

# Research on the Impact of the "Live Streaming+Short Video" Sales Model on the Purchasing Behavior of Sportswear

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**Abstract.** The "live streaming+short video" sales model, with its intuitive, interactive, and convenient characteristics, has had a profound impact on the shopping mode of sportswear. This article aims to analyze the impact of the "live streaming+short video" sales model on the purchasing behavior of sportswear, reveal the relationship and path between various influencing factors, and provide theoretical basis and practical guidance for sportswear brands to formulate more effective marketing strategies. Firstly, based on theoretical analysis, a relationship model was constructed between social influence, product information transparency, anchor credibility, promotional strategy influence, perceived trust, and purchasing behavior; Subsequently, a structural equation model was constructed based on questionnaire survey data to test the theoretical model. The empirical results show that social influence, product information transparency, anchor credibility, and promotional strategies can significantly and positively affect consumer purchasing behavior; Perceived trust plays a mediating role between the aforementioned factors and purchasing behavior. Based on empirical results, it is recommended that sportswear companies use social media for knowledge output to enhance their brand's social influence; Develop various product information disclosure plans to enhance product information transparency; Strengthen the selection of talents within the industry and cultivate professional and trustworthy anchors.

**Keywords:** short video, sell goods through livestreaming sportswear, perceived trust, structural equation

## 1. Introduction

With the rapid development of Internet technology and the widespread popularity of social media, consumers' shopping methods are undergoing unprecedented changes. Among them, the "live streaming+short video" e-commerce model, as an emerging shopping method, has quickly attracted a large number of consumers' attention with its intuitive, interactive, and convenient characteristics, and has had a profound impact on traditional shopping models. Especially in the field of sportswear, this sales model provides consumers with a new shopping experience through real-time display, interactive communication, and personalized recommendations, which to some extent promotes the purchasing behavior of sportswear [3].

As a product with social attributes, sportswear not only meets consumers' needs for sports functions, but also largely reflects their personal taste and social image [4]. Therefore, when purchasing sportswear, consumers are often influenced by various factors, including social influence, product information transparency, anchor credibility, promotional strategy attractiveness, and perceived trust. These factors are particularly important in the "live streaming+short video" sales model, as they not only directly affect consumers' purchasing decisions, but also jointly shape their shopping behavior patterns through interaction. However, despite the enormous potential and market value of the "live streaming+short video" sales model in the field of sportswear, there is still a lack of in-depth research and exploration on its specific impact mechanism on consumer purchasing behavior. Therefore, this article aims to conduct empirical research to deeply analyze the impact of the "live streaming+short video" sales model on the purchasing behavior of sportswear, reveal the relationship and path between various influencing factors, and provide theoretical basis and practical guidance for sportswear brands to formulate more effective marketing strategies.

## 2. Theoretical Analysis and Research Hypotheses

Social influence may affect the purchase of sportswear from three aspects. Firstly, social influence is often closely related to brand awareness and brand image. When a sportswear brand has a wide influence and good reputation in society, consumers' awareness

and trust in the brand will significantly increase. This sense of trust will encourage consumers to be more inclined to choose these well-known brands when purchasing sportswear, as they believe these brands can provide better quality products and services [7]. Secondly, brands with strong social influence often lead consumer trends and trends. Under the influence of various channels such as social media, celebrity endorsements, and KOL recommendations, these brands' sportswear will become symbols of fashion trends. Consumers will actively purchase these socially influential brand products in order to follow fashion trends, showcase personal taste and personality [1]. Finally, social influence is not only reflected at the brand level, but also in the emotional resonance between the brand and consumers, as well as the resulting community effect. Yang Jiamin and Li Rong (2024) pointed out that when a sportswear brand can establish a deep emotional connection with consumers and form a closely connected community, the mutual influence and recommendation among community members will become an important factor in driving product purchases [11]. The word-of-mouth dissemination, experience sharing, and common interests among community members will further consolidate the brand's social influence and promote more consumers to join the purchasing ranks.

