

THE INFLUENCE OF LIVE STREAMERS' PERSONAL TRAITS
ON CONSUMER PURCHASE INTENTION: THE MEDIATING
ROLE OF CONSUMER COGNITION

BINRUI SHI



AN INDEPENDENT STUDY SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE MASTER DEGREE OF ARTS FACULTY OF LIBERAL ARTS RAJAMANGALA UNIVERSITY OF TECHNOLOGY KRUNGTHEP ACADEMIC YEAR 2024

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| Independent Study | The Influence of Live Streamers Consumer Purchase Intention: of Consumer Cognition | |
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Independent Study The Influence of Live Streamers' Personal Traits

on Consumer Purchase Intention: The Mediating

Role of Consumer Cognition

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Major Master of Arts

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Abstract

With the continuous advancement of streaming media technology, online live-streaming platforms have rapidly emerged. Live-streaming has evolved beyond mere entertainment to integrate closely with traditional e-commerce, forming a new business model—e-commerce live-streaming. In this emerging marketing model, marketing hosts play a crucial role. Thus, this research aims to 1) explore the correlation between personal traits of hosts in e-commerce live-streaming and consumer purchase intention, and 2) use consumer cognition as a mediating variable to further investigate the impact relationship between live streamers' personal traits and purchase intention.

The hypotheses of the study are tested using SPSS 27.0 and Mplus 7. The statistical analysis reveals that live streamers' personal traits positively affect consumer purchase intention; live streamers' personal traits positively influence consumer cognition; consumer cognition positively impacts consumer purchase intention; and consumer cognition mediates the relationship between live streamers' personal traits and consumer purchase intentions.

The objective 1 of the study is to investigate the influence of live streamers' personal traits on consumer purchase intention. The objective 2 of the study is to examine the impact of live streamers' personal traits on consumer cognition. The objective 3 of the study is to explore the influence of consumer cognition on consumer purchase intention. The objective 4 of the study is to study the mediating

role of consumer cognition between live streamers' personal traits and consumer purchase intention.

Keywords: E-commerce live-streaming, personal traits, purchase intention, consumer cognition



บทคัดย่อ

ความก้าวหน้าอย่างต่อเนื่องของเทคโนโลยีสื่อสตรีมมิ่ง ทำให้แพลตฟอร์มการถ่ายทอดสด ออนไลน์จึงเกิดขึ้นอย่างรวดเร็ว การถ่ายทอดสดชนิดนี้ได้พัฒนาไปมากกว่าการให้ความบันเทิงเพียง อย่างเดียว แต่ยังได้มีการบูรณาการร่วมกับการพาณิชย์เชิงอิเล็กทรอนิกส์หรือเป็นที่รู้จักในนามอี คอมเมิร์ชแบบดั้งเดิม จึงก่อให้เกิดรูปแบบธุรกิจใหม่ นั่นคือ การถ่ายทอดสดอีคอมเมิร์ช ในรูปแบบ การตลาดใหม่นี้ โฮสต์การตลาดมีบทบาทสำคัญอย่างมาก ดังนั้น งานวิจัยนี้จึงมีวัตถุประสงค์ดังต่อไปนี้ 1) ศึกษาความสัมพันธ์ระหว่างลักษณะส่วนบุคคลของโฮสต์การตลาดในการถ่ายทอดสด อีคอมเมิร์ช กับความตั้งใจซื้อของผู้บริโภค และ 2) ใช้ความรู้ความเข้าใจของผู้บริโภคเป็นตัวแปรกลางเพื่อศึกษา ความสัมพันธ์ระหว่างลักษณะส่วนบุคคลของผู้ถ่ายทอดสดและความตั้งใจซื้อเพิ่มเติม

สมมติฐานของการศึกษาได้รับการทดสอบโดยใช้ SPSS 27.0 และ Mplus 7 การวิเคราะห์ ทางสถิติเผยให้เห็นว่าลักษณะส่วนบุคคลของนักสตรีมสดส่งผลในเชิงบวกต่อความตั้งใจในการซื้อของ ผู้บริโภค ลักษณะส่วนบุคคลของนักสตรีมสดส่งผลในเชิงบวกต่อการรับรู้ของผู้บริโภค การรับรู้ของ ผู้บริโภคส่งผลในเชิงบวกต่อความตั้งใจในการซื้อของผู้บริโภค และการรับรู้ของผู้บริโภคเป็นตัวกลาง ในการสร้างความสัมพันธ์ระหว่างลักษณะส่วนบุคคลของนักสตรีมสดและความตั้งใจในการซื้อของ ผู้บริโภค

วัตถุประสงค์ที่ 1 ของการศึกษานี้คือการตรวจสอบอิทธิพลของลักษณะส่วนบุคคลของสตรีม เมอร์สดที่มีต่อความตั้งใจในการซื้อของผู้บริโภค วัตถุประสงค์ที่ 2 ของการศึกษานี้คือการตรวจสอบ ผลกระทบของลักษณะส่วนบุคคลของสตรีมเมอร์สดที่มีต่อการรับรู้ของผู้บริโภค วัตถุประสงค์ที่ 3 ของ การศึกษานี้คือการสำรวจอิทธิพลของการรับรู้ของผู้บริโภคที่มีต่อความตั้งใจในการซื้อของผู้บริโภค วัตถุประสงค์ที่ 4 ของการศึกษานี้คือการศึกษาบทบาทของตัวแปรส่งผ่านการรับรู้ของผู้บริโภค ระหวางลักษณะส่วนบุคคลของสตรีมเมอร์สดและความตั้งใจในการซื้อของผู้บริโภค

คำสำคัญ: การถ่ายทอดสดทางการค้า ลักษณะส่วนบุคคล ความตั้งใจในการซื้อ การรับรู้ของ ผู้บริโภค

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Chapter 1 Introduction

This chapter introduces the background of live streamers' personal traits and consumer purchase intention. It outlines the research objectives and questions of this study and presents the research model used.

1.1 Research Background and Rationale

With the rapid development of mobile networks and the widespread use of smart devices, live-streaming platforms have emerged swiftly, attracting significant social attention. According to Zhiyan Consulting, by the end of 2022, the number of live-streaming platforms exceeded 1,100. These platforms offer diverse scenarios and robust interactive experiences, providing businesses with vivid and varied ways to showcase products and brands. Compared to traditional online shopping, live-streaming marketing is more convenient, allowing consumers to understand products from multiple angles, thus increasing trust and enhancing the quality of the shopping experience. Consequently, Chinese e-commerce platforms such as Douyin, Taobao, and Kuaishou have embraced the live-streaming trend, actively engaging in live marketing and enabling live-streaming features. This move has significantly changed consumer behavior.

According to statistics from Douyin's retail platform, the total transaction amount tripled from 1.154 trillion yuan in 2018 to 3.5 trillion yuan in 2022, demonstrating an upward trend. As an emerging model, live-streaming marketing is flourishing at a rapid pace. From April 2018 to 2022, the number of live streamers grew from less than 10,000 to over 105,000, and the number of viewers exceeded one billion, showcasing remarkable growth. At the 2022 Douyin Live-Streaming Institution Conference, it was revealed that after closing external links, Douyin focused on building Douyin Shops (with the independent e-commerce app Douyin Box launched at the end of 2021), underscoring the high importance that the market and enterprises place on live-streaming marketing.

Taking Douyin as an example, streamers can be categorized into two types: influencer streamers and seller streamers. Influencer streamers attract viewers mainly through recommendations or shopping on behalf of others, while seller streamers primarily sell products from their stores. As key marketing personnel, streamers play a crucial role in commercial marketing activities.

However, the follower count of marketing streamers on the same platform can vary significantly. According to official Douyin records, the top streamer, Crazy Little Yang Ge, has over 98 million followers, whereas some streamers on the same platform have fewer than ten thousand followers. The follower count is directly related to marketing capability. According to 2022 data from Gongyan Net, Crazy Little Yang Ge set records such as selling 40,000 eggs in eight seconds, 60,000 bottles of facial cleanser in two minutes, achieving 30 million sales in a five-hour live stream, and cutting 85 million sales overnight. What factors contribute to such disparities? How much of it is due to the streamers' interactive marketing styles and individual traits that attract viewers? This research will explore the factors influencing sales streamers by integrating the attraction dimensions of individual traits in interpersonal attraction theory. The individual traits that may affect customer purchase intention can be divided into appearance, personality, and marketing ability (Luo, 2013). In interpersonal attraction, appearance is classified as physical attraction, where streamers attract viewers' visual attention through their appearance, demeanor, and posture. Personality attraction involves the streamer's attitude towards people and events, reflecting personal traits and behavior. Additionally, aspects such as the streamer's health, IQ, EQ, adversity quotient, knowledge, cultural and moral qualities also attract viewers. During this process, live stream viewers may form an instant first impression of the streamer, significantly influencing their appreciation, trust, or dislike. Marketing ability falls under the category of talent attraction, which is a crucial factor in attracting viewers. Talent attraction in this study refers to the streamer's knowledge, experience, physical strength, and intelligence. By showcasing their knowledge, experience, physical strength, and intelligence, streamers attract viewers, gain their recognition, and spark interest in the live content.

For consumers, there should be some correlation between the streamer's individual traits and their purchase intention for products. Therefore, discussing and studying the relationship between these aspects is very meaningful.

