Syracuse University

SURFACE at Syracuse University

Summer 7-1-2022

The Impact of Live Streaming E-commerce Features on Chinese Consumers' Attitude and Purchase Intention

Tianmeng Yan
Syracuse University

Abstract

In recent years, live streaming e-commerce has been gaining popularity among Chinese consumers as a new social trend. Compared to traditional e-commerce, the shopping model of live streaming service plus e-commerce demonstrates some benefits of social media features, encouraging consumers to engage in live shopping. This study aims to predict how different live streaming e-commerce features (visibility, interactivity, price discount, and celebrity endorsement) influence Chinese consumers' attitude and purchase intentions. It also examines how TPB components (subjective norm, perceived behavior control, and attitudes) can affect Chinese consumers' purchase intention using a theoretical model combined with the TPB model and the S-O-R model. To achieve this goal, I collected 1239 valid questionnaires using the questionnaire method to explore the influence of correlation between these variables. Confirmatory factor analysis (CFA) is conducted to validate each theoretical concept's reliability and construct validity. The results of hierarchical linear regression indicate that all live e-commerce features positively correlate with consumers' attitudes towards brands and platform use. Among them, price discount significantly impacted consumers' attitudes towards platform use, while visibility, interactivity, and celebrity endorsement significantly impact on consumers' attitudes towards brands. The results also showed that all TPB components positively correlated with consumer purchase intention. Consumers' attitudes towards platform use had a stronger impact on consumers' purchase intentions than the attitude towards brands.

Keywords: live streaming e-commerce, live streaming features, theory of planned behavior, SOR model, purchase intention.

THE IMPACT OF LIVE STREAMING E-COMMERCE FEATURES

ON CHINESE CONSUMERS' ATTITUDE AND PURCHASE INTENTION

By

Tianmeng Yan

B.A., University of Oregon, 2020

Thesis

Submitted in partial fulfillment of the requirements for the degree of

Master of Arts in Media Studies

Syracuse University

July 2022

Acknowledgement

I would like to express my deepest gratitude to my research advisor, Prof. Hua Jiang, who has devoted a lot of time and effort to my thesis and has given me a lot of guiding advice and suggestions. Prof. Jiang helped me the most when I felt lost and confused. She is always concerned about my thesis progress in her busy work and gives me the most helpful advice. Without the careful guidance of Prof. Jiang, I would not have been able to complete this thesis, so I would like to offer my sincerest gratitude to her.

I would also like to thank my two committee members, Prof. Kyla Wagner, and Prof. Carol Liebler. Prof. Wagner gave me detailed guidance, patience, enthusiasm, and unconditional support during my work period. I really appreciate it. I am very grateful to Prof. Liebler for her serious teaching attitude and patient guidance to each student. Her classes enable me to have a deeper and more innovative exploration of the communication area. The study experience with these two professors is the most asset in my two-year study life at Newhouse School.

I also would like to extend my special thanks to my defense chair, Professor Joon Soo Lim, for his encouragement and precious time. And my program director, Prof. Brad Gorham. He was the one who allowed me to go to Newhouse School to pursue my master's degree and help me to find the right research direction. Thank you very much for the continued help and support.

Finally, Thanks to Mom, Dad, and Jason for their unconditional love, understanding and patience. Without them, I would not have come this far and completed this thesis paper. Thank you for always being there for me and continuing to support me to chase my dream.

Table of Content

The Impact of Live Streaming E-Commerce Features on Chinese Consumers'
Attitude and Purchase Intention

Chapter 1: Introduction

With the continuous growth of internet functions and the expanding capability of

smartphone technology, webcasting began to emerge and spread widely into all aspects of

people's lives, ultimately becoming ubiquitous. Many Chinese organizations are following this

trend and using the internet's outstanding efficiency, timeliness, and low cost of information

transmission to enhance their online marketing tactics steadily.

With the increased Internet penetration and the rapid development of social networking sites

such as Weibo and WeChat in 2015, social e-commerce emerged as a new outlet for e-

commerce. Social e-commerce refers to gathering users with common interests into a community

based on high-quality content and guiding users to conduct fission-type communication and

transactions (Sheahan et al., 2014). In 2019, the commercialization of the 5G mobile

communication technology provided better infrastructure and imagination space for e-commerce

innovation (Lau, 2020). Since then, China has emerged a new type of business model: Live

Streaming E-Commerce. This unique shopping model can be seen as a clever combination of

social live streaming services (SLSSs) and electronic commerce (E-commerce) (Hu & Chaudhry,

2020).

In general, social live streaming services are characterized by synchronicity, real-time

broadcasting of user-generated content (UGC), interactions between viewers and streamers, and

a satisfaction system (Scheibe et al., 2016). Chinese e-commerce companies have grasped these

characteristics of social live streaming services, and then developed this new online shopping

model, which eliminates the limitations of the current online shopping model. Following that,

many Chinese online retail platforms have introduced live streaming to their websites or reached

710 million consumers, with live streaming e-commerce most preferred by 37.2 % of the online

purchasers (Stahle, 2020).

Compared to traditional shopping platforms, such as Taobao—"A Chinese online

shopping website, headquartered in Hangzhou and owned by Alibaba, the world's e-commerce

website" (Alexa Internet, 2019). The Chinese version of Tik-Tok, called *Dou Yin*, is a social

media pan-entertainment platform, combining live streaming with e-commerce, social, and sales

modes to create a unique e-commerce model on social media. According to O'Rating data, "there

were 806,000 live streaming chat rooms across different platforms on June 18th, China's mid-

year shopping festival, with over 3.5 billion RMB (500.6 million USD) in sales and 412 million

viewers watching live streams on that day" (China Weekly News, 2020). These striking figures

remind marketers worldwide that a new e-commerce era has ensued. Live stream shopping has

become a new trend in e-commerce in China, and now it is also the primary method of online

shopping for many Chinese consumers.

As China's live-streaming shopping model has developed over the past few years,

watching live-streaming e-commerce has become a trending lifestyle. Live e-commerce is

different from traditional online shopping sites because it uses real-time video and barrage to talk

to its audience. Customers can easily see the products displayed by the seller and place orders

rapidly. There are a lot of different kinds of live streaming e-commerce that have sprung up to make more profits and bring in more buyers and viewers. For example, some live chat rooms attract consumers through various promotions and huge discounts. In contrast, some live chat rooms invite celebrities as endorsers to interact with viewers and sell products. Some live chat rooms attract viewers through drawing lotteries or by sending coupons, etc.

Live streaming e-commerce has also led to the rise of online influencers, called key opinion leaders (KOLs), in the online market. Audiences and consumers adore these key opinion leaders for their eloquence and vivid narration (Liao et al., 2021). They insist on recommending that consumer confidence is gained by offering high-quality products and low selling prices (Liao et al., 2021). Because of the rising impact of these key opinion leaders, some well-known influencers have even become a guarantee for people to shop online. Because of this, these aspects of live streaming shopping always have both good and bad effects on the way Chinese consumers purchase. The effect is getting deeper and deeper. Many people who sell things think that the celebrity endorsement is the best way to get consumers to buy things. Fans are willing to purchase products for their favorite celebrities, or they can attract more viewers into the live chat room. More and more sellers spend vast amounts of money inviting celebrities to help sell products on live streaming. However, with huge profits, many actors have even given up filming and become sellers. Will these live-stream shopping promotions bring consumers a positive buying attitude and purchase intention? Which part of live streaming e-commerce is the best and most active way for Chinese consumers to buy products? How do these live streaming e-

commerce features affect Chinese consumers' attitude and purchase intention? These questions are the thinking brought about by the status of live e-commerce in China, which is also being explored in this study.

Due to the rapid development of live streaming shopping over recent years, there have been some different studies on live e-commerce in China. There is research on brand marketing analysis of live streaming e-commerce, which leads to the conclusion that the benefits of live e-commerce sales (Cao, 2019). Another study (Wang, 2019) looked at the role of live streaming in education and suggested ways to improve it. The other study examined the unfair competition in live streaming from a legal perspective (Zhu, 2019). However, although many large e-commerce companies in the United States, such as Amazon, eBay, etc., the live-streaming sales model, has not yet become popular in the United States. Consequently, few academic articles and studies about live e-commerce in the United States have been published.

A study of live streaming e-commerce with consumers' attitude and purchase intentions can be defined as the impact of various live streaming characteristics on purchasing behaviors, such as interactivity (Belancheet, 2017), celebrity endorsement (Dehghani, 2016), visibility (Sun et al., 2019), and price discount (Lv et al., 2020), which are significant for several reasons. First, in the field of research, the United States has a booming e-commerce market, but there is very little research on live streaming e-commerce. This study could fill some of the current research gaps and have significant implications for Amazon, eBay, and many other American e-commerce companies. Second, knowing how different live streaming e-commerce features affect

Chinese consumers' purchasing attitude and intention will assist the Chinese e-commerce market in more properly understanding customers' psychology and actual demand, thereby improving China's live-streaming retail environment. It is pivotal to actively improve the live streaming features that bring positive relevance to consumers and promote the more effective development of live streaming e-commerce. Finally, through this study, we can understand the core relationship between the media industry and the e-commerce industry and the prospect of a new media and business model in the future.

