

Agricultural Products Live Streaming Factors Driving Consumers' Repurchase Intention

Hui Fang Xie., *Chere Yturalde

Department of Graduate School, Angeles University Foundation

*Correspondence Author

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ABSTRACT

This study examines how agricultural products' live-streaming factors directly influence consumers repurchase intention. Employing a quantitative, descriptive-correlational research design, data will be collected via electronic and paper questionnaires from 432 consumers in Fujian Province who had purchased agricultural products through live streaming. Live-streaming experience factors will be gauged with the Agricultural Live-streaming Factor Scale and repurchase intention with the Consumer Repurchase Intention Scale (Liu & Fan, 2025). Analyses using SPSS and Smart PLS (PLS-SEM) test the direct path from live-streaming experience factors to repurchase intention. Findings are expected to extend theoretical understanding of agricultural live-streaming marketing and to offer actionable guidance for broadcasters and agribusiness managers.

Keywords: Agricultural products live streaming; Repurchase intention; Information quality; Product quality; Logistics service quality

INTRODUCTION

With the continuous advancement of Internet technology, online shopping has become an important part of People's Daily lives. Against this backdrop, live streaming of agricultural products has rapidly emerged as a new online sales model. It combines online platforms and live streaming technologies, providing an immediate and interactive channel for the display and sale of agricultural products (Liu & Fan, 2025).

Live-streaming marketing of agricultural products has become a booming field in China. According to data from the Ministry of Commerce 2024, in 2023, the online sales of agricultural products through short-video and live-streaming platforms exceeded 531-billion-yuan, accounting for 13.2% of the total e-commerce turnover of agriculture in China. Under the impetus of the national "Digital Rural" policy and the popularization of platforms such as Douyin, Kuaishou and Taobao Live, thousands of farmers, rural Internet celebrities and agricultural enterprises are now live streaming every day, directly selling fresh and processed agricultural products to consumers.

In this study, the term "agricultural products" refers to any fresh, minimally processed or primary processed food produced through agricultural, livestock or fishery activities. Specifically, it includes (1) fresh vegetables and fruits; (2) Fresh meat, poultry, eggs and dairy products; (3) Fresh aquatic products; (4) Primary processed products such as dried fruits, nuts, rice, flour, and edible oil that retain their original physical properties. Products that have undergone deep processing (such as canned foods, snacks, and alcoholic beverages) or those used for non-food purposes (such as cotton and ornamental flowers) are not within the scope of this study.

Live streaming, as a new marketing approach, has a unique charm. It can convey information about the characteristics, quality, and usage methods of agricultural products to consumers in an intuitive and vivid way (Dai & Pan, 2023). Live streaming of agricultural products not only significantly shortens the sales cycle of agricultural products and improves circulation efficiency, but more importantly, it provides consumers with a more intuitive and vivid shopping experience.

In live streaming of agricultural products, the quality of information, product quality, and logistics service quality jointly constitute the core chain that influences consumers' repurchase intention to repurchase. The quality of information directly affects consumers' purchasing decisions. Consumers judge the appearance, taste, and other features of products through live-streaming images. The professional explanations of the products by the hosts have become the key basis for consumers to evaluate the quality (Wang,2023). If the live-streaming information is accurate, highly interactive and can be adjusted for different product types, it can significantly enhance consumers' repurchase intention to buy repeatedly (Meng,2020). Product quality is the cornerstone of repurchase behavior. If consumers find that the actual product does not match the live broadcast display after their first purchase, it will directly lead to a decline in their willingness to purchase again (Huang,2023). The quality of logistics services, as the "lifeline of transaction experience" for fresh agricultural products, its timeliness (delivery speed), cold chain coverage rate, packaging damage rate, etc. directly affect consumers' post-purchase evaluation and subsequent repurchase decisions (Liu & Fan,2025).

The results of this study will provide empirical evidence for understanding the specific direct impact of various factors in live-streaming agricultural products on consumers repurchase intentions. Ultimately, it will help enhance the competitiveness of live-streaming agricultural products, improve the sales effect of live-streaming agricultural products, increase farmers' income, optimize the consumer experience, and promote the healthy development of the agricultural product e-commerce industry.

Study Objectives

General Objective

The study intends to assess the direct influence of agricultural product live streaming factors on consumers' repurchase intention.

Specific Objectives

To achieve the research objectives outlined in this study, the following specific objectives will be addressed:

To describe the factors influencing the respondents repurchase intention in terms of:

- a. Information quality
- b. Product quality
- c. Logistics service quality

To describe the respondents' repurchase intention.

To test the significant direct relationship between agricultural product live streaming factors and the respondents' repurchase intention.

In view of the above research objectives, the following null hypothesis will be tested.

Ho1: There is no significant direct relationship between the live-streaming factors of agricultural products and the respondents' repurchase intention.

Theoretical Framework

In this study, we constructed a direct-effect theoretical model, integrating agricultural product live-streaming influencing factors and consumers' repurchase intention into a unified framework. This research is based on the following theories:

(1) Social Exchange Theory

The social exchange theory holds that human social behavior can be regarded as a process of resource exchange (George C,1958). This kind of exchange behavior not only involves the exchange of material resources such as money, goods, and services, but also the exchange of non-material resources such as emotions, information,

social recognition, and personal achievements. From the perspective of social exchange theory, the exchange behavior in live-streaming agricultural products is realized based on the principle of reciprocity. Live-streaming hosts attract consumers by providing high-quality live-streaming content and high-quality agricultural products. Consumers repay them by purchasing agricultural products repeatedly and giving positive feedback, such as likes, comments, and satisfaction ratings, to the live-streaming hosts. This communication process helps to cultivate long-term repeat purchase behavior between live-streaming hosts and consumers, thereby promoting the sales of agricultural products and the development of agriculture. Therefore, the social exchange theory provides a strong theoretical support for understanding the repeat purchase exchange behavior of agricultural products in live streaming.

(2) Theory of Planned Behavior

Theory of Planned Behavior was expanded on the basis of Theory of Reasoned Action and is used to explain and predict human behavioral intentions and actual behaviors (Icek Ajzen, 1991). The core idea of the theory of planned behavior is that an individual's behavioral intention is the most direct predictor of behavioral occurrence. Conversely, behavioral intention is influenced by three main variables: attitude, subjective norms, and perceived behavioral control. Attitude is an assessment of whether a person likes or dislikes a certain specific behavior. Subjective norms refer to the social pressure that an individual feels when deciding whether to engage in a certain behavior. It reflects the influence of important others or groups on an individual's behavioral decisions. Based on the theory of planned behavior, this study can establish the direct correlation between multi-dimensional live streaming quality cues and repurchase intention in live-streaming of agricultural products. Research and verification of relevance can help marketers better understand the behavioral decision-making process of consumers, formulate effective marketing strategies, and stimulate continuous repurchase behavior.

