

E-commerce Live Streaming Marketing and Consumer Psychology: The E.B.K Model and the “JD-fresh & Douyu” Marketing Case

Diyue Qi^{1,a,*}

¹East China Normal University, No.3663 North Zhongshan Road, Shanghai, China

a. 2019790667@qq.com

*corresponding author

Abstract: 2016 has been known as the “year of China’s online live streaming,” the live streaming market entered a period of explosive growth. Online live streaming presents enormous marketing opportunities and releases consumer potential. This study constructs a consumer psychology-behavior model for online marketing based on the E.B.K. (Engel) model, which includes four stages: information input, information processing, decision-making, and external influence. The study focuses on the interaction between consumer psychology and online marketing strategies in the context of live streaming, and analyzes the mutual dynamics between consumer psychology and online marketing strategies, using the specific case of the “JD-Fresh & Douyu 6.18” marketing campaign in 2016. On the one hand, online marketing strategies influence consumer psychology through virtual interactions, which in turn affects consumer behavior. On the other hand, consumer evaluations and feedback after purchase further affect the adjustment and improvement of the online live streaming marketing environment. This case study demonstrates the feasibility of the model and provides new ideas for brand marketing and promotion strategies in future online live streaming.

Keywords: E.B.K. Model, online marketing, consumer psychology, interactive relationship

1. Introduction

With the development of internet technology and the intensification of competition among e-commerce platforms, live streaming has become a new marketing tool and competitive arena for major e-commerce platforms. Compared with traditional offline marketing models, live streaming provides a virtual space for the seller and their customers to interact. It has quickly spread from major e-commerce platforms to content platforms. In addition to e-commerce platforms such as Taobao, short video platforms such as Douyin and Kuaishou have also gradually launched online purchase services. Existing research on e-commerce live streaming marketing mainly relies on traditional theoretical models such as the SOR model, and thus lacks a comprehensive understanding of the factors that affect consumer psychology and behavior. Moreover, at a more structural level, current literature has not thoroughly discussed the active mechanism from live streaming marketing strategies to consumer purchase behavior, nor has it addressed the interactive impact of consumer feedback on marketing strategies. This paper builds an analysis model of the interactive relationship between

consumer psychology and marketing strategies in the context of online live streaming, based on the E.B.K. consumer behavior model. Through a case analysis of the 2016 “JD-Fresh & Douyu 6.18” marketing campaign, this paper aims to delve deeper into the interactive relationship between online live streaming marketing and consumer psychology and behavior.

2. Literature Review

The research on online live streaming marketing mainly focuses on three aspects, including analysis of marketing methods and strategies for live streaming; the influence of certain factors on consumer purchase decisions in the context of e-commerce, such as host characteristics and attributes, product introduction and features, consumer perceived value, and consumers’ experiences. In addition, some scholars used the SOR model to study the factors that influence consumers’ online live streaming purchasing behavior.

In terms of the impact of e-commerce marketing on consumer psychology or behavior, Mei Fangfang combined the “stimulus-response” model raised by western scholars with a Chinese case to construct a consumer purchasing decision-making psychological model. She analyzed the influence of consumer purchasing motives on purchasing decisions, and explored the impact of post-purchase evaluation on their purchasing motives [1]. Xu He et al. selected three dimensions of live-streaming anchors, live-streaming formats, and product information to investigate the influence of clothing product live-streaming on consumer purchase intention [2]. Liu Jia et al. analyzed service quality and product value in e-commerce marketing, and the influence of such marketing strategy on customers’ final purchase decision-making based on the Technology Acceptance Model (TAM) and SEM model [3]. The study by Assarut showed that the consumer experience and service quality in live-streaming often catalyzes consumers’ purchase decisions [4]. Mbete et al. believes that it is still difficult to come up with an explanatory model that explains consumers’ online purchasing interest. Therefore, he selected several main variables that can affect consumer purchase decisions, including convenience, service quality, price, trust, information quality, and brand image. Based on this, he constructed an explanatory model and found that convenience has the greatest influence on purchase decisions, and the impact of brand quality is the most significant [5]. Ji and Zhuo studied the main factors that influence consumer purchase intentions in e-commerce live-streaming environments based on the SOR (stimulus-organism-response) theory model [6]. They added the factor of live-streaming characteristics and constructed a theoretical model of the cognitive and psychological effects of e-commerce on consumers. They found that perceived value and perceived pleasure significantly affect consumer purchase intentions. Product characteristics and situational features indirectly affect consumer purchase intentions through perceived value and perceived pleasure, with situational features having the most significant impact on perceived pleasure among consumers [6].