Based on the above analysis, this article proposes the following hypothesis:

H1: Social influence has a positive impact on purchasing behavior of sportswear

In the "live streaming+short video" sales promotion, the transparency of product information has a significant impact on consumer trust [9]. A comprehensive, accurate, and detailed product display can reflect brand sincerity and professionalism, enhance consumer trust, and is the key to facilitating purchases. In traditional shopping, information asymmetry often discourages consumers, while the "live streaming+short video" model presents products comprehensively through intuitive videos and real-time explanations, reducing this risk and making consumers more confident in purchasing. At the same time, modern consumers have personalized and diversified demands for sportswear, and high transparency allows consumers to compare different products according to their needs, find the most suitable one, and improve satisfaction and loyalty [5]. In addition, enriching product information and real-time interaction also help consumers make decisions. By watching videos, listening to explanations, and participating in Q&A sessions, consumers can gain a deeper understanding of product features and usage effects, and make informed choices.

Based on the above analysis, this article proposes the following hypothesis:

H2: Product information transparency has a positive impact on purchasing behavior of sportswear

Trust is a prerequisite for purchasing behavior. In live streaming sales scenarios, consumers cannot directly touch and try out products, so they often rely on the host's recommendations and introductions to make purchasing decisions. The credibility of the anchor directly affects the level of trust consumers have in the products they recommend [6]. When the anchor presents a professional, sincere, and trustworthy image, consumers are more likely to believe that the recommended sportswear has superior quality and performance, thereby increasing their willingness to purchase. Highly trustworthy anchors can effectively convey product information, reduce consumer information anxiety, and enable consumers to make purchasing decisions in a shorter amount of time. Meanwhile, consumers' preference for trustworthy anchors will also encourage them to actively participate in live streaming interactions, further deepening their understanding and interest in products. The credibility of the anchor is also reflected in their in-depth understanding of the product and accurate grasp of consumer demand. Wang Shuang (2023) pointed out that when anchors can accurately recommend sportswear suitable for consumers, consumers' purchasing confidence will be significantly improved [8]. In addition, trustworthy anchors often provide high-quality after-sales service and guarantees, further enhancing consumers' willingness to purchase and satisfaction. After purchasing, consumers' positive evaluations of trustworthy anchors will also attract more potential consumers through word-of-mouth communication.

Based on the above analysis, this article proposes the following hypothesis:

H3: Anchor credibility has a positive impact on sportswear purchasing behavior

Price is one of the key factors in consumer purchasing decisions. Promotion strategies often directly reduce the price of goods by providing discounts, coupons, discounts, etc., thereby increasing the cost-effectiveness of goods and stimulating consumers' desire to purchase. Sportswear, as a commodity with a certain consumption threshold, price discounts are particularly important for promoting sales. The strong appeal of promotional strategies means that consumers can feel tangible discounts, and this immediate economic incentive can significantly increase their willingness to purchase. Promotion strategies are often accompanied by time or quantity limitations, such as limited time flash sales, limited edition releases, etc. This marketing approach can create a sense of urgency and scarcity, prompting consumers to make purchasing decisions as soon as possible. In the "live streaming+short video" sales model, anchors can further stimulate consumers' purchasing impulse and avoid missing opportunities for discounts by emphasizing the limited time nature of promotional activities and the scarcity of products. Cui Jie (2024) believes in reducing purchasing costs, improving cost-effectiveness, and satisfying consumers' desire to take advantage [2]. These factors work together to make consumers more inclined to make purchasing decisions when evaluating the pros and cons of buying sportswear. The strong attractiveness of promotional strategies means that the effects of these positive factors are more significant, thereby promoting the occurrence of purchasing behavior.