(3) SOR Theory (Stimulus—Organism—Response Theory)

The SOR theory is a theoretical framework widely applied in fields such as psychology, behavioral science, and marketing (Woodworth, 1926). The central idea is that external (stimuli) act on individuals or organizations (organisms), causing internal psychological and physiological responses, which are manifested as external behavioral responses (reactions). In this theory, stimuli usually come from external factors such as advertisements, products, and services, and organisms are individuals or organizations with unique cognitive, emotional, and behavioral tendencies to screen and interpret stimuli. Based on the SOR theory, this study assumes that in the live-streaming room of agricultural products, information quality, product quality, logistics service quality, etc., as external environmental stimulating factors, will directly drive consumers' final repurchase intention behavioral response.

(4) Expectation-Confirmation Theory

The expectation-confirmation theory holds that consumers form expectations of the performance of a product or service based on available cues before purchase. After purchase, they compare their actual experience with these expectations to determine the degree of confirmation (Richard L, 1977). Positive confirmation will strengthen consumers' repurchase intention to repurchase, while negative confirmation will reduce repurchase intention. In the context of agricultural product live streaming, this logic is applied to three core live streaming factors: information quality, product quality, and logistics service quality. When consumers watch live broadcasts, they form pre-purchase expectations for these three dimensions. After receiving the goods, consumers compare actual experience with initial expectations to generate confirmatory evaluation. Positive confirmation will directly promote repeated purchase behavior, while negative inconsistency will curb repurchase intention. This theory provides core theoretical logic for verifying the direct impact of live streaming factors on repurchase intention.

Conceptual Framework

The research paradigm shows the model for conducting this study. This framework only retains two core variables: independent variable and dependent variable. As shown in Figure 1, the independent variable consists of three dimensions of live Streaming Factors (information quality, product quality, and logistics service quality),

and the dependent variable is consumers' repurchase intention. The model only tests the direct path from live streaming factors to repurchase intention .

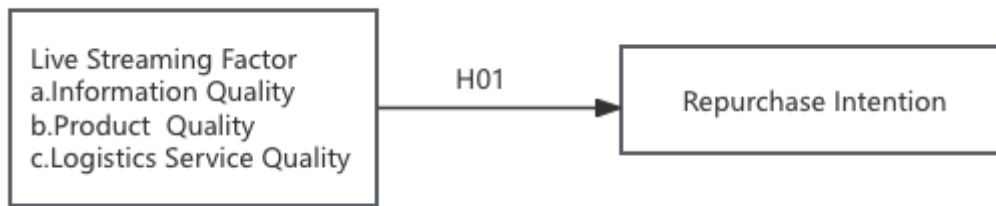


Figure 1. Paradigm of the study

REVIEW OF RELATED LITERATURE

Live Streaming Factors

Live streaming of agricultural products refers to the economic activities in which merchants sell agricultural products through online live streaming on the e-commerce platform (Yu,2022). The essence of live delivery of agricultural products is a process of displaying, marketing, and disseminating products, which is a new type of Internet of Things transaction. Live streaming of agricultural products connects the Internet with agricultural products to show and trade with consumers, breaking the restrictions of time, space, and scene, and possessing the unparalleled power of traditional offline sales (Song, 2021). Different from traditional TV shopping, live streaming of agricultural products transforms one-way sales of products into social communication, and consumers can understand the information about agricultural products in real time, which improves the conversion rate of agricultural products and the probability of repeat purchase. Live streaming of goods not only helps farmers find a market for agricultural products, alleviates the problem of unsalable agricultural products, but also provides some jobs, helps improve the income level of local people, and is an effective way to promote the rural revitalization policy (Xiao & Wang, 2021). Based on scholars' understanding of live streaming concepts of agricultural products, this paper defines live streaming of agricultural products as: relying on the Internet, live streaming of agricultural products adopts commercial means of selling agricultural products, disseminates agricultural information through live streaming, communicates with consumers in real time, and prompts them to place orders and make repeated purchases.

Live-streaming of agricultural products, as an emerging retail model, is attracting an increasing number of consumers with its unique charm. The success of this model is inseparable from the quality of information provided during the live-streaming sales of agricultural products, the quality of agricultural products, and the quality of logistics services.

As the leaders and communicators of live streaming, the professionalism of live-streaming hosts and the quality of the information they provide invisibly influence consumers' repurchase decisions. The quality, taste, and price of agricultural products are the core issues that consumers are most concerned about. The quality of logistics services is directly related to consumers' shopping experience and subsequent repurchase behavior. The three complement each other and together constitute the unique charm of live-streaming agricultural products. Only when the quality of information provided by the hosts, the quality of agricultural products, and the quality of logistics services are all at their best can agricultural product live streaming truly leverage its advantages, attract more consumers, and achieve a win-win situation in sales and long-term customer loyalty. This study analyzed three factors surrounding live-streaming of agricultural products, namely information quality, agricultural products quality, and logistics services quality.

Information Quality

The quality of information provided by the live-streamer has a crucial impact on the live-streaming effect and subsequent repurchase behavior. The positive role of information quality lies in helping consumers better

understand the use or uniqueness of products and brands (Meng et al., 2020). Information quality is the degree of consumers' perception of information and is an important factor for consumers' information adoption and behavioral decision-making (Liu et al., 2023). Information quality usually includes the completeness, accuracy, and timeliness of information (Li et al., 2021). When the live-streamer provides complete, accurate, and timely product and enterprise information during the live broadcast, consumers may feel that the information quality is relatively high. Higher information quality holds greater value and stronger persuasiveness for consumers, and can directly promote their further repurchase intention.

Product Quality

The quality of agricultural products is the core competitiveness of agricultural products, and high-quality agricultural products are the key to attracting consumers to buy repeatedly (Gong et al., 2019). In live streaming commerce, the live-streaming host plays a key role in helping merchants convey product information in an all-around way, helping consumers feel products in a more real and three-dimensional way, and promoting consumers' continuous purchase behavior. The live-streaming host usually introduces the planting environment, growth cycle, picking time, etc. of agricultural products in detail, so that the audience can intuitively feel the quality of agricultural products. Its positive role is to help consumers better understand the uniqueness of products, so as to reduce the uncertainty of purchasing decisions and increase repurchase intention (Li, 2020). (Liu & Hu, 2022) showed that consumers' repurchase intention to buy green products increased and had a positive impact on continuous purchasing behavior. Meanwhile, the price of agricultural products is also an important factor for consumers to consider. Reasonable price positioning can not only meet the budget needs of consumers but also improve the cost performance of agricultural products, directly enhancing consumers' repurchase intention to buy again. Therefore, the live streaming of agricultural products needs to select high-quality agricultural products and ensure reasonable prices to meet the long-term consumption expectations of consumers.

Logistics Service Quality

Logistics services, as a key factor influencing the customer experience on e-commerce platforms, have a significant direct impact on consumers' repurchase intention (Zhu et al., 2020). Taking cross-border e-commerce enterprises as the research object, empirical research has found that cross-border e-commerce logistics services can significantly enhance consumers' repurchase intention. (Wei, 2024) holds that the timeliness of logistics and the quality of information have significant influences on consumers' purchasing intentions. Through questionnaire surveys, he found that the quality of logistics services can directly enhance consumers' repurchase intention to buy again.

Therefore, for live-streaming of agricultural products to succeed, efforts must be made to improve the quality of live-streaming information, the quality of agricultural products, and the quality of logistics services, striving to provide consumers with an interesting and cost-effective shopping experience that drives repeat purchases. Only in this way can live-streaming of agricultural products stand out in the fierce market competition and become a stable long-term sales channel for agricultural products.