The individual traits of streamers may influence consumer purchasing behavior. As vital promoters of live-streaming marketing, the streamers' personalities, qualities, and health conditions may attract viewers, thereby affecting their attitudes towards products and purchase decisions. If the streamer's traits are positive and trustworthy, consumers might be more inclined to trust the streamer's product recommendations, thus increasing their purchase intention.

Researching consumer behavior and exploring the impact of streamers' individual traits on consumer purchase intention helps understand the mechanisms of live-streaming marketing on consumer behavior. By thoroughly examining these relationships, businesses and brands can better formulate marketing strategies, enhance product market recognition, and increase sales, thereby gaining a competitive edge.

In summary, exploring the relationship between streamers' individual traits and consumer purchase intention is crucial for consumer behavior research. It helps in understanding the impact of live-streaming marketing on consumer behavior and provides valuable insights for marketing practices.

1.2 Statement of the Problem

Based on the theory of interpersonal attraction, this study explores how to enhance consumer engagement and increase transaction volumes on e-commerce platforms, such as Douyin, Taobao, and Kuaishou, in the context of rapid development in China's mobile internet and the widespread use of smart devices. This research specifically examines the following:

- 1. The impact of differences in live streamers' personal traits on consumer purchase intention on e-commerce platforms.
- 2. The relationship between live streamers' personal traits and consumer cognition on e-commerce platforms.

- The relationship between consumer cognition and consumer purchase intention when shopping on e-commerce platforms.
- 4. The mediating role of consumer cognition in the relationship between live streamers' personal traits and consumer purchase intention when shopping on e-commerce platforms.

By investigating these relationships, this study aims to identify key factors influencing consumer shopping behavior on e-commerce live-streaming platforms and provide optimization strategies for e-commerce platforms and live streamers to enhance consumer purchase intentions and increase platform transaction volumes.

1.3 Research Objectives

Objective 1: To investigate the influence of live streamers' personal traits on consumer purchase intention.

Objective 2: To examine the impact of live streamers' personal traits on consumer cognition.

Objective 3: To explore the influence of consumer cognition on consumer purchase intention.

Objective 4: To study the mediating role of consumer cognition between live streamers' personal traits and consumer purchase intention.

1.4 Research Questions and Hypotheses

1.4.1 Research Questions

- 1. Does live streamers' personal traits influence consumer purchase intention?
- 2. Does live streamers' personal traits affect consumer cognition?
- 3. Does consumer cognition influence consumer purchase intention?
- 4. Does consumer cognition play a mediating role between live streamers' personal traits and consumer purchase intention?

1.4.2 Research Hypotheses

- H1: Live streamers' personal traits have a positive effect on consumer purchase intention.
- H2: Live streamers' personal traits have a positive effect on consumer cognition.
- H3: Consumer cognition has a positive effect on consumer purchase intention.
- H4: Consumer cognition mediates the relationship between live streamers' personal traits and consumer purchase intention.

1.5 Significance of the Study

Firstly, this study is significant in understanding the role of consumer cognition in e-commerce live-streaming. Consumer cognition is one of the critical factors influencing purchase decisions. In the context of e-commerce live-streaming, consumers' cognitive experiences regarding the streamer, product, and brand directly impact their purchase intention. By deeply examining the mechanisms of consumer cognition in e-commerce live-streaming, this research can provide targeted marketing strategies for e-commerce live-streaming platforms, enhancing consumers' perceptual experiences and, consequently, their purchase intention.

Secondly, this research holds significance for the development and marketing strategies of Douyin shopping live rooms. As one of the important platforms for ecommerce live-streaming, Douyin shopping live rooms have unique user groups and content formats, which require specialized marketing strategies. By thoroughly investigating the impact of streamers' personal traits and interactive marketing on consumer purchase intention within Douyin shopping live rooms, this study can offer targeted recommendations for the operation and management of Douyin shopping live rooms, further promoting their development and innovation.

In summary, the significance of this study lies in enriching and perfecting marketing theory, deeply exploring the relationship between streamers' personal traits and consumer purchase intention, understanding the role of consumer cognition in e-commerce live-streaming, and providing valuable references for the development and marketing strategies of Douyin shopping live rooms.

1.6 Definition of Key Terms

E-commerce Live-Streaming

According to Liang (2019), e-commerce live-streaming refers to a customer service behavior that emerges in the field of e-commerce, based on the use of live-streaming as a social media application.

Personal Traits

Personal traits refer to an individual's relatively stable patterns of thoughts and emotions, which are measurable characteristics both internally and externally (Shi et al., 2023).

Consumer Cognition

Consumer cognition during shopping live streams involves the process where consumers directly perceive the individual traits displayed by the streamer and subsequently pay attention to the products being sold by the streamer (Zhang et al., 2016).

Consumer Purchase intention

Purchase intention refers to the likelihood that a consumer will choose to buy a product at the market equilibrium price when their monetary income is fixed, essentially reflecting the probability of a consumer engaging in a purchase behavior (Zhao, 2020).

1.7 Summary

1.7.1 Recapitulation of Key Points

This chapter delves into the individual traits of live streamers to understand their appeal and influence on consumers. Streamers' personal charm, professional knowledge, and performance abilities are traits that may affect consumer cognition and purchase intention. Therefore, this chapter explores the relationship between streamers' personal traits and consumer purchase intention to uncover the mechanisms through which streamers influence consumer buying behavior.

1.7.2 Transition to the Literature Review

This chapter provides a detailed account of the research background and objectives related to the three variables: live streamers' personal traits, consumer cognition, and consumer purchase intention. After summarizing these elements, the next chapter will conduct a literature review focusing on the theories, structural dimensions, influencing factors, and interrelations of these variables, thereby establishing the theoretical framework for this study.



Chapter 2 Literature Reviews

This chapter primarily provides a literature review of the variables involved, defining each variable, discussing how to measure them, and examining the relationships between these variables. It outlines the theoretical foundations of this study and presents relevant research hypotheses.

2.1 Theoretical Foundation

2.1.1 Concept of Interpersonal Attraction Theory

Interpersonal attraction was an important type of interpersonal perception, defined as the tendency or inclination to evaluate another person in a positive (or negative) way (Berger & Calabrese, 1974). It was crucial to forming and maintaining relationships in human interactions (Bekiari & Hasanagas, 2015). The evaluation of interpersonal attraction was influenced by an individual's cognitive assessment, specifically the perceived ability of the target to fulfill the perceiver's needs and the potential willingness of the target to meet these needs. When an individual was perceived as attractive, others were likely to engage in communication, fostering closeness between them (Han & Yang, 2018). Therefore, interpersonal attraction can, to some extent, predict the quality and quantity of communication between individuals. Zheng et al. (2020) suggested that technical attraction was a preacceptance attitude and a fundamental factor in any multi-stage relationship.

In live-streaming sales, the interaction between the salesperson and the audience is viewed as an interpersonal interaction that may lead to the establishment of emotional bonds. Montoya and Horton (2014) divided interpersonal attraction into emotional and behavioral attraction. Emotional attraction involves the emotional bonds and experiences generated between parties. In live interactions, salespeople can evoke emotional resonance and establish emotional connections with customers through sincerity, friendliness, and caring behavior. Behavioral attraction involves actions and interaction methods between the parties. Salespeople meet customer needs by providing product information, answering questions, and offering help, while

customers engage with the salespeople by participating in interactions, making suggestions, and expressing opinions.

These aspects are interrelated and mutually influential, jointly shaping the interpersonal relationships between salespeople and customers. Through mutual cognition, emotional resonance, and positive behavioral interactions, a close connection is established, promoting further communication and interaction. In this study, the personal traits of streamers cause customers watching the live stream to develop emotions, forming important psychological phenomena such as impressions.

2.1.2 Factors Influencing Interpersonal Attraction

Luo (2013) summarized that three main types of factors influencing interpersonal attraction: individual trait attraction, proximity attraction, and reciprocal attraction. Individual trait attraction is a significant factor influencing interpersonal attraction and includes aspects such as appearance, talent, and ability, which affect an individual's inner psychology and, consequently, interpersonal relationships. This can be further divided into three aspects: appearance attraction, talent attraction, and personality quality attraction.

Appearance Attraction: This included both innate qualities such as physical appearance and physique, as well as acquired qualities such as demeanor, makeup, and attire. Appearance plays a crucial role in interpersonal attraction, reflecting an individual's inner world to some extent and determining the level of attraction between people.

Talent Attraction: Talent and appearance were complementary. People often preferred talented and capable individuals. However, highly talented individuals may not always be the most popular, as their superior abilities in various aspects might create psychological pressure and feelings of inferiority in others, leading to avoidance or rejection. Thus, talent and attraction were proportional to a certain extent.

Personality Quality Attraction: Personality qualities include many attractive traits such as friendliness, bravery, and integrity. Different cultures also define personality quality standards based on gender. The attraction of personality qualities represents

inner beauty, which is enduring and stable, having a profound impact on interpersonal relationships.

2.1.3 Interpersonal Attraction Theory and the Appearance and Marketing Abilities of Salespeople

This study focuses on observing salespeople in online live-streaming and explores their personal qualities based on interpersonal attraction theory. Factors influencing interpersonal relationships can be divided into three aspects according to this theory. This study mainly focuses on individual trait attraction, which includes appearance attraction, talent attraction, and personality quality attraction. Investigating the appearance attraction of live salespeople can be specifically defined as the appearance of the salesperson, while talent attraction can be refined into the salesperson's marketing abilities.

