

CRITICAL FACTORS INFLUENCING PURCHASE DECISION AMONG ONLINE SHOPPERS IN CHINESE LIVE STREAMING COMMERCE

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Abstract

This study explores the key factors influencing Chinese online consumers' purchasing decisions in live-streaming commerce. The impact of streamer attractiveness, information quality on purchasing decisions, and the moderating role of gender in this relationship are studied. The research adopts survey method, based on 487 valid survey data, and uses structural equation modeling to analyze the data. The study found that there is a significant positive correlation between streamer attractiveness, information quality and purchase decision, and gender also plays a moderating role in the relationship between streamer attractiveness, information quality and purchase decision. Like the earlier research results, the results of this study reveal the importance of streamer attractiveness and information quality on live streaming consumers' purchasing decisions. Second, the study reveals the importance of gender as a moderating factor. Furthermore, a new purchase decision model for live commerce was developed through the research. This study shows that understanding the key factors of these influences and managing them effectively will enhance business performance in the market. Insights into consumer behavior in the context of live commerce by developing model predictions.

Keywords: Live Streaming Commerce, Purchasing Decisions, Streamer Attractiveness, Information Quality

1. INTRODUCTION

In today's world, the world economy has undergone tremendous changes due to the advancement of information and communication technology (ICT) (Rust, 2020). Network technology and communication technology are changing economic and social activities and bringing many opportunities to e-commerce, which opens new opportunities and prospects for e-commerce (Setyowati et al., 2021). E-commerce (Electronic Commerce) is a new economic model that emerged with the development of computer and Internet technology (Jain et al., 2021). Live streaming commerce is an emerging e-commerce model developed based on traditional e-commerce and is an upgrade the traditional e-commerce (Kim et al., 2023). Live Streaming, also known as live, means simultaneous generation and streaming, which is not only a means of information dissemination, also a new type of social media (Fu, 2021).

At present, China's live streaming business industry chain is mainly composed of six parts, distributed into multi-channel network (MCN) institutions, streamer, retail e-commerce, short video platforms, social platforms, and service providers (Cunningham et al., 2019). According to the current scale of China's market, the competition form of China's e-commerce live streaming in 2020 can be divided into three echelons, the first echelon is the Taobao live streaming platform, with the largest market share; The second echelon is Kuaishou and Douyin, two short video platforms; The third echelon is JD.com, Pinduoduo, Vipshop and other platforms (Si, 2021). According to data from iMedia Research in 2020, Judging from the data of the TOP 10 live streaming platforms commonly used by Chinese live e-commerce users

from 2020, Taobao has the most users at 48.18, JD.com ranks second with a user utilization rate of 47.45%; There are Douyin, Xiaohongshu, Kuaishou and Mogujie, accounting for 32.85%, 22.63%, 18.98% and 14.6% respectively (iMedia Research, 2020).

The live streaming commerce has the interactivity of social media, which not only enables effective sharing and interaction between consumers, but also enables consumers "Face-to-face" communication with streamers (Liting, 2021). In such an interactive e-commerce live streaming, consumers' social needs are well met, and live streaming commerce can promote consumers to make effective decisions(Hou, 2021). Live streaming can make consumers immersed in online shopping, for example, consumers watching the live streaming of buying clothes, not only can know the material and fabric of the clothes, understand the size of their body shape, but also learn the matching of the required clothes, so that the flow of information is smoother, consumers' consumption decisions are more effective, and the user experience is better improved(Zhou et al., 2021). In the traditional online shopping process, mainly through the interface of displaying goods with pictures and texts, users often just browse at will, and stay in the interface of product details for a short time, often only a few minutes or even seconds(Pant, 2014). Through live streaming, users will be attracted by the rhythm of the live streaming, stay in the interface of the live streaming for a relatively long time, have a better understanding of the product and the concept it conveys, and also increase the opportunity for consumers to buy(Chen et al., 2023).

Compared with traditional e-commerce, live streaming e-commerce can not only show and explain products to consumers more intuitively and comprehensively, And the interaction with consumers is more direct and timelier, but also promote consumers' purchasing decisions through some promotional activities and realize the traffic more quickly and effectively (Wongsunopparat & Deng, 2021). Purchase decision during or after the live stream influencing by the live streamer by effecting the consumers knowledge and consumers trust, live streamer professionalism, interactivity, entertainment, popularity, and the degree of detail of information transmission(Lifu et al., 2023).

In addition, studies have also looked at the attractiveness of streamers, but the results of these studies are mixed. For example, KOLs may not always play a key role(Algi & Irwansyah, 2018). Consumer decisions are primarily driven by the quality and price of the product, and the attractiveness of the streamer does not greatly influence the purchase decision(Lyu et al., 2022). According to Wongsunopparat and Deng (2021)Product personalization significantly influences the purchasing decisions that are effective in marketing, which can obscure the impact of streamer appeal.

Chen et al. (2022) found that online reviews and ratings significantly influence purchasing decisions. Consumers often rely more on the experience of other consumers than on the recognition of streamers, regardless of their appeal. In addition, trust in e-commerce platforms plays an important role in consumers' purchasing decisions, potentially outweighing the influence of streamer attractiveness(Hong & Hoo, 2022). If the streamer has a negative public event, this will seriously affect the viewer's purchase intent(Ping et al., 2022b). Streamer's popularity can only lead to viewing intent, it has no impact on consumer purchase intent(Guo

et al., 2022).

Information quality (IQ) plays a critical role in enabling online consumers' purchase decisions in the absence of an opportunity to physically interact with products in the online environment (Ghasemaghaei & Hassanein, 2013; Hoang & Nguyen, 2020). Verbal and nonverbal information, the web content of e-commerce websites, accuracy of information all of it influencing the customers decision and satisfaction(Liew et al., 2017). Baubonienė and Gulevičiūtė (2015)Research shows that consumers are more likely to make a purchase when they have access to comprehensive and trustworthy product information. Factors in purchasing decisions in e-commerce are critical for businesses to succeed in digital marketplaces (Mican & Sitar-Taut, 2020). Various factors shape the consumer decision-making process, from the influence of product information and confidence-building measures to the role of social influence, price perception and convenience.

Many countries have adopted live streaming commerce, including Europe, Southeast Asia, China and the United States(Ho & Rajadurai, 2020). However, the acceptance of live streaming commerce varies from country to country. The usage rate of live streaming shopping is still not high in the United States(Cai et al., 2018). With the industry still in its Infancy, livestreaming commerce in the US. faces regulatory issues and how influencers can build relationships with brands(Liu & Yu, 2022). The regulatory landscape for e-commerce and livestreaming commerce in Southeast Asia is still evolving(Lin et al., 2023). Clear guidelines and regulations are needed to address issues such as data privacy, consumer protection and fair competition (Ariansyah et al., 2021).Logistics and network quality are also important factors limiting the development of live streaming in Southeast Asia(Addison & Aprilianty, 2022). Europe faces not only high taxes (Tofan & Bostan, 2022), but also concerns about product quality, authenticity and accuracy of product descriptions, as elsewhere. In addition, there is also the problem limitation of the inconvenience of mobile payment (Yang, 2017).