This study explores the relationship between live streaming e-commerce features and consumers' attitudes and purchase intentions based on the theory of planned behavior (Ajzen, 1991) and the S-O-R model (Mehrabian & Russell, 1974). The study aims to make the following contributions through a survey sent to live-streaming e-commerce consumers in China. The current study has three objectives: (1) to examine the effect of TPB components on Chinese consumers' purchasing attitude and intention; (2) to explore the role of different characteristics in live streaming e-commerce and the correlation between the characteristics and consumers' attitude and purchase intention; (3) and to investigate the influence of consumers' attitudes on purchase intention. First, I would like to use the TPB model to predict and explain the determinants of Chinese consumers' purchase attitudes and intentions. I anticipate that the findings will assist the Chinese e-commerce market in gaining a deeper understanding of Chinese consumers' psychology, thereby fostering the rapid growth of China's e-commerce economy and the industry. Second, I plan to investigate the impact of various live streaming e-

commerce characteristics on the purchasing attitude of consumers. For China's live streaming e-commerce companies to grow in a healthy manner, I am eager to discover what makes consumers think positively and negatively. Finally, I want to investigate the relationship between the attitude and purchasing intention of Chinese consumers. The results can potentially confirm whether consumers are influenced by objective or subjective factors, allowing us to better comprehend the current state of consumer behavior in China.

Chapter 2: Literature Review

Live Streaming and E-Commerce

Live streaming shopping is an evolution of e-commerce that incorporates real-time social interaction (Cai & Wohn, 2019). Live streaming commerce is the use of a social live streaming platform to conduct e-commerce business and transactions. According to Zimmer and Stock (2018), "Social Live Streaming Services (SLSSs) are synchronous forms of social media that combine live television with elements of social networking services (SNSs), such as a backchannel from the viewer to the streamer and among the viewers" (p. 430). The virtual environment is made up of a live streaming platform and virtual infrastructure for delivering an interactive, entertaining, and commercial experience. Live streaming is sending streaming video in real time over the Internet, which provides an avenue for people to watch and interact with streamers (Xu et al., 2020). There are different kinds of live streaming, including a new platform and a new way for people to talk to each other online that uses pictures and videos to do so. Live

streaming e-commerce can be understood by sellers' use of social media platforms to introduce

products to consumers more comprehensively through real-time live streaming (Lu et al., 2018).

Since 2006, China's social live streaming services have been booming (Cunningham et al.,

2019). They have gradually become a part of people's everyday entertainment, which has led to

fast growth.

Following the rise of live streaming, numerous researchers began studying this interactive

e-commerce model (Xu et al., 2020; Lu et al., 2018; Liu, 2020; Ru et al., 2019). The related

research focuses on the live streaming mode, consumer behavior, technical support, and other

aspects (Chen & Lin, 2018; Xu et al., 2020; Chan et al., 2017; Liu et al., 2021; Park & Lin,

2020). Also, many researchers have used different theoretical models and methods to look at

how live streaming e-commerce affects consumers' psychology and behavior from different

points of view. A previous study found a positive correlation between the visual scene and the

ability to communicate. This makes people feel more socially present, which means it makes

them feel like they are having more fun. Perceived enjoyment, in turn, affects users' adoption

intention (Liu et al., 2021). Xie and Lee (2015) used a two-stage decision model to explore how

exposures to earned and owned social media activities affect brand purchases and how they

affect each other. Erkan and Evans (2016) used the model for adopting information to investigate

how online conversations between social media friends affect people's plans to buy. Researchers

have collected essential information for empirical studies from e-commerce platforms. Scholars

have argued that social interaction relationships and social media commitment are important

parts of figuring out how social media affects what people buy (Kwahk & Kim, 2017)

The Theory of Planned Behavior

The idea of reasoned action (TRA) and the theory of planned behavior (TPB) are well-

known for their ability to understand, measure, and identify the factors that affect behavior

(Ajzen, 1985; Fishbein, 1967; Lin, 2020). These theories are based on different behavioral

theories that have been used to study the relationship between consumers' attitude and their

purchasing behavior.

Both models give a theoretical basis for research on how individual motivational factors

can be used to predict the likelihood of behavior (Lin, 2020). The theory of reasoned action

(TRA) was first proposed by Fishbein and Ajzen (1975). They believed that behavioral intention

could influence the level of behavior. Behavioral attitude and subjective norm influence

behavioral purposes significantly. In social psychology, most people agree that the theoretical

model of rational behavior is used to explain how people really act.

Nonetheless, the theory of reasoned action has more significant limitations. Ajzen (1991,

p.183) added the idea of "perceived behavior control" to the "rational choice theory" to improve

the "rational behavior theory," which led to the "theory of planned behavior" we use today.

According to the theory of planned behavior, "behavior intention" are also influenced by

"perceived behavioral control" (Ajzen, 1991, p.181).

Components of the Theory of Planned Behavior

According to the theory of planned behavior, behavioral intention is influenced by attitude, subjective norm, and perceived behavioral control (Ajzen, 1991). Attitude is a person's expectations and beliefs about how likely it is that a certain behavior will lead to an attitude result or consequence, as well as their overall assessments of the values and assets associated with those results or consequences (Ajzen, 2002; Fishbein & Ajzen, 1980). Perceived behavioral control is a person's sense of how well they can do something, given how hard it is. Individuals' perceived social judgments and pressure to act are subjective norm. These ideas about what close relationships—friends, coworkers, and family—expect from you will affect your decision about whether to do something. Each component of the TPB theory will be discussed in detail below, along with the corresponding hypotheses.

Attitudes

When Ajzen and Fishbein (1975) first proposed the TRA model, the attitude was defended as a positive or negative feeling in relation to the achievement of an objective. However, As the model extends, much emphasis has been placed on the fact that general attitudes are typically poor predictors of behavior in specific situations (Ajzen,1991). Therefore, in the TPB model, Ajzen (1991) defined attitudes as a person's self-evaluation of his or her participation in a behavior. According to some scholars, attitudes emerge from people's beliefs about the object (Fishbein,1963; Fishbein & Ajzen, 1974; Lin, 2020). But with the deepening of practical

research, Chan and Fishbein (1993) distinguished between attitude towards the object and attitude toward the specific behavior. They pointed out that attitudes toward behavior are more predictive of behavior than attitudes toward the object to which the behavior is directed (Chan & Fishbein, 1993). Based on the theory, many studies have also found that attitude is an important factor influencing people's behavior intention (Chen & Lin, 2018; Ru et al., 2019; Xu et al., 2020). For example, Xu et al. (2020) looked at the cognitive and emotional states of viewers and how they responded in a live streaming commerce context. Chen and Lin (2018) explored the relationship between attitude, perceived value, and viewing intention to find out what draws viewers to live streaming and what channels they use.

In this study, the research considers that Chinese consumers' attitudes towards live streaming shopping may be affected by several aspects, such as their feelings about the use of live streaming e-commerce platforms, or how much they like different brands, etc. Therefore, this study phases in a more refined classification of attitude from different perspectives of consumers, dividing attitudes into attitude towards platform use and attitude towards the brand. For the special sales model of live e-commerce, the specific attitude classification can help find out which kind of attitude has the most effect on Chinese consumers' purchase intention.

Attitude towards platform use

As mentioned above, compared to the traditional e-commerce platform, the mode of live shopping adds many of the service features of the live platform. For example, the major live

platforms launched a very convenient one-click purchase mode, as well as different product

explanation playback functions, or the real-time customer service mechanism, all of which

provide a lot of convenience for consumers (Li, 2021). In today's fast-paced lifestyle, the live

streaming platform brings people an efficient and convenient consumer experience. Certainly,

there are also many studies showings that there is a relationship between attitude towards

platform use and consumer purchase intention. The Technology Acceptance Model (TAM) by

David (1989) is one of the most well-known models. It is based on the Theory of Reasoned

Action (TRA) by Ajzen (1985). In this model, David (1989) made it clear that attitude toward

technology may affect consumers' intention. Ho and Yang (2015) utilized TAM to investigate

consumer behavior intention on live streaming video platforms through a survey method. The

results showed that the attitude toward using the live streaming platform would have a positive

impact on the intention of users to utilize a live streaming video platform (Ho & Yang, 2015).

Based on the above review of relevant theories and prior studies, it is hypothesized that:

H1a: Platform attitude is positively associated with Chinese consumers' purchase

intention in live streaming e-commerce.

Attitude towards the brand

In addition to the experience of using the platform, the attitude towards the brand is also one

factor that may influence consumers' purchase intention. Mitchell and Olson (1981) defined

brand attitude as consumers' positive or negative attitude towards a brand. Brand attitude can

also be understood as the emotional and personal recognition of a company's brand (Lee et al.,

2016). Many studies indicated that consumers' brand attitude will affect their intention to

purchase extended products (Miller et al., 1971; Aeker & Keller, 1990; Faircloth et al., 2001;

Nan, 2006; Lo & Wu, 2009). According to Flahery and Papps (2000), attitude towards the brand

is essential in determining the intention to purchase the extended product. Thus, the brand

attitude strongly relates to consumers' purchasing intent (Ghen & Liu, 2004). In addition, a study

focused on how different factors influence purchase intention in Taobao live-streaming shopping

also concluded that attitude toward product has a positive effect on product purchase intention

(Wang & Lee., 2018). Based on these studies, the following hypothesis is proposed:

> **H1b:** Brand attitude is positively associated with Chinese consumers' purchase intention
>
> in live streaming e-commerce.