In terms of e-commerce marketing strategy development, Liu et al. combined qualitative and quantitative research to construct a model for analyzing the impact of the match between internet celebrity information sources and images with products on users’ perceived value and purchase intention. They explored the influence of internet celebrity professionalism, attractiveness, and credibility on users’ purchase intention, and proposed standards for internet celebrity selection by e-commerce platforms and brand owners [7]. Li conducted research on the maternal and child cross-border e-commerce, analyzing the information dissemination and promotion strategies of e-commerce platforms for different consumer groups, and found that brand image, consumer habits of the target audience, and product added value significantly affect consumers’ purchase intention [8]. Liang analyzed the “enterprise + live streaming + e-commerce” effect and the factors that work on live streaming effect and consumer purchase decisions. It was concluded in the article that the influence of the live streaming platform’s popularity on consumer purchase decisions is the greatest, followed by the personal ability of the anchor [9].

In general, previous research has mainly established theoretical models such as the traditional SOR model to analyze the impact of different factors on consumer psychology and purchasing decisions in the context of online marketing, while there are other relevant factors have not been fully discussed. In addition, few studies have covered the main mechanisms from online marketing strategy to consumer psychology and from consumer feedback to marketing strategy updating. Therefore, this paper establishes an analytical model to delineate the interaction between consumer psychology and marketing strategy under the background of online live streaming. Based on the E.B.K consumer behavior model, it develops a more comprehensive model and validates it with a case study. Overall, it offers new perspectives to look into the interaction between consumer psychology and marketing strategy in online live streaming.

3. Theoretical Framework and Concepts

3.1. Consumer Behavior Model in Online Marketing

The E.B.K model, also known as the Engel model, was proposed by Engel, Kollat, and Blackwell in 1968, and named after the three individuals. The model consists of four parts: information input (the psychological process of consumers), information processing, decision-making process, and external influences [10]. Information input refers to various stimuli that consumers are exposed to, including product value, company brand, and identity, which trigger specific behavioral patterns. Information processing is composed of six different cognitive styles, including conscientious, consultative, imaginative, verbal, visual-constructive, and logical. The decision-making process is divided into five stages: problem recognition, search, alternative evaluation, choice, and outcomes (post-purchase evaluation and behavior). External influences include "Circles of Social Influence," such as culture, sub-culture, social class, and family.

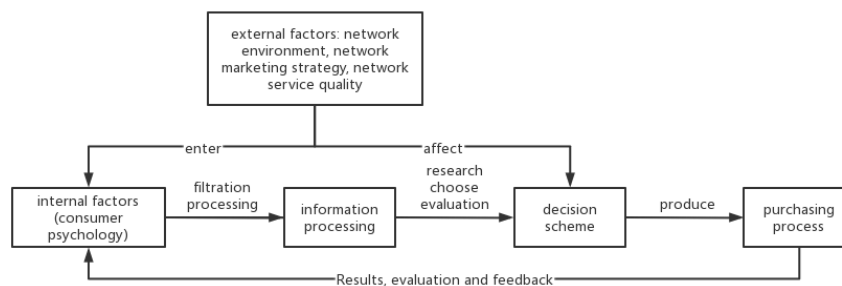


Figure 1: Network Live Streaming Consumer Behavior Model (developed by the author based on the E.B.K model).