Despite the accelerating growth of live streaming commerce in China, which has had a significant impact on China's society and economy(Leung et al., 2020), a comprehensive understanding of the critical factors influencing online shoppers' purchasing decisions is still incomplete. As mentioned earlier, regulating live streaming commerce has been a challenge right now, and it is impacting both customers and companies (Qiu, 2021). As livestreaming commerce grows, raises concerns about fraud, false advertising, and the sale of counterfeit or substandard products(Han et al., 2022). In addition, it may be difficult for regulators to enact policies that adequately protect consumers and promote fair competition in this fast-moving industry (Kwilinski et al., 2019).

Although live streaming commerce has brought many conveniences(Cai et al., 2021), there are also problems affecting consumers' purchasing decisions. Since consumers cannot directly touch and try the products, the quality and authenticity of the products is a major concern(Xu et al., 2020). Logistics, service complexity, returns and after-sales service can be issues that affect consumers' purchasing decisions(Dong, 2021; Ferraz et al., 2023). Secondly, live streaming commerce involves online payment, so network security has become a major issue(Patil et al., 2018). Consumers may fear that their personal and financial information will

be leaked and change their purchasing decisions (Feng et al., 2022; Yan, 2021). In addition, the streamer's professional knowledge and credibility have an impact on consumers' purchasing decisions (Guo et al., 2022). Consumers may be harmed if streamers over-promote or provide misinformation in order to make a sale. Zahari et al. (2021) found that time-limited discounts and limited rush purchases are often adopted in live streaming commerce, which may bring purchasing pressure to consumers and cause them to make purchase decisions without sufficient consideration.

Although a large part of the success of China's live streaming business is driven by the streamer attractiveness (Tobon & García-Madariaga, 2021). But if these streamers lose their appeal or face scandals, this could pose a risk to some consumers and merchants who rely on the streamers (Wang & Hariandja, 2016). If a streamer's reputation takes a hit, or they decide to leave the platform, this dependence on streamers can pose a risk (Leung et al., 2022). The greater the influence of the streamer, the greater the adverse effect on the brand (Elli, 2017). In addition, the streamer threshold is very low, and some streamer with low professionalism will have some uncivilized language and behavior in the live streaming room, which will mislead consumers through inappropriate descriptions and exaggerated products, thus bringing negative effects to the live streaming (He, 2021).

With the growth of live streaming business, the regulation of live streaming business is still developing, and the problem of information quality is becoming increasingly serious around the world. Nakayama and Wan (2017) found that fraud, false advertising, and counterfeit sales are growing in live streaming commerce, as are consumer concerns about substandard products. Ghasemaghaei and Hassanein (2015) found that in some cases, streamers exaggerated product features or provided misleading information to boost sales. Consumers are concerned about the quality and authenticity of products sold through live streaming (Chen & Tseng, 2011).

2. LITERATURE REVIEW

2.1 Theoretical Background

2.1.1 Uses and Gratification Theory

Uses and Gratification Theory (UGT) is an influential sociological theory (Becker, 1979; Smock et al., 2011). This theory suggests that individuals access media with different goals and play an active role in selecting information resources that they are willing to access (Liang et al., 2006). Use and Gratification Theory (UGT) is a consumer-centric theory that states that different users can use the same medium for different purposes (Severin & Tankard, 1997). This theory explains the reasons behind customers' choice of social media and the psychological needs behind their choice (Cheung & Lee, 2009). Live streaming commerce is the purchase behavior of consumers in the process of watching live entertainment (Lu, 2021). In the process of interacting with fans, consumers not only have a comprehensive understanding of the product, but also increase their trust in influencers (Gao et al., 2023). Streamers have a positive impact on consumers' cognition and emotions with reference to

groups, and then positively influence consumers' purchase intentions (Lifu et al., 2023). During the live streaming, the streamer can influence consumers' perceptions, attitudes, beliefs, etc., and ultimately influence consumer behavior (Valente & Pumpuang, 2007). Streamers who demonstrate their expertise and knowledge of the products they advertise can boost their credibility and make them more attractive to viewers (Cho & Yang, 2021). Trusted streamers can build trusting relationships with consumers, making them more trusting and attractive.

2.1.2 Information Adoption Model

Information is transmitted from the sender to the receiver in the message, and the receiver interprets the message according to the sender's intent (Madden, 2000). Sussman and Siegal (2003) narrowed its scope by proposing the information adoption model (IAM). Information adoption model (IAM) originated as a mixture of psychological and sociological theories (Sussman & Siegal, 2003). It is based on elements of Information Processing Theory (IPT) (Swanson, 1987) and Persuasion Theory (PT) (Eagly & Chaiken, 1984), which studies how people are influenced by information to change their attitudes or behaviors. Information quality refers to the extent to which the e-commerce live streaming room can provide viewers with complete, accurate and timely product information (Xu et al., 2020). Clear, organized, and visually appealing information can enhance understanding and trust and positively influence purchasing decisions. According to Milan et al. (2015) the relationship between information quality, mistrust, and perceived risk was confirmed as determinants of purchase intention. In a study of social media commerce. Halim et al. (2020) was found that information quality has a positive impact on Instagram users' purchase intentions. In live streaming commerce, factors such as the presentation style of the host, the interactivity of the platform, and the visual appeal of the product help cognitive absorption (Guo et al., 2022; Ma et al., 2022; Wang & Wu, 2019). The more users absorb, the more likely they are to accept the information provided and make a purchase (Butler & Peppard, 1998). In addition to this, Gao et al. (2012) found that accurate information quality builds trust with consumers and thus influences their purchasing decisions.

2.2 Empirical Literature

2.2.1 Streamer attractiveness

Streamers in live streaming commerce can be seen as the face of the product. Product introductions are often the primary means of promoting business information (Xu et al., 2020). Live streaming is now an increasingly popular form of entertainment and communication (Wu, 2023; Xu et al., 2020; Xueli et al., 2022; Zhang et al., 2022). In the context of live streaming e-commerce, the attractiveness of streamers has been widely studied and found to be important for online shopping consumers' purchasing decisions in the context of live streaming e-commerce, especially in anticipating live streaming (Guo et al., 2022; Qun et al., 2018). According to research by Ping et al. (2022b) trust in streamer greatly influences consumers' purchase intent in live streaming e-commerce. Trust can be built through a variety of factors, including the streamer's attractiveness, the quality of the streamer, and the streamer's expertise and credibility (Lakhan et al., 2021; Lin & Nuangjamnong, 2022). Weismueller et al. (2020) findings the streaming with high appeal may create a stronger social presence. Live streaming

can significantly influence consumer attitudes and purchase intentions (TserYieth & Lee, 2021; Wongsunopparat & Deng, 2021). In live streaming selling, the quasi-social relationship between streamers and viewers can significantly influencing purchasing decisions. Studies of the attractiveness effect have shown that attractive individuals are generally seen as more trustworthy, capable, and likable (Sun et al., 2021). In addition, the attraction of streamer can stimulate consumers' hedonic motivation to achieve impulse buying (Lu-Monroe et al., 2021; Udovita, 2018; Umar et al., 2023).

H1: Streamer attractiveness has a significantly positive relationship with purchase decision.

