live streaming e-commerce live streaming host influence, limited-time discount, and live broadcast interactivity significantly affect consumers' purchase intention?

Q2: Are there significant differences between price-sensitive and brand-loyal consumers' responses to live streaming host influence, limited-time discounts, and live-stream interactivity?

Q3: In the JD.com platform, which marketing strategy has the most significant impact on consumers' purchasing intentions?

1.4. Research Objectives

RQ1: Identify the main marketing strategies of JD.com live streaming e-commerce, focusing on live streaming host influence, limited-time discounts, and live stream interactivity.

RQ2: Analyze the impact of different strategies on consumers' purchasing intentions and reveal their specific mechanisms in the JD.com platform.

RQ3: Identify the marketing strategies that have the most significant impact on consumers' purchasing intentions and make optimization recommendations based on this.

1.5. Significant of the Business Research Proposal

1.5.1. Academician Significant

Based on the empirical research of the JD.com platform in particular, this study contributes to the theory of e-commerce marketing and helps to bridge research gaps on the influence of live e-commerce marketing techniques on customer behavior. Live e-commerce has received less attention in the literature than typical e-commerce models, particularly studies examining the combined effects of live streaming host influence, limited-time discount and live broadcast interactivity on purchase intention is still relatively limited (Li et al., 2020). By focusing on JD.com platform, The findings of this study will enrich existing literature on live e-commerce by offering fresh insights and empirical evidence.

1.5.2. Practical Significant

In order to enhance marketing tactics and boost customer conversion rates, this research might serve as a reference for e-commerce platforms like JD.com. Companies may improve their marketing strategies and, in turn, their sales performance and competitiveness by evaluating the effects of fundamental marketing approaches in JD.com live streaming. These techniques include live streaming hosting, timely discounts, and interactive aspects. Another way this study's findings might help advance live streaming e-commerce is by serving as a benchmark for other e-commerce sites.

2. LITERATURE REVIEW

2.1. Introduction

The live-streaming e-commerce concept has been rapidly growing in popularity in China in recent years. Because of JD.com, a top Chinese e-commerce site that jumps at opportunities, live-streaming e-commerce has grown fast. The solid supply chain and logistical infrastructure that JD.com provides is, however, inseparable from the fast growth of live-streaming e-commerce. This chapter will provide the groundwork for future study within the appropriate theoretical framework by investigating its potential implementation on JD.com in conjunction with the evolution of live-streaming e-commerce.

2.2. Underpinning Theory

This study uses the theory of consumer behavior and the theory of planned behavior (TPB) for analysis. Under the theory of consumer behavior, it focuses on observing the actual behavior of consumers and emphasizes the impact of external stimuli on consumer responses. For example, merchants attract consumers to buy products through promotional activities (such as discounts, gifts, etc.). This promotion will affect consumers' purchasing behavior. (Kotler & Keller, 2016). Under the theory of planned behavior, design behavior attitudes, subjective standards, and perceptions affect actual behavior (Ajzen, 1991). In JD.com's live e-commerce, live streaming hosting influencers, Limited Time Discount, and LIVE interactivity affect consumers' purchase intentions.

Table2.1

variable	abbreviation
LIVE Interactivity	LI
Live Streaming Hosting Influencers	LSHI
Limited Time Discount	LTD
Consumer Purchasing Intention	CPI

2.3. Independent Variable (IV1): LIVE Interactivity

LIVE interactivity is an indispensable part of JD.com's live broadcast, By enhancing consumers' sense of participation and live broadcast interest, it can effectively promote the emotional exchange between the host and viewers, leading to a significant increase in consumers' purchase intention. This suggests that live broadcast interactivity significantly influences consumers' purchase decisions. (Liu et al., 2021). Therefore, in order to enhance consumers' participation and trust, it is possible to increase interactivity in live broadcasts, such as bullet comments, interactions, and rewards, which can enhance their purchase intention (Wang et al., 2019). In addition, stimulating consumers' interest and actively interacting with them can

enhance the interactivity of live broadcasts, which in turn further enhances their purchase intention (Zhang et al., 2020).

2.4. Independent Variable (IV2): Live streaming Hosting Influencers

As the soul core of JD.com's E-commerce LIVE model, the value of live streaming host is highly valued. Professionalism, affinity and credibility are the manifestations of the influence of live streaming host (Wang et al., 2019). During the live stream recommendation process of the product, the live streaming host tells its own understanding and experience of using the product, and answers consumers' bullet comments, which not only enhances the atmosphere of the whole live stream, but also alleviates consumers' inner worries, thereby improving their willingness to buy (Liu et al., 2021). The affinity and credibility of live streaming host also attract consumers to stay and watch, thereby increasing the opportunity for consumers to make purchasing decisions (Zhang et al., 2020). There are many kinds of live streaming host in the market, and their attractive methods are very special, which can be further divided into two types: "authoritative live streaming host" and "affinity live streaming host". The impact of these two different forms of live streaming host on customers' purchase intention is worthy of further research, so as to more clearly grasp the mechanism of the impact of live streaming host.