Based on the above analysis, this article proposes the following hypothesis:

H4: The attractiveness of promotional strategies has a positive impact on the purchasing behavior of sportswear

Perceived trust is a positive and trusting attitude that consumers hold towards sellers, goods, or services during the purchasing process [10]. In the "live streaming+short video" sales model, consumers cannot directly touch and try out products, so they often rely on the recommendations and introductions of the host to make purchasing decisions. At this point, perceived trust becomes a bridge connecting consumers and goods, influencing consumers' purchasing intentions and behaviors. In the online shopping

environment, consumers face various uncertainties such as product quality, logistics speed, and after-sales service, which constitute perceived risks. Perceived trust can reduce consumers' uncertainty, making them believe that the purchased goods meet their expectations, thereby increasing the likelihood of purchase. When consumers trust anchors, products, or platforms, they will be more confident in making purchasing decisions. This sense of trust comes from various sources of information, such as the professionalism of the anchor, product reviews, platform reputation, etc. Enhanced purchasing confidence will make consumers more inclined to choose products they trust when faced with multiple choices.

Based on the above analysis, this article proposes the following hypothesis:

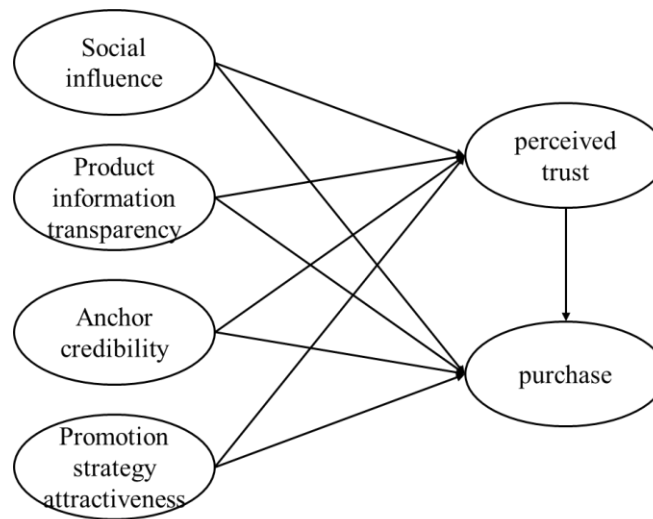
H5: Perceived trust plays a mediating role between social influence and sportswear purchasing behavior

H6: Perceived trust plays a mediating role between product information transparency and sportswear purchasing behavior

H7: Perceived trust plays a mediating role between anchor credibility and sportswear purchase behavior

H8: Perceived trust plays a mediating role between promotional strategy attractiveness and sportswear purchase behavior

The conceptual model of this article is shown in Figure 1.



**Figure 1.** Conceptual Model

### 3. Methodology

#### 3.1. Questionnaire Design

This questionnaire consists of three parts. Firstly, the introductory section of the questionnaire elaborates on the core objective of this study, which is to investigate the specific impact of the "live streaming+" sales model on the purchasing behavior of sportswear. And expressed sincere gratitude to all the respondents who participated in the questionnaire filling. Next, the second part mainly focuses on collecting the personal basic information of the respondents, mainly revolving around demographic characteristics such as age, gender, educational background, occupation, and income level. The collection of this information is crucial for subsequent data analysis, as it helps to accurately understand the differences in purchasing behavior among different consumer groups under live streaming sales models. Finally, the third part serves as the main body of the questionnaire and is the core of the entire questionnaire. This section covers various key variables in the research model, including social influence, product information transparency, anchor credibility, promotional strategy attractiveness, perceived trust, and sportswear purchasing behavior. In order to accurately measure consumers' feelings and evaluations of these variables, this article draws on the mature scales designed by Cheng Chun (2024), Mi Liangchuan, and Li Tao (2022) to design various measurement items, and uses the Likert 5 scale for investigation [2, 5].

#### 3.2. Data Collection

The survey was conducted from April 15th to April 22nd, 2024, mainly through online social media, email, and professional survey websites, as well as offline QR code scanning. A total of 500 questionnaires were distributed. As of April 25th, 462 questionnaires have been successfully collected. Strict screening and review were conducted on the collected questionnaires, removing a total of 67 invalid questionnaires such as incomplete filling, obvious contradictions in answers, and duplicate filling. Finally, 395 valid questionnaires were identified. In the valid questionnaires, the gender ratio is balanced, with male respondents accounting for 38% (150 respondents) and female respondents accounting for 62% (245 respondents); Under 18 years old

accounted for 8% (32 cases), 18-30 years old accounted for 47% (186 cases), 30-45 years old accounted for 29% (115 cases), and over 45 years old accounted for 16% (62 cases).