2.2.2 Information quality

The goal of information quality (IQ) research is to identify the characteristics of information items that are important or suitable for information consumers (Wang & Strong, 1996). The extent to which information quality can provide viewers with complete, accurate and timely product information in e-commerce live streaming (Xu et al., 2020). Previous research results have shown that information quality plays an important role in influencing consumers' attitudes towards online shopping, especially the impact on consumer trust is generally recognized (Hashmi et al., 2019; Prastiwi & Iswari, 2019; Rahman et al., 2018; Zolfaghar & Aghaie, 2012). Petty and Cacioppo (1984) Receptive and trusting consumers are to the views of the publisher of the information, and the more useful they find the information, the more attitudes and behaviors will change (Kim, 2015; Milan et al., 2015; Xu et al., 2020). The completeness, accuracy, timeliness and reliability of information quality are considered useful in e-commerce (Hilligoss & Rieh, 2008). Live streaming commerce provides high-quality information with product-related tips such as reviews, images, videos, and sounds, detailed product demos, and real-time interactions. In this direction, Chiu et al. (2005) argues that information quality is related to the customer's purchasing decisions. Therefore, the live streaming commerce mechanism to provide high-quality product information may become a critical factor in facilitating consumer decision-making.

H2: Information quality has a significantly positive relationship with purchase decision.

The term "gender" refers to whether a person is genetically and biologically male or female (Wilson, 2002). Gender has been considered an important research topic in different fields (Evanschitzky & Wunderlich, 2006; Hui & Wan, 2007; Krolokke & Sorensen, 2006). According to sociolinguistic theory, it has been found that gender influences communication (Krolokke & Sorensen, 2006). In spoken discourse, men communicate to establish superior social status, while women communicate in a tone of rapport, compassion, and empathy. In the internet, where gender plays an important role in communication and e-commerce transactions (Ulbrich et al., 2011). Previous studies have also provided evidence that male and female consumers have different decision-making styles (Mokhlis & Salleh, 2009). In loyalty studies to customers, it was found that men responded more positively to status-emphasizing loyalty programs than women, but only if their higher status was very pronounced to others (Melnik & van Osselaer, 2012).

According to differences in gender attitudes (Fischer & Arnold, 1994) There have been many studies showing gender differences in online purchasing decisions (Davis et al., 2014; Shaouf et al., 2016; Tsihla et al., 2016). Compared to women, men are more task-oriented and pragmatic in a productivity-oriented context, while female users are generally more process-oriented and relatively balance the various benefits associated with technology (Zhou et al., 2014). Studies have shown that women may be more influenced by male sexual spokespersons, and men are influenced by women by male spokespersons (Klaus & Bailey, 2008). Sexual attraction is more persuasive to men than to women (Sawang, 2010). In contrast, men focus more on expertise and self-analysis (Dittmar et al., 2004). In addition, female consumers are more likely than men to achieve emotional satisfaction, less trust, and more skeptical about online shopping (Xiaolin et al., 2019). This study aims to illustrate the impact of gender differences on different factors on consumers' purchasing decisions in live streaming business transactions.

H3: The impact of the streamer attractiveness on the purchase decision will be positively regulated by gender.

H4: The impact of the information quality on the purchase decision will be positively regulated by gender.

2.3 Conceptual Framework

From the literature review and critical evaluation of applied models, the study proposes that a conceptual framework was developed. This study is based on two independent variables: streamer attractiveness, information quality, the dependent variable is the purchase decision, and gender is the moderator variable. Through Information Adoption Model (IAM) (Sussman & Siegal, 2003), which can explain how the information quality presented in live streaming commerce affects consumer decision-making. The Use and Gratification Theory (UGT) (Katz et al., 1973) strengthens the explanation of the impact of streamer attractiveness on consumer purchasing decisions.

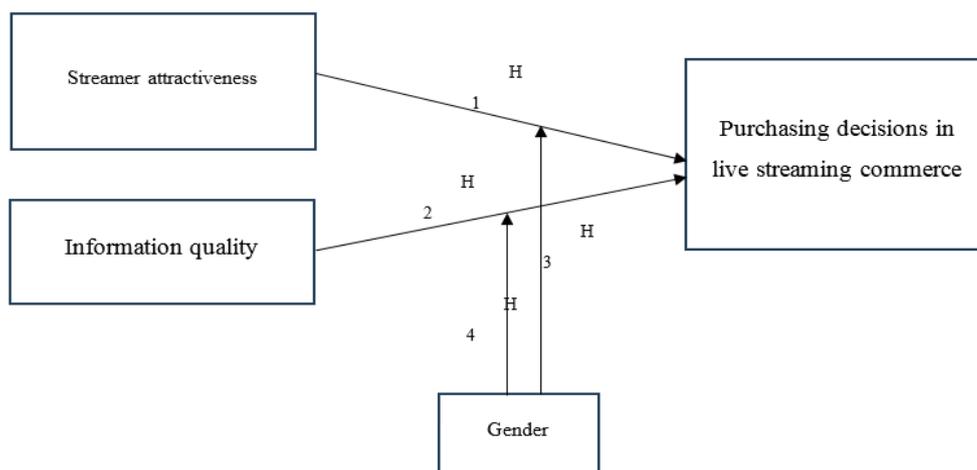


Figure 2.1 Conceptual Framework

3. RESEARCH DESIGN

To test the research model assumptions, a questionnaire was developed to conduct a web survey and collect empirical data. The items to measure each structure were largely developed from previous literature. To adapt to the live broadcast business environment, some measures have been slightly modified. We measured all these items using a five-point Likert scale ranging from (1) strongly disagree to (5) strongly agree. Streamers act as representatives or "spokespersons" for products or brands in live streaming commerce (Qun et al., 2018). The streamer attractiveness structure consists of 12 items, Items SC1 to SC12 are from Song and Liu (2021) with a Cronbach Alpha of 0.92. Information quality, completeness, accuracy, timeliness and reliability are considered useful in live streaming business (Xu et al., 2020). The information quality structure consists of 11 items, Items IQ1 to IQ11 are from Xu et al. (2020); Erkan and Evans (2018) and Guangming and Chang (2022) with Cronbach Alpha are 0.93, 0.85, and 0.858.

This process resulted in minor revisions regarding item wording and applicability. Ultimately, the questionnaire consisted of three parts, Part A is to block questions, filter respondents through questions, and select the target respondents who meet the requirements. Part B focuses on the relevant demographics of the respondents, providing more insight into the respondents. Part C is the main part of the questionnaire, which requires the filler to fill in according to their true ideas.

3.1 Sampling and Data Collection

This study uses the services of a popular online survey website (<https://www.sojump.com/>), which is a well-known questionnaire survey website in China, to collect empirical data to test the research model. The collection time for this survey is from July 1 to July 30, 2023, and Chinese consumers with live streaming commerce purchase experience are invited to support the survey. By sending survey web pages to respondents. Once respondents receive the online questionnaire, the system automatically checks the IP address of each respondent to avoid duplication. Two masked questions were devised to identify respondents. If the answer to each question is "No", the responses are closed, and the questionnaire is considered invalid.

In addition, if respondents answer the questionnaire for less than half a minute, their questionnaire will be classified as invalid to guarantee that they answered the question faithfully and conscientiously. In addition, each respondent who completes the questionnaire will receive a reward of 5-10 RMB through the reward rules. To better motivate respondents, approximately 20% of respondents were randomly selected and free tickets were offered as additional rewards such as free memberships to videos, music, and e-learning sites. As of July 30, 2023, a total of 493 questionnaires have been returned. Among the 493 questionnaires, 5 questionnaires were filled in for less than 1 minute and the content was contradictory (the respondents did not have live shopping experience). The remaining 488 questionnaires were found to be useful for further analysis and hypothesis testing, with a valid response rate of 97.6%, which is quite reasonable in social science data collection. In addition, relevant scholars have also conducted similar research on live streaming commerce, and Chinese respondents

showed a very high response rate. According to Sekaran and Bougie (2016), a response rate of 35% for social science surveys is sufficient. In addition to this, Baruch and Holtom (2008) also suggest that a response rate of 35% is acceptable.