2.5. Independent Variable (IV3): Limited Time Discount

Limited-time discounts refer to discounts offered on goods or services for a specific period of time. As a common promotional strategy, they often appear in JD.com's live e-commerce. Customers feel compelled to act quickly when faced with limited-time promotions, spurring them to make purchases within the allotted period. This sense of urgency can often stimulate consumers' desire to buy, which in turn increases sales. This further amplifies their willingness to buy (Liu et al., 2021). In order to effectively arouse consumers' sense of urgency to purchase items, time-limited discount strategies such as time restrictions and price reductions, new user discounts, etc. are implemented to increase their purchasing decisions (Zhang et al., 2020). In price-sensitive individuals, this promotion strategy significantly enhances consumers' purchase intention (Wang et al., 2019).

2.6. Dependent variable (DV): Consumer Purchasing Intention

The main dependent variable of this study is consumer purchase intention. The reason why consumers have a purchase behavior for a certain product or service is called purchase intention (Fishbein & Ajzen, 1975). In JD.com E-commerce LIVE, multiple marketing strategies affect consumer purchase intention. Live streaming hosting influencers, Limited Time Discount, and LIVE interactivity all affect consumer purchase intention (Liu et al., 2021). Consumer personal characteristics, shopping habits, and external environment also affect purchase intention (Zhang et al., 2020).

2.7. Research Gaps

Although there is a dearth of research on the overall impact of live streaming hosts, the majority of relevant studies have looked at how different marketing strategies affect customer behavior in live streaming e-commerce, time-sensitive discounts, and live broadcast interactivity on consumer purchase intentions on the JD.com platform. Most previous research concentrate solely on the impact of a singular marketing strategy and seldom investigate the effects of various marketing strategies in conjunction (Li et al., 2020). Moreover, most of these studies use qualitative analysis methods and lack the support of quantitative data. In order to make up for this deficiency, deeply explore the combined impact of live streaming interactivity, live streaming host influence, limited-time discount and these three marketing strategies on consumers' purchase intention through quantitative research methods.

2.8. Chapter Summary

This chapter analyzes the historical evolution and theoretical underpinnings of live streaming e-commerce, consolidates relevant research on consumer purchasing intentions, the impact of live streaming hosts, time-sensitive discounts, and interactivity during broadcasts, while also emphasizing the constraints of current studies. This chapter lays the theoretical groundwork for the subsequent study design and validates the research hypotheses.

3. RESEARCH METHODOLOGY

3.1. Introduction

The selection of research methodologies is the fundamental component of research design, influencing the scientific rigor, dependability, and validity of the study. Sekaran and Bougie (2016) assert that the selection of research methodologies must align with the nature of the research question and the research aims. Research methodologies are typically categorized as exploratory, descriptive, or causal. Descriptive research delineates the current condition of a phenomenon, causal research identifies the links among variables, and exploratory study enhances our preliminary comprehension of a subject. This study seeks to examine the influence of JD.com's live e-commerce marketing methods on consumers' purchasing intentions and is categorized as causal research. Causality studies can elucidate the influence mechanisms of independent variables (live streaming host influence, limited-time discount, live-stream interactivity) on the dependent variable (consumer purchase intention) by regulating the interrelations among variables and conducting variable analysis (Sekaran & Bougie, 2016). This study employs quantitative research methodologies, gathers data using questionnaires, and utilizes statistical analysis to validate the research hypotheses.

3.2. Conceptual Framework

This study delineates a research framework consisting of three independent variables: the influence of live streaming hosts, time-limited discounts, and live broadcast engagement, in conjunction with a dependent variable, customer purchase intention. The framework is grounded in consumer behavior theory and the theory of planned behavior (TPB), seeking to elucidate the influence mechanism of JD.com's live broadcast e-commerce marketing approach on consumer purchase intention.