Repurchase intention

From the perspective of the formation mechanism, the core driving force behind the intention to repurchase stems from the comprehensive experience brought by live streaming factors - when the product quality meets expectations, after-sales service responds promptly, the live information is authentic, and logistics is delivered on time, consumers will form continuous consumption commitment and express loyalty through repeat purchase behavior (Dai & Pan, 2023). The intention to repurchase is essentially a continuous consumption commitment formed by consumers in the balance between risk and return. The willingness to repurchase is more dependent on the consistency of the post-purchase experience - if the actual received products do not match the quality and logistics timeliness (especially for fresh cold chain products) shown in the live stream, it will lead to a large number of consumers refusing to repurchase (Li et al., 2023). When consumers have a high perception of the overall live streaming experience covered by information, product and logistics quality, the positive role of store reputation and reviews will be strengthened, and the willingness to repurchase will increase (He, 2019). This

study systematically assesses how the three core live streaming dimensions directly shape consumers' core demands and repurchase preferences for live-streaming shopping of agricultural products, covering multiple dimensions such as the quality of agricultural products, information quality, and logistics service quality. It provides valuable market insights for agricultural live streaming enterprises, data support for formulating forward-looking market strategies, and decision-making references for the government and related institutions, jointly driving the agricultural product e-commerce industry towards a healthier and more sustainable direction.

The Direct Relationship Between Live Streaming Factors and Consumer Repurchase Intention

In the field of agricultural product live-streaming, the main influencing factors include the information quality of agricultural product live-streaming, product quality, logistics service quality, etc. Therefore, it is particularly important to study their direct impact on consumers' repurchase intention. Whether consumers can continue to purchase after their first order often depends on the authenticity and interactivity of the information in the live stream. (Chen,2024) pointed out that the professional knowledge and product usage experience of live-streaming hosts can enhance consumers' positive consumption perception, while the integrity and affability of live-streaming hosts help cultivate long-term repeat purchase behavior. For instance, by elaborately explaining the production environment and the planting process, or presenting real-time growth images of agricultural products, live-streamers can effectively reduce consumers' doubts about product quality and directly boost repurchase intention. (Xiao&Wang ,2021) verified consumers' repurchase intentions based on consumer survey data of agricultural product live-streaming rooms (including information quality). For instance, in tea live-streaming, the dissemination of professional tasting knowledge and information on origin traceability has significantly enhanced consumers' repurchase intention. The stability of product quality is also a crucial aspect. Consumers often confirm the reliability of products through intuitive quality inspection demonstrations in live-streaming rooms (such as on-site testing of fruit sweetness) or Blockchain traceability technology. The synergistic effect of these factors directly affects consumers' long-term stickiness towards live-streaming channels (Ma,2024). In addition, due to the perishable and easily deteriorated nature of fresh agricultural products, consumers pay particular attention to the logistics process. The timeliness of cold chain transportation and the integrity of packaging directly affect the quality experience of the products upon receipt. Data shows that complaints caused by logistics delays or damaged packaging can lead to a nearly 40% decline in consumers' repurchase intention. Therefore, optimizing information presentation, product control standards, and logistics cooperation can directly increase the repurchase rate of consumers without relying on intermediate psychological variables.

Future Research Perspectives

This study takes consumers in Fujian Province who participate in live-streaming shopping of agricultural products as the research object and conducts an in-depth investigation into the three core live-streaming influencing factors (information quality, product quality, and logistics service quality). The core purpose of the research is to explore the key research question: whether agricultural product live streaming factors exert a significant direct impact on consumers' repurchase intention under the specific regional cultural background of Fujian Province.

Through this study, we aim to reveal the direct behavioral driving mechanism of agricultural live streaming service conditions on consumers' repeat purchase decisions, provide targeted marketing strategy suggestions for live-streaming merchants of agricultural products to optimize live-streaming content, product supply and logistics matching, and ultimately promote sales growth and sustainable development of agricultural live-streaming shopping. Meanwhile, this research will also provide direct empirical data and theoretical support for researchers in related fields, promoting the in-depth development of research in the field of agricultural product live-stream e-commerce.

Methods

Study Design and Locale

This study adopts a quantitative research design that utilizes descriptive-correlational methods to explore the direct relationship between live-streaming factors of agricultural products and consumers' repurchase intention.

Through this method, this study will quantify the direct correlation between live-streaming factors of agricultural products in Fujian Province and consumers' repurchase intention. Quantitative analysis methods were adopted, and empirical data were collected through relevant questionnaire surveys. This study comprehensively explores the direct interaction relationship between live-streaming factors of agricultural products and consumers' repurchase intention.

This study adopts a quantitative, description-correlation design. The reason is that agricultural live-streaming consumption behavior involves direct linear relationships between multi-dimensional independent variables and single-dimensional dependent variables. Quantitative methods can objectively measure latent variables such as live-streaming experience and repurchase intention. Descriptive analysis can present sample characteristics, correlation analysis can preliminarily verify the association of variables, and regression path analysis can test the direct predictive effect of live streaming factors on repurchase intention, which fully matches the research goal of exploring "direct influence mechanism". Combining SPSS and Smart PLS (PLS-SEM) analysis can handle multivariate regression and test the significance of direct paths to ensure the robustness of the results.

This study chooses Fujian Province as the research site. Firstly, Fujian Province, located on the southeast coast of China, is one of the important agricultural provinces in China. It has rich agricultural resources and a developed agricultural processing industry, which provides a rich material basis for live-streaming agricultural products. At the same time, Fujian has a high Internet penetration rate, and consumers have a high acceptance of emerging consumption models (Luo,2023). Fujian Province has actively responded to the national call for the development of e-commerce and digital economy, and the live streaming e-commerce industry has developed rapidly in the province, providing a rich practical background for the study (Li,2025).

Study Participants

Sample Size and Sampling

This study took agricultural product consumers in Fujian Province as the research object using convenience sampling. The sample size was determined through an online calculator (Rao Ruan formula), and the questionnaire was distributed in the WeChat group via "Wenjuanxing".

1. Definition of respondents and sampling scope

Target group: Consumers who had purchased agricultural products from Fujian through live-streaming platforms in the past 12 months (such as Douyin, Taobao Live, Pinduoduo's agricultural assistance zone, etc.). They were segregated by age groups.

Geographical coverage: Focusing on the counties and cities within Fujian Province where agricultural product e-commerce was active - including Quanzhou (Anxi tea), Ningde (Gutian mushroom), Zhangzhou (fruit production area), and Fuzhou (consumption hub), covering both the production and consumption ends. The respondents were further classified as to cities.

2. Sample size calculation

The G-Power Analysis was used as the sample size calculator (with parameters set as follows):

The estimated overall scale (N) = approximately 18.6 million live-streaming shopping users in Fujian Province (based on the "2024 Fujian E-commerce Development Report")

Confidence Level = 95%

Margin of Error = $\pm 5\%$

Response Distribution = 50% (conservative estimate)

Calculation result: The minimum valid sample size required 385.