2.2 E-Commerce Live-Streaming

2.2.1 Concept of E-Commerce Live-Streaming

E-commerce live-streaming is an important branch of the e-commerce model. Tan (2017) defined e-commerce live-streaming as a new sales method based on traditional e-commerce platforms, utilizing real-time streaming as a technical means combined with social media. Liang (2019) described e-commerce live-streaming as a customer service behavior arising in the e-commerce field, leveraging live-streaming, a social media application. Clearly, e-commerce live-streaming combined live-streaming with e-commerce, using the interactive format of live-streaming to complete marketing tasks.

As a fusion of traditional e-commerce and live-streaming technology, e-commerce live-streaming offered audiences a richer interactive experience in virtual shopping scenarios. Its market scale experienced unprecedented growth during the COVID-19 pandemic. Compared to traditional sales, e-commerce live-streaming has unique advantages. Real-time interaction is a key feature of live commerce, adding a social element to e-commerce (a traditionally product-oriented shopping environment), and transforming it into a more customer-centric environment focused on maintaining

customer relationships. Real-time interaction plays a crucial role in user experience, facilitating the flow of information and emotions, thus enabling the establishment of solid and stable interpersonal relationships between sellers and customers. Unlike traditional commerce, where customers passively receive static information, in e-commerce live-streaming, customers not only receive information but can also share it with other viewers, participating in the design and delivery of services.

E-commerce live-streaming, as a new form of social commerce, has unique characteristics distinct from traditional live-streaming platforms such as Douyin, Kuaishou, Taobao Mall, and Vipshop. Liang (2019) pointed out that platforms like Douyin, Kuaishou, Taobao Mall, and Jumei rely on the traffic of e-commerce platforms rather than independent apps or live-streaming platforms. Therefore, they can be considered as multifunctional modules within e-commerce platforms. Unlike comprehensive live-streaming platforms that cover various content such as games, sports, and entertainment, e-commerce live-streaming content is relatively single-focused, mainly used for promoting and introducing brands or products within the e-commerce platform.

2.2.2 Hosts in E-Commerce Live-Streaming

Hosts in e-commerce live-streaming were individuals who showcase products through trials and experience sharing on live-streaming platforms, promoting consumer purchases (Xie et al., 2019). Gao (2020) described e-commerce live-streaming hosts as individuals with certain expertise in a product field, aiming to increase brand exposure and product promotion by introducing product information and usage experiences through online live-streaming.

This study considers e-commerce live-streaming hosts distinct from those on general live-streaming platforms based on talent shows. Hosts in e-commerce live-streaming can be solo or invite guests, and their live content is recorded. This new form of live-streaming offers consumers a more authentic shopping experience and a broader consumption space, enabling them to enjoy the pleasure of products while gaining brand awareness and recognition. E-commerce live-streaming hosts, acting as online presenters, use computers, smartphones, or other smart terminals to showcase

well-crafted product information through microphones, cameras, and headsets to a broad audience. In this mode, users no longer need to interact with products face-to-face or watch videos; instead, they can directly enter the live-streaming scenario, participating in the production of products and programs. Hosts interact with users in real-time, maintaining the rhythm and atmosphere of the live scene.

With the development of the live-streaming industry, more outstanding e-commerce live-streaming hosts have emerged, each with varying degrees of professional skills and unique styles. On the Douyin live-streaming platform, Liang (2019) classified hosts into four levels based on their content: The first level was top-tier hosts with high popularity and certain hosting skills (celebrity hosts). The second level was professional hosts with extensive live-streaming experience but not yet well-known. The third level was active influencers on Douyin with a large fan base or strong sales abilities. The fourth level was store owners or grassroots hosts on Douyin, who have some product knowledge but lack professional backgrounds and popularity.

In summary, this study defines e-commerce live-streaming as a commercial activity based on e-commerce and facilitated through live-streaming. Hosts in live-streaming rooms use video recording tools to showcase store products to users, provide customer service by answering queries in real-time, enhance user interaction, and stimulate purchasing behavior.

2.3 Personal Traits

2.3.1 Concept of Personal Traits

Personal traits referred to a person's relatively stable patterns of thoughts and emotions, encompassing internal and external measurable characteristics (Shi et al., 2023). Traits such as shyness, ambition, compliance, laziness, loyalty, and timidity, which consistently appeared across different situations, were particularly valuable for describing and predicting behavior (Shi et al., 2023).

Personal traits influence personal attitudes towards work, and in the context of ecommerce live-streaming, these traits also impact consumers' purchase intention. Till and Busler (2000) argued that the higher the match between personal traits and products, the greater the consumers' trust, with this matching degree positively correlating with positive consumer attitudes. Zhang and Zhang (2010) further asserted that different traits displayed by various endorsers can significantly affect the marketing effectiveness of different products. Yang et al. (2015) emphasized that consumers' perceptions and preferences for products are greatly influenced by the match between the live-streaming endorser and the product. Wang et al. (2017) found that the leadership quality and product consistency of the host's traits significantly promote consumer behavioral intention.

Personal traits can be understood as the process by which a person's emotional responses are recognized by others. These traits' attractiveness can be divided into three aspects: appearance attractiveness, talent attractiveness, and personality quality attractiveness (Luo, 2013). Therefore, this study defines personal traits as relatively stable patterns of thoughts and emotions, characterized by measurable internal and external features, mainly manifested in personal appearance, talents, and personality qualities.

2.3.2 Measurement of Live Streamers' Personal Traits

This study categorized the live streamers' personal traits into three parts based on Luo's (2013) research: appearance attractiveness, talent attractiveness, and personality quality attractiveness. Questions 1-4 pertain to appearance attractiveness, questions 5-8 to talent attractiveness, and questions 9-11 to personality quality attractiveness. Therefore, the live streamers' personal traits scale in this study consists of a total of 11 items. Each item is rated on a scale of 1 to 7, with higher scores indicating greater agreement by participants and a higher perceived influence of the streamer's traits on their purchase intention. Conversely, lower scores indicate a lesser influence of the streamer's traits on purchase intention.

2.4 Consumer Cognition

2.4.1 Concept of Consumer Cognition

Consumer cognition referred to the overall and comprehensive response of consumers to products and marketing processes affecting sensory organs, as well as

the psychological reactions during the consumption process (Fan, 2014). Consumer cognition was characterized by integrality, comprehension, selectivity, and constancy (Jiang, 2013). In understanding objective objects, people perceive them as a whole rather than isolated parts, indicating the completeness of consumer cognition. Comprehension referred to the interpretation and understanding of perceived objects based on prior knowledge and experience. Selectivity means consumers focus on a few objects as cognitive targets while considering others as the background, ensuring clarity and objectivity in cognition. Constancy implied that despite changes in objective conditions, the cognitive image remained relatively stable (Jiang, 2013).

Sensory organs received external information, processed by the brain and converted into internal psychological activities, which in turn influenced consumer behavior (Zhang et al., 2016). The literature review revealed that consumer cognition, after receiving external information, transformed into internal activities guiding consumer behavior.

In this study, consumer cognition is defined as the process where consumers, while watching live shopping streams, form immediate perceptions of the host's individual traits, subsequently focusing on the products being sold by the host. The ultimate aim was to explore how these perceptions influence purchase intention (Zhang et al., 2016).

2.4.2 Overview of Consumer Cognition

Consumer perceived value was the overall evaluation by consumers of the utility of a product or service based on what they receive versus what they pay (Leng, 2010). Through this evaluation, consumers can determine whether a product/service meets their needs or provides satisfaction. If consumers perceive the benefits to outweigh the costs, they will have a more positive value perception of the product/service. In live-streaming shopping, consumers receive various information conveyed by the hosts, helping them evaluate the product. Unlike traditional shelf-based shopping, live-streaming shopping incorporates live broadcasts and host factors, which, combined with product, review, and store information, broaden the scope of product

information available to consumers. This comprehensive understanding of product value helps consumers make better decisions, enhancing their willingness to purchase.

2.4.3 Measurement of Consumer Cognition

Consumer cognition refers to the process by which consumers select various stimuli from external inputs to form an organic sequence and interpret these as meaningful, consistent external impressions. Cognition represents an integrated response to all sensory inputs, synthesized and analyzed by individuals. According to Fan (2014), consumer cognition referred to consumers' holistic and comprehensive reactions to the products and marketing processes that influenced their sensory organs, as well as their psychological responses during the consumption process. Sensory organs received external information, which was then processed by the brain into internal psychological activities, subsequently guiding consumer behavior (Zhang et al., 2016).

This study primarily explores the cognitive perceptions of consumers while watching shopping live streams, particularly how individual traits influence their cognitive responses and whether these perceptions ultimately affect their purchase intentions. Therefore, the Consumer Cognition Scale used in this study, based on the scales provided by Fan (2014) and Zhang et al. (2016), consists of 3 items, each rated on a 1-7 scale. Higher scores indicate a higher degree of consumer recognition of the live streamers' personal traits.

2.5 Consumer Purchase Intention

2.5.1 Concept of Consumer Purchase Intention

Consumer purchase intention can be considered a type of behavior, representing consumers' inclination to buy products and services, meaning their beliefs and attitudes toward specific products were likely to translate into future actions (Cohen & Areni, 1991). Consumer purchase intention was a plan of consumer purchasing behavior that led to the actual purchase through the formation of attitudes and beliefs that predict such behavior. It was a psychological and behavioral tendency formed based on individual attitudes and subjective norms (Geng & Yao, 2020). Purchase

intention arose from consumer attitudes and results in habitual behavior (Huo & Zhang, 2018).