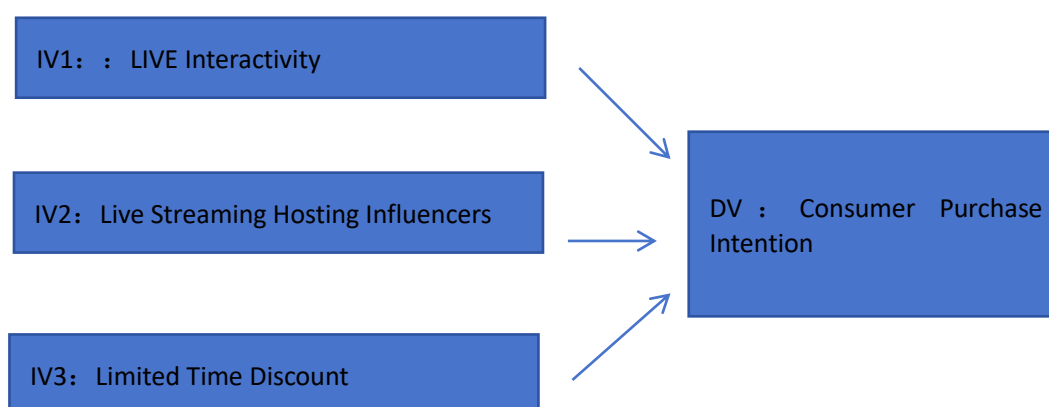


Figure 3.1

3.3. Hypotheses of the Study

Based on the literature review, this study proposes the following hypotheses:

H1: The interactivity of live broadcast has a positive impact on consumers' purchase intention.

H2: The influence of live streaming hosting has a positive impact on consumers' purchase intentions.

H3: Time-limited discounts have a positive impact on consumers' purchasing intentions.

3.4. Research Design

3.4.1. Purpose of Business Research Proposal

This research aims to examine how JD.com's live e-commerce marketing approaches affected consumers' inclinations to buy and to suggest ways that JD.com and other e-commerce platforms might improve their marketing strategies. This study utilizes quantitative research methods to clarify the influence mechanisms of live streaming hosts, time-sensitive discounts, and interactivity during broadcasts on consumers' purchasing intentions.

3.4.2. Unit Analysis

The analysis unit of this study is individual consumers. The research objects are live e-commerce consumers on JD.com platform, and the sample size is not less than 300 people.

3.5. Population and Sampling Techniques

This study used a random sampling method to investigate live-streaming e-commerce consumers on JD.com platform. Random sampling method can ensure the representativeness of the sample, thereby improving the generality of the study results (Sekaran & Bougie, 2016). The sample size is not less than 300 people to ensure the statistical significance of the study results.

3.6. Data Collection Methods

Data is collected through a questionnaire survey, which will be distributed through the online platform. The questionnaire consists of four parts: basic information, live streaming host influence, limited-time discount, live broadcast interactivity, and consumer purchase intention. The questionnaire design is based on Likert five-level scale to ensure the reliability and validity of the data.

Table 3.1: The Likert scale was used to measure each variable.

score	meaning	explain
1	Totally disagree	Respondents completely disagreed with the content of the item description.
2	disagree	Respondents disagreed with the content of the item description, but to a lesser extent.
3	general	Respondents were neutral about the content described in the item.
4	agree	Respondents agreed with the content described in the item, but to a lesser extent.
5	Totally agree.	Respondents fully agree with the content of the item description.

3.7. Measurement and Data Analysis

The desire of consumers to buy is the dependent variable, whereas the effect of live-streaming hosts, time-sensitive discounts, and engagement during the broadcast are the independent factors. In order to ensure content and structural validity, the items assessing each variable are developed based on the current research.

Table 3.2

variable	measurement dimension	specific topic
LI	Interact with live streaming hosts	LI1: During the live broadcast, I interact very frequently with the live streaming host.
	Interact with other audiences	LI2: The interaction with other viewers during the live broadcast made me more interested in the product.
LSHI	professional	LSHI1: The live streaming host has a very professional introduction to the product.
	affinity	LSHI2: The live streaming host made me feel kind and trusted.
	reliability	LSHI3: The recommendation of this live streaming host makes me more confident in the product.
LTD	time limit	LTD1: The limited-time discount made me feel pressured to make a purchase decision faster.
	price favorable	LTD2: The offer of limited-time discount appeals to me very much.
CPI	purchase intention	CPI1: I am willing to buy the products recommended in the live stream.
	propensity to buy	CPI2: I plan to purchase the products recommended in the live stream in the future.

3.8. Questionnaire design

The questionnaire consists of four parts: basic information, live streaming host influence, limited-time discount, live broadcast interaction and consumer purchase intention. The basic information part includes the gender, age, occupation of the respondents; the live streaming host influence part includes the professionalism, affinity and credibility of the live streaming host; the limited-time discount part includes time limit and price concessions; the live broadcast interaction part includes the degree of interaction with the live streaming host and other audiences; the consumer purchase intention part includes purchase intention and purchase behavior.