Perceived Behavioral Control

Perceived behavioral control (PBC) can be understood as a self-assessment of the degree of

difficulty and willingness to perform anticipated behaviors (Ajzen, 2002). Generally, it is

determined by the costs and benefits associated with performing the behavior (Sparks et al.,

1997). PBC is determined mainly by the external environment, including controllability and self-

efficacy to carry out the behavior (Wang et al., 2016; Lin, 2020). Multiple studies on consumer

behavior have examined the effects of perceived value and perceived behavior on consumer

attitude and purchase intention. Chen and Lin (2018) collected 313 questionnaires and used path

analysis to test the relationship between perceived value and viewing intention. Bhuvanesh and

Vimal (2018) proposed hypotheses based on the Technology Acceptance Model (TAM) to explain the relationship between various perceived behaviors, such as perceived usefulness (PU), perceived value (PV), and perceived risk (PR), and their impact on purchase intention (PI). The study's findings revealed a significant relationship between perceived usefulness, value, and risk. These factors significantly impacted purchase intention when consumers wanted to purchase through social media platforms (Bhuvanesh & Vimal, 2018). As previously stated, perceived behavioral control has varying degrees of influence on intention (Ajzen & Madden, 1986). When people perceive themselves to have a high degree of behavioral control, their attitude on purchase intention in live streaming platforms is positive (Lin, 2020). According to the current study, the greater the perceived simplicity, the greater the intention to purchase in live streaming shopping. Therefore, the following hypothesis is proposed:

H2: Perceived behavioral control is positively associated with Chinese consumers' purchase intention in live streaming e-commerce.

Subjective Norm

Initially, the term "subjective norm" referred to the social pressure a person felt from significant others regarding a particular behavior (Ajzen, 1991). The extended definition of the subjective norm includes normative beliefs about significant others' behaviors (Fishbein & Ajzen, 2011). In other words, significant others can be friends or family members (Wei at el., 2009; Lin, 2020). Lim et al. (2016) analyzed a sample of university students to explore the correlation between subjective norm, perceived utility, and buying behavior. The study found

that subjective norm had a positive and significant effect on the outcome, indicating that their families, friends, and media content influenced university students' purchase intention (Lim et al., 2016). Fishbein and Ajzen (1980) also proposed that subjective norm significantly affect an individual's behavioral intention.

Subjective norm also accounts for a lower proportion of variability in intention; however, the significance of subjective norm should not be diminished (Moan & Rise, 2011). Some studies (Chang et al., 2019; Chen & Lin, 2018; Hou, 2019) indicated that individuals' activities align with the expectations and behaviors of their strong social ties, which often results in increased participation in those behaviors. According to these studies, the following hypothesis is proposed:

H3: Subjective norm is positively associated with Chinese people's purchase intention in live streaming e-commerce.

The Stimulus Organism Response (S-O-R) Model

The SOR model of environmental psychology was proposed by Mehrabian and Russell (1974) and is still widely used today. For the SOR model to work, it is assumed that various environment components operate as stimuli that impact individuals' emotional states, leading to people's behavioral responses. This model has been widely utilized in the retail industry to study online consumer behavior (Hu, 2020). Purchase intention and consumer behavior have been studied extensively using the SOR model, which many researchers have employed as a theoretical framework. Hu and Chaudhry (2020) used the stimulus–organism–response (SOR)

model and relationship marketing theories to investigate the relational linkages between e-commerce live streaming and consumer engagement. The findings showed that affective commitment positively impacted consumer involvement, both directly and indirectly, through social and structural adhesives. At the same time, financial connections only indirectly affected customer participation through affective commitment (Hu & Chaudhry, 2020). Wu and Li (2020) also employed the SOR framework to evaluate the effects of contextual and external stimuli on subsequent responses in a live streaming commerce situation. The findings shed light on how live streaming stimuli affect consumers' cognitive and emotional states, influencing consumer behavior in live streaming commerce (Wu & Li, 2020).

According to the SOR model, stimuli in the retail environment can change consumers' cognitive and emotive reactions, which might influence their behavior (Chan et al., 2017; Mehrabian & Russell, 1974). As a result, in live streaming e-commerce, live streaming e-commerce features can be seen as stimuli, and the consumers' purchase intention can be considered a behavior reaction in this context.

The Live Streaming E-Commerce Features

Live e-commerce is different from traditional e-commerce platforms in many ways that makes it appealing to Chinese shoppers who like the new model of live streaming shopping. Based on much research that explored the influence of different factors on people's buying

behavior and purchase intention, this study summarizes the following four main features of live

streaming e-commerce.

Visibility. Chen and Lin (2018) suggested that sending images and sounds from one place to

another in real time is one of the best live streaming features over traditional e-commerce. In

other words, live shopping is all about showing and selling items to people through live-viewable

videos. Usually, consumers need sufficient details to help them make purchasing decisions

(Dong et al., 2016). Good visibility can help consumers better understand product information in

live streaming and render consumers an immersive shopping experience (Yim et al., 2017; Sun et

al., 2019). So how does the live shopping platform achieve high visibility? Live streaming

shopping can broadcast informative videos to consumers, and streamers can display how to

utilize products via live platforms, allowing the product to be visualized? (Sun et al., 2019).

Online users can watch the streamers during this procedure and view the merchants as "real

people," which encourages them to perceive a social presence (Sun et al., 2019, p. 2). Thus, one

advantage of online visibility is that it allows online consumers to obtain information in real time

by watching interactions between some viewers and the online celebrity (Chen et al., 2017;

Leonardi, 2014).

In addition, many studies have shown that visibility has a significant effect on consumers in

live streaming e-commerce. One of the main reasons is that businesses can increase the visibility

of their brand by reaching more people and setting themselves apart from competitors through

live streaming (Keinanen, 2017). Furthermore, many researchers emphasized the importance of

visibility in the current and future use of information technologies (Agarwal & Prasad, 1997; Karahanna et al., 1999; Plouffe et al., 2001). For example, Huang et al. (2015) argued that more online visibility could lead to more user-generated content and impact consumers' attitude. Thus, this study proposed the following hypotheses:

H4a: Visibility is positively associated with Chinese consumers' attitude towards platform use in live streaming e-commerce.

H4b: Visibility is positively associated with Chinese consumers' attitude towards the brand in live streaming e-commerce.

Interactivity. In comparison to commerce via television or telephone, one of the most distinguishing characteristics of live e-commerce is the interactive nature of consumers. Some social media, like Weibo and WeChat, let people post information and comments anytime and anywhere, so people can talk to each other at the right time. Still, these social platforms cannot achieve real-time interaction, and only the emergence of webcasts can truly achieve real-time interaction. Live video anchors are different from TV anchors or recorded video anchors. Social live streaming services emphasize interaction with the audience while showing the anchors themselves. In addition to sending comments, users can also submit "likes" and "virtual gifts" to their identified broadcasters during the stream (Su et al., 2020, p.1). On live streaming services, gift-giving can be viewed as a unique communication route between focused users and streamers (Yu et al., 2018).

Liu and Shrum (2002) defined online interactivity as "two-way communication." Two-way communication refers to "the ability for reciprocal communication between companies and users and users and users" (Liu and Shrum, 2002, p. 55). Appelbaum (2001) mentioned that customer retention is becoming more challenging, and the key to attracting consumers is emotional responses instead of price or product. Meanwhile, many studies have confirmed that customer engagement or interactivity is a reason for attracting consumers to participate in live shopping. Engaging, interactive experiences will bring consumers a strong sense of satisfaction (Appelbaum, 2001; Chang et al., 2019; Li & Han, 2020). According to the findings by Fortin and Dholakia (2005), interactivity can stimulate the physiological arousal of consumers, thereby influencing their attitude and purchase intention. In live e-commerce, interactivity is a crucial atmospheric cue that stimulates customers' cognitive and emotional states and influences their behavioral responses (Sheng & Joginapelly, 2011; Kang et al., 2021). Through these previous studies, the following hypotheses will be proposed:

H5a: Interactivity is positively associated with Chinese consumers' attitude towards platform use in live streaming e-commerce.

H5b: Interactivity is positively associated with Chinese consumers' attitude towards the brand in live streaming e-commerce.

Price Discount. Due to the negative impact of the new crown epidemic and blockade on the global economy in the past two years, online shopping has become the top choice of most people

(Lv et al., 2020). In China, online shopping is convenient and fast, but more importantly, merchants avoid the high cost of renting a physical store. Therefore, online shopping often gives consumers higher price discounts. Various promotional activities are constantly appearing on the live shopping platform. Consumers can grab coupons online and participate in lottery games, group buying, or flash sales. Usually, consumers can buy products at lower prices through live streaming platforms than in physical stores.

Because promotional activities have gradually become a significant feature of online shopping, most consumers are usually attracted by the low prices of online shopping. Many academics have explored the impact of sales on consumer purchase intention. Some scholars stated that price discount impacts people's attitude and buying behaviors (Estelami, 2003; Mariola & Delgado, 2009; Teng, 2009). Nisar and Prabhakar (2017) pointed out that price discount significantly impacts the sales volume of goods in promotional activities when people purchase via online platforms. Yi and Yoo (2011) compared the influence of sales promotions on brand attitude across promotion types over time. The data showed that any sales promotion can positively affect brand attitude. Another research (Lv et al., 2020) claimed that price discounts are the main reason people buy on different e-commerce platforms. Thus, the following hypotheses are proposed:

H6a: Visibility is positively associated with Chinese consumers' attitude towards platform use in live streaming e-commerce.

H6b: Visibility is positively associated with Chinese consumers' attitude towards the brand in live streaming e-commerce.