Consumer purchase intention referred to whether consumers were willing to buy a product at the market equilibrium price when their monetary income was fixed, meaning it was the probability that consumers would take purchasing action (Zhao, 2020). Ren et al. (2019) argued that consumers' attitudes toward a product or brand, combined with external factors, constituted their purchase intention. Liu and Xu (2019) believed that purchase intention was a potential measure indicating that consumers may purchase a product. The higher the purchase intention, the greater the likelihood of purchase, with positively inclined consumers forming strong commitments to buying.

The e-commerce live-streaming medium facilitated consumer access to more product information while the experience during participation influenced the perceived value of the product. Higher perceived value led to positive emotions such as joy and convenience, making consumers more willing to purchase (Wang, 2021).

In this study, consumer purchase intention is defined as the decision-making process of consumers during e-commerce live-streaming, where they determine, based on subjective probability, whether to purchase a product. During live shopping streams, consumers can better acquire product information and understand related services through the host, ultimately deciding whether to buy the product (Liang et al., 2020). If online consumers have a strong purchase intention after watching the live stream, the probability of them making an online purchase is high; conversely, if their purchase intention is low or nonexistent, the likelihood of purchase is reduced.

2.5.2 Measurement of Consumer Purchase Intention

In this study, consumer purchase intention refers to the likelihood that consumers will want to purchase products while watching Douyin shopping live streams. According to Wang (2021), the higher the degree of purchase intention, the greater the likelihood of purchasing products. Therefore, the Consumer Purchase Intention Scale used in this study is based on Wang's (2021) scale and consists of 4 items, each rated on a 1-7 scale. Higher scores indicate a higher level of consumer purchase

intention.

2.6 Related Research

2.6.1 Live Streamers' Personal Traits and Consumer Purchase Intention

Xu (2013) posited that emotional factors, as a core part, were divided into interpersonal rejection and interpersonal attraction. Interpersonal rejection referred to mutual repulsion between people, which hinders the establishment of interpersonal relationships. Conversely, interpersonal attraction involved mutual liking, which positively affected interpersonal interactions. According to Luo (2013), interpersonal attraction included three main types: individual trait attraction, proximity attraction, and reciprocity attraction. Among these, personal traits significantly influenced interpersonal attraction. The interaction between live streamers and viewers during live-streaming was a form of interpersonal behavior that can create an emotional connection. Purchase intention involved weighing the behavior of buying a product against the probability of higher purchase intentions.

Liu et al. (2020) found through questionnaires and empirical analysis that influencers, as live streamers, can effectively enhance consumer purchase intention through their influence and reputation. Li et al. (2023) discovered that streamers' professionalism, attractiveness, and interactivity positively influence online purchase intention. Feng and Qu (2024) found that virtual streamers' personal traits positively affect consumers' clothing purchase intentions in live marketing. Zhang (2024) revealed that various capital traits of e-commerce streamers significantly positively impact continuous purchase intention. Yuan and Chen (2024) concluded that e-commerce streamers' traits positively affect college students' online purchase intention through questionnaire surveys.

This study considers that consumers may be attracted to the personal traits of streamers, which in turn enhances their attraction to the products marketed by these streamers, thereby increasing the probability of purchase.

2.6.2 Live Streamers' Personal Traits and Consumer Cognition

According to Luo's (2013) interpersonal attraction theory, interpersonal relationships comprised three psychological components: cognition, emotion, and behavior, which were interrelated. Personal traits significantly influenced interpersonal attraction. Consumer cognition, also known as consumer attention, referred to consumers' overall and comprehensive reaction to the products and marketing processes affecting their sensory organs, and it was a psychological response to the consumption process (Fan, 2014).

Zhao and Wang (2021) constructed a research model through questionnaires and structural equation modeling, revealing that streamer traits positively impact consumer perceived value. Li and Li (2022) found that streamers' popularity and responsibility significantly positively affect consumer perception.

In this study, consumer cognition refers to the direct perception consumers have of the personal traits displayed by streamers during live shopping, which subsequently draws their attention to the products marketed by the streamers. This study considers that the attraction of personal traits can stimulate consumer cognition during live-streaming, leading to attention to the products marketed by the streamers. This can be understood as the consumer's reaction to the attributes of the products being sold.

2.6.3 Consumer Cognition and Consumer Purchase Intention

When sensory neurons were stimulated, people form perceptions of the external world, which the brain then analyzed and integrated to form views and understandings, known as perception. Sensory organs received external information, which the brain processed and converted into internal psychological activities that govern consumer behavior (Zhang et al., 2016). This study defines purchase intention as the balance between consumer behavior in buying products and the probability of higher purchase intentions.

Zhao and Wang's (2021) study showed that while streamer traits positively affected consumer perceived value, perceived value further positively influences consumer purchase intention. Gong (2021) found that consumer cognition positively impacts impulsive purchases. Tian and Li (2023) discovered that consumer trust cognition significantly positively affects purchase intention. Van't Wout and Sanfey

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(2008) demonstrated through purchasing decision models that consumer decisionmaking is better understood through cognition.

Therefore, this study suggests that purchase intention is a psychological activity where consumers may develop a desire to purchase products after receiving information. When consumers pay attention to the products marketed by streamers, their purchase probability increases.

2.6.4 The Mediating Role of Consumer Cognition Between Live Streamers' Personal Traits and Consumer Purchase Intention

Consumer cognition referred to consumers' overall and comprehensive reaction to the products and marketing processes affecting their sensory organs, and it was a psychological response to the consumption process (Fan, 2014). In this study, consumer cognition mainly refers to the direct perception consumers have of the personal traits displayed by streamers during live shopping, which subsequently draws their attention to the products marketed by the streamers. The ultimate goal is to explore how this perception affects purchase intention.

Chen and Cui (2023) used questionnaires and empirical analysis to investigate the relationship between e-commerce streamer traits and consumer behavior, finding that perceived value mediates the relationship between streamer traits and irrational consumer behavior. Zhang's (2024) study showed that perceived value significantly mediates the relationship between streamer traits and continuous purchase intention. Li et al. (2023) found that consumer cognition partially mediates the positive impact of streamers' professionalism, attractiveness, and interactivity on purchase intention.

Thus, this study suggests that live streamers' personal traits attract consumers in various ways, primarily through appearance, talents, and personality qualities. The attraction of individual traits stimulated consumers' sensory neurons, with sensory organs receiving external information, which the brain processed and converted into internal psychological activities, thereby governing consumer behavior (Zhang et al., 2016). This increases the probability of consumers purchasing products, further enhancing their purchase intention. In other words, consumer cognition mediates the relationship between live streamers' personal traits and consumer purchase intention.

2.7 Conceptual Framework

Figure 2.1 below shows that live streamers' personal traits directly enhance consumer purchase intention (H1) and consumer cognition (H2). Consumer cognition further positively influences purchase intention (H3) and mediates the effect of streamers' traits on purchase intention (H4), indicating a pathway from traits to cognition to intention.

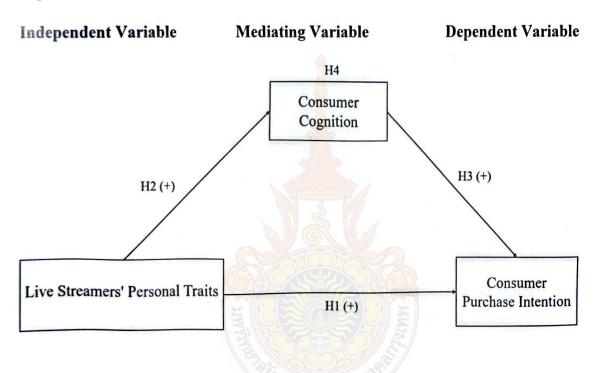


Figure 2.1 Conceptual Framework of Research

Chapter 3 Research Methodology

This chapter primarily analyzed the population and sample of this study, introduces how the research subjects were determined and the data collection methods used, and finally presented the data analysis methods employed in this study. The presentation of this chapter was as follows:

3.1 Scope and Delimitations

3.1.1 Scope of Contents

In this study, the independent variable was live streamers' personal traits, the dependent variable was consumer purchase intention and the mediating variable was consumer cognition. The primary focus of the research was to investigate the impact of live streamers' personal traits on the consumer cognition and consumer purchase intention and the mediating role of consumer cognition between live streamers' personal traits and consumer purchase intention. This study aimed to explore how these factors influenced consumer purchase intention within this specific context, potentially providing effective marketing strategies for e-commerce practitioners to enhance consumer purchase intention on e-commerce platforms.

3.1.2 Research Area

Douyin users who had watched e-commerce live streams and those who had participated in purchasing products through these live streams in China.

3.1.3 Time Frame

The research was expected to be conducted during May – June 2024.