3.9. Pilot Study

3.9.1. Instruments Validity

Invite 3 experts in the field of e-commerce and consumer behavior to review the questionnaire items to ensure that the items accurately measure the target variables (live streaming host influence, limited-time discount, live-stream interactivity, and purchase intention) (Sekaran & Bougie, 2016). Adjust the items with vague or less relevant statements based on expert feedback.

Table 3.3: Pre-survey validity test results

variable	number of items	Expert Consistency Score (1-5 points)	Adjust content
Live streaming hosting influencers	3	4.6	Amend item 2 to read "The way the live streaming host communicates makes me feel trusted"
Limited time discount	2	4.8	No adjustment
live stream interactivity	2	4.2	Merge item 7 with descriptions related to interaction frequency

Consumer purchase intention	2	4.7	No adjustment
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The dimensional structure of the questionnaire was tested by exploratory factor analysis (EFA). The pre-survey sample size was 50 people. Principal component analysis and maximum variance method were used to rotate, and items with factor loads lower than 0.5 or higher span loads were excluded to ensure that each variable item belonged to the expected dimension (Kaiser-Meyer-Olkin test value > 0.6, Bartlett spherical test was significant) (Hair et al., 2019).

Table 3.4: Exploratory Factor Analysis (EFA) Results

Live streaming hosting professionalism	0.82	0.12	0.09	-	reserve
Limited Time Discount Attraction	0.15	0.78	0.21	-	reserve
Audience engagement	0.11	0.33	0.49	higher	Delete and rewrite

Note: The KMO value is 0.72, the Bartlett test significance ($p < 0.001$), and the factor load threshold is set to 0.5.

3.9.2. Instrument Reliability

The internal consistency of the scale was tested using Cronbach's Alpha coefficient. The pre-survey results showed that:

Table 3.5: Pre-survey reliability analysis results (Cronbach's Alpha)

variable	number of items	Cronbach's Alpha	reliability evaluation
Live streaming hosting influencers	3	0.82	excellent (>0.8)
Limited time discount	2	0.79	acceptable (>0.7)
live stream interactivity	2	0.85	excellent
Consumer purchase intention	2	0.88	excellent

Reference standard: $\alpha \geq 0.7$ is acceptable, ≥ 0.8 is good

3.9.3. Instrument Reliability

The scale's dependability was evaluated using Cronbach's alpha coefficient; the coefficients for every variable were higher than 0.7, so demonstrating outstanding internal consistency (Sekaran & Bougie, 2016). The correction items confirmed their dependability with a total correlation coefficient (CITC) more than 0.5 (Nunnally & Bernstein, 1994).

Table 3.6: Cronbach's Alpha

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live stream interactivity	2	0.85	excellent
Consumer purchase intention	2	0.88	excellent

Reference standard: $\alpha \geq 0.7$ is acceptable, ≥ 0.8 is good

3.10. Data Analysis Techniques

This study uses SPSS software for data analytics. The specific steps are as follows:

Descriptive Statistical Analysis: Conduct descriptive statistical analysis on the basic characteristics of the sample (e.g. gender, age, occupation, etc.) to understand the distribution of respondents.

Reliability analysis: Use Cronbach's Alpha coefficient to test the internal consistency of the scale and ensure that the reliability coefficient of each variable is greater than 0.7.

Correlation analysis: The relationship between live streaming host influence, limited-time discount, live broadcast interactivity and consumer purchase intention is analyzed by Pearson correlation coefficient, and the correlation between variables is preliminarily tested.

Multiple Regression Analysis: Multiple regression analysis was used to test the impact of live streaming host influence, limited-time discount, and live broadcast interactivity on consumers' purchase intention to verify the research hypotheses. In regression analysis, control variables (such as gender, age) will be incorporated into the model to improve the accuracy of the analysis.

3.11. Chapter Summary

This chapter outlines the design and implementation process of the research technique in depth. To achieve the goals of causal research, quantitative analysis was conducted through questionnaires, and SPSS was deployed for statistical evaluation. The research methodology was based on the influence of live streaming hosts, time-sensitive discounts, and engagement during broadcasts as independent variables, with customers' purchasing intent as the dependent variable. Three primary hypotheses were proposed. The applied sampling method was random, with a sample size of at least 300 individuals to ensure result representativeness. The questionnaire utilized a five-point Likert scale, with its validity and reliability confirmed through a preliminary assessment. Data analytics methodologies encompass descriptive statistics, correlation analysis, and multiple regression analysis to systematically examine the relationships between variables. This chapter outlines the methodological framework for subsequent data gathering and analysis.

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