Celebrity Endorsement. The popularity of live streaming has contributed to the success of many online celebrities. An online celebrity is "someone who becomes well-known among netizens due to his or her actions or experiences on the Internet" (Hu & Lu, 2018, p. 122). An article pointed out that "Livestreaming E-Commerce is promoting and selling goods through influencer streams on social media channels with charismatic, trendy online celebrities" (Meng et al., 2021, p. 1). When people talk about online celebrities or influencers, they mean groups that many Internet users want to follow because of certain behaviors, traits, hobbies, characteristics, or events in real life or on virtual networks. There are two core elements to the concept of "online celebrity": one is the network platform, the field space where the system was born, and the other is the interactive relationship with the audience (Ao, 2016). Online celebrities are also defined as "key opinion leaders" (KOLs) in the academic field. Lazarsfeld and Katz (1957) proposed the concept of opinion leadership, which means an active media user who interprets the meaning of media information or messages for lower-level media users. Influencers often interact with users on social media and live streaming platforms, recommend products to users, and sell products to users. People's attention to online celebrities has also become an important reason for developing live streaming e-commerce.

Goldsmith (2006) stated in his research that an opinion leader influences others in many ways, such as recommending information to others, giving directions to others, telling others

what he thinks is acceptable, etc. All of these can directly impact the search for and purchase of products. Flynn (1996) pointed out that consumers trust opinion leaders' recommendations because the advice or information provided by opinion leaders is directly related to the products they need. Opinion leaders often exist for consumption and identity. Some studies also pointed out that celebrity endorsements positively influence consumers' attitude toward advertising, brand products, and purchase intention. Celebrities can help people recognize brand names and create a positive attitude and an attribute for the brand (Chan et al., 2013). Consumers' perception of the celebrity endorser also positively influenced the brand attitude (Bergkvist et al., 2016). Banerjee and Singh (2018) also showed that a celebrity's credibility has an extensive and positive effect on how people feel about a brand.

Based on the above reviewed studies done in the past, the advice of social media celebrities to consumers and users may make them trust brands and products more, which also could attract them to watch live streaming by using these platforms. Thus, this study proposes the following hypotheses:

H7a: Celebrity endorsement is positively associated with Chinese consumers' attitude towards platform use in live streaming e-commerce.

H7b: Celebrity endorsement is positively associated with Chinese consumers' attitude towards the brand in live streaming e-commerce.

Chapter 3: Methodology

This chapter will provide a comprehensive review of the study's methodology since the study illustrates the significance of the methodological tools used to collect the data. It will first detail the procedures for data collection. The section will then explain the sampling technique by outlining the sample size and recruiting strategy. Followed by the questionnaire design, this chapter will cover the operationalization of each variable and provide a thorough description of the items used in this study. This chapter will also describe the integrative framework of each variable and the items used to test the suggested hypothesis. Finally, this chapter will conclude by describing the expected analysis.

Procedure

Initially, an online survey in English was developed to examine the key variables and to request IRB approval. The back-translated method (Brislin, 1970) was utilized to ensure the accuracy and clarity of the questionnaire's translation. The researcher invited a graduate student to translate the questionnaire items from English to Chinese, and then another graduate student translated the exact questionnaire items back to English. Both graduate students were bilingual in English and Chinese, and their research backgrounds are comparable. This method enabled this study to reduce item inconsistencies (Cheung & To, 2017; Lin, 2020). In addition, the investigator processed and modified item features (i.e., content, phrasing, and tone) to make them more suitable for addressing Chinese populations and investigating Chinese consumer attitude and purchase intention.

Recruitment

The questionnaire was administered by the Wenjuanxing website (https://www.wjx.cn/), the most widely used and recognized online sampling service in China. The researcher used the questionnaire platform (Wenjuanxing) to generate a link and QR code to the questionnaire for this study and posted it on social media platforms (e.g., WeChat, Weibo, QQ, etc.) and forwarded it to her family, friends, and classmates. Any Chinese adult (18 years old and over) who has experience in live shopping can participate in this study. The researcher also encouraged all participants to forward the link or QR code on their social media platforms to help increase the number of participants. Upon completion of the survey, each participant was compensated with a random money reward of 2 to 6 RMB (equivalent to approximately 30 cents to one US dollar) for their participation.

Sample Characteristics

A total of 1239 valid questionnaires were collected in this study. The demographic information of the participants is shown in Table 1. Among the 1,239 participants, 57.4% are female and 42.6% are male. More than half of the participants are aged between 25-34 (52.5%), and they are the leading group participating in live shopping, followed by those aged 18-24 (19.7%), with 17.7% of the participants aged between 35-45 and only 10.2% of those older than 45. More than half of the participants have a bachelor's degree or higher (71%), about 22.1% in some college and have an associate degree, and 6.9% have a high school diploma or less than a high school degree. Of all participants, 73.7% reported that their monthly household income is between 3,000 RMB (449 USD) and 10,000 RMB (1,496 USD). 17% of the participants earn

more than 10,000 yuan, and 9.4% earn less than 3,000 yuan. 35.4% of the participants shop via

live streaming platforms 4-6 times a week, followed by 31.6% 1-3 times a week, 16.6% 7-9

times a week, and 16.5% more than 10 times a week.

Institutional Review Board (IRB)

An institutional review board (IRB) is a committee that applies research ethics by assessing

research methods to ensure they are ethical (Penslar, 1993). This study gained approval from the

Institutional Review Board (IRB) to conduct the research and ensured that all procedures were

appropriate and ethical. The current study received permission to collect and analyze data from

participants in China aged 18 and older. Particularly, an exemption? from regulations was

granted for international data collection while the researcher was physically present in the United

States. The IRB decided that the study conformed to its ethical requirements.

Questionnaire Design

The questionnaire was designed with a single choice for multiple options for all main

questions. According to Babbie (2013), this design style provides "more uniform responses and

is easier to process" (p. 249). The design process of the questionnaire was exhaustive, and all

scales were manipulated and modified to serve the purpose of the study. The questionnaire was

modified after discussing the selection of items and the use of language with the thesis advisor.

The entire survey took roughly 5-10 minutes for participants to complete. The survey is

divided into three sections. The first section elicited demographic information from participants,

such as age range, gender, monthly family income, and frequency of engagement in live e-

commerce. Participants were then asked questions about the live e-commerce platform's

qualities, their attitude toward the brand and platform, and their desire to purchase products. Finally, participants were asked about the impact of live shopping on their lives and the presence of certain drawbacks. The current study focused on only nine variables, and each variable's measurement is detailed below.

Measurements and key variables

The measurements of the key variables, including the number of items, 5-point Likert scale dimensions, adapted source reference, and Cronbach's alpha (Tavakol & Dennick, 2011; Sijtsma, 2009) to indicate reliability, are described in the following section. According to Tavakol and Dennick (2011), "high-quality tests are important for determining the reliability of data presented in an examination or study" (p. 54). Alpha values are widely applied as measures of test reliability, and acceptable alpha values are recommended between 0.70 and 0.95 (Bland & Altman, 1997; Nunnally, 1994). Table 2 provides a reference for the combination of all significant variables.

Visibility of Live Streaming E-commerce. Visibility of live streaming e-commerce is one independent variable in this study. The visibility scale was made to determine the degree to which consumers agree that they can see the product better during live streaming e-commerce. The visibility scale is adapted from the brand characteristics measure (Yu, 2020) and the live streaming e-commerce characteristics measure (Sun et al., 2019). These scales have a good description of the visibility of live streaming e-commerce. The 5-point Likert scale collects participants' degree of acceptance of these statements to measure the visibility feature. Example items on the visibility scale include: "I can learn more about the characteristics and information

related to the product;" "I get valid information about how people feel when using the product;" and "I can have complete knowledge of the product or brand." Participants can use "(1) strongly disagree", "(2) disagree", "(3) neither agree nor disagree", "(4) agree", and "(5) strongly agree" to express their views. The Cronbach's alpha for this 3-item scale was 0.84 (M = 4.05, SD = 0.70).

Interactivity of Live Streaming E-commerce. Interactivity of live streaming e-commerce is another independent variable in this study. The interactivity scale was made to explore the extent to which people agree that live streaming e-commerce can give consumers a good interactive shopping experience. The Live Streaming e-commerce characteristics measure (Sun et al., 2019) and the Live-stream usage intention scale (Chen & Lin, 2018) are both used to create the interactivity scale. Interactivity is the most important difference between live streaming e-commerce and ordinary e-commerce. This measure refers to the Live-Stream Usage Intention Scale because it considers how people interact with the streamer during the live streaming. The 5-point Likert Scale is used to collect the respondents' degree of acceptance of these statements to measure the interactivity feature. Example items on the interactivity scale include: "I will actively participate in the interaction with the host;" "I will actively interact with the host and receive practical guidance and advice;" and "I will actively participate in some entertainment activities initiated by the host (e.g., participating in a lucky lottery, joining the fan group, sending virtual gifts, etc.)." Participants can use "(1) strongly disagree," "(2) disagree," "(3) neither agree nor disagree," "(4) agree," and "(5) strongly agree" to respond to the survey items. The Cronbach's alpha for this 3-item scale was 0.85 (M = 3.71, SD = 0.90).

Price Discount of Live Streaming E-commerce. Price discount of live streaming e-commerce is also one independent variable in this study. The 5-point Likert Scale was used to find out the degree to which survey participants agreed with these statements about price discount. Examples of items on the price discount scale include: "I think various promotions are one of the main features of live streaming e-commerce platforms;" "I think price concessions are the main strategies by which e-commerce platforms attract consumers;" and "I believe that the price of products on the live streaming platform will be lower than other shopping methods." Participants can use "(1) strongly disagree," "(2) disagree," "(3) neither agree nor disagree," "(4) agree," and "(5) strongly agree" to express their views. The Cronbach's alpha for this 3-item scale was 0.76 (M = 4.06, SD = 0.67).