Note: A total of 432 questionnaires were distributed (with a 15% buffer for invalid questionnaires reserved), ensuring that the Statistical Power was ≥ 0.8 .

Actual Sampling method: Convenience Sampling in non-probability sampling combined with the feature of Quota Sampling.

The distribution through "Wenjuanxing" in WeChat communities was for convenient sampling (nearby and voluntary participation). However, quota control was set up: stratified by age group and classified by city (Quanzhou/Ningde/Zhangzhou/Fuzhou), ensuring that the sample structure covered the demographic characteristics of the study and had the characteristics of quota sampling.

A total of 385 valid responses were collected in this study. The demographic analysis of the survey sample revealed that the 21–30 age group constituted the largest proportion of valid respondents at 58.18%, followed by the 31–40 age group at 21.82%. This indicated that participants in agricultural product live-stream shopping predominantly belonged to the middle-aged and young demographic, reflecting a relatively concentrated age distribution. In terms of gender, female respondents accounted for 65.71%, significantly higher than the 34.29% male share, highlighting women's greater engagement in live-stream agricultural product consumption. Regarding shopping experience, 48.31% of respondents had 1–3 years of experience, while 24.16% had less than one year—demonstrating most participants possessed substantial live-stream shopping expertise and familiarity with the consumption model. Over the past 12 months, 46.23% made 1–3 purchases, 35.32% made 4–6 purchases, and 18.44% made seven or more purchases, indicating predominantly moderate-to-low purchase frequency. This sample structure effectively reflected the core characteristics of current agricultural product live-stream consumer groups, providing a robust foundation for subsequent data analysis.

Table 1. Distribution of demographic characteristics among the sample population

title	option	frequency N	proportion (%)
A_ age Age	18–20 years old	19	4.94
	Ages 21–30	224	58.18
	Ages 31–40	84	21.82
	Ages 41–50	37	9.61
	Over 50 years old	21	5.45
B_ Gender Gender	the male sex Male	132	34.29
	femininity Female	253	65.71
C_ Number of years of live shopping	Less than 1 year	93	24.16
	1-3 years	186	48.31
	4–6 years	68	17.66
	More than 6 years	38	9.87
D_ Purchase Count/Frequency	1 to 3 times	178	46.23
	4 to 6 times	136	35.32
	7 times or more	71	18.44

Inclusion and Exclusion Criteria

Inclusion criteria: This study strictly limited the respondents to those aged 18 and above, permanent residents of Fujian Province (divided by cities and age groups), and consumers who have actually purchased agricultural products from Fujian Province through live-streaming platforms within the past 12 months, ensuring the authenticity of the sample behavior and its compatibility with regional policies

Exclusion criteria: Respondents who do not want to participate in live-streaming shopping of agricultural products or who did not complete the questionnaire. Those who are not available at the time of the study are likewise excluded.

Research Instruments

This study used Cronbach's Alpha (CA) coefficients and Composite Reliability (CR) to check the consistency and reliability of the study variables.

This research assessed the live-streaming factors of agricultural products and consumers' repurchase Intention. This study referred to the measurement scale of "Factors Affecting Consumers' Repurchase Intention through E-commerce Live Streaming of Agricultural Products" (Liu & Fan, 2025), which measured the direct influencing factors of agricultural products, involving nine items. Repurchase intention was measured, involving three items; A total of 12 items. All scale items were retained without modification to fit the research scope focusing only on independent and dependent variables.

The factors of live-streaming agricultural products were defined as three dimensions: information quality, product quality, and logistics service quality. The repurchase intention of consumers was one single dimension. This survey used the Likert 5-point scale from the base study, ranging from "1" (strongly disagree) to "5" (strongly agree), to measure the participants' opinions.

Table 2. Mean Descriptive Rating

Range	Descriptive Rating	Rank
1.0 - 1.80	1 - Strongly disagree (SD)	1
1.81 - 2.60	2 - Disagree (D)	2
2.61 - 3.40	3 - Neither agree nor disagree (N)	3
3.41 - 4.20	5 - Agree(A)	4
4.21 - 5.0	6 - Strongly agree (SA)	5

Agricultural Products Live Streaming Factors Scale Design

This study referred to the measurement scale of influencing factors of agricultural product live streaming in the paper "Factors Affecting Consumers' Repurchase Intention of Agricultural Product E-commerce Live Streaming." (Liu & Fan, 2025) which measured the direct factors influencing agricultural products, involving a total of 9 items. This scale was complete and could comprehensively reflect consumers' perception of live streaming quality, so no item modification was carried out.

Scale design of Consumer Repurchase Intention

This study measured the repurchase intention of agricultural products through e-commerce live streaming by referring to the consumer repurchase intention measurement scale in "Factors Affecting consumers' repurchase intention through E-commerce Live Streaming of Agricultural Products" (Liu & Fan, 2025), and formed a 5-

point Likert scale consisting of 3 items. The items of the repurchase intention measurement scale remained unchanged.

Specific Procedures

Data Collection

The initial investigation was conducted after obtaining approval from the Ethics Review Committee of the Angeles University Foundation to ensure the reliability and effectiveness of the research tools. The initial questionnaire, interpreted using Mandarin for better understanding by Chinese respondents, underwent a small-scale pilot test, with consumers randomly selected from 9 cities in Fujian Province for distribution. During the data collection stage, the researcher used the "Wenjuanxing" platform to generate electronic questionnaires and precisely reach the target samples through the WeChat ecosystem: First, established a WeChat group for "Live-streaming consumers of Agricultural Products", and then sent the link and QR code of Wenjuanxing to the group members, along with a brief description, to increase the response rate. The questionnaire backend was set with restrictions of "answer only via WeChat" and "unique IP+ device number" to ensure that the same user could only submit once, thereby guaranteeing the independence of the sample and the quality of the data.

Ethical Considerations

Throughout the research process, the researcher strictly adhered to the ethical guidelines established by the AUF University Ethics Review Committee. The research respected the intellectual property rights of previous scholars, ensuring that any referenced arguments or ideas were appropriately cited.

Informed Consent Process, Duration of Participation, and Withdrawal Criteria

In the questionnaire survey, respondents were informed that their participation was entirely anonymous and voluntary, with no personal privacy being involved. The questionnaire survey sought informed consent from respondents and ensured they were aware of their participation in the research. Participants were instructed to respond to the survey items based on their actual experiences, as there were no right or wrong answers. Completing the questionnaire was expected to take approximately 10 to 15 minutes. Participants had the right to decline participation or withdraw from the research at any time without any obligations.

Risks and Inconveniences

This research solely required participants to complete a survey questionnaire consisting of two major sections (live streaming factors measurement items and repurchase intention items). No additional personal sensitive information was collected from respondents; thus, participation in the research entailed no significant risks. Additionally, the questionnaire data was used exclusively for academic research purposes, with no other intended applications. On average, completing the questionnaire took only 10 to 15 minutes. Online questionnaire links were mainly published through social media platforms (such as WeChat, QQ).