3.1.4 Delimitations

Geographical and Contextual Limits

In the process of data collection, literature review, formation of the research framework, and data analysis, this study attempted to minimize limitations as much as

possible. However, it was still constrained by factors such as manpower, financial resources, and time. The limitations of this study were as follows:

- 1. Limitations in Questionnaire Distribution and Completion: Due to constraints in time and manpower, this study only utilized the Wenjuanxing online questionnaire platform. Although the targeted respondents were those who have browsed or purchased products in e-commerce live-streaming rooms, which aligned with the research topic, there were still some incomplete responses. Therefore, the survey results may not fully represent the entire population. Future researchers are advised to make slight modifications to the questionnaire and, if conditions permit, adopt multiple methods of questionnaire distribution.
- 2. Limitations in Research Methods: The design of this study was based on a cross-sectional sample, relying on previous research and models to support the hypothesized causal relationships within the model. It was recommended that further research utilize experimental designs or longitudinal data to investigate the causal relationships between model constructs.

3.2 Population and Sample

The purpose of this study was to understand the impact of live streamers' personal traits on consumer purchase intention on e-commerce live-streaming platforms. Therefore, the population for this study included all Chinese Douyin users who have watched e-commerce live streams and those who have participated in purchasing products through these live streams. According to statistics from Douyin, the number of streamers had grown from fewer than 10,000 in April 2018 to over 105,000 by 2022. The number of users watching live stream content had exceeded hundreds of millions during this period. Consequently, the population for this study comprises hundreds of millions of individuals, and the sample of this study will be selected from Douyin users who have watched e-commerce live streams and those who have participated in purchasing products through these live streams in China.

3.3 Sample Size Determination

This study used a quantitative research method. As previously described, the population of this study included Douyin users in China who had watched e-commerce live streams and those who had participated in purchasing products through these live streams, which consisted of hundreds of millions of individuals. Based on this large population size, the sample size required for this study was approximately 400 internet users. This sample size is determined to ensure a $\pm 5\%$ precision level at a 95% confidence level, following the standard guidelines for sample size determination in social science research.

3.4 Sample Selection

According to Israel (1992), Table 3.1 presents the required sample sizes for precision levels of $\pm 3\%$, $\pm 5\%$, $\pm 7\%$, and $\pm 10\%$ with a 95% confidence level and P=0.5. This study focused on Douyin users in China who have engaged with ecommerce live streams, either by watching or participating in purchasing products. Given that the study population numbers in the hundreds of millions, previous research typically employed a sample size for a $\pm 5\%$ precision level at a 95% confidence level, assuming a probability (P) of 0.5.

From Table 3.1, it was evident that for a population size exceeding 100,000, the necessary sample size was approximately 400 individuals. Considering the substantial size of the study population, which far exceeds 100,000, the sample size for this study has been determined to be 400 individuals. This sample size was deemed adequate to represent the population, balancing the specified confidence and precision levels with the practical considerations of conducting the survey efficiently and economically.

Table 3.1 Sample Size for $\pm 3\%$, $\pm 5\%$, $\pm 7\%$, and $\pm 10\%$ Precision Levels Where Confidence Level is 95% and P=.5.

| Size of | Sample Size (n) for Precision (e) of: | | | |
|------------|---------------------------------------|-----|-----|------|
| Population | ±3% | ±5% | ±7% | ±10% |
| 25,000 | 1,064 | 394 | 204 | 100 |
| 50,000 | 1,087 | 397 | 204 | 100 |
| 100,000 | 1,099 | 398 | 204 | 100 |
| >100,000 | 1,111 | 400 | 204 | 100 |

3.5 Research Instruments

3.5.1 Construction of Research Instruments

In this research, data collection utilized simple random sampling to examine Douyin users who have watched e-commerce live streams and those who have purchased products through these streams. Simple random sampling, also known as pure random sampling, was the basic form of probability sampling. It involved the random selection of n elements from a population of N elements (where N > n), following the principle of equal probability. The main concept was that each member of the population had an equal chance of being included in the sample. This equal probability ensured that the sample accurately represented the entire population, thereby enhancing the reliability and generalizability of the study's conclusions and inferences.

3.5.2 Research Instruments Measurements: Validity and Reliability

Reliability Analysis

In this research, the questionnaire was administered and SPSS 27.0 was used as a tool to answer the research questions and utilized to confirm the reliability of the questionnaire. Reliability determines if the data were consistent, stable, and dependable. This evaluation was performed using Cronbach's Alpha coefficient, where typically, a value above 0.7 was considered to indicate good reliability of the sample.

Validity Analysis

Validity analysis evaluated the extent to which a scale accurately measures the theoretical concept or trait it was intended to measure. Construct validity was examined through two types:

(1) Convergent Validity: This type of validity was confirmed using three metrics: standardized factor loadings for the items, average variance extracted (AVE), and composite reliability (CR) of the variables. Following Lam's findings, factor loadings

above 0.5, AVE values exceeding 0.36, and CR values over 0.7 suggested acceptable convergent validity for the research model.

(2) Discriminant Validity: Although not elaborated here, it generally involved comparing the AVE of each construct to the squared correlation coefficients among the constructs. Discriminant validity was achieved when the AVE for each construct was higher than the squared correlations between it and any other construct.

These statistical assessments ensured that the instrument not only measures what it was supposed to measure with consistency but also distinguished effectively from other variables in the study.

3.6 Pilot Survey

Despite the questionnaire for this study being developed through an extensive literature review and referencing established scales from prior research, the reliability and validity of the adapted questionnaire remained uncertain. Therefore, following the initial completion of all questionnaire content, a pilot survey was executed to ensure the measurement items' content and face validity. This study engaged three experts and scholars in relevant fields to assess the Item Consistency Index (IOC) of the questionnaire. They appraised each item in the questionnaire, assigning ratings of 1 (conforms to the measurement), -1 (does not conform to the measurement), or 0 (ambiguity regarding conformity). The IOC index for the questionnaire achieved a score of 1.00 across all aspects, as detailed in Table 3.2.

Table 3.2 IOC Evaluation Form for Questionnaire Items

| | Personal Traits | Item Score |
|---|--|------------|
| 1 | I find that hosts with good looks and temperaments attract me more. | 1 |
| 2 | I pay special attention to whether the host's facial expressions make me feel comfortable. | 1 |
| 3 | The appearance and image of the host are very important. | 1 |
| 4 | The host's mental state affects the duration of time I watch the live stream. | 1 |
| 5 | It is important whether the host showcases any talents. | 1 |

| | | And the last of th |
|----|---|--|
| 6 | I prefer marketing hosts who are articulate. | r grad 1 m |
| 7 | A host's sense of humor can attract me. | 1 |
| 8 | The number of viewers watching the live stream affects my interest in the product. | 1 |
| 9 | A host's sincere personality makes me trust the products they promote more. | 1 |
| 10 | It is important to me whether the host promotes products truthfully. | 1 |
| 11 | The host's past behavior in adhering to ethical standards is important to me. | 1 |
| | Consumer Cognition | Item Score |
| 1 | I find myself inexplicably wanting to watch some shopping hosts during their live streams. | 1 |
| 2 | After being attracted to a live stream, I tend to stay and watch for a longer time. | 1 |
| 3 | When watching a host I am interested in, I want to learn more about the products they are selling. | 1 |
| | Consumer Purchase Intention | Item Score |
| 1 | I am willing to learn about the products being marketed by the host while watching Douyin shopping live streams. | 1 |
| 2 | I am willing to recommend the Douyin shopping live streams or marketing hosts I frequently purchase from to my friends. | 1 |
| 3 | When I see a desired product, I will make a purchase during the live stream. | 1 |
| 4 | In the future, I will consider purchasing products promoted by the host in Douyin shopping live streams again. | 1 |

3.7 Data Collection

This study utilized a questionnaire survey method, and employed Wenjuanxing, a widely-used online crowdsourcing platform in mainland China, to distribute questions and collected data from participants. The survey primarily was disseminated through Douyin live stream rooms and WeChat groups associated with Douyin e-commerce activities. In Douyin live stream rooms, the questionnaire was distributed using a simple random sampling method based on public screen replies. On WeChat, the questionnaire was shared in groups related to Douyin e-commerce activities.

The research focused on three main variables: live streamers' personal traits, consumer cognition, and consumer purchase intention. These variables were self-

reported by Douyin users in China. This direct method streamlined the questionnaire distribution process. To ensure data consistency and reliability, responses were gathered anonymously, and participants were assured that their information remained strictly confidential.

The questionnaire was structured into three sections: (1) Introduction Section: This section introduced the survey's goals and reassured participants about the anonymity of their responses. (2) Demographic Information Section: This section collected demographic information such as gender, educational background, age, occupation, and monthly income. (3) Core Research Variables Section: This section gathered participants' perspectives on live streamers' personal traits, consumer cognition, and consumer purchase intention.

This approach ensured comprehensive data collection, providing insights into the relationship between live streamers' personal traits and consumer behavior on Douyin e-commerce platforms.