### 3.3. Reliability Test

At present, reliability analysis mainly uses two indicators, Cronbach's alpha (Cronbach's alpha coefficient) and CITI (total correlation of correction terms), to evaluate the stability and consistency of questionnaires or scales. Specifically, a Cronbach alpha coefficient greater than 0.7 is generally considered to have good reliability, while a coefficient greater than 0.8 indicates excellent reliability; A CITI value higher than 0.3 indicates a strong correlation between the item and the variable. Table 1 reports the reliability analysis results, where the Cronbach alpha coefficients for variables such as social influence, product information transparency, anchor credibility, promotional strategy attractiveness, perceived trust, and purchasing behavior all range from 0.761 to 0.914, indicating a good to very good level of reliability. Meanwhile, the CITI values of each item are also greater than 0.5, indicating a strong correlation between these items and their corresponding variables. Overall, the scale presented in this article has good reliability.

**Table 1.** Reliability Test Results

variable	items	CITI	Cronbach's alpha
social influence	Q1	0.633	0.911
	Q2	0.663	
	Q3	0.745	
	Q4	0.711	
	Q5	0.912	
Product information transparency	Q6	0.847	0.761
	Q7	0.877	
	Q8	0.868	
	Q9	0.926	
Anchor credibility	Q10	0.755	0.837
	Q11	0.791	
	Q12	0.679	
	Q13	0.903	
Anchor credibility	Q14	0.846	0.914
	Q15	0.892	
	Q16	0.922	
	Q17	0.866	
Perceived trust	Q18	0.815	0.814
	Q19	0.919	
	Q20	0.766	
Purchasing behavior of sportswear	Q21	0.743	0.853
	Q22	0.858	

### 3.4. Validity Test

Validity testing is an important step in evaluating the accuracy and effectiveness of questionnaire or scale measurement results. In the validity test of this article, two main indicators were used: KMO (Kaiser Meyer Olkin) value and Bartlett sphericity test. Table 2 reports the validity test results, with a KMO value of 0.8264, far greater than 0.7, indicating that the sample data is very suitable for factor analysis; The Bartlett sphericity test is a statistical test used to evaluate whether there is a correlation between variables. The significance level of Bartlett's sphericity test is 0.000, far less than 0.05, and the approximate chi square value is 2855.733, indicating a significant correlation between variables and suitable for further factor analysis.

**Table 2.** Validity Test Results

Bartlett	KMO	0.8264
	Approximate chi square	2855.733
	df	122
	Sig.	0.000

## 4. Model and Hypothesis Testing

### 4.1. Model Checking

When evaluating the fit of the research model, this article uses the maximum likelihood method as the analysis method. The discrimination criteria include that the chi square degree of freedom ratio ( $\chi^2/df$ ) should be less than 3.000; The absolute fit index (GFI), normative fit index (NFI), and comparative fit index (CFI) should all be greater than 0.900; Meanwhile, the root mean square of residuals (RMR) should be less than 0.050, and the root mean square of approximation error (RMSEA) should be less than 0.080.