Benefits of the Study

Firstly, by focusing on the direct relationship between live-streaming factors of agricultural products and consumers' repurchase intentions, it provides a new targeted perspective and marketing strategy for agricultural product live broadcast operators, which is conducive to promoting the innovative development of agricultural e-commerce. Secondly, taking Fujian Province as the specific research site, combined with the characteristics of local agricultural products and consumer behaviors, the research results are more regionally targeted and have practical guiding significance. In addition, by adopting questionnaire surveys alongside SPSS and Smart PLS (PLS-SEM) analytical methods, this study guaranteed data objectivity and analytical accuracy, offering a scientific reference for enterprise decision-making and facilitating the sound development of the agricultural live-streaming industry.

Privacy, Confidentiality, and Data Management

In accordance with the Philippines' Data Privacy Act of 2012, the researcher will ensure the confidentiality of participants' identities. Personal information and survey responses will be strictly protected, with questionnaire data used solely for research purposes. The survey data will be retained for one year, stored in the researcher's vault and subsequently disposed of appropriately. Original questionnaire forms will be permanently deleted within one year of the research's completion.

Conflict of Interest

There was no conflict of interest in the study.

Statistical Analysis Of Data

To analyze the collected data, the following statistical methods were employed:

First, data preprocessing and preliminary tests were conducted. SPSS was used to perform sample descriptive statistics and the common method bias test (Harman's single-factor test).

Second, the PLS-SEM model was adopted for reliability and validity assessment of the measurement model. The tests covered internal consistency reliability (Cronbach's α coefficient, Composite Reliability CR), convergent validity (Average Variance Extracted, $AVE \geq 0.5$), and discriminant validity (Fornell-Larcker criterion, HTMT criterion). These examinations ensured that the indicators of all latent variables possessed satisfactory reliability and validity and eliminated the interference of measurement errors on research results.

Third, structural model (endogenous model) verification and direct path analysis were carried out. After the measurement model passed all tests, the structural model was assessed. Bootstrap resampling with 5,000 iterations was applied to judge the significance of the direct path coefficient via t-values and p-values, so as to analyze the direct effect of agricultural live-streaming influencing factors on consumers' repurchase intention. Meanwhile, model fit indicators of PLS-SEM including SRMR, NFI and R^2 were referenced for comprehensive evaluation.

Descriptive Statistical Analysis

The weighted average of the 5-point Likert scale was adopted to measure latent variables including agricultural live streaming factors and repurchase intention. SPSS software was utilized to analyze the characteristics and distribution of sample data, with mean values, extreme values and standard deviations selected as core indicators to interpret the central tendency, dispersion and overall distribution of the data.

PLS-SEM Model Analysis Procedures

PLS-SEM is a quantitative research technique that models causal relationships between observable variables and latent variables through a set of structural equations. It was particularly applicable to predictive and exploratory research, as it prioritized maximizing the explained variance of the model rather than focusing on model fit testing. This method was well-suited for models with multi-dimensional exogenous constructs and single-dimensional endogenous constructs, and accommodated relatively small sample sizes. It enabled the estimation of direct relationships within both structural and measurement models. This study strictly followed two standardized PLS-SEM analytical procedures via SmartPLS software to complete empirical testing: measurement model validation, and structural model direct path analysis. No independent Pearson correlation analysis or traditional regression analysis was adopted in this research.

Measurement Model Test

First, this study conducted reliability and validity tests on the measurement model. Internal consistency reliability of all latent variables was assessed through Cronbach's Alpha coefficient and Composite Reliability (CR). Convergent validity was verified with the Average Variance Extracted (AVE), where the standard

threshold was set at $AVE \geq 0.5$. In addition, the Fornell-Larcker criterion and HTMT criterion were jointly adopted to evaluate discriminant validity. These systematic tests ensured that all scale items possessed satisfactory reliability and validity, and effectively avoided the interference of measurement errors on the subsequent empirical results.

Structural Model Test and Direct Path Analysis

After the measurement model met all validation standards, the structural model was tested in this study. A total of 5,000 Bootstrap resampling iterations were performed to judge the significance of the single direct path coefficient based on t-values and p-values. This study analyzed the direct predictive effect of agricultural product live-streaming influencing factors on consumers' repurchase intention. Meanwhile, multiple model fitting indicators including SRMR, NFI, and R^2 were comprehensively referenced to evaluate the overall explanatory power and fitting quality of the research model.

Furthermore, this study adopted f^2 effect size, Q^2 predictive relevance, and VIF collinearity test results to comprehensively evaluate model robustness, eliminate multicollinearity problems among the three sub-dimensions of live streaming factors, and ensure the stability and credibility of the PLS-SEM analysis results. All analytical results were interpreted based on the S-O-R (Stimulus-Organism-Response) theoretical framework. Agricultural product live-streaming factors were defined as external stimulus (S), and repurchase intention was regarded as the final behavioral response (R). The direct path test revealed the complete transmission logic of external live-streaming stimuli directly driving consumer behavioral responses, enriching the theoretical application of S-O-R theory in the field of agricultural product live-stream e-commerce without introducing intermediate psychological organism variables.

RESULTS AND DISCUSSIONS

Descriptive Statistics of Research Variables

Descriptive Statistics of The Live Streaming Influencing Factors

Based on the descriptive statistics results, all three quality dimensions obtained mean values between 2.948 and 3.175, which fall into the neutral range (2.61–3.40) defined in Table 2. This indicates that respondents hold moderate, neutral attitudes toward information quality, product quality, and logistics service quality in agricultural live-stream shopping, rather than fully positive agreement.

Among them, information quality recorded the highest score ($M = 3.175$, $SD = 0.944$). This result supports the view that clear, accurate, and complete information provided by live-streamers effectively reduces consumer uncertainty and facilitates continuous repurchase behavior (Liu et al., 2023). High-quality live-stream information delivers strong persuasiveness, which explains why this dimension reaches the upper half of the neutral interval and gains relatively better recognition compared with the other two factors.

Product quality achieved a slightly lower moderate mean value ($M = 3.081$, $SD = 0.971$). As emphasised in previous literature, authentic and high-quality agricultural products serve as core competitiveness in live-stream commerce (Gong et al., 2019). Detailed product introduction by hosts enables consumers to perceive product uniqueness and reduces purchase hesitation (Liu & Hu, 2022). This mid-range neutral score reflects that consumers have basic recognition of agricultural product quality while still holding minor concerns regarding product consistency and actual delivery performance, which restrains repurchase intention.

Logistics service quality yielded the lowest mean score ($M = 2.948$, $SD = 0.937$), sitting close to the scale midpoint of 3. This finding aligns with previous studies confirming that logistics service quality significantly influences consumer shopping experience and repurchase intention (Wei, 2024). The lower evaluation within the neutral band indicates that logistics timeliness and service stability remain the weakest aspect restricting consumers from forming fully favourable repurchase intentions.

From the perspective of standard deviation (SD), all three aggregated latent dimension scores exhibit moderate standard deviations below 1.00, meaning that overall respondent attitudes toward each quality dimension are relatively concentrated. When observing individual measurement items, nearly all single questionnaire items demonstrate higher SD values (ranging from 1.078 to 1.140). This contrast reveals substantial divergence in consumers' personal real-world shopping experiences when evaluating specific indicators, such as product freshness, delivery speed and product weight integrity. After aggregating items into composite construct averages, extreme individual opinions are offset, leading to more stable overall evaluations for the three core dimensions. Collectively, the SD evidence demonstrates that although participants hold widely varying views on specific service details of agricultural live-stream shopping, the sample maintains a unified moderate neutral attitude toward the three quality factors at the dimension level.