4. DATA ANALYSIS AND RESEARCH RESULTS

Structural equation modeling (SEM) is an appropriate technique for analyzing empirical data in confirmatory studies (Ullman & Bentler, 2012). As a second-generation data analysis technique (Savalei & Bentler, 2006), this study applied AMOS 24.0 to examine the measurement model and the structural model by a two-stage approach of confirmatory factor analysis (CFA) (Brown & Moore, 2012). Following this approach, we were able to verify the reliability, validity, and consistency of the empirical data of the measurement model and estimate the statistical significance and significance level of the path coefficients assumed in the structural model.

4.1 Measurement Properties

According to Table 4.1, all factor loadings in this study are above 0.7. Researchers also provide a rule of thumb for retaining items, and they recommend retaining items above 0.60 (Hair et al., 2014). The composite reliability values for the structures range from 0.933 to 0.948, all exceeding the threshold of 0.7. Bagozzi and Yi (1988) and Hair et al. (2011) provide a rule of thumb for interpreting the combined reliability coefficients that a given structure should have a combined reliability coefficient value of 0.7 or above. According to Chin (1998), the extracted mean variance should be at least 0.50 or higher to indicate the convergent validity of a particular construction. AVE values ranged from 0.539 to 0.625, all exceeding the threshold of 0.5. Therefore, the results show satisfactory convergent validity. As a rule of thumb, Fornell and Larcker recommend using an AVE of 0.5 or higher. In the study, For the analysis of discriminant validity, for Streamer attractiveness, its AVE square root value is 0.740, which is greater than the maximum value of the absolute value of the correlation coefficient between factors 0.688, which means that it has good discriminant validity. For Information quality, its AVE square root value is 0.747, which is greater than the maximum value of the absolute value of the correlation coefficient between factors 0.655, which means it has good discriminant validity.

According to the test results of model fitness, it can be seen that the value of χ^2/DF (chi-square degree of freedom) is 1.151, within the range of 1-3, the RMSEA value is 0.017, and within the range of less than 0.05, the GFI 0.856 and greater than 0.8, CFI 0.982 and greater than 0.9, NFI 0.876 and greater than 0.8, TLI 0.981 and greater than 0.9, The value of IFI is 0.982 and is in the range greater than 0.9. According to the evaluation criteria of the model fitting index, in the confirmatory factor analysis model of this study, the fit indexes of CMIN/DF, NFI, IFI, TLI, CFI, GFI, RMSEA and other sub-models all meet the standard, so the CFA of this study The model has a good fit (Thompson, 2004).

Table 4.1: Descriptive Statistics for Constructs

Construct	Item	Factor loading	Composite reliability	Mean	AVE
Streamer attractiveness	SA1	0.862	0.935	3.1896	0.547
	SA2	0.718			
	SA3	0.744			
	SA4	0.752			
	SA5	0.749			
	SA6	0.705			
	SA7	0.706			
	SA8	0.732			
	SA9	0.719			
	SA10	0.733			
	SA11	0.720			
	SA12	0.745			
Information quality	IQ1	0.873	0.933	3.1612	0.558
	IQ2	0.723			
	IQ3	0.726			
	IQ4	0.742			
	IQ5	0.709			
	IQ6	0.768			
	IQ7	0.724			
	IQ8	0.720			
	IQ9	0.737			
	IQ10	0.744			
	IQ11	0.734			

4.2 Common method bias

Common method bias mentions that the variance is due to the method of measurement rather than the structure represented by the measurement. By using the Harman single-factor test for the common method bias test, check the total variance, and read the percentage of variance explained by the first common factor. If the percentage of variance explained by the first common factor is less than 40%, it can be considered that there is no serious common method bias. The study used Harman single factor test for common method bias test. According to the variance explanation rate table in exploratory factor analysis, the variance explanation rate of the first common factor in this study is 35.202%, which is lower than 40%, and the Harman single factor test believes that if the variance explanation rate of the first common factor is less than 40%, it is considered that there is no serious common method bias, so it can be considered that there is no serious common method bias in this paper.

4.3 Structural Model

Hypothesis testing was performed using AMOS 24 to generate coefficients, statistical significance of relationships, and model fit index values for the study model. As shown in Figure 4.1, the hypothesis testing process yielded path coefficients, t-values, and explained endogenous variable variance (R²) for each relationship proposed in the structural model. Figure 4.1 depicts 77.8% of the explained variance in purchase decisions. These values indicate

that all factors in the study model explain well the formation of the dependent variable. The saliency and path coefficients further demonstrate the jurisprudential validity of the constructs in the conceptual model.

Wen Zhonglin's Hierarchical Regression - Product Coefficient Method is a statistical analysis method for exploring interaction effects. It examines the degree of influence of the interaction between independent variables on the dependent variable by introducing interaction terms. The following section introduces the moderating effect of gender on the independent variable and dependent variable in this study, respectively, the moderating effect of gender on streamer attractiveness, information quality, and purchase decision, for verification assumptions to provide more details of these relationships. The interaction term between Streamer attractiveness and Gender was significant ($t=2.183$, $\beta=0.061$, $p=0.030<0.05$). The interaction term between Information quality and Gender was significant ($t=3.926$, $\beta=0.114$, $p=0.000<0.05$). It means that when the Streamer attractiveness and information quality affects the Purchase decision.

In addition, as shown in Table 4.2, that most of the model fitting indicators meet the requirements. Therefore, the comprehensive analysis results of this time can show that the SEM model fits well, and the model is reliable.

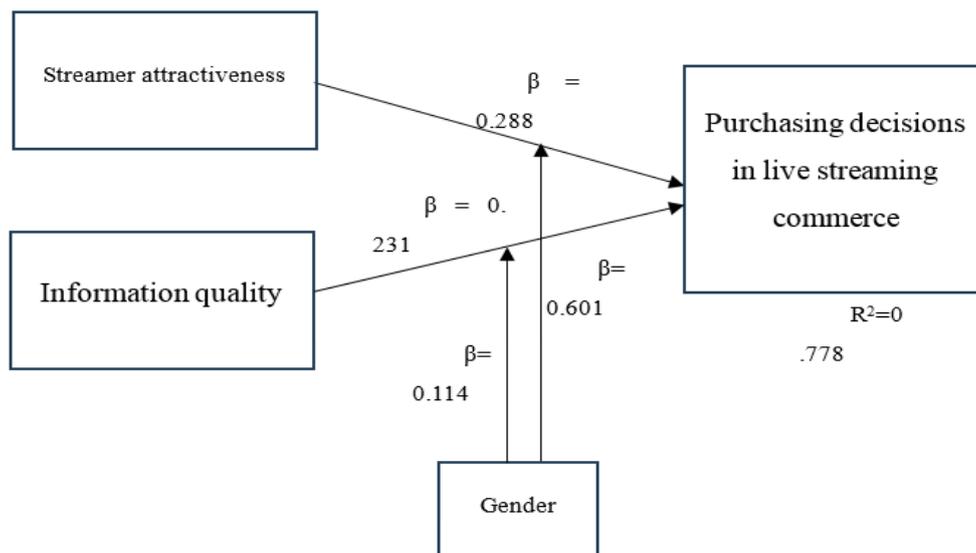


Figure 4.1: Structural Model

Table 4.2: Model Fit Indices for the Structural Model.