Celebrity Endorsement of Live Streaming E-commerce. The celebrity endorsement in live streaming e-commerce is another independent variable in this study. Based on Malhotra's scale (Malhotra 1981), which is used to measure the user, celebrity, and brand, the scale of celebrity endorsement will explore people's attitude towards use of platform and product brands under the influence of celebrities. Example items on the celebrity endorsement scale include: "If celebrities are involved, it will attract me to watch live streaming e-commerce;" "The main reason I watch live e-commerce streams is that there have hosts or celebrities that I like;" "I would go to the live studio to watch the live streaming to support the host or the celebrity." "Participants can use "(1) strongly disagree," "(2) disagree," "(3) neither agree nor disagree," "(4) agree," and "(5) strongly agree" to express their views. The Cronbach's alpha for this 3-item scale was 0.88 (M = 3.68, SD = 0.97).

Perceived Behavioral Control (PBC). Perceived behavioral control (PBC) is also an independent variable in this study. PBC is primarily determined by external environmental factors and self-perceived power, such as controllability or self-efficacy to perform a particular behavior (Bandura, 2006). For the perceived behavioral control measure, a 5-point Likert scale is used to determine how much the respondent agrees with each statement. Example items on the PBC Scale include: "I can decide how often I want to participate in live shopping;" "I have the time and opportunity to participate in live shopping;" and "Whether or not to participate in live shopping is entirely up to me." Participants can use "(1) strongly disagree," "(2) disagree," "(3) neither agree nor disagree," "(4) agree," and "(5) strongly agree" to express their views. The Cronbach's alpha for this 3-item scale was 0.72 (M = 4.12, SD = 0.66).

Subjective Norm (SN). The subjective norm is another independent variable in this study. Ajzen's (1985; 2006) theory of planned behavior says that a subjective norm is seen as social pressure to do the behavior. For the subjective norm measure, the Likert Scale is used to determine how much the respondent agrees with these statements. Example items on the Subjective Norm Scale include: "People who are important to me (e.g., family, colleagues, friends, etc.) will recommend me to participate in live shopping;" "People who are important to me (e.g., family, colleagues, friends, etc.) will support my participation in live shopping;" "I think participating in live shopping is already a mainstream consumer trend in society." Participants can use "(1) strongly disagree," "(2) disagree," "(3) neither agree nor disagree," "(4) agree," and "(5) strongly agree" to express their views. The Cronbach's alpha for this 3-item scale was 0.77 (M = 3.87, SD = 0.72).

Platform Attitude (ATTP). Attitude towards platform use is a mediating variable in this study. This mediator examined how consumers felt about the platform when they did live shopping online. The 5-Likert scale collects participants' degrees of acceptance of each statement: "I think shopping through the live streaming platform is a good way to shop;" "I like the shopping method of live streaming e-commerce very much;" "As a consumer, shopping through a live e-commerce platform is a wise choice." Participants can use "(1) strongly disagree," "(2) disagree," "(3) neither agree nor disagree," "(4) agree," "and (5) strongly agree" to express their views. The Cronbach's alpha for this 3-item scale was 0.83 (M = 3.97, SD = 0.71).

Brand Attitude (ATTB). Attitude towards brands is also a mediating variable in this study. This intermediate variable was developed to measure how consumers felt about the brand when they bought the product through live streaming e-commerce platforms. The 5-Likert scale measures participants' degrees of acceptance of each statement: "Through live streaming e-commerce, I have developed a good feeling for the products;" "Through live streaming e-commerce, I have established good relationships with certain corporate brands and products;" " I will continue to pay attention to other brand products in live e-commerce." Participants can use "(1) strongly disagree," "(2) disagree," "(3) neither agree nor disagree," "(4) agree," and "(5) strongly agree" to express their views. The Cronbach's alpha for this 3-item scale was 0.86 (M = 3.91, SD = 0.75).

Purchase Intention (PI). Purchase intention is the dependent variable in this study. The purchase intention scale is adapted from Kim & Choi's (2011) scale to measure consumers' purchase intention. The 5-point Likert scale was used to assess participants' degree of acceptance

of the following statements: "I am willing to continue to use the live e-commerce platform for shopping;" "I plan to make my next purchase through the live e-commerce platform;" "When I want to shop, I choose the live e-commerce platform to make a purchase." Participants can use "(1) strongly disagree," "(2) disagree," "(3) neither agree nor disagree," "(4) agree," "(5) strongly agree" to express their views. The Cronbach's alpha for this 3-item scale was 0.84 (M = 3.95, SD =.74).

Pilot Test

A pilot test facilitates a rehearsal of the more extensive study to test all components of the proposed research (Drummond, 2017) and helps researchers gain a deeper understanding of the questions and items design. The pilot study received 656 validated surveys via the *Wenjuanxing* platform to evaluate the clarity of the questionnaire items and instructions. Special attention was paid to the readability of the Chinese questionnaire language. The analysis showed that most of the measured items were reliable. However, the analysis also revealed discrepancies in measuring consumers' attitude and purchase intention. Based on the analysis of this pilot test, further changes were made to the consumer attitude measures in conjunction with additional literatures, subdividing attitude into attitude toward the platform and attitude toward the brand, thus allowing participants to understand the questionnaire questions more thoroughly. The 656 completed questionnaires from the pilot test are not included in the entire sample. They are only used to inform the researcher and suggest improvements to the reliability of the items measured in this study.

Data Analysis

This study used the hierarchical linear regression method to test all the proposed hypotheses. Hierarchical regression is a sort of multiple regression based on a correlation matrix of all the variables to be examined in the question (Lin, 2020). This study uses hierarchical linear regression since consumers' attitude toward the platform, and the brand serve as two intermediates variables. Therefore, it is necessary to examine the role of the variables of live streaming characteristics on consumers' attitude first order, followed by the role of TPB components on consumers' purchase intention. With the help of SPSS 24.0, the researcher analyzed the data and generated descriptive statistics and statistical significance results of the coefficients.

Chapter 4: Results

This chapter summarizes the results of this study. First, it will go over how confirmative factor analysis (CFA) helps determine the reliability of the measurement of the variables. Second, the descriptive statistics and correlations between the main variables will be discussed in this section. Third, it will restate the hypotheses and report the statistical test results. All the tables will be included at the end of the paper.

Measurement Model Testing. This study used a confirmatory factor analysis (CFA) before hypothesis testing to ensure reliability and construct validity of the measurement of the variables. Table 2 shows the results. Cronbach's alpha and composite reliability were utilized to examine the internal consistency of additional constructs, such as attitude, perceived behavior control, and

subjective norm (Fornell & Larcker, 1981; Lin, 2020; Ru et al., 2019). Table 2 demonstrates that

the minimum value of Cronbach's alpha was 0.77 and the CR score was 0.72, both of which

exceeded the recommended cutoff of 0.70. (Raykov, 1997). Thus, the reliability of the

measurement of the items was tested. Convergent validity was also tested by average variance

extraction (AVE). In Table 2, most of the AVE values were above the recommended cutoff value

of 0.50. Only the AVE of the PBC was 0.47. Although Average Variance Extracted (AVE)

should higher than 0.5 but we can accept 0.4. Because Fornell and Larcker said that if AVE is

less than 0.5, but composite reliability is higher than 0.6, the convergent validity of the construct

is still adequate (Fornell & Larcker, 1981). Overall, the data showed satisfactory reliability and

convergent validity. For visibility, Cronbach's alpha is 0.84, and the CR score is 0.84. For

interactivity, Cronbach's alpha is 0.86, and the CR score is 0.85. For price discounts, Cronbach's

alpha is 0.77, and the CR score is 0.76. For celebrity endorsement, Cronbach's alpha is 0.89, and

the CR score is 0.88. Thus, the CR values of all live streaming features are much higher than the

recommended value of 0.7 (Hair, 1997), which shows high internal consistency in examining the

reliability of the measurement of live e-commerce features.

Descriptive statistics. A five-point Likert-type scale (e.g., 1 = Strongly Disagree to 5 =

Strongly Agree) was used to measure live streaming features, consumers' attitude towards the

platform use, consumers' attitude towards the brand, PBC, subjective norm, and purchase

intention. In this study, I utilized the categories "low (1.00-2.00)," "moderately low (2.01-2.99),"

"neutral (3)," "moderately high (3.01-3.99)," and "high (4.00-5.00)" to evaluate the variables'

values. According to the descriptive analysis, participants perceived high levels of visibility in

live streaming e-commerce ($M_{visibility}$ = 4.05, SD = 0.70). In live streaming e-commerce,

participants experienced a moderately high level of interaction ($M_{interactivity}$ = 3.71, SD = 0.90).

Participants reported a high level of price discount in live streaming e-commerce ($M_{price\ discount}$ =

4.06, SD = 0.67). Participants also reported a moderately high level of celebrity endorsement in

live streaming e-commerce ($M_{celebrity\ endorsement}$ = 3.68, SD = 0.97). Furthermore, participants

exhibited moderately high levels of consumer attitude toward the platform use and the brand

($M_{platform\ attitude}$ = 3.97, SD = 0.71; $M_{brand\ attitude}$ = 3.91, SD = 0.75). Finally, participants' consumer

behavior toward live streaming e-commerce was moderately high ($M_{purchase\ intention}$ = 3.95, SD =

0.74). Correlations between the variables in the proposed hypotheses ranged from .48 to .82 (*p*

< .01). All the results are shown in Table 3.