3.8 Data Analysis

After collected data from 413 respondents, this study utilized statistical software SPSS 27.0 and Mplus 7 for comprehensive data analysis:

3.8.1 Demographic Details of Samples

Table 3.3 Basic Demographic Information of Respondents

| Variable | Group | Frequency | Percentage |
|-----------|-----------------------|-----------|------------|
| Gender | Male | 221 | 53.5 |
| | Female | 192 | 46.5 |
| Age | 18-25 | 146 | 35.4 |
| , | 26-35 | 135 | 32.7 |
| | 36-45 | 79 | 19.1 |
| | 46-55 | 35 | 8.5 |
| | 56 years old or above | 18 | 4.3 |
| Education | High school or below | 95 | 23 |

| | Associate's degree | 116 | 28.1 |
|----------------|--|-----|------|
| | Bachelor's degree | 125 | 30.3 |
| | Graduate degree or above | 77 | 18.6 |
| Occupation | Student | 62 | 15 |
| | General worker/Service staff | 63 | 15.3 |
| | Government employee | 60 | 14.5 |
| | Manager | 55 | 13.3 |
| | Engineering technician | 59 | 14.3 |
| | Professional in research, education, or health and environment | 57 | 13.8 |
| | Self-employed | 45 | 10.9 |
| | Other | 12 | 2.9 |
| Monthly Income | Below 3500 RMB | 65 | 15.7 |
| | 3501-5000 RMB | 90 | 21.8 |
| | 5001-6500 RMB | 116 | 28.1 |
| | 6501-8000 RMB | 88 | 21.3 |
| | Above 8000 RMB | 54 | 13.1 |

Table 3.3 indicates that males comprise 53.5% and females 46.5% of the sample, reflecting a reasonably balanced gender distribution. The largest age group was 18-25 years, who were generally experienced in online shopping and had established behavior patterns, making it the most represented age group, aligning with real-world demographics. Regarding education, the majority held a bachelor's degree, followed by those with an associate's degree, mirroring the educational distribution in China. Occupation-wise, ordinary workers and students were the most represented, consistent with the broad usage of online shopping across various societal strata in China. Income-wise, the most common range was 5001-6500 RMB, followed by 3501-5000 RMB and 6501-8000 RMB, with the fewest earning above 8000 RMB, which corresponded with China's income distribution.

3.8.2 Research Measurements

This study employed three measurement tools: the Host Personal Traits Scale, the Consumer Cognition Scale, and the Consumer Purchase Intention Scale. The measurement of the host's personal traits was adapted from Luo's (2013) scale and was divided into three dimensions: appearance attractiveness, talent attractiveness, and personality quality attractiveness. Questions 1-4 related to appearance attractiveness, questions 5-8 related to talent attractiveness, and questions 9-11 related to personality quality attractiveness. Therefore, the Livestream Hosts' Personal Traits Scale in this study comprised a total of 11 items.

The measurement of consumer cognition was based on revised scales provided by Fan (2014) and Zhang et al. (2016), consisting of three questions. The measurement of the consumer purchase intention was adapted from Wang's (2021) questionnaire, which included four questions.

All three measurement tools used a Likert seven-point scoring method, where the degree of agreement with each measurement item ranged from 1 (strongly disagree) to 7 (strongly agree), corresponding to scores from 1 to 7 points.

3.8.3 Reliability Analysis

The reliability test primarily assessed the stability and consistency of the results measured by the scales within the questionnaire, essentially verifying the reliability and credibility of the sample scales. In this study, reliability was measured using Mplus 7 statistical software, employing Cronbach's alpha (α) and composite reliability (CR) to assess the reliability of the scales.

Cronbach's alpha values for each item were used to evaluate whether the collected data were reliable and trustworthy. Higher Cronbach's alpha values indicated higher reliability of the scale. Composite reliability represented the internal consistency within the structure of latent variables, with higher values indicating greater internal consistency. Nunnally and Bernstein (1994) suggested that values of Cronbach's alpha and composite reliability above 0.7 were considered acceptable. In

this study, Cronbach's alpha for each variable ranged between 0.83 and 0.95, and composite reliability (CR) ranged between 0.86 and 0.92, indicating good reliability of the research variables and consistent measurement items across the board. Specific data are presented in Table 3.4.

Table 3.4 The Reliability Analysis of Each Measurable Variable

| Dim. | Item | Mean | CR | Cronbach's o |
|------|---------|------|------|--------------|
| LSPT | LSPT 1 | 6.12 | 0.92 | 0.92 |
| | LSPT 2 | 6.34 | | 0.90 |
| | LSPT 3 | 6.25 | | 0.88 |
| | LSPT 4 | 6.02 | | 0.83 |
| | LSPT 5 | 6.36 | | 0.93 |
| | LSPT 6 | 6.74 | | 0.91 |
| | LSPT 7 | 6.25 | | 0.95 |
| | LSPT 8 | 6.15 | | 0.92 |
| | LSPT 9 | 6.21 | | 0.89 |
| | LSPT 10 | 6.53 | | 0.85 |
| | LSPT 11 | 6.42 | | 0.92 |
| CC | CC1 | 6.11 | 0.86 | 0.91 |
| | CC2 | 6.51 | | 0.85 |
| | CC3 | 6.48 | | 0.93 |
| CPI | CPI1 | 6.32 | 0.90 | 0.95 |
| | CPI 2 | 6.56 | | 0.89 |
| | CPI 3 | 6.64 | | 0.84 |
| | CPI 4 | 6.41 | | 0.91 |

Note: LSPT = Live Streamers' Personal Traits, CC = Consumer Cognition, CPI = Consumer Purchase Intention.

3.8.4 Validity Analysis

Validity analysis referred to the effectiveness and accuracy of a questionnaire

scale, i.e., assessing whether the design of the questionnaire items was reasonable. In this study, validity was measured using convergent validity and discriminant validity. Anderson and Gerbing (1988) suggested that if all item standardized factor loadings were greater than 0.5 and statistically significant, it indicated that the measurement scale had good convergent validity. Fornell and Larcker (1981) argued that the square root of the average variance extracted (AVE) for latent variables should be greater than the correlation coefficients between different variables, which indicated good discriminant validity.

According to the results in Table 3.5, the standardized factor loadings for all items in this study ranged between 0.70 and 0.91, and each indicator was statistically significant, demonstrating good convergent validity for each research variable. Furthermore, the square root values of the AVE for each variable ranged from 0.71 to 0.82, indicating that the discriminant validity of each item was also well established.

Table 3.5 The Convergent Validity Analysis of Each Measurable Variable

| Dim. | Item | Mean | Factor loading | P-Value | AVE |
|------|---------|------|----------------|---------|------|
| LSPT | LSPT 1 | 6.12 | 0.76 | *** | 0.82 |
| | LSPT 2 | 6.34 | 0.81 | *** | |
| | LSPT 3 | 6.25 | 0.76 | *** | |
| | LSPT 4 | 6.02 | 0.87 | *** | |
| | LSPT 5 | 6.36 | 0.82 | *** | |
| | LSPT 6 | 6.74 | 0.74 | *** | |
| | LSPT 7 | 6.25 | 0.91 | *** | |
| | LSPT 8 | 6.15 | 0.81 | *** | |
| | LSPT 9 | 6.21 | 0.75 | *** | |
| | LSPT 10 | 6.53 | 0.72 | *** | |
| | LSPT 11 | 6.42 | 0.79 | *** | |
| CC | CC1 | 6.11 | 0.70 | *** | 0.71 |
| | CC2 | 6.51 | 0.88 | *** | |

| CC3 | 6.48 | 0.76 | *** | |
|-------|----------------|--|---|---|
| CPI1 | 6.32 | 0.78 | *** | 0.81 |
| CPI 2 | 6.56 | 0.78 | *** | |
| CPI 3 | 6.64 | 0.73 | *** | |
| CPI 4 | 6.41 | 0.81 | *** | |
| | CPI 2 CPI 3 | CPI 1 6.32 CPI 2 6.56 CPI 3 6.64 | CPI 1 6.32 0.78 CPI 2 6.56 0.78 CPI 3 6.64 0.73 | CPI 1 6.32 0.78 *** CPI 2 6.56 0.78 *** CPI 3 6.64 0.73 *** |

Note: LSPT = Live Streamers' Personal Traits, CC = Consumer Cognition, CPI = Consumer Purchase Intention. *** = p<0.001.



Chapter 4 Research Results

This study's data analysis section utilized statistical software SPSS 27.0 and Mplus 7 to analyze the collected data from 413 respondents. Correlation analysis, path analysis, and mediation effects analysis were conducted to verify the theoretical hypotheses and models.

4.1 Correlation Analysis

The correlation analysis in this study primarily verifies the interrelationships among variables and assesses the magnitude of correlation coefficients between them. It's important to note that correlation does not imply causation. Pearson correlation coefficients are used to reflect the degree of linear correlation between variables and to determine whether these correlations are statistically significant. A higher value indicates a stronger linear relationship between variables, and vice versa. A positive sign between two variables indicates a positive relationship, while a negative sign indicates a negative correlation.

A threshold value of 0.7 is often used as a benchmark; correlations below this value suggest that there is no collinearity issue between the variables. As can be seen from Table 4.1, the correlation coefficients for each latent variable involved in this study are all below 0.7, indicating that there are no issues of multicollinearity among them.

Table 4.1 Correlation Analysis

| 25.516.516.66 | LSPT | CC | CPI |
|---------------|-------|-------|-----|
| LSPT | 1 | | |
| CC | 0.619 | 1 | |
| CPI | 0.601 | 0.597 | 1 |

Note: LSPT = Live Streamers' Personal Traits, CC = Consumer Cognition, CPI =

Consumer Purchase Intention.