Index	Expected value	Actual value	Fitting results
Absolute fit index			
CMIN/DF	≤ 3	1.148	Excellent
RMR	≤ 0.08	0.053	Good
GFI	≥ 0.8	0.856	Good
AGFI	≥ 0.8	0.847	Good
RMSEA	≤ 0.08	0.017	Excellent
Comparative fitting indicators			
NFI	≥ 0.8	0.876	Good
IFI	≥ 0.9	0.982	Excellent
TLI	≥ 0.9	0.981	Excellent
CFI	≥ 0.9	0.982	Excellent
Parsimonious fitting index			
PNFI	≥ 0.5	0.848	Excellent
PCFI	≥ 0.5	0.951	Excellent

As expected, all pathways proposed in the study model were supported. In other words, the streamer's attractiveness, information quality and purchase decision are positively correlated. In other words, H1 ($\beta = 0.288, p < 0.001$), H2 ($\beta = 0.231, p < 0.001$), H3 ($t=2.183, \beta=0.601, p=0.030 < 0.05$), and H4 ($t=3.926, \beta=0.114, p=0.000 < 0.05$) are supported by Research result. And found that the attractiveness of the streamer is significantly related to the purchase decision.

5. DISCUSSION AND CONCLUSION

Live streaming is an important e-commerce model. To explore the influence mechanism of live broadcast consumers' purchasing decisions, this paper studies the influence of streamer attractiveness and key factors of information quality on consumers' purchasing decisions in live broadcast commerce. In addition, gender was also used as a moderating variable. It provides a theoretical framework for studying the relationship between these factors. Four hypotheses were proposed based on existing literature research and empirically tested with a revised supporting theoretical framework.

The results of this study are consistent with those of other studies investigating the impact of streamer attraction and online purchasing decisions (Guo et al., 2022; Lingfei, 2022). The results showed that beauty, professionalism, humor, and passion were all shown to be positively correlated with hedonic values, and warmth and professionalism were positively correlated with utilitarian values. Xu et al. (2020) By information quality on online consumers' purchasing decisions, and the results show that the information quality provided by streamer has a key impact on online consumers' purchasing decisions. The results show that information quality is an important factor influencing consumers' purchasing decisions. Taking information quality as a prerequisite for influencing purchase decisions, the research conclusion shows that information quality will greatly affect consumers' purchase decisions (Guangming & Chang, 2022).

According to the results of data empirical analysis, the results of this study are as follows: First, the attractiveness of streamers and the variables of information quality all affect purchase decisions. And found that the attractiveness of streamers has a significant impact on online consumers' purchase decisions, indicating that the social interaction between consumers and streamers is a key atmosphere that can strongly affect the purchase status of viewers. Secondly, the results of the study found that the impact of streamer attractiveness and information quality on purchase decisions will be positively regulated by gender. This suggests that gender plays a crucial role in moderating the relationship between these factors and purchasing decisions. Female shoppers are more likely to be influenced by the streamer's attractiveness and message quality when making purchase decisions. Finally, a new live broadcast business purchase decision model is proposed through the research. Overall, the findings support our proposed research model and generate relevant empirical observations.

The research conclusions provide important practical significance and guiding suggestions for the live e-commerce platform. The platform can strengthen the streamer's personal image, increase its attractiveness and awareness, thereby attracting more potential buyers and improving the conversion rate of purchase decisions. In addition, the platform can also improve the ability to interact with the audience and improve the user experience through support and training for the streamer, thereby increasing the enthusiasm of the shopping experience.

5.1 Theoretical Implications

The study has two key theoretical contributions. Our first contribution to the theoretical implications relates to our empirical results. Use and gratification theory posits that consumers seek to satisfy individual needs when using a particular medium or platform(Katz et al., 1973). In this study, social interaction is used as an independent variable, which represents the degree of social participation of consumers on the live commerce platform. According to the use and gratification theory, when consumers feel satisfied and enjoyable social experience, they are more likely to make purchasing decisions to satisfy social needs(Gao et al., 2023). Uses and gratification theory emphasizes the influence of social interaction on purchasing decisions(Lifu et al., 2023). In live commerce, consumers will gain satisfaction and pleasure when participating in social interaction experiences, which will affect their purchasing decisions(Ping et al., 2022a).. This theory provides an important reference for the design of the live streaming commerce platform, encouraging the platform to provide a socialized shopping experience and enhancing the sense of participation of consumers.

The information adoption model assumes that consumers make choices based on the quality and credibility of information when making decisions(Sussman & Siegal, 2003). In this study, information quality, as an independent variable, represents the quality of product information provided by the live business platform. According to the information adoption model, when consumers perceive information to be of high quality, they are more likely to be inclined to make positive purchasing decisions(Erkan & Evans, 2018). This shows that information quality is an important factor affecting purchase decisions in live streaming commerce. Information adoption models emphasize the impact of information quality on purchasing decisions(Halim et al., 2020). In live commerce, consumers' perception and acceptance of product information

directly affects whether they make purchase decisions. This theory reveals the importance of information quality in live streaming commerce, and provides a basis for the platform to provide high-quality product information and services.

5.2 Practical Implications

The findings of this study have several practical implications for live commerce. Streamer attractiveness has a significant impact on purchasing decisions. Therefore, the live streaming commerce platform can recruit and train attractive streamers in a targeted manner based on the research results to attract more consumers to participate in purchasing activities. An excellent streamer can not only increase the exposure of products, but also establish an emotional connection between consumers and brands and promote the formation of purchasing decisions. The design of live e-commerce platforms should focus more on creating attractive content and enhancing social functions that meet audience needs (Sheblom et al. 2017).

Platform managers should identify, recruit and promote streamers who are attractive to viewers (Chen and Lin, 2018). Platform managers should make more use of the most popular streamers (such as KOLs, celebrities, and Internet celebrities) to enhance their role in attracting audiences, persuade potential consumers to digest product information, and stimulate consumers' excitement in purchasing. At the same time, the live streaming manager can even train the streamer according to the audience's preferences for popular live streaming styles, streamer personality, appearance, and expertise (Chen and Lin 2018). In addition, platform managers should develop useful features to help streamers show their attractiveness to viewers, such as cute emoji, music, image tools (Hu et al. 2017; Sjöblom et al. 2017).

The research results also show that since the information quality has a significant impact on purchase decisions, live commerce platforms need to ensure that the product information provided is accurate, authentic and credible. Merchants should strictly screen and review product information to ensure that information such as product descriptions and parameters are consistent with the actual situation, which will help consumers make purchase decisions and avoid dissatisfaction and negative reviews caused by misleading information (Xu et al., 2020). Therefore, platform managers need to develop key live streaming mechanisms and advanced functions to improve the perceived product information quality, especially to improve the perceived completeness, accuracy, circulation and information reliability. Product features, material, size, origin and other detailed information help consumers fully understand the product and meet their information needs.