Test of hypotheses. Hierarchical linear regression was adopted to investigate live streaming

e-commerce features, consumers' attitude, and perceived behavioral control. Based on the

theoretical framework of this study, the hierarchical linear regression was divided into three

levels. In the first step, demographic variables were entered on the first step. In the second step,

the four characteristics of live e-commerce were entered, and in the third step, the components of

TPB were entered, which included consumers' attitude towards the platform use and the brand.

Since consumers' attitude are mediating variables in this study's theoretical framework, the two

consumer attitudes were analyzed as dependent variables first. Then, these two variables are used

as independent variables to examine the consumers' purchase intention. Therefore, there were

three models analyzed in this study. The normally distributed error, linearity, and uncorrelated

error assumptions were verified and met. Table 4 displays the results of the hierarchical linear

regression analysis.

Test of control variables. As control variables, gender, age, education level, monthly

household income and live shopping frequency were measured and entered the first block of

each model in hierarchical linear regression analysis. To perform a regression analysis, females

were classified as "1" and males as "0." In the first module of consumer attitude toward the

platform, only two of the five demographics significantly predicted consumer attitude toward the

platform before other variables were entered. Specifically, participants' age (β = -.10, p < .01)

negatively impacted platform attitude; however, the frequency of participation in live e-

commerce shopping (β = .28, p < .001) positively affected consumers' attitude toward the

platform. Similarly, in the second module on consumer attitude toward brands, there is still a

negative correlation between participants' age (β = -.07, p < .01) and brand attitude, and the

frequency of participating in live e-commerce shopping (β = .26, p < .001) positively affected

consumers' attitude toward brands. In the module on consumers' purchase intention, the same

shows a negative correlation between participants' age (β = -.10, p < .01) and purchase intention,

while the frequency of participating in live e-commerce shopping (β = .30, p < .001) positively

correlates with purchase intention. However, as indicated by the adjusted R2, only 1% of the

variance in consumers' purchase intention could be predicted from gender, monthly household

income, education level, and live shopping frequency combined.

Results hypothesis 1a. By controlling for demographic variables and live streaming

features, the results were found that attitude toward platforms was positively correlated with

Chinese customers' purchase intention to engage in live streaming e-commerce. Table 3

presented the means and standard deviations. The final block of variables revealed that attitude

towards platform use was positively associated with purchase intention ($\beta = .41$, $p < .001$). The

result supported H1a.

Results hypothesis 1b. Through the analysis, it was found that attitude toward brands was

positively associated with Chinese consumers' purchase intention to participate in live streaming

e-commerce. Table 3 shows the means and standard deviations. The final block of variables

verified that attitude towards brands was positively associated with purchase intention ($\beta = .22$, p

$< .001$). The result supported H1b.

Results hypothesis 2. Based on the regression Model 3, the result showed that perceived

control behavior was positively associated ($\beta = .06$, $p < .01$) with Chinese consumers' purchase

intention. The findings indicated that consumers' levels of participation confidence could predict

their intention to purchase live streaming e-commerce. H2 was supported.

Results hypothesis 3. In the Model 4, the controlled demographic variables and live

streaming features showed that subjective norm had a strong positive impact ($\beta = .14$, $p < .001$)

on Chinese consumers' purchase intention. This means that the approval and support of people

who are important to them for their participation in live shopping positively influences people's

purchase intention. H3 was supported.

Results hypothesis 4a and hypothesis 4b. Through the regression analysis, the result

showed that interactivity had significant effect ($\beta = .20$, $p < .001$) on Chinese consumers' attitude

towards platform use. In the other model, the interactivity positively was impacted ($\beta = .24$, p

< .001) on Chinese consumers' attitude towards the brand. Thus, H4a and H4b both was supported.

Results hypothesis 5a and hypothesis 5b. Based on the analysis, the result indicated that visibility was positively associated (β = .19, p < .001) with Chinese consumers' attitude towards platform use. In the other model, the result showed that visibility was also positively associated (β = .25, p < .001) with Chinese consumers' attitude towards the brand. Thus, H5a and H5b both was supported.

Results hypothesis 6a and hypothesis 6b. Based on the analysis, the price discount showed a strong positive impact (β = .32, p < .001) on Chinese consumers' attitude towards the platform use. In the second model, the result showed that price discount was also positively impacted (β = .19, p < .001) on Chinese consumers' attitude towards the brand. Thus, H6a and H6b both was supported.

Results hypothesis 7a and hypothesis 7b. Through the hierarchal linear regression analysis, the result demonstrated that celebrity endorsement was positively associated (β = .22, p < .001) with Chinese consumers' attitude towards the platform use. In the second model, the celebrity endorsement was also positively associated (β = .29, p < .001) with Chinese consumers' attitude towards the brand. Thus, H7a and H7b both was supported.

Chapter 5: Discussion

This chapter explores the significance and future directions of research based on the findings reported in chapter 4. It will first explore the theoretical implications and explanations of the statistical findings, followed by the practical implications and suggestions for further studies. Furthermore, the present chapter will examine the theoretical framework extended from the current investigation. In addition, the limitations of the current study will be discussed in detail, providing researchers with a blueprint for future work in this area. The chapter will conclude by highlighting the significance of the study's findings and drawing conclusions and suggestions to assist China's live streaming e-commerce industry in developing in a healthy and positive direction, thereby positively influencing Chinese consumer behavior in lives streaming e-commerce.

The shopping mechanism of live e-commerce has emerged and become the mainstream in China in recent years with the Internet and social media development. However, overseas research on live e-commerce is limited, and most of the literature and theories only explore the live streaming characteristics or consumer behaviors in e-commerce. Therefore, this study draws on literature from various aspects of business, marketing, social media, and digital communication to construct a theoretical framework for live e-commerce features and consumer behavior. The novelty of this theoretical framework is that traditional consumer behavior theories define consumer attitude more in terms of attitude toward brands (Ajzen, 2002).

In contrast, the results showed the irrelevance of consumers' attitude and purchase intention in the pilot test. This result contradicts the existing theoretical framework (e.g., the TPB model) and other previous research findings. Therefore, with the help of the pilot test, further thoughts are drawn: When considering live e-commerce as a social media platform-based shopping activity, participants may consider their attitude towards the platform use or towards the brand of the purchased item when filling out the questionnaire. Based on this consideration, I divided the consumer attitude into a preference for the platform and a preference for the brand so that participants could have a clearer perception of the problem and examine the impact of attitude on purchase intention from different aspects. Few studies have examined the effects of both platform attitude and brand attitude on consumers' purchase intention in previous studies, which is the innovation of this study.

The study constructed a theoretical model of the influence of "live streaming + e-commerce" on consumers' purchase intention based on the TPB (Ajzen, 1985) and S-O-R (Mehrabian & Russell, 1974) models and consumer behavior theories. This study surveyed 1239 Chinese consumers who have experienced in live shopping. All the hypotheses of the scale and model were tested through hierarchal linear regression analysis. The results showed that in live streaming e-commerce, consumers' purchase intention was positively associated with subjective norm, perceived behavioral control and interactivity, visibility, price discount, and celebrity endorsement. The results also showed that consumer attitude partially mediate the influence of these variables on purchase intention.

Discussion of demographic variables. In prior research, females have been and continue to be the predominant household purchasers; therefore, women are more likely to be satisfied with their shopping experiences (Alreck & Settle, 2002). Even though more than half of the participants in this study are female (57.4%), the results indicate that gender has no effect on consumption attitude or willingness to consume in live e-commerce. In terms of age, 52.5% of the participants are between the ages of 25 to 34 years old. In China, young adults in this age group are typically financially stable, up to date with current social trends, and the primary users of various social platforms. Consequently, most live-streaming e-commerce users are young Chinese of this age group. Statistics indicate that by 2020, 48 % of Chinese live-streaming e-commerce users will be between the ages of 21to 35 (Ma, 2021); these users will dominate live-streaming e-commerce. This study revealed that the age of the participants had no effect on their consumption attitude and purchase intention. 51.6 % of the participants had a monthly household income between 5,001 and 10,000 RMB, while 17.6 % earned more than 10,000 RMB per month. The income level of the data sample represented China's average income level. Some data indicate that China's per capita monthly income is 8,451 RMB. Monthly household income is statistically significant and positively influences consumers' purchase intention, according to studies (Wekeza & Sebanda, 2019). However, the results of this study indicated that income has a significant influence on the attitude and purchase intention of live shoppers. No direct interaction. In addition, 71% of participants held a bachelor's degree or higher, and studies indicate that education level positively correlates with intention (Lin, 2020). However, the results indicate that education has a significant impact on people's consumption attitude and purchase

intention in real-time e-commerce that is completely irrelevant to consumption behavior. 52 % in

this study, which also examined the frequency of people's monthly live-streaming shopping,

shopped between 4 - 9 times per month, while 16.5 % shopped more than 10 times per month.

According to the studies, the frequency of live stream (Taobao Live) viewing has a substantial

effect on purchase intention (Chen et al, 2022). This study also demonstrates that the frequency

of live streaming shopping has a significant positive impact on consumption attitude and

purchase intention.