Based on the E.B.K consumer behavior model, this paper develops a network live streaming consumer behavior model and applies it to the analysis of the “JD-Fresh & Douyu 6.18” live streaming marketing case. The research objective is to explore the interactive mechanism between marketing strategies and consumer psychology in the online environment. In this model, factors influencing consumer purchasing decisions can be divided into internal and external factors. Internal factors include consumers’ personal attributes, purchasing motivations, and purchasing experiences, while external factors include the online environment, online marketing strategies, and the quality of network service quality. In the process of formulating marketing strategies, internal factors largely influence the formation and development of external factors, while external factors also influence internal factors, with different external factors having varying degrees of influence on internal factors. The interaction between internal and external factors affects the formation of decision-making

solutions.

3.2. Analytical Concepts

3.2.1. Consumer Psychology.

The network live-streaming and consumer behavior model discussed in this paper involves two key concepts. First, consumer behavior in network live-streaming is significantly influenced by consumer psychology, which includes socializing psychology, curiosity psychology, desire psychology, and safety psychology. The first is socializing psychology, which refers to the interaction between consumers, influencers, fans, customers, and other viewers in the virtual space of live streaming. Various participants share their views and shopping experiences, enhancing social connections, which helps meet their socializing needs. The second is curiosity psychology. Consumers are usually interested in novel and unique products or services, and thus presenters and viewers in live-streaming sites can arouse consumers' curiosity by showcasing the features and functions of the products. The third is desire psychology. In network live-streaming, hosts and guests can promote consumer behavior by promoting products and promotional activities, triggering consumers' shopping desires. Finally, there is safety psychology. As consumers' demands for food safety and hygiene become higher, hosts and guests in network live-streaming can enhance consumers' trust and sense of security in products by showcasing their origin, quality, and quality testing. The meaning of these concepts are in line with the author's modification of the E.B.K consumer behavior model.

3.2.2. Network Live Streaming Marketing.

The second key concept discussed in this article is network live streaming marketing, which can be understood from three aspects: real-time interaction, visual display, and trust building. Firstly, real-time interaction refers to the opportunities that consumers have to interact with the sellers and presenters in real time during network live streaming. Usually they can ask questions about the product, thereby experiencing a better shopping experience. Secondly, visual display means that hosts and guests can use video and image forms to showcase the characteristics, uses, and quality of products in network live streaming, enhancing the visual and sensory impact on consumers. Finally, trust building refers to the ability of hosts and guests to establish consumer trust and a sense of shopping security by showcasing the origin, quality, and quality testing of the products during network live streaming.

4. Case Analysis

4.1. Marketing Background and Objectives

This article takes the "JD-Fresh & Douyu 6.18" marketing campaign as a case study to analyze the characteristics of online marketing, consumer psychology, and behavior. As a social media platform dedicated to game live streaming, Douyu has three prominent advantages in attracting traffic, social interaction, and advertising monetization. Douyu's large user base and high traffic can facilitate communication and interaction between marketing anchors and consumers, enhancing consumer awareness and trust for the brand. At the same time, Douyu can monetize platform traffic and live content through posting advertisements, providing more marketing options for JD-Fresh's marketing promotion. JD-Fresh is an online fresh food platform under the e-commerce company JD.com, which mainly features high-quality products and services and diverse fresh food products. These two features can meet consumers' demands for food quality and diversity, increasing consumer purchasing willingness and engagement.

In recent years, the combination of e-commerce business and online marketing campaign during shopping festivals has become prevalent. Therefore, it has become even more difficult to stand out in such an increasingly fierce market competition. By analyzing the user data of JD-Fresh and the industry reports of the fresh e-commerce industry, it is not difficult to find that the target audience of fresh e-commerce is mostly young white-collar workers in first-tier cities. This group pursues a high quality of life and is active on social networks. JD-Fresh Business Unit was established in 2016, at a time when the mobile internet and devices facilitated e-commerce and social media platforms, which in turn brought about huge changes in consumer shopping habits in following years. More and more enterprises began to use social media platforms to promote their brands and attract consumers. Meanwhile, advertising on social media platforms such as WeChat and Weibo have become an important means for many companies to obtain user traffic and promote products. In line with the trend of Internet development at that time, JD Fresh Business Unit chose the promotion slogan of “buying delicious food at a low price” in the very beginning. It savvily included e-commerce live streaming and related promotion strategies, which directly influenced the consumption psychology of young white-collar workers, and boosted JD Fresh sales during the event. It turned out in the end that this strategy successfully improved JD Fresh’s brand awareness and reputation. Specifically, its marketing goals are mainly divided into three points: First, increasing brand awareness. By utilizing the traffic and user characteristics of Douyu platform, the company aims at attracting more target audiences, increasing brand awareness and exposure. Second, increasing sales revenue. through measures such as promotional activities and convenient shopping services during live streaming, the company seeks to increase consumers’ willingness to engage and purchase, which then helps increase sales revenue. Third, enhancing consumer loyalty. By providing high-quality product quality and services, as well as actively responding to consumers’ feedback and needs, the last goal is to enhance consumers’ trust and loyalty to the brand.