Gender has a significant effect in moderating the relationship between the independent variable and purchase decision. This provides important clues for the live streaming commerce platform when customizing marketing strategies. Merchants can tailor targeted marketing activities based on the characteristics of consumers of different genders to increase purchase intentions and user loyalty. By understanding the moderating role of gender in purchasing decisions, live commerce platforms can target ads and promotions in a targeted manner. For example, for the female group whose attractiveness of streamers has a greater influence on purchasing decisions, you can choose to cooperate with attractive female streamers, or emphasize the attractive

characteristics of streamers in advertisements, so as to attract more female consumers. By in-depth understanding of the moderating role of gender in purchasing decisions, the live streaming commerce platform can better meet the needs of consumers of different genders, provide more personalized products and services, and thus improve user satisfaction and purchase intention.

5.3. Limitations and Future Research

Like previous studies, our study is not without limitations. Of course, these limitations also open up possibilities for future research. According to Dolen and Lemmink (2004), the researcher's ability to be aware of the limitations of the study is also one of the strengths of any research project. The first limitation is the data collection process. Empirical data is primarily collected from a popular Internet survey site. All respondents were from China. This data sample may limit the generalizability of the results. Therefore, any researcher should be cautious when applying these results to other cultural and economic contexts. Future research should be devoted to exploring the business of live streaming commerce in different countries and regions. Furthermore, cross-country comparisons are likely to yield a more comprehensive understanding and results that are more broadly applicable.

Second, the study adopted a cross-sectional design, that is, the samples were investigated at the same time point. However, this design cannot determine causality, only reveals associations between variables. The data collected in the study mainly relied on self-reporting by consumers, which could lead to self-reported data bias. Consumers may have recall bias or subjective tendencies, which affect their feedback on purchase decisions and live streaming commerce experiences. In addition, gender is used as a moderating variable in the study, assuming its effect between independent and dependent variables is positive. However, gender may be only one of the influencing factors, and there are other potential moderator variables that may have an impact on the findings.

Researchers should try to increase the number of respondents, including some foreigners who are familiar with China's live streaming e-commerce model, to explore how cultural differences affect audiences' perceptions and usage of live streaming e-commerce. In this case, more discoveries about the future of livestreaming e-commerce in the western world will be easier to explore. Secondly, researchers should also read and think more about the literature on TV shopping, find some common points for discussion, and find out whether live streaming commerce e-commerce can produce the same or similar changes in mass consumption in different countries or social environments. Finally, research methods should be combined to ensure the accuracy of the collected data.

The data collected in this study are cross-sectional. This paper examines the influence and path relationships on purchase decisions. In future research, longitudinal studies can examine the impact on purchasing decisions. Alternatively, data can be collected multiple times to understand the impact of variables on purchasing decisions. Because longitudinal studies can assess causality. This is not possible with cross-sectional data. Future research may investigate factors that can reveal the uniqueness of live commerce, or apply different theoretical

perspectives and explore other determinants, moderators, and control variables to provide a more comprehensive understanding of live commerce. To sum up, future research can be expanded and deepened in terms of sample coverage, research design, factor considerations, and moderating variables, in order to fully understand the influencing factors and mechanisms of live commercial shopping behavior. These research results will provide more accurate guidance and optimization strategies for merchants and platforms in the live streaming industry, while providing consumers with better shopping experience and services.

References

- 1) Addison, C. S., & Apriyantiy, F. (2022). The Effect of Live Streaming Feature on the E-commerce Platforms Towards Customers' Purchase Decisions in Indonesia. *International Journal of Business and Technology Management*, 4(3), 350-361.
- 2) Algi, A., & Irwansyah, I. (2018). KOL (Key Opinion Leader) as Consumer Trust Factor at Instagram Store.
- 3) Ariansyah, K., Sirait, E. R. E., Nugroho, B. A., & Suryanegara, M. (2021). Drivers of and barriers to e-commerce adoption in Indonesia: Individuals' perspectives and the implications. *Telecommunications Policy*, 45(8), 102219.
- 4) Baruch, Y., & Holtom, B. C. (2008). Survey response rate levels and trends in organizational research. *Human Relations*, 61(8), 1139-1160.
- 5) Baubonienė, Ž., & Gulevičiūtė, G. (2015). E-commerce factors influencing consumers' online shopping decision. *Social Technologies*, 5(1), 62-73.
- 6) Becker, L. B. (1979). Measurement of gratifications. *Communication research*, 6(1), 54-73.
- 7) Brown, T. A., & Moore, M. T. (2012). Confirmatory factor analysis. *Handbook of structural equation modeling*, 361, 379.
- 8) Butler, P., & Peppard, J. (1998). Consumer purchasing on the Internet: Processes and prospects. *European Management Journal*, 16(5), 600-610.
- 9) Cai, J., Wohn, D. Y., Mittal, A., & Sureshbabu, D. (2018). Utilitarian and hedonic motivations for live streaming shopping. Proceedings of the 2018 ACM international conference on interactive experiences for TV and online video,
- 10) Cai, Y., Zhang, S., & Zhao, Y. (2021). The Study of Marketing Strategy of Live Streaming Studios. 2021 3rd International Conference on Economic Management and Cultural Industry (ICEMCI 2021),
- 11) Chen, C. C., & Tseng, Y.-D. (2011). Quality evaluation of product reviews using an information quality framework. *Decision Support Systems*, 50(4), 755-768.
- 12) Cheung, C. M., & Lee, M. K. (2009). Understanding the sustainability of a virtual community: model development and empirical test. *Journal of Information Science*, 35(3), 279-298.
- 13) Chiu, H.-C., Hsieh, Y.-C., & Kao, C.-Y. (2005). Website quality and customer's behavioural intention: an exploratory study of the role of information asymmetry. *Total Quality Management and Business Excellence*, 16(2), 185-197.
- 14) Cho, J.-S., & Yang, L. (2021). The Effect of E-commerce Live Streaming Shopping on Consumers' Purchase Intention in China-Focusing on Features of Streamers and Contents. *Archives of Business Research*.
- 15) Cunningham, S., Craig, D., & Lv, J. (2019). China's livestreaming industry: platforms, politics, and precarity. *International Journal of Cultural Studies*, 22(6), 719-736.