Implications of live streaming e-commerce features

Visibility. As mentioned in the literature review section, many studies have shown that

visibility significantly affects consumers in live streaming e-commerce (Yim et al., 2017; Sun et

al., 2019). This study also confirmed previous studies that visibility has a significant positive

effect on consumers' attitude towards the platform use and the brand. In detail, the effect of

visibility on attitude toward brands (β= .24, p< .001) was higher than the effect on attitude

toward platforms (β= .20, p< .001). This result suggests that high product visibility during live e-

commerce helps consumers better understand the knowledge and usage of the product or the

brand, which increases consumer trust ability in the brand and product. Especially for people

who do not intend to participate in the purchase of products during the live streaming will find

new needs after watching the anchor's presentation of the products. By introducing the product

performance and product characteristics by the anchor, the product or brand will likely be

excited, and the idea of purchasing will be born after increasing the purchase intention. Thus, the suggestion for the brand is to improve the visibility of the product as much as possible. For instance, through the unique display lens, practical operation, detailed introduction, and other aspects to increase the visibility of the brand and product, authenticity to positively influence the consumer's attitude towards the brand, to enhance the consumer's shopping desire further.

Interactivity. The results showed that interactivity in this study positively associated consumers' attitude toward platforms and brands simultaneously, confirming many previous findings (Sun et al., 2020; Yu et al., 2018). In this study, the results showed that interactivity had a very significant effect on brand attitude (β= .25, p< .001) than on platform attitude (β= .19, p< .001). Interactivity is one of the most prominent features of live shopping. Compared with traditional TV shopping, the anchor can also create a sense of reality through on-site trials. However, consumers cannot ask questions when confused, and the seller cannot understand what consumers' thoughts are. In live streaming, consumers can communicate with the anchor in real-time through the danmaku (bullet-curtain) to effectively obtain the information they need for shopping. Real-time interactivity improves user viewing experience and anchor recognition, which in turn affects consumer satisfaction and behavior (Gu, 2020; Fan, 2020). In marketing, the interactivity of live broadcasts can improve the quality of communication between consumers and brands to help brands and products obtain positive behavioral responses from consumers. For practical implications, interactivity is an indispensable feature of the live-streaming shopping mode compared to other shopping modes. Good interactivity will positively affect consumers'

attitude towards brands and their cognition of products, increasing their willingness to purchase. Merchants should effectively use the interaction with consumers brought by the live streaming platform and use the active professional knowledge and entertainment of the anchor to attract consumers to participate in live streaming shopping.

   Price discount. Previous research results show that consumers will choose to consume for price factors, mainly during the shopping festival, when the prices of live e-commerce products are lower and online shopping platforms provide many coupons (Gu, 2020). This study also demonstrates that price discounts positively affect consumers' attitude towards platform use and brands. In particular, the impact of price discounts on platform attitude ($\beta = .32$, p< .001) is much more significant than that of consumers on brand attitude ($\beta = .19$, p < .001). In addition, price discounts are also found in all the characteristics of live streaming e-commerce that significantly impact consumers' attitude. The results illustrate that many Chinese consumers may firmly believe that live streaming platforms have better discounts on products compared to other shopping methods, whether online or offline. Consumers may believe that live streaming platforms have the lowest prices because live streaming platforms usually offer some coupons that can only be used in the live broadcast room or hold promotional events such as flash sales. A series of preferential activities on the live streaming platform may be the biggest gimmick and strategy to attract consumers. It is also a way to stimulate consumers to have a positive attitude towards the live streaming platform use, thereby promoting their willingness to buy. Keeping prices in good condition is the most important and effective way to attract customers to live streaming platforms.

Nevertheless, too low prices can sometimes cause concern among consumers. Suppose the live streaming platform can guarantee the quality of the products sold while providing preferential discounts and formulate corresponding rules to constrain the merchants to conduct the healthy competition and avoid the loss caused by the price war in the same industry. In that case, the low price is indeed the choice of the live streaming platform for consumers, one of the most important reasons to shop.

Celebrity endorsement. According to many studies, celebrities can help people recognize brand names and create a positive attitude and an attribute for the brand (Chan et al., 2013; Bergkvist et al., 2016). The results in this study confirmed the theoretical framework and previous According to the study, the star effect positively affects consumers' attitude. The results show that the influence of the celebrity endorsement on brand attitude (β=.29, p < .001) is greater than the influence on platform attitude (β=.22, p < .001), the celebrity endorsement will add trust to brands and products. One of the main reasons why the detail effect can bring consumers a positive attitude towards the brand is that consumers trust opinion leaders' recommendations because the advice or information provided by opinion leaders is directly related to the products they need (Flynn, 1996). Celebrities often have a high popularity and are sought after by fans. Live-streaming e-commerce uses social platforms to entertain shopping and convert its fan base into potential consumers by inviting celebrities to participate in live-streaming. People often support their favorite celebrities in various ways, and buying products that celebrities participate in live streaming is often a way for people to show support. People turn their love for celebrities into positive attitude toward brands, thereby stimulating their purchase intention. In China,

inviting celebrities to participate in live streaming has become a typical feature of live streaming

shopping. However, as more and more actors, singers, and athletes have participated in the ranks

of live streaming sales, there are also some doubts. For example, there are doubts about the

professionalism of celebrities. Celebrities are not professional anchors or salespersons. They

often do not understand brands or products, and they cannot effectively answer consumers'

questions or explain products. Alternatively, more and more stars choose live e-commerce as a

sideline, thus ignoring their jobs as actors or singers. These doubts will cause dissatisfaction

among fans and consumers at the same time. Therefore, for the live streaming e-commerce

industry, it is a wise marketing method to use the star effect to attract consumers. However, over-

marketing stars can also have the opposite effect.

Implications of perceived behavior control. In the theory of planned behavior, previous

studies have examined the significance of the direct effect of PBC on behavioral intention.

Several studies have contested the proportion of variance in explaining behavioral intention

related TPB determinants (Moták et al., 2017; Abamecha et al., 2013). Depending on the study's

subject matter, context, and sample size, the impacts of each factor may vary in magnitude. In

the results, PBC had a high score (M = 4.12) and a positive impact (β=.06, p < .01) on

purchasing in live streaming e-commerce. Ajzen (2005) defines PBC as an individual's view of

his ability to exhibit actions. In other words, PBC demonstrates how individuals can control

themselves to display or avoid displaying particular behaviors. PBC was described by Shufiana

et al. (2002) as a construct with three components: individual abilities, self-assessment of these

abilities, and self-control over these abilities. The results demonstrated that the participants

possessed high personal competence and self-control levels. First, most participants have

sufficient financial capacity and conditions to engage in live shopping. The statistics from the

population sample indicate that the monthly frequency of live shopping is relatively high.

However, the findings of PBC indicated that individuals can control their consumption frequency

and will not overconsume.

Similarly, high individual ability and self-control are positively associated with purchase

intention. Although the introduction of live streaming has given enormous economic benefits to

China, the more energetically the live streaming business develops, the more vigorously the live

streaming platform should protect the rights and interests of customers. Avoid consumers joining

mindlessly in live shopping, which would result in uncontrolled consumption.

Implications of subjective norm. In this study, the effect of subjective norm on Chinese

consumers' purchase intention was 0.14, which was greater than the effect of PBC. In line with

previous research (Greaves et al., 2013; Ru et al., 2019), subjective norm had a positive and

statistically significant effect on the outcome, indicating that students' families, friends, and

media content influenced their purchase intention. Subjective norm was found to be one of the

strongest predictors (β =.14, $p < .001$) of the intention to engage in live shopping. In the survey,

the subjective norm measure focused on how individuals' significant others would influence their

intention to engage in the behavior. The results indicated that a person's behavior is influenced

by the degree to which others have expectations of them. The results indicated that individuals

are expected to engage in live streaming e-commerce (M= 3.87). According to some sources,

Chinese people are highly influenced by traditions and more likely to follow the advice of their

significant others (Lin, 2020). For instance, young people rely heavily on the opinions of others,

and their behavior is highly constrained and influenced by their families (Lin, 2020). There are

several possible explanations for why subjective norm is more significant than the TPB

indicators, based on the findings of previous studies and the present study. First, research

conducted by George (2011) indicates that social interaction has a significant impact on online

shopping satisfaction. When live-streaming e-commerce shopping becomes the standard mode of

shopping in China, individuals would like to engage in this behavior voluntarily. Second, in the

Chinese perception, the primary motivation for participating in an activity is receiving support

from family, friends, and anyone else who is important to the participants

Implication of platform attitude towards purchase intention. This study confirmed that

attitude towards platform use directly influenced Chinese people's purchase intention. Moreover,

the attitude towards platform use is one of the most important factors affecting consumer's

behavior intention. It has also been shown in previous studies that the attitude toward using the

live streaming platform would positively impact the intention of users to utilize a live streaming

video platform (Ho & Yang, 2015). Based on the results, the effect of attitude toward using

platforms (β = .41, p < .001) higher than the effect of attitude toward brands (β = .22, p < .001).

This result also verifies the previous studies demonstrated by Chan and Fishbein (1993), they

argued that attitude towards the behavior (i.e., using of live streaming platforms) is a better

predictor of the behavior than attitude toward the object (i.e., the brands in live shopping) at which the behavior is pointed. Therefore, suitable platform management mechanisms, operation functions, interface design, etc., may become one of the potential factors affecting consumers' attitude towards the platform for more than ten different live streaming platforms in the current live e-commerce market. Therefore, it is suggested that the live e-commerce platform focus not only on various marketing models but also on the performance and design of the platform itself to bring consumers a better sense of use.