4.2. Analysis of Consumer Behavior Models in Jingdong Fresh’s Online Marketing

The “JD-Fresh & Douyu 6.18” promotion was carried out on June 18th 2017, this online live streaming environment directly affected the psychology of specific consumer groups, especially the socializing, curiosity, and desire psychology of young white-collar workers. These consumer behaviors are important internal factors in the abovementioned model, and these factors work together with external factors such as online platforms and social interaction to influence consumers’ purchasing decisions and behaviors, as well as long-term marketing strategies. For example, when users continuously see marketing push notifications on popular social media platforms, their curiosity is triggered. During the promotion period, the Weibo hashtag # Jingdong Fresh “618” # had over 60 million reads, and this marketing and promotional strategy deeply influenced users’ psychology, ultimately guiding their purchases. The success of this marketing strategy was not only due to the emphasis on consumers’ psychology but also because of JD’s choice to deeply collaborate with Douyu during the preparatory phase. The aim was to leverage the advantages of the live streaming platform’s high-speed information dissemination and focus on the popular “618” promotion event that young white-collar workers were paying attention to. They also collaborated with internet celebrities to hype up the promotional event and spread the message through social media platforms such as Weibo and WeChat to consumers who are interested in food and quality lifestyle, attracting a huge amount of internet traffic. This series of online and social media marketing activities are concrete manifestations of external factors in the models mentioned earlier, which create a favorable external environment for stimulating consumers’ purchasing desires, decisions, and behaviors.

Under the influence of both internal and external factors, consumers become aware of their own needs for specific products or services. In the “JD-Fresh & Douyu 6.18” live-streaming event, consumers may have developed a demand for fresh food due to their dietary and health needs or for

the purpose of gift-giving during holidays. At this stage, the joint live-streaming event provided a platform for consumers to satisfy their needs. Consumers would search and process information based on their needs. After making clear about their purchasing demands for fresh food, consumers would search for relevant information on the internet and analyze it. During the marketing campaign, consumers could acquire more information through live-streaming videos, product introductions, guest speeches, user feedback, and social media platforms provided by JD Fresh and Douyu. Based on the initial information, consumers would evaluate and compare the products offered by JD Fresh on Douyu's "618" live-streaming event, and then make decisions based on their needs and budgets.

Based on the consumer model of online marketing, customers' psychological activities will transit into purchasing actions. In the "JD-Fresh & Douyu 6.18" live streaming marketing event, some discounts and gifts have directly stimulated consumers' decision-making and purchasing behavior, while the e-commerce platform provides consumers with a one-stop purchasing channel. In addition, JD-Fresh also provides after-sales services such as fast delivery and return guarantees. By combining online interaction with offline services, JD Fresh allows consumers to receive satisfactory after-sales services and improve their purchasing experience. This has helped JD-Fresh accumulate positive feedback and change more consumers' consumption psychology and behavior, driving new consumers to choose the JD Fresh platform to purchase the products they need.

As such, using the consumer behavior model of online live streaming, this paper analyzes different aspects of the "JD-Fresh & Douyu 6.18" live streaming event and argues that JD-Fresh and Douyu can cooperate at different stages of the marketing strategy to provide consumers with appropriate information, services, and purchasing experience. Ultimately, it succeeded in attracting consumers' attention and achieving marketing goals.