Table 3. Descriptive Statistics of The Factors Influencing Repurchase Intentions

Item	Mean	SD	Degree of Agreeableness	Interpretation
1. The information provided by the live-streaming host is accurate.	3.17	1.096	Neither agree nor disagree	Moderate
2. The information provided by the live-streaming host is reliable.	3.17	1.096	Neither agree nor disagree	Moderate
3. The information provided by the live-streaming host is complete.	3.18	1.120	Neither agree nor disagree	Moderate
Information quality Mean	3.1749	0.94434	Neither agree nor disagree	Moderate
1. The agricultural products received are fresh and taste good.	3.09	1.140	Neither agree nor disagree	Moderate
2. The agricultural products received are exactly the same as presented in the live-streaming.	3.08	1.133	Neither agree nor disagree	Moderate
3. The agricultural products received are rarely short of weight.	3.07	1.109	Neither agree nor disagree	Moderate
Product quality Mean	3.0805	0.97042	Neither agree nor disagree	Moderate
1. The speed of logistics distribution is fast.	2.95	1.098	Neither agree nor disagree	Moderate
2. Logistics distribution information can be accessed any time.	2.94	1.106	Neither agree nor disagree	Moderate
3. The agriculture products received are not damaged or did not rot.	2.96	1.078	Neither agree nor disagree	Moderate
Logistics service quality Mean	2.9481	0.93737	Neither agree nor disagree	Moderate

Table 4. Descriptive Statistics of Factors Influencing Repurchase Intentions (Per Construct)

Item	Mean	SD	Degree of Agreeableness	Interpretation
Information quality	3.1749	0.94434	Neither agree nor disagree	Moderate
Product quality	3.0805	0.97042	Neither agree nor disagree	Moderate
Logistics service quality	2.9481	0.93737	Neither agree nor disagree	Moderate

Descriptive Statistics of Repurchase Intention

As presented in Table 5, all three items measuring repurchase intention and the overall construct mean ($M=3.0944$) fall within the neutral range (2.61–3.40) defined in Table 2, which indicates respondents hold moderate neutral willingness rather than fully positive intention to repeatedly buy agricultural goods via live streaming.

The item means show a slight descending trend from 3.11 to 3.07: consumers show mild acceptance of continued purchases within this channel, yet are far less inclined to develop long-term loyal consumption behaviour. This finding aligns with the theoretical logic of repurchase formation from previous literature. Repurchase intention originates from accumulated shopping experience formed by multi-dimensional live streaming quality cues and relies heavily on consistent post-purchase experience (Dai & Pan, 2023). While consumers partially recognise the value of agricultural live-stream shopping, the obvious gap between live display and real delivery experience, especially unstable cold-chain logistics, limits the formation of strong repurchase intention and prevents attitudes from reaching the "Agree" interval (Li et al., 2023).

Regarding standard deviation, each individual repurchase intention item yields an SD greater than 1.09 (ranging from 1.099 to 1.113). The relatively high SD of separate measurement items suggests considerable heterogeneity among consumers. Participants hold highly divergent personal views on future repeated purchasing plans; some shoppers intend to keep buying farm products via live streaming, whereas others express hesitation or reluctance. Once individual items are aggregated into the composite repurchase intention construct, the standard deviation decreases notably to 0.93791. The lower construct-level SD demonstrates that despite scattered opinions on specific statements, respondents converge toward a consistent moderate-neutral stance on overall repurchase intention.

As (He, 2019) illustrated, favourable service experience can strengthen positive repurchase intention. Combined with the prior descriptive statistics of the three quality dimensions, the relatively low neutral evaluation of logistics service explains why respondents only maintain mid-level repurchase intention instead of strong loyalty.

Table 5. Descriptive Statistics of Repurchase Intentions

Repurchase Intentions Item	Mean	SD	Degree of Agreeableness	Interpretation
1. I will be buying agricultural products via live streaming in the future.	3.11	1.105	Neither agree nor disagree	Moderate
2. I would love to continue buying agricultural products via live streaming.	3.10	1.113	Neither agree nor disagree	Moderate
3. Maybe I'll become a loyal consumer of buying agricultural products via live streaming.	3.07	1.099	Neither agree nor disagree	Moderate
Repurchase Intentions Mean	3.0944	0.93791	Neither agree nor disagree	Moderate

Model Validation through Measurement

The model fitting results indicate that the factor loadings of measurement items corresponding to each latent variable range between 0.836 and 0.871, all exceeding the critical threshold of 0.7, demonstrating strong explanatory power and aggregation effects for their respective latent variables. The Cronbach's α coefficients of all variables fall within the range of 0.805 to 0.826, surpassing the reference threshold of 0.7, while the composite reliability (CR) values are all above 0.8, indicating good internal consistency and stable, reliable measurement reliability. Additionally, the average variance extractable (AVE) values for all latent variables range from 0.720 to 0.741, surpassing the discriminant criterion of 0.5, further confirming strong convergent validity and optimal model fit, thereby supporting subsequent structural model direct path testing and analysis.

Table 6. Measurement Model Test Results (Factor Loadings, Reliability, and Validity)

Construct	Item	Factor loading	Cronbachs α	CR	AVE
IQ	IQ1_Information Quality	0.864	0.817	0.891	0.732
	IQ2_Information Quality	0.861			
	IQ3_Information Quality	0.840			
PQ	PQ1_Product Quality	0.859	0.826	0.896	0.741
	PQ2_Product Quality	0.858			
	PQ3_Product Quality	0.866			
LQ	LQ1_Logistics Service Quality	0.860	0.819	0.892	0.734
	LQ2_Logistics Service Quality	0.862			
	LQ3_Logistics Service Quality	0.849			
RI	RI1_Repurchase Intention	0.852	0.805	0.885	0.720
	RI2_Repurchase Intention	0.836			
	RI3_Repurchase Intention	0.857			

The latent variable discriminant validity test matrix reveals that the square roots of the AVE for each latent variable are displayed on the diagonal, ranging from 0.848 to 0.861, with their values significantly higher than the corresponding row and column correlation coefficients (ranging from 0.341 to 0.386), satisfying the Fornell-Larcker discriminant criterion. Combined with previous HTMT analysis results, the heterogeneity-to-univariate variance ratios among variables all fall within reasonable ranges, further demonstrating strong discriminant validity among the latent variables: information quality, product quality, logistics service quality, and repurchase intention. These constructs exhibit effective differentiation without significant multicollinearity issues, providing robust validity assurance for subsequent direct path analysis and hypothesis testing.

Table 7. Latent Variable Discrimination Validity Testing Matrix

	IQ	PQ	LQ	RI
IQ	0.855			
PQ	0.375	0.861		
LQ	0.362	0.341	0.857	
RI	0.385	0.386	0.357	0.848

Structural Model Analysis

Structural Model Analysis

Direct Path Coefficient and Hypothesis Testing

H01: There is no significant direct relationship between the live-streaming factors of agricultural products and the respondents' repurchase intention.