4.2 Model Fit Analysis

Analyzing the fit of a structural equation model (SEM) is crucial for testing how well the data conform to the hypothesized model. Fit indices evaluate whether the data and the hypothesized model match each other effectively. According to the standards recommended by Browne and Cudeck (1992), the fit indices for this study are as follows: $\chi^2 = 1378.32$, df = 786, χ^2 /df = 1.75, p = 0.000, CFI = 0.93, TLI = 0.95, RMSEA = 0.04, SRMR = 0.03. These results indicate that the model has a good fit. The specific results are displayed in Table 4.2:

Table 4.2 Model Fit Indices

| Fit Index | Recommended Criteria | Model Result | Compliance | | |
|-------------|-----------------------|--------------|------------|--|--|
| ML χ² | Lower is better | 1378.32 | | | |
| Df | Higher is better | 786 | | | |
| χ^2/Df | $1 < \chi^2 / Df < 3$ | 1.75 | Complies | | |
| CFI | >0.9 | 0.93 | Complies | | |
| TLI | >0.9 | 0.95 | Complies | | |
| RMSEA | <0.08 | 0.04 | Complies | | |
| SRMR | <0.06 | 0.03 | Complies | | |

These indices collectively suggest that the model is appropriately fitted to the data, thereby supporting the theoretical hypotheses with statistically significant and substantial fit measures.

4.3 Testing of Research Hypotheses

This study aimed to address four primary research questions: 1) Does live streamers' personal traits influence consumer purchase intention? 2) Do live streamers' personal traits affect consumer cognition? 3) Does consumer cognition influence consumer purchase intention? 4) Does consumer cognition mediate the relationship between live streamers' personal traits and consumer purchase intention? After analyzing the collected data, the study yielded findings relevant to each of the aforementioned questions, detailed as follows:

4.3.1 Direct Effects Testing

Path analysis was utilized to investigate the causal relationships within the research model, specifically examining the direct effects among variables related to Research Questions 1 to 3. The Mplus 7 software was employed to facilitate this path analysis, testing the hypotheses and determining their support by the data.

The results, displayed in Table 4.3, reveal that all unstandardized regression estimates for the variables are significant (p < 0.001), indicating that:

For Research Question 1, the finding that live streamers' personal traits have a positive impact on consumer purchase intention supports Hypothesis H1. The standardized path coefficient from live streamers' personal traits to consumer purchase intention was 0.58, with a *P*-value < 0.001. This significant positive relationship indicates that consumers are more likely to intend to purchase products when live streamers exhibit favorable personal traits. This suggests that attributes such as trustworthiness, attractiveness, and expertise of the live streamers play a crucial role in influencing consumers' purchasing decisions during live streams.

Regarding Research Question 2, the significant positive effect of live streamers' personal traits on consumer cognition validates Hypothesis H2, with a standardized path coefficient of 0.65 and a P-value < 0.001. This result implies that live streamers' personal traits significantly enhance consumer cognition. In other words, when live streamers display strong personal traits, consumers are more likely to have positive cognitive responses toward the products or services being promoted. This could include better understanding of product features, perceived value, and brand recognition.

For Research Question 3, the positive influence of consumer cognition on consumer purchase intention confirms Hypothesis H3. The standardized path coefficient from consumer cognition to consumer purchase intention was 0.53, with a P-value < 0.001. This significant positive relationship indicates that higher levels of consumer cognition are associated with increased purchase intentions. This suggests that when consumers have a better understanding and perception of the products, they are more inclined to intend to purchase them.

Furthermore, the Coefficient of Determination (R²) values suggest substantial explanatory power for the variables within the model. Specifically, the R² for consumer cognition was 0.58, and for consumer purchase intention, it was 0.52, both surpassing the acceptable threshold of 0.33. These results imply that the model effectively accounts for a significant proportion of the variance in these constructs.

These results directly address the research questions by demonstrating significant relationships between the variables. The findings suggest that live streamers' personal traits not only directly influence consumer purchase intention but also affect consumer cognition, which in turn influences purchase intention.

Table 4.3 Research Model Hypothesis Analysis

| DV | IV | Std. Est. | S.E. | Est./S.E. | P-Value | R ² | Hypothesis Support |
|-----|------|-----------|------|-----------|---------|----------------|-----------------------|
| CPI | LSPT | 0.58 | 0.05 | 11.6 | *** | 0.52 | Supported |
| | CC | 0.53 | 0.03 | 17.67 | *** | | Supported |
| CC | LSPT | 0.65 | 0.04 | 16.25 | *** | 0.58 | Supported |

Note: DV=Dependent Variable, IV=Independent Variable, LSPT = Live Streamers'
Personal Traits, CC = Consumer Cognition, CPI = Consumer Purchase Intention. *** = p < 0.001.

4.3.2 Mediation Effects Testing

Mediation effect testing examines whether an independent variable influences a dependent variable through a mediator. To address Research Question 4, the study examined whether consumer cognition mediates the relationship between live streamers' personal traits and consumer purchase intention. The bootstrap method, a robust approach for testing mediation effects, was utilized with 1,000 resamples in Mplus 7 software, following Hayes (2009).

As shown in Table 4.4, the analysis indicates that consumer cognition significantly mediates the relationship between live streamers' personal traits and consumer purchase intention. The standardized indirect effect of live streamers' personal traits on consumer purchase intention through consumer cognition was 0.47, with a P-value < 0.001. The 95% confidence interval did not include zero, confirming the presence of a mediation effect and supporting Hypothesis H4. This result indicates

that consumer cognition partially mediates the relationship between live streamers' personal traits and consumer purchase intention. In other words, live streamers' personal traits not only directly influence consumer purchase intention but also enhance consumer cognition, which in turn promotes purchase intentions.

Table 4.4 Consumer Cognition Indirect Effect Analysis

| | Point | | Product | of | BOOTS | TRAP 100 | 00 TIMES | 95%CI |
|------------------|-------|------|--------------|---------|-------|----------|----------|----------|
| | Est. | | Coefficients | | Perc | entile | Bias co | orrected |
| | Est. | S.E. | Est./S.E. | P-Value | Lower | Upper | Lower | Upper |
| LSPT→C PI | 0.47 | 0.05 | 9.4 | *** | 0.42 | 0.66 | 0.46 | 0.71 |

Note: LSPT = Live Streamers' Personal Traits, CC = Consumer Cognition, CPI = Consumer Purchase Intention. *** = p < 0.001.



Chapter 5 Discussions, Conclusion, and Recommendations

This chapter first discusses the role this research has played in advancing management practices, then concludes the research findings of this study, and finally, outlines the limitations of this study and proposes some recommendations for future research.

5.1 Discussions

This study examined the impact of live streamers' personal traits and consumer cognition on consumer purchase intention in e-commerce live-streaming. The findings show both consistencies and contrasts with previous research, providing valuable insights into consumer behavior in this emerging domain.

Firstly, the significant positive effect of live streamers' personal traits on consumer purchase intention corroborates prior research. Xu et al. (2020) found that live streamers' attractiveness and expertise significantly influence consumers' purchase intentions on social commerce platforms. Similarly, Chen and Lin (2018) demonstrated that the credibility and likability of live streamers positively affect consumers' buying decisions. In contrast, Cai and Wohn (2019) suggested that while personal traits are important, the entertainment value provided by streamers may play a more critical role in certain contexts, indicating that personal traits alone might not always be the dominant factor influencing purchase intention.

Secondly, the positive impact of live streamers' personal traits on consumer cognition was evident in this study. Live streamers with appealing personal traits enhance consumer understanding and evaluation of products. This finding is consistent with Lim et al. (2017), who reported that influencers' authenticity and expertise positively influence consumer cognition, leading to better product comprehension. Xu et al. (2020) found that charismatic streamers improve consumers' perceived informativeness and entertainment, enhancing their cognitive processing. Wongkitrungrueng and Assarut (2020) also indicated that streamers' attractiveness and professionalism contribute to higher consumer cognition by building trust and providing valuable information. Thirdly, the positive impact of consumer cognition on

purchase intention supports previous research. Sun et al. (2019) emphasized that consumers' perceived value and trust significantly affect their purchase intentions in live-streaming e-commerce. Hu and Chaudhry (2020) found that consumer engagement and perceived usefulness enhance purchase intentions in live-streaming settings. Lu and Chen (2021) indicated that consumers' perceptions of interactivity and informativeness positively influence their purchasing decisions. However, Zhang et al. (2020) noted that excessive information or complexity might overwhelm consumers, potentially decreasing their purchase intentions, suggesting that the quality of information is more critical than the quantity.

Fourthly, the mediating role of consumer cognition between live streamers' personal traits and purchase intention extends the findings of prior studies. Lou and Yuan (2019) found that consumer trust mediates the relationship between influencer characteristics and purchase intention on social media platforms. In contrast, Wongkitrungrueng and Assarut (2020) suggested that in some cases, the direct influence of streamer characteristics on purchase intention may be stronger than indirect effects through consumer cognition, highlighting the potential for variance depending on the context and consumer segments.

Lastly, the importance of interaction in enhancing consumer cognition and purchase intention aligns with the work of Kang et al. (2021), who emphasized that real-time interaction in live-streaming increases consumer engagement and purchase intentions. Wu and Huang (2023) highlighted that perceived interactivity enhances the effectiveness of influencer marketing in live commerce. Conversely, Liu et al. (2021) noted that without meaningful content, interaction alone may not effectively increase purchase intention and could lead to consumer fatigue.

In summary, this study's findings are largely consistent with previous research, confirming the significant roles of live streamers' personal traits and consumer cognition in influencing purchase intention in e-commerce live-streaming. The results emphasize the need for companies to focus on both the selection of suitable streamers and the enhancement of consumer cognition through meaningful interaction. However, contrasts in some studies suggest that factors such as product attributes, consumer skepticism, and information overload may also significantly influence these

relationships, indicating areas for future research.