5. Conclusion

This article analyzes the relationship between the online live streaming marketing environment and consumer psychology through the consumer behavior model of online live streaming, and argues that the two are interactive and mutually influential. On the one hand, due to its features of real-time interaction and visual display, the online live streaming environment is more likely to attract the attention of young users. This influence is transmitted through the mechanism of socializing psychology, curiosity psychology, and other factors, further affecting consumer behavior. On the other hand, consumers' engagements in online live streaming and their feedback after purchase reflect the effectiveness of the online live streaming marketing strategy. Meanwhile, consumers' post-purchase evaluation and feedback further influence the adjustment and improvement of the online live streaming marketing environment.

Based on this model, this paper takes the "JD-Fresh & Douyu 6.18" marketing event as an example to discuss the cooperation between JD-Fresh and Douyu platform in terms of online content production and business marketing, and how they promote the generation of purchasing behavior through interaction with consumers. Consumers, in turn, promote the further improvement of platform service quality and product quality through their post-purchase evaluation and feedback. By constructing the model of online live streaming marketing and analyzing case studies, this paper summarizes the interactive mechanism between the online marketing environment and consumer psychology. In the digital society and business environment, online live streaming provides new marketing channels for leading e-commerce platforms, but it also indicates a new battlefield of business competition. Therefore, brands and business owners should pay more attention to consumers' demand for marketing content and new forms in order to achieve their respective marketing goals. This study provides new ideas and methods for the online live streaming industry and serves as a reference for marketing research in other industries as well.

References

- [1] Mei Fangfang. *Research on consumer purchase decision-making psychological model* [J]. *Times Education (Education and Teaching Edition)*, 2010(02): 264.
- [2] Xu He, Qu Hongjian, Cai Jianzhong. *The Influence of Online Live Streaming on Clothing Consumers' Purchase Intention*. *Journal of Beijing Institute of Fashion Technology (Natural Science Edition)*, 2020, 40(02): 88-94. DOI: 10.16454/j.cnki.issn.1001-0564.2020.02.013.
- [3] Liu Jia, Zou Yunjie, Liu Zexi. *Analysis of Factors Influencing Consumers' Purchase Intention in E-Commerce Live Streaming Based on SEM Model*. *Statistics and Decision-making*, 2021, 37(07): 94-97. DOI: 10.13546/j.cnki.tjyjc.2021.07.019.
- [4] Apiradee Wongkitrungrueng, Nassim Dehouche & Nuttapol Assarut (2020) *Live streaming commerce from the sellers' perspective: implications for online relationship marketing*, *Journal of Marketing Management*, 36:5-6, 488-518, DOI: 10.1080/0267257X.2020.1748895.
- [5] *Jurnal Informatika Universitas Pamulang Penerbit: Program Studi Teknik Informatika Universitas Pamulang Vol. 5, No. 2, Juni 2020 (100-110) ISSN: 2541-1004 e-ISSN: 2622-4615 10.32493/informatika.v5i2.4946.*
- [6] Ji Man, Zhuo Xiangzhi. *Factors influencing consumer purchase intention in e-commerce live streaming environment based on SOR model*[J]. *Journal of Huaibei Normal University (Philosophy and Social Sciences Edition)*, 2020, 41(04): 49-57.
- [7] Liu Fengjun, Meng Lu, Chen Siyun, et al. (2020). *The Influence of Internet Celebrity Livestreaming on Consumer Purchase Intention and Its Mechanism*. *Management Review*, 17(01), 94-104.
- [8] Li Nannan. *Research on E-commerce Marketing Strategies Based on Online Live Broadcasting Platforms* [D]. Kaifeng: Henan University, 2017.
- [9] Liang Lipeng. *Research on Online Live Streaming Marketing Strategies for Small and Medium-sized Enterprises in China* [D]. Beijing: Beijing University of Posts and Telecommunications, 2018.
- [10] James Engel, David Kollat, Roger Blackwell. *consumer behavior*. 1968.