The results show that the direct path coefficient of agricultural product live-streaming factors on repurchase intention is 0.497, with a t-value of 13.448 and $p < 0.001$. The path coefficient is significantly positive. Ho1 is rejected, indicating that consumers' perceived live-streaming factors can directly and effectively promote a higher repurchase intention for agricultural products. This positive direct correlation aligns with the empirical findings of (Liu & Fan, 2025), who also verified that multi-dimensional livestream quality factors directly drive consumers' repeat purchase in agri-product e-commerce without relying on intermediate psychological variables.

Table 8. Path Coefficients of the Structural Model and Results of Hypothesis Testing

Path	Path coefficient	t-value	P-value	Hypothesis
FRI→RI	0.497	13.448	***	Rejected

*** $P < 0.001$. ** $P < 0.01$. * $P < 0.05$.

As shown in Figure 2, the standardized path coefficient of FRI to RI is 0.497 ($p < 0.001$), which supports the rejection of Ho1.

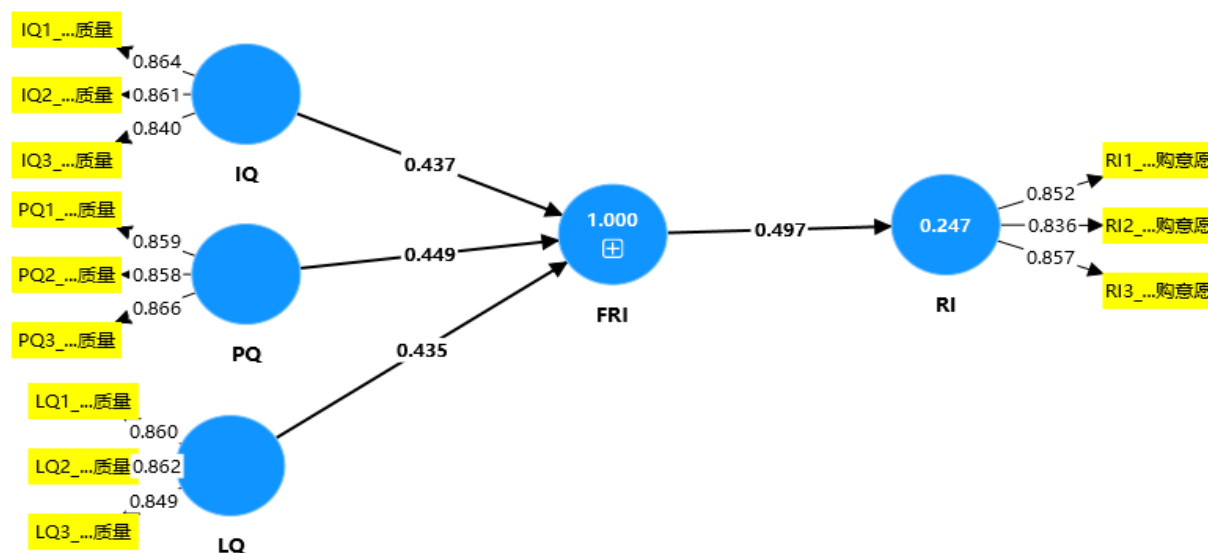


Figure 2. Structural path estimation results

R² and Explanatory Power of Endogenous Latent Variable (Repurchase Intention)

The determination coefficient R^2 for the endogenous latent variable repurchase intention (RI) is 0.247, and the adjusted R^2 is 0.245. The adjusted R^2 value closely matches the original R^2 value, demonstrating robust model fit. The R^2 value indicates a weak level of explanatory power (Hair et al., 2022). Bootstrap results confirm that R^2 is statistically significant at the 0.001 level, and its 95% confidence interval [0.179, 0.324] excludes zero, further validating that the agricultural live streaming factors possess reliable predictive power for repurchase intention.

Table 9. The R^2 and adjusted R^2 values for the endogenous latent variables

variable	R^2	Adjusted R^2	M (R^2)	STDEV	T statistics	P-value	95% CI
RI	0.247	0.245	0.249	0.037	6.733	***	[0.179, 0.324]

*** $P < 0.001$. ** $P < 0.01$. * $P < 0.05$.

Analysis of Effect Size (f^2)

The f^2 effect size of the path FRI $\rightarrow$ RI is 0.328, representing a large effect size (Hair et al., 2022). Bootstrap results show the path effect size is significant at $p < 0.001$, with a 95% confidence interval [0.218, 0.479] that excludes zero, confirming that FRI exerts a substantial predictive effect on repurchase intention.

Table 10. effect size f^2

Path	f^2	M (f^2)	STDEV	T statistics	P-value	95% CI	Effect Size
FRI $\rightarrow$ RI	0.328	0.336	0.066	4.964	***	[0.218, 0.479]	Large

*** $P < 0.001$. ** $P < 0.01$. * $P < 0.05$.

Model Fit Index (SRMR)

Based on the SRMR results for model fit metrics, the saturated model and estimated model in this study yielded SRMR values of 0.054 and 0.054, respectively. An SRMR value below 0.08 represents acceptable model fit (Hair et al., 2022). Considering the measurement model's strong reliability and validity, significant direct path coefficient, reasonable R^2 explanatory power, and stable effect size, the overall model demonstrates robust explanatory power and stability.

Table 11. Model Fit Index (SRMR)

metric	saturated model	Estimation Model
SRMR	0.054	0.054

Predictive Relevance (Q^2)

The cross-validation redundancy Q^2 results obtained using the blind folding method show that repurchase intention yields $Q^2 = 0.176 > 0$, indicating that the model demonstrates weak predictive relevance (Hair et al., 2022). Consistent with the criterion that exogenous variable FRI is excluded from Q^2 evaluation, this result conclusively demonstrates the model's reliable predictive and explanatory power for repurchase intention, further validating its overall validity and stability.

Table 12. construction for cross-validation redundancy (Q^2_{predict} , blind folding method)

measure	SSO	SSE	Q^2	Effect Size Assessment	Conclusion
RI (Repurchase Willingness)	1155.000	952.232	0.176	Weak	Weak predictive power
FRI (Exogenous, Reference)	385.000	385.000	0.000	—	Exogenous variable, not evaluated

Judgment criteria (Hair et al., 2022): $Q^2 > 0$ indicates predictive relevance; $Q^2 > 0.25$ indicates moderate relevance; $Q^2 > 0.50$ indicates strong relevance. Repurchase intention $Q^2 = 0.276$ meets the standard of moderate predictive relevance.

CONCLUSIONS AND RECOMMENDATIONS

Research Conclusions

Analysis of Variable Perception Levels

Live-Streaming Factors (FRI)

The three dimensions of agricultural live streaming factors, namely information quality, product quality and logistics service quality, all show satisfactory convergent validity, with all item factor loadings exceeding the threshold of 0.7. Among the three dimensions, information quality achieves the highest average score, followed by product quality, while logistics service quality obtains the lowest evaluation from respondents. This outcome reveals that consumers value authentic, complete and accurate product information released by live streamers most during agricultural live shopping. However, the unstable timeliness, cold chain preservation and packaging integrity of logistics services become obvious weak points in consumption experience. The poor perceived logistics service quality significantly restrains consumers' willingness to repurchase agricultural products via live streaming, which is closely associated with the perishable attributes of fresh agricultural products and imperfect regional cold chain distribution conditions in Fujian Province.