5.2 Conclusion of Findings

This study proposed four hypotheses, all of which were supported. The following is a systematic analysis of the test results for each hypothesis in this study.

1. Live Streamers' Personal Traits Positively Affect Consumer Purchase Intention

According to the data analysis, the standardized path coefficient of live streamers' personal traits on consumer purchase intention is 0.58, with a *P*-value of less than 0.001, indicating a significant path coefficient. Therefore, live streamers' personal traits have a significant positive effect on consumer purchase intention, thus confirming hypothesis H1. The results suggest that the more consumers identify with the traits of the live streamer, the greater the influence on their purchase intention. Hosts in live-streaming possess specific expertise in certain product areas and utilize this expertise along with personal traits to introduce product information and usage experiences through live-streaming, while providing real-time customer service to enhance user interaction and stimulate purchasing behavior (Gao, 2020; Xie et al., 2019). Consumers are attracted by the personal traits of the live streamer, thereby enhancing the appeal of the products promoted by these live streamers and increasing the likelihood of purchases.

2. Live Streamers' Personal Traits Positively Affect Consumer Cognition

According to the data analysis, the standardized path coefficient of live streamers' personal traits on consumer cognition is 0.65, with a P-value of less than 0.001, indicating a significant path coefficient. Therefore, live streamers' personal traits have a significant positive effect on consumer cognition, thus confirming hypothesis H2. During online shopping, consumers receive various information conveyed by the live streamer, which helps them evaluate products. Unlike traditional shopping methods, live shopping integrates live-streaming and host factors, combining products, reviews, and store information to expand the range of product information available to consumers. This comprehensive understanding of product

value contributes to a more positive perception of value in products or services by consumers (Leng, 2010). The attractiveness of live streamers' personal traits inspires consumer cognition during the live stream, leading to attention to the products promoted by the live streamer.

3. Consumer Cognition Positively Affects Consumer Purchase Intention

According to the data analysis, the standardized path coefficient of consumer cognition on consumer purchase intention is 0.53, with a *P*-value of less than 0.001, indicating a significant path coefficient. Thus, consumer cognition has a significant positive effect on consumer purchase intention, confirming hypothesis H3. The results indicate that the cognition stimulated during live-streaming, which provides a comprehensive understanding of product value, helps consumers make better decisions and enhances their purchase intentions (Gong, 2021). Purchase intention is a psychological activity where consumers develop a desire to buy after receiving information. When consumers focus on the products promoted by the live streamer, their likelihood of making a purchase increases.

4. Consumer Cognition Mediates the Relationship Between Live Streamers' Personal Traits and Consumer Purchase Intention

According to the data analysis, the standardized path coefficient for the mediating effect of consumer cognition between live streamers' personal traits and consumer purchase intention is 0.47, with a *P*-value of less than 0.001. Bootstrapping with 1000 resamples shows that the confidence interval does not include zero, indicating a mediating effect. Therefore, hypothesis H4 is confirmed. The personal traits of the live streamer stimulate consumer cognition of the products, which then influences consumer behavior (Zhang et al., 2016), thereby increasing the probability of purchasing the products and enhancing purchase intentions. Hence, consumer cognition plays a mediating role in the relationship between live streamers' personal traits and consumer purchase intention.

5.3 Recommendations

1) Application to Other Industries

In future research, the relationship between personal traits, consumer cognition, and purchase intention observed in e-commerce live-streaming could be explored in other industries such as banking, insurance, and financial services. Adjusting the variables to fit these contexts may reveal whether the influence of employee personal traits on purchase intention differs across service industries, providing valuable insights for customer relationship management.

2) Inclusion of Other Variables

Future research could introduce additional variables, such as consumer trust, social presence, or perceived enjoyment, to examine their interactions with personal traits, consumer cognition, and purchase intention. This would expand the research scope and deepen the understanding of factors influencing consumer behavior in ecommerce live-streaming.

3) Comparison with Other Live-Streaming Platforms

As this study focused on the Douyin live-streaming platform, future studies could compare different platforms or types of hosts to assess whether the findings are generalizable across the e-commerce live-streaming industry. Such comparisons could enhance the comprehensiveness of the research and provide insights into platform-specific strategies.

5.4 Practical Implications

E-commerce live-streaming has emerged as a significant trend in the retail industry, with a growing number of consumers participating in shopping through live-streaming platforms. Understanding how live streamers' personal traits affect consumer purchase intention has substantial practical implications for the industry's development.

Firstly, the findings can help e-commerce live-streaming platforms better understand the mechanisms through which live streamers' personal traits influence consumer purchase intention. By recognizing the importance of affability, charisma, and professionalism, platforms can selectively cultivate and recruit hosts who embody these traits, enhancing the effectiveness of shopping live streams.

Secondly, businesses can optimize their live-streaming strategies by focusing on interactive engagement with consumers. Encouraging live streamers to answer questions, provide professional advice, and establish genuine connections with viewers can strengthen consumer cognition and increase purchase intentions.

Lastly, this research can guide consumers in making more informed shopping decisions. By understanding the impact of live streamers' personal traits on their purchase intentions, consumers can critically evaluate the influence of hosts and avoid impulsive purchases, ultimately enhancing their shopping experience and satisfaction.

In conclusion, studying the influence of live streamers' personal traits on consumer purchase intention offers valuable insights for e-commerce live-streaming platforms, businesses, and consumers. Implementing the findings can improve the effectiveness and sales of shopping live streams, inform strategic decision-making, and enhance consumer satisfaction in the rapidly evolving e-commerce landscape.



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Questionnaire

Dear Sir/Madam,

Thank you sincerely for taking the time out of your busy schedule to assist in completing this survey. This questionnaire is conducted anonymously, and the data collected will be used solely for academic research purposes, with no other applications. Please respond to the following questions based on your personal experiences. We will ensure the strict confidentiality of the research data. Your cooperation and participation are greatly appreciated!

Have you ever watched e-commerce live streams or purchased products on the TikTok (Douyin) live stream platform? If you select "Yes," please continue to answer the following questions.

| the following questions. |
|---|
| □ Yes □ No |
| Part I: Demographics |
| 1. Your Gender |
| □¹ Male □² Female |
| 2. Your Age |
| \square^1 18-25 years old \square^2 26-35 years old \square^3 36-45 years old \square^4 46-55 years old \square |
| 56 years old or above |
| 3. Your Academic Degree |
| □¹ High school or below □² Associate's degree □³ Bachelor's degree □⁴ Graduate |
| degree or above |
| |

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4. Your Occupation

| □ ¹ Student □ ² General worker or service staff | ☐ ³ Government department |
|---|--------------------------------------|
| employee □ 4 Manager □ 5 Engineering technician | ☐ 6 Professional in research, |
| education, or health and environment \(\pi^7\) Self-employe | d □8 Other |
| 5. Your Monthly Income | |
| □ 1 3500 RMB or less □ 2 3501-5000 RMB □ 3 500 | 01-6500 RMB □4 6501-8000 |
| RMB □ ⁵ Over 8000 RMB | |

Part II: Relevant Scales

Please, based on your understanding and experience, select your answers to the following questions. Mark a " $\sqrt{}$ " under the number that best corresponds to your view. The scale is as follows: 1 for strongly disagree, 2 for disagree, 3 for somewhat disagree, 4 for neutral, 5 for somewhat agree, 6 for agree, and 7 for strongly agree.

(1) Question for Personal Traits

| No. | Items | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-----|--|---------|---|--------|----|----|---|---|
| 1 | I find that hosts with good looks and temperaments attract me more. | | | | | | | |
| 2 | I pay special attention to whether the host's facial expressions make me feel comfortable. | | | | 20 | 14 | | |
| 3 | The appearance and image of the host are very important. | | | | | | | |
| 4 | The host's mental state affects the duration of time I watch the live stream. | | | | | | | |
| 5 | It is important whether the host showcases any talents. | | | | | | | |
| 6 | I prefer marketing hosts who are articulate. | 54 C101 | | the st | | | | |
| 7 | A host's sense of humor can attract me. | | - | - | | | | |

| 8 | The number of viewers watching the live stream affects my interest in the product. | | |
|----|--|-------------|--|
| 9 | A host's sincere personality makes me trust the products they promote more. | \parallel | |
| 10 | It is important to me whether the host promotes products truthfully. | | |
| 11 | The host's past behavior adhering to ethical standards is important to me. | | |

(2) Question for Consumer Cognition

| No. | Items | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-----|--|---|---|---|---|---|---|---|
| 1 | I find myself inexplicably wanting to watch some shopping hosts during their live streams. | | | | | | | |
| 2 | After being attracted to a live stream, I tend to stay and watch for a longer time. | | | | | | | |
| 3 | When watching a host I am interested in, I want to learn more about the products they are selling. | | | | | | | |

(3) Question for Consumer Purchase Intention

| No. | Items | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-----|---|---|---|---|---|---|---|---|
| 1 | I am willing to learn about the products being marketed by the host while watching Douyin shopping live streams. | | | | | | | |
| 2 | I am willing to recommend the Douyin shopping live streams or marketing hosts I frequently purchase from to my friends. | | | | | | | |
| 3 | When I see a desired product, I will make a purchase during the live stream. | | | | | | | |