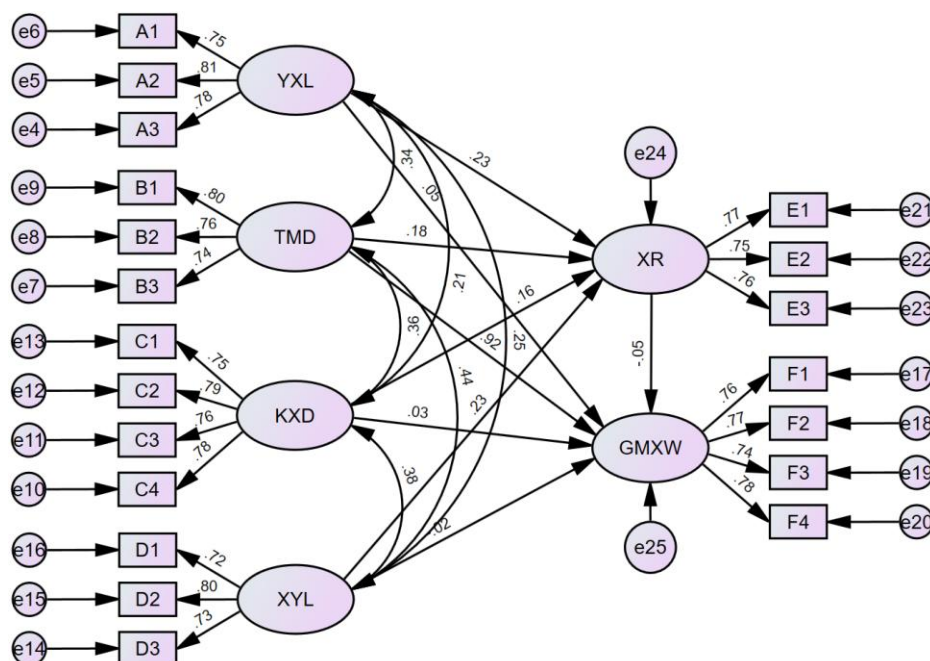
According to Table 3, the research model in this article performs well in all fit measurement standards. The value of  $\chi^2/df$  is 1.699, which is lower than 3.000, indicating that the model is not overfitting. GFI reached 0.935, NFI was 0.902, CFI was 0.981, all greater than 0.900, and RMR was only 0.025, RMSEA was 0.034, all meeting the corresponding discrimination criteria. In summary, the research model in this article has good fit and adaptability.

**Table 3.** Results of Model Fit Test

distinguish	$\chi^2/df$	GFI	NFI	CFI	RMR	RMSEA
Research model	1.699	0.935	0.902	0.981	0.025	0.034
Acceptance criteria	<3.000	>0.900	>0.900	>0.900	<0.050	<0.080

### 4.2. Hypothesis Testing

Table 4 and Figure 2 report the test results of the model hypothesis. Social influence has a significant positive impact on purchasing behavior (standardized path coefficient=0.318,  $P<0.001$ ), product information has a significant positive impact on purchasing behavior (standardized path coefficient=0.526,  $P<0.001$ ), anchor credibility has a significant positive impact on purchasing behavior (standardized path coefficient=0.369,  $P<0.001$ ), and promotional strategy attractiveness has a significant positive impact on purchasing behavior (standardized path coefficient=0.454,  $P<0.001$ ). Therefore, it can be concluded that H1, H2, H3, and H4 have been validated.



**Figure 2.** Path Analysis Results

**Table 4.** Hypothesis Test Results

Hypothesis	Path		coefficient	Standardized coefficient	P	Test results	
H1	Social influence	→	purchase	0.224	0.051	***	accept
H2	Product information degree	→	purchase	0.173	0.921	***	accept
H3	Anchor credibility	→	purchase	0.033	0.304	***	accept
H4	Promotion strategy attractiveness	→	purchase	0.036	0.021	**	accept

#### 4.3. Intermediary Effect Test

Table 5 reports the results of the mediation effect test. In this study, the Bootstrap test method was used, with 5000 repeated samples and a confidence level of 95%. Among them, social influence perceived trust sportswear purchase behavior (mediation coefficient of 0.679, P value=0.001), product information transparency perceived trust sportswear purchase behavior (mediation coefficient of 0.538, P value=0.001), anchor credibility perceived trust sportswear purchase behavior (mediation coefficient of 0.488, P value=0.002), promotion strategy attractiveness perceived trust sportswear purchase behavior (mediation coefficient of 0.611, P value=0.001), and the confidence intervals of all four paths do not include 0. From this, it can be inferred that the mediating effect of perceived trust is significant in this model, with H5, H6, H7, and H8 being valid.