- 16) Davis, R., Lang, B., & San Diego, J. (2014). How gender affects the relationship between hedonic shopping motivation and purchase intentions? *Journal of consumer Behaviour*, 13(1), 18-30.
- 17) Dittmar, H., Long, K., & Meek, R. (2004). Buying on the Internet: Gender differences in on-line and conventional buying motivations. *Sex roles*, 50(5/6), 423-444.
- 18) Dong, Z. (2021). Construction of mobile E-commerce platform and analysis of its impact on E-commerce logistics customer satisfaction. *Complexity*, 2021, 1-13.
- 19) Eagly, A. H., & Chaiken, S. (1984). Cognitive theories of persuasion. In *Advances in experimental social psychology* (Vol. 17, pp. 267-359). Elsevier.
- 20) Elli, D. M. (2017). The phenomenon and rise of Influencer Marketing and how it affects customer opinion and helps or damages brands. *International Hellenic University*, 1-64.
- 21) Erkan, I., & Evans, C. (2018). Social media or shopping websites? The influence of eWOM on consumers' online purchase intentions. *Journal of Marketing Communications*, 24(6), 617-632.
- 22) Evanschitzky, H., & Wunderlich, M. (2006). An examination of moderator effects in the four-stage loyalty model. *Journal of Service Research*, 8(4), 330-345.
- 23) Feng, Y., Hu, N., & Yu, X. (2022). Neural Network-Based Ultra-High-Definition Video Live Streaming Optimization Algorithm. *Wireless Communications and Mobile Computing*, 2022.
- 24) Fischer, E., & Arnold, S. J. (1994). Sex, gender identity, gender role attitudes, and consumer behavior. *Psychology & Marketing*, 11(2), 163-182.
- 25) Fu, Y. (2021). Live Streaming Commerce: A Review and Prospects. *Proceedings of the 2021 3rd International Conference on Economic Management and Cultural Industry (ICEMCI 2021)*.
- 26) Gao, J., Zhang, C., Wang, K., & Ba, S. (2012). Understanding online purchase decision making: The effects of unconscious thought, information quality, and information quantity. *Decision Support Systems*, 53(4), 772-781.
- 27) Ghasemaghaei, M., & Hassanein, K. (2013). Consumers' Satisfaction With Online Information Quality: The Moderating Roles Of Consumer Decision-Making Style, Gender And Product Involvement.
- 28) Guangming, L. J., Yue, & Chang, L. (2022). The Influence Mechanism of Interaction Quality in Live Streaming Shopping on Consumers' Impulsive Purchase Intention. *Frontiers in Psychology*, 13.
- 29) Guo, Y., Zhang, K., & Wang, C. (2022). Way to success: understanding top streamer's popularity and influence from the perspective of source characteristics. *Journal of Retailing and Consumer Services*, 64, 102786.
- 30) Halim, E., Rianto, A., & Hebrard, M. (2020). The Impact of Marketing Influencer and Information Quality to Purchase Intention of Instagram Users. 2020 International Conference on Information Management and Technology (ICIMTech),
- 31) Hashmi, H., Attiq, S., & Rasheed, F. (2019). Factors affecting online impulsive buying behavior: A stimulus organism response model approach. *Market forces*, 14(1).
- 32) He, H. (2021). The development of e-commerce by web celebrity live webcast with goods. E3S Web of Conferences,
- 33) Hilligoss, B., & Rieh, S. Y. (2008). Developing a unifying framework of credibility assessment: Construct, heuristics, and interaction in context. *Information Processing & Management*, 44(4), 1467-1484.
- 34) Hoang, D. P., & Nguyen, N. H. (2020). The impact of corporate social responsibility and customer trust on the relationship between website information quality and customer loyalty in e-tailing context. *International Journal of Internet Marketing and Advertising*, 14(3), 215-235.

- 35) Hong, W. X., & Hoo, W. C. (2022). A Study on Purchase Intention of Agricultural Produce on Shopee Live-Streaming in Malaysia. *International Journal of E-Services and Mobile Applications (IJESMA)*, 14(1), 1-13.
- 36) Hou, F. (2021). Analysis on the development trend of e-commerce live streaming. *Learning & Education*, 9(4).
- 37) Hui, T. K., & Wan, D. (2007). Factors affecting Internet shopping behaviour in Singapore: gender and educational issues. *International journal of consumer studies*, 31(3), 310-316.
- 38) Jain, V., Malviya, B., & Arya, S. (2021). An overview of electronic commerce (e-Commerce). *Journal of Contemporary Issues in Business and Government* Vol, 27(3), 666.
- 39) Katz, E., Blumler, J. G., & Gurevitch, M. (1973). Uses and gratifications research. *The public opinion quarterly*, 37(4), 509-523.
- 40) Kim, J., He, N., & Miles, I. (2023). Live Commerce Platforms: A New Paradigm for E-Commerce Platform Economy. *Journal of Theoretical and Applied Electronic Commerce Research*, 18(2), 959-975.
- 41) Kwilinski, A., Volynets, R., Berdnik, I., Holovko, M., & Berzin, P. (2019). E-Commerce: Concept and legal regulation in modern economic conditions. *Journal of Legal, Ethical and Regulatory Issues*, 22, 1-6.
- 42) Lakhan, G. R., Ullah, M., Channa, A., Abbas, M., & Khan, M. (2021). Factors effecting consumer purchase intention: live streaming commerce. *Psychology and Education*, 58(5), 601-611.
- 43) Leung, F. F., Gu, F. F., & Palmatier, R. W. (2022). Online influencer marketing. *Journal of the Academy of Marketing Science*, 1-26.
- 44) Liew, T. W., Tan, S.-M., & Ismail, H. (2017). Exploring the effects of a non-interactive talking avatar on social presence, credibility, trust, and patronage intention in an e-commerce website. *Human-centric Computing and Information Sciences*, 7, 1-21.
- 45) Lifu, L., Feng, Y., & Zhao, A. (2023). An interaction–immersion model in live streaming commerce: the moderating role of streamer attractiveness. *Journal of Marketing Analytics*, 1-16.
- 46) Lin, Q., & Nuangjamnong, C. (2022). Exploring the Role of Influencers and Customer Engagement on Purchase Intention in TikTok Live Streaming Shopping. Available at SSRN 4295862.
- 47) Lingfei, L. (2022). Factors Affecting Consumers' Purchasing Behaviours in Live Streaming E-Commerce: A Review. 2022 2nd International Conference on Economic Development and Business Culture (ICEDBC 2022),
- 48) Liting, H. (2021). Exploring the Affective Way Leading to Impulse Buying in Social Media Live Streaming. 2021 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM),
- 49) Liu, D., & Yu, J. (2022). Impact of perceived diagnosticity on live streams and consumer purchase intention: streamer type, product type, and brand awareness as moderators. *Information Technology and Management*, 1-14.
- 50) Lu, Y. S., Patrick. (2021). E-Commerce Live Streaming – An Emerging Industry In China And A Potential Future Trend In The World. *ACC Journal*.
- 51) Lu-Monroe, M., Duan, S., Zhao, Y., Lü, K., & Chen, S. (2021). The impact of online celebrity in livestreaming E-commerce on purchase intention from the perspective of emotional contagion. *Journal of Retailing and Consumer Services*, 63, 102733.
- 52) Lyu, W., Qi, Y., & Liu, J. (2022). Proliferation in live streaming commerce, and key opinion leader selection. *Electronic Commerce Research*, 1-34.
- 53) Ma, L., Gao, S., & Zhang, X. (2022). How to use live streaming to improve consumer purchase intentions: evidence from China. *Sustainability*, 14(2), 1045.