Repurchase Intention (RI)

The overall average score of consumers' repurchase intention stands at 3.0944, falling within the neutral range of the 5-point Likert scale. This moderate neutral attitude demonstrates low consumer stickiness toward agricultural live streaming shopping. Most participants are occasional low-frequency purchasers rather than loyal repeat customers. Such a result can be explained by the high homogeneity and strong substitutability of bulk agricultural products on the market. Combined with the descriptive results of the three live streaming quality dimensions, the mediocre overall evaluation of logistics services is the core reason why consumers only maintain neutral repurchase intention instead of strong willingness to buy repeatedly.

Direct Hypothesis Testing Results

The structural model path test results indicate that agricultural live streaming composite factors (FRI) exert a significant positive direct effect on consumers' repurchase intention ($\beta = 0.497$, $t = 13.448$, $p < 0.001$). Accordingly, the null hypothesis H_{01} is rejected. This finding fully verifies the direct driving logic of agricultural live streaming consumption: information quality, product quality and logistics service quality together form an integrated stimulus that can independently and directly boost consumers' repurchase behavior without intermediate psychological mediators such as satisfaction and trust. This direct influence mechanism aligns with the core viewpoints of S-O-R Theory and Expectation-Confirmation Theory, which prove that external live streaming service stimuli can directly trigger consumers' behavioral response of repurchase intention.

Model Fit, Explanatory Power and Predictive Performance

The measurement model passes all reliability and validity tests. Cronbach's α , composite reliability (CR) and average variance extracted (AVE) of all latent constructs meet standard thresholds, with satisfactory convergent and discriminant validity, laying a solid foundation for structural model analysis.

For the structural model evaluation, the coefficient of determination R^2 of the endogenous latent variable repurchase intention is 0.247, and the adjusted R^2 is 0.245. The two values are highly close, reflecting stable model performance. This R^2 value represents weak explanatory power for repurchase intention (Hair et al., 2022). The blindfolding-based cross-validation redundancy test yields $Q^2 = 0.176 > 0$ for repurchase intention, which also indicates weak predictive relevance of the model (Hair et al., 2022). Although the overall explanatory and predictive capacity of the model is limited, the direct path $FRI \rightarrow RI$ has an f^2 effect size of 0.328, classified as a large effect size (Hair et al., 2022). It demonstrates that agricultural live streaming factors possess a strong direct predictive effect on repurchase intention, and the core path relationship is stable and significant.

In terms of overall model fit, the SRMR values of the saturated model and estimated model both equal 0.054, which is far below the critical cutoff of 0.08 for acceptable model fit (Hair et al., 2022). Combined with the significant bootstrap path coefficient, large path effect size, qualified measurement model reliability and validity, the entire structural model reaches the standard of PLS-SEM empirical analysis and has robust analytical stability. The relatively weak overall R^2 and Q^2 values imply that repurchase intention is affected by multiple

external factors outside the research framework, while the single core predictor FRI still has strong direct explanatory capacity for consumers' repurchase intention.

Recommendations

Practical Recommendations

1. Comprehensively upgrade the three core dimensions of live streaming quality to improve consumers' repurchase intention

Merchants and live streamers should simultaneously optimize information quality, product quality control and logistics service capacity to offset the weak overall predictive performance of the model and activate consumer repeat purchase behavior. First, for information quality, operators can build origin traceability systems, broadcast real-time picking and planting footage, and release standardized product test reports to deliver complete, accurate and credible agricultural product information, eliminating consumers' information uncertainty. Second, strict product screening standards should be implemented to ensure the appearance, freshness and weight of delivered agricultural products are consistent with live display, reducing post-purchase disappointment caused by inconsistent product quality. Third, priority should be given to improving logistics service quality, the weakest link perceived by consumers. Local agricultural operators can cooperate with professional cold chain logistics providers, adopt shockproof and fresh-keeping packaging, shorten delivery cycles, and set up fast damage compensation channels to lift logistics satisfaction. The coordinated improvement of the three quality dimensions can directly stimulate consumers' repurchase intention under the direct-effect mechanism verified in this study.

2. Formulate targeted live streaming operation strategies based on sample demographic characteristics

The sample shows that consumers aged 21–30 account for the largest proportion, and female purchasers make up 65.71% of all respondents. Operators can design differentiated live broadcast content for core groups. For young consumers, launch small-batch combined seasonal agricultural products, and adopt concise, intuitive scene demonstration to simplify product information presentation. For female consumers, focus on fresh product appearance, food safety and taste experience during live introduction, and match delicate gift packaging to enhance perceived product quality. For low-frequency buyers, launch time-limited exclusive discounts and seasonal limited agricultural varieties to encourage secondary consumption and increase repurchase frequency.

3. Establish a standardized regional agricultural live streaming service evaluation system

Industry associations and e-commerce platforms in Fujian Province can construct a multi-dimensional assessment system covering information authenticity, product quality consistency and cold chain logistics performance. Guide agricultural merchants and live streamers to shift their operation focus from pursuing short-term sales volume to long-term repurchase rate maintenance. Taking the three live streaming quality dimensions as core evaluation indicators can standardize the live streaming operation norms of local agricultural products and promote the sustainable and healthy development of Fujian agricultural live e-commerce.

Theoretical Implications

This research supplements new direct-effect empirical evidence for agricultural live streaming consumer behavior research, and expands the application boundary of multiple classic theories without introducing mediating psychological variables.

1. Enrich the application of S-O-R Theory in rural e-commerce contexts

This study verifies that external stimuli (three dimensions of agricultural live streaming quality) can directly generate behavioral response (repurchase intention), removing the intermediate organism variable setting in traditional S-O-R frameworks. It supplements empirical evidence of the direct transmission path of S-O-R theory in fresh agricultural product live shopping scenarios.

2. Expand the practical scope of Expectation-Confirmation Theory

Consumers' pre-purchase expectation matching of live streaming information, products and logistics services can directly determine repurchase intention, without the intermediate transformation of satisfaction or trust. This conclusion extends the application scenarios of Expectation-Confirmation Theory to live streaming retail and provides a simplified direct-effect research paradigm for follow-up related studies.

3. Supplement empirical support for Social Exchange Theory and trust logic in direct-effect models

High-quality live streaming content and agricultural products provided by streamers and merchants form a reciprocal exchange relationship with consumers' repeat purchase behavior. Comprehensive high-quality live streaming experience can directly build stable long-term transaction trust perception and drive repurchase behavior. This study proves that trust perception can be integrated into the overall evaluation of live streaming factors as an implicit experience component, rather than an independent mediating variable.

4. Provide simplified model evidence for Theory of Planned Behavior

Consumers' comprehensive perceived quality of agricultural live streaming shopping represents their positive attitude toward live streaming channels, and such attitude can directly predict repurchase behavioral intention. This research offers a simplified direct-effect research model for TPB-related research in rural e-commerce fields.

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