**Table 5.** Results of Mediation Effect Test

Hypothesis	Path	Total effect	Direct effect	Indirect effect		95% Confidence interval		Result
				Coefficient	P	Lower bound	Upper bound	
H5	Social Influence - Perceived Trust - Sportswear Purchase Behavior	0.679	0	0.679	0.001	0.389	0.827	accept
H6	Product Information Transparency - Perceived Trust - Sportswear Purchase Behavior	0.692	0.154	0.538	0.001	0.142	0.522	accept
H7	Anchor credibility - Perceived trust - Sportswear purchasing behavior	0.720	0.232	0.488	0.002	0.252	0.483	accept
H8	Promotion Strategy Attraction - Perceived Trust - Sportswear Purchase Behavior	0.984	0.373	0.611	0.001	0.198	0.632	accept

## 5. Research Conclusions and Recommendations

This study conducted an in-depth analysis of the impact of the "live streaming+short video" sales model on the purchasing behavior of sportswear. A theoretical model was constructed to examine the relationship between social influence, product information transparency, anchor credibility, promotional strategy influence, perceived trust, and purchasing behavior. A structural equation model was constructed through a questionnaire survey to test the theoretical model. The empirical results show that: (1) Social influence significantly positively affects consumer purchasing behavior. When consumers believe that a certain sportswear brand or style is widely loved, they are more likely to purchase these products to gain social recognition. (2) The transparency of product information significantly positively affects consumers' purchasing behavior. Consumers prefer brands that can provide comprehensive, accurate, and detailed product information. In this case, consumers are more likely to establish trust and make wise purchasing decisions. (3) The credibility of anchors significantly positively affects consumers' purchasing behavior. Consumers are more inclined to trust anchors who demonstrate professional knowledge and sincere attitudes, which increases their likelihood of purchasing recommended products. (4) The attractiveness of promotional strategies has a significant positive impact on consumers' purchasing behavior. Promotional activities stimulate consumers' desire to purchase by providing discounts, coupons, and other forms of incentives. (5) Perceived trust plays a mediating role between social influence, product information transparency, anchor credibility, and the attractiveness of promotional strategies and purchasing behavior, indicating that consumers' perceived trust in live streaming sales models is a key factor affecting their purchasing decisions.

Based on the above results, the following policy recommendations are proposed.

(1) Utilize social media for knowledge output and enhance the brand's social influence

In the era of digital marketing, social influence has become a key factor in brand communication. Sports clothing brands should fully utilize the extensive coverage and interactive characteristics of social media and short video platforms, and implement influencer marketing strategies by collaborating with internet celebrities and opinion leaders (KOLs) with high fan base and market

recognition. This collaboration can quickly spread brand information to the target consumer group, increasing brand awareness and popularity. In addition, brands should encourage consumers to generate content (UGC), such as sharing wearing experiences and fitness stories, as a strategy for user engagement and word-of-mouth promotion, further enhancing the brand's social influence.

(2) Develop various product information disclosure plans to enhance product information transparency

In live broadcasts and short videos, sportswear brands should provide detailed product information, including but not limited to materials, sizes, functions, applicable scenarios, return and exchange policies, and warranty services. Through comprehensive information disclosure, consumers can make more informed purchasing decisions. In addition, brands should use high-quality images and videos to showcase product details and utilize augmented reality (AR) technology to provide a virtual try on experience, allowing consumers to have a more intuitive understanding of the product before making a purchase.

(3) Strengthen the selection of talents within the industry and cultivate professional and trustworthy anchors

The success of live streaming sales largely depends on the professionalism and credibility of the anchor. Brands should choose or cultivate anchors who have a deep understanding of sportswear, who can effectively convey product features and advantages, and communicate sincerely with consumers. The professional knowledge and sincere communication of the anchor can enhance consumers' trust in the brand, thereby increasing conversion rates. Brands can continuously enhance the professional abilities of broadcasters by providing regular training, updating product knowledge, and improving communication skills.

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