- 54) Madden, A. (2000). A definition of information. *Aslib Proceedings*,
- 55) Mican, D., & Sitar-Taut, D.-A. (2020). Analysis of the factors impacting the online shopping decision-making process. *Studia Universitatis Babeş-Bolyai Oeconomica*, 65(1), 54-66.
- 56) Milan, G. S., Bebbler, S., Toni, D. D., & Eberle, L. (2015). Information quality, distrust and perceived risk as antecedents of purchase intention in the online purchase context. *Journal of Management Information System & E-commerce*, 2(2), 111-129.
- 57) Mokhlis, S., & Salleh, H. S. (2009). Consumer decision-making styles in Malaysia: An exploratory study of gender differences. *European Journal of Social Sciences*, 10(4), 574-584.
- 58) Nakayama, M., & Wan, Y. (2017). Exploratory study on anchoring: fake vote counts in consumer reviews affect judgments of information quality. *Journal of Theoretical and Applied Electronic Commerce Research*, 12(1), 1-20.
- 59) Pant, A. (2014). An Online shopping change the traditional path of consumer purchasing. *International Journal of Business and Management Invention*, 3(3), 39-42.
- 60) Patil, P., Rana, N., Dwivedi, Y., & Abu-Hamour, H. (2018). The role of trust and risk in mobile payments adoption: a meta-analytic review.
- 61) Petty, R. E., & Cacioppo, J. T. (1984). The effects of involvement on responses to argument quantity and quality: Central and peripheral routes to persuasion. *Journal of personality and social psychology*, 46(1), 69.
- 62) Ping, X., Cui, B.-j., & Lyu, B. (2022b). Influence of streamer's social capital on purchase intention in live streaming E-commerce. *Frontiers in Psychology*, 12, 6194.
- 63) Prastiwi, S. K., & Iswari, P. W. (2019). The Roles of Trust within Information Quality and Price to Engage Impulsive Buying Behaviour to Generate Customer's Repurchase Intention: A Case of M-Commerce in Indonesia (GoFood). *KnE Social Sciences*, 446-462-446-462.
- 64) Qiu, Y. (2021). *The Political Economy of Live Streaming in China: Exploring Stakeholder Interactions and Platform Regulation*
- 65) Qun, Z., Chen, C.-D., Cheng, H.-W., & Wang, J.-L. (2018). Determinants of live streamers' continuance broadcasting intentions on Twitch: A self-determination theory perspective. *Telematics and Informatics*, 35(2), 406-420.
- 66) Rahman, M. A., Islam, M. A., Esha, B. H., Sultana, N., & Chakravorty, S. (2018). Consumer buying behavior towards online shopping: An empirical study on Dhaka city, Bangladesh. *Cogent Business & Management*, 5(1), 1514940.
- 67) Setyowati, W., Widayanti, R., & Supriyanti, D. (2021). Implementation Of E-Business Information System In Indonesia: Prospects And Challenges. *International Journal of Cyber and IT Service Management*, 1(2), 180-188.
- 68) Severin, W. J., & Tankard, J. W. (1997). *Communication theories: Origins, methods, and uses in the mass media*. Longman New York.
- 69) Shaouf, A., Lü, K., & Li, X. (2016). The effect of web advertising visual design on online purchase intention: An examination across gender. *Computers in Human behavior*, 60, 622-634.
- 70) Si, R. (2021). *China Livestreaming E-commerce Industry Insights*. Springer.
- 71) Smock, A. D., Ellison, N. B., Lampe, C., & Wohn, D. Y. (2011). Facebook as a toolkit: A uses and gratification approach to unbundling feature use. *Computers in Human behavior*, 27(6), 2322-2329.
- 72) Song, C., & Liu, Y.-l. (2021). The effect of live-streaming shopping on the consumer's perceived risk and purchase intention in China.

- 73) Sun, W., Gao, W., & Geng, R. (2021). The impact of the interactivity of internet celebrity anchors on consumers' purchase intention. *Frontiers in Psychology*, 4838.
- 74) Sussman, S. W., & Siegal, W. S. (2003). Informational influence in organizations: An integrated approach to knowledge adoption. *Information systems research*, 14(1), 47-65.
- 75) Swanson, H. L. (1987). Information processing theory and learning disabilities: An overview. *Journal of learning Disabilities*, 20(1), 3-7.
- 76) Thompson, B. (2004). Exploratory and confirmatory factor analysis: Understanding concepts and applications. *Washington, DC, 10694(000)*.
- 77) Tobon, S., & García-Madariaga, J. (2021). The influence of opinion leaders' ewom on online consumer decisions: A study on social influence. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(4), 748-767.
- 78) Tofan, M., & Bostan, I. (2022). Some implications of the development of E-commerce on EU tax regulations. *Laws*, 11(1), 13.
- 79) TserYieth, C. Y., Tsai Lien, & Lee, F. Y. (2021). The impact of Internet celebrity characteristics on followers' impulse purchase behavior: the mediation of attachment and parasocial interaction. *Journal of Research in Interactive Marketing*, 15(3), 483-501.
- 80) Tsuchla, E., Hatzithomas, L., & Boutsouki, C. (2016). Gender differences in the interpretation of web atmospherics: A selectivity hypothesis approach. *Journal of Marketing Communications*, 22(6), 563-586.
- 81) Ullman, J. B., & Bentler, P. M. (2012). Structural equation modeling. *Handbook of Psychology, Second Edition*, 2.
- 82) Umar, A., Liesl, R., Himawan, N., & Mustikasari, F. (2023). The Influence of Korean Brand Ambassador on Hedonic Shopping Motivation moderated by Fanaticism toward Impulsive Buying Behavior in E-commerce.
- 83) Wang, F., & Hariandja, E. S. (2016). The influence of brand ambassador on brand image and consumer purchasing decision: A case of tous les jours in Indonesia. International Conference on Entrepreneurship (IConEnt-2016),
- 84) Wang, R. Y., & Strong, D. M. (1996). Beyond accuracy: What data quality means to data consumers. *Journal of management information systems*, 12(4), 5-33.
- 85) Weismueller, J., Harrigan, P., Wang, S., & Soutar, G. N. (2020). Influencer endorsements: How advertising disclosure and source credibility affect consumer purchase intention on social media. *Australasian Marketing Journal*, 28(4), 160-170.
- 86) Wilson, S. R. (2002). *Seeking and resisting compliance: Why people say what they do when trying to influence others*. Sage Publications.
- 87) Wongsunopparat, S., & Deng, B. (2021). Factors Influencing Purchase Decision of Chinese Consumer under Live Streaming E-Commerce Model. *Journal of Small Business and Entrepreneurship*, 9(2), 1-15.
- 88) Wu, Z. (2023). Research on How Live Streaming Helps Revive the Chinese Economy under COVID-19. SHS Web of Conferences,
- 89) Xiaolin, L., Featherman, M., Brooks, S. L., & Hajli, N. (2019). Exploring gender differences in online consumer purchase decision making: An online product presentation perspective. *Information Systems Frontiers*, 21, 1187-1201.
- 90) Xu, X., Wu, J.-H., & Li, Q. (2020). What drives consumer shopping behavior in live streaming commerce? *Journal of Electronic Commerce Research*, 21(3), 144-167.
- 91) Xueli, W., Aisihær, N., & Aihemaiti, A. (2022). Research on the impact of live streaming marketing by

- online influencers on consumer purchasing intentions. *Frontiers in Psychology*, 13.
- 92) Yan, W. (2021). Research on false data automatic identification of live broadcast platform with goods based on double low rank constraint. 2021 6th International Conference on Smart Grid and Electrical Automation (ICSGEA),
 - 93) Yang, W. (2017). Analysis on online payment systems of e-commerce.
 - 94) Zhang, Liu, Y., Wang, Y., & Zhao, L. (2022). How to retain customers: Understanding the role of trust in live streaming commerce with a socio-technical perspective. *Computers in Human behavior*, 127, 107052.
 - 95) Zhou, M., Huang, J., Wu, K., Huang, X., Kong, N., & Campy, K. S. (2021). Characterizing Chinese consumers' intention to use live e-commerce shopping. *Technology in Society*, 67, 101767.
 - 96) Zhou, Z., Jin, X.-L., & Fang, Y. (2014). Moderating role of gender in the relationships between perceived benefits and satisfaction in social virtual world continuance. *Decision Support Systems*, 65, 69-79.
 - 97) Zolfaghar, K., & Aghaie, A. (2012). A syntactical approach for interpersonal trust prediction in social web applications: Combining contextual and structural data. *Knowledge-Based Systems*, 26, 93-102.