Implication of brand attitude towards purchase intention. The results showed that consumers' attitude towards brands was the second significant variable affecting purchase intention in the whole TPB model (β = .22, p < .001). Of course, this is in line with previous citations between brand attitude and purchase intention. Flahery and Papps (2000) clarified that attitude towards the brand is essential in determining the intention to purchase the extended product. Consumers' attitude towards a brand is often proportional to consumers' trust in the brand and brand image (Navaneethakrishnan et al., 2020). The results demonstrated that consumers' positive attitude towards brands is based on the trust and good product image brought to them by the brand. This positive interaction also positively affects people's shopping intention. As trust in a brand deepens, consumers may develop brand loyalty, further reassuring their willingness to buy. Although the live broadcast service provides consumption concepts and characteristics that are entirely different from the traditional e-commerce model, the most critical influence on consumption willingness is people's attitude towards the brand itself. A good brand

influencer on any live streaming platform may garner high purchase intention. Therefore, when selling products, live streaming platforms should pay attention to the supervision and review of the brand itself to better attract consumers to buy.

Limitations and Future Research

Although impressive results were obtained, it is essential to note the study's limitations. Initially, this study's results were acquired through self-reported questionnaires. Gaes et al. (1978) proposed that self-reported data are susceptible to self-presentational bias. Even though most TPB applications have depended on self-reports, there is a distinction between objective and self-reported behavior. Thus, researchers should explore the possibility of using several reliable and objective measurements of behavior (Conner & Norman, 2005, p. 179). Second, this study intends to explore the impact of live e-commerce features on consumers' attitude and purchase intention. In this study, the characteristics of live streaming are summarized as four characteristics based on previous literature studies: visibility, interactivity, price discount, and celebrity endorsement. However, depending on the actual live e-commerce span, the characteristics may also include authenticity, entertainment, etc. Therefore, this study only explores some main factors of live streaming e-commerce that influence consumers' attitude. Live e-commerce contains many characteristics not explored in this study, which could be a future research direction for live e-commerce characteristics. Thirdly, since the live-streaming e-commerce industry is relatively popular in China, this study is conducted exclusively in China to examine the attitude and purchasing intention of Chinese consumers. With the global rise of live

e-commerce, however, scholars may conduct comparative research into the various cultural

patterns of dialogic interactions, social media engagement, and consumer behavior. Fourth, the

examination of the subjective norm in this paper has limitations. In this study, the subjective

norm refers to the belief that an important individual or group will support and approve of a

particular behavior (Ham et al., 2015). Important individuals or groups can include parents,

relatives, friends, colleagues, etc. (Wei at el., 2009; Lin, 2020). Therefore, this study only

investigated the influence of people the participants considered important to them and did not

explore the possible impact of different members on the degree of purchase intention of the

participants. In future research, I will refine the items of subjective norm. Family members,

friends or colleagues were used as different items to measure the influence of subjective norm on

people's behavioral intentions. The results may have more practical implications than the

examination of subjective norm in this study.

Even though scholars have conducted a great deal of exploratory research on live streaming

in the past two years, there are still some gaps in the existing research on live broadcast service

and e-commerce. To be further explored, this paper believes that future research can focus on

different theoretical frameworks. Most of the existing empirical studies are based on the theory

of perceived value, the SOR model, the TPB model, and other theories to explore how live

streaming affects consumer attitude and behaviors. Other theories may be applied in the future:

for example, Randall Collins (2005) proposed the theory of the interactive ritual chain. The core

of the interactive ritual chain is the "participant's mutual attention and emotional chain." The

interactive ceremony is how users pay attention, interact with each other, and generate emotional

chains. Collins especially emphasized the concept of "emotional energy." He believed that emotional energy is an important driving force for the occurrence and development of the chain of interactive rituals. The ritual chain strengthens the solid emotional connection between anchors and consumers, and "fan loyalty" has even become an indicator for celebrity anchors to negotiate prices with brand merchants. Another famous communication scholars, Meyerowitz (1994), proposed medium theory and the concept of "situation," from which he began to study the influence of the "medium scene" on people's behavior and psychology. This theory explores how electronic media creates situations that affect people's behavior and psychology. The impact of the information environment and technological experience determines even individuals' behavioral and demand characteristics. To sum up, some limitations and different theoretical frameworks may become new directions for live streaming e-commerce.

Conclusion

This study aims to investigate the effect of live e-commerce characteristics on consumers' attitude and purchase intention. By using the TPB model, this study also adds the SOR model theory so that the live e-commerce characteristics are set as external "stimuli," (Zhu et al., 2020) consumer attitude are transformed into intermediate variables to be considered, and the impact on consumer purchase intention is investigated. Based on the combination of previous literature studies and the actual situation of live e-commerce, consumers' attitudes are divided into two levels: consumers' attitude toward the platform and consumers' attitude toward the brand. Compared with the traditional theoretical framework, this study is a theoretical innovation to

consider the impact of different levels of attitudes on consumers' purchase intention in a more comprehensive way.

First, it was found that the four characteristics of live-streaming e-commerce summarized in this study: visibility, interactivity, price discount, and star effect, all positively affect consumers' attitude towards platforms and brands. Among them, price discounts have the most significant impact on consumers' attitude towards use of platforms, and the other three characteristics have a more noticeable positive impact on brand attitude. This means that high visibility, high interactivity, and entertainment star effects positively impact brand image and brand trust. The low price is the main reason why consumers shop on streaming platforms in the first place.

Second, the study found that all the factors in the TPB model had a positive impact on consumers' purchase intention. Specifically, the influence of subjective norm on purchase intention is more vital than that of perceived behavior control in live e-commerce. Many factors may have caused this result, which may be related to Chinese culture and traditions mentioned in the discussion section. Young people tend to identify with advice and support from family, friends, and anyone important.

Third, this study would like to emphasize the effect of consumer attitude on purchase intention. The results show that the influence of attitude towards platform use on consumers' purchase intention is much more significant than the attitude towards brands. It is noticeable that if the live streaming platform wants to increase people's purchase intention, it should strengthen

and improve the live video platform's functions and mechanisms to give consumers a sense of high visibility of the products and good interaction with the anchor during live shopping. At the same time, keep the preferential price and effectively use the celebrity endorsement to create a unique sales model for the live streaming platform.

In summary, this study's exploration of the impact of live streaming e-commerce on Chinese consumers is not only helpful to the continued development of China's live e-commerce industry practically. It also inspires the growth of live streaming e-commerce overseas. Although live-streaming shopping is only becoming more widespread and popular in China now, with the development of technology and the influence of cultural trends, cross-border live-streaming e-commerce may soon become an emerging online shopping model in the world. Therefore, by exploring the features of China's live streaming e-commerce, this study hopes to become a reference for the overseas development of live e-commerce. Indeed, for China's e-commerce live streaming industry, this research's practical significance is finding out the most effective live e-commerce characteristics to help live e-commerce practitioners create a better live shopping atmosphere in China.

Table 1

Sample Demographics (N=1239)

Demographic	Frequency	Percent (%
Gender		
1. Male	528	42.6
2. Female	711	57.4
Age		
1. 18-24	244	19.7
2. 25-34	650	52.5
3. 35-44	219	17.7
4. Over 45	126	10.2
Education Level		
1. Less than high school and high school	85	6.9
2. Professional Degree	274	22.1
3. Bachelor's Degree	735	59.3
4. Master's Degree	134	10.8
5. Doctorate Degree	11	0.9
Household Monthly Income (RMB)		
1. Under ¥3000	116	9.4
2. ¥3000 - ¥5000	274	22.1
3. ¥5001 - ¥7000	359	29.0
4. ¥7001 - ¥10000	280	22.6
5. ¥10001 - ¥15000	127	10.3
6. More than ¥15000	83	6.7
Monthly Live Shopping Frequency		
1. 1 – 3 times	391	31.6
2. 4 – 6 times	438	35.4
3. 7 – 9 times	206	16.6
4. More than 10 times	204	16.5
Total	1239	100

Table 2

Results of the Measurement Model, AVE & CR(N=1239)

Variables	Measures	Loading	Cronbach's alpha	CR	AVE
	Live Streaming E-commerce Features - Visibility (VIS)				
VIS1	I can learn more about the characteristics and information related to the product.	.82***	.84	.84	.63
VIS2	I get valid information about how people feel when using the product.	.76***			
VIS3	I can have complete knowledge of the product or brand.	.80***			
	Live Streaming E-commerce Features - Interactivity (INT)				
INT1	I will actively participate in the interaction with the host.	.84***	.86	.85	.65
INT2	I will actively interact with the host and receive practical guidance and advice.	.78***			
INT3	I will actively participate in some entertainment activities initiated by the host (e.g., participating in a lucky lottery, joining the fan group, sending virtual gifts, etc.)	.80***			
	Live Streaming E-commerce Features – Price Discount (PD)				
PD1	I think various promotions are one of the main features of live streaming e-commerce platforms.	.74***	.77	.76	.51
PD2	I think price concessions are the main strategies by which e-commerce platforms attract consumers.	.63***			
PD3	I believe that the price of products on the live streaming platform will be lower than other shopping methods.	.77***			
	Live Streaming E-commerce Features – Celebrity Endorsement (CE)				

CE1	If celebrities are involved, it will attract me to watch live e-commerce.	.85***			
CE2	The main reason I watch live e-commerce streams are because there have hosts or celebrities that I like.	.84***	.89	.88	.71
CE3	I would go to the live studio to watch the live streaming to support the host or the celebrity.	.83***			
	Perceived Behavioral Control (PBC)				
PBC1	I can decide how often I want to participate in live shopping.	.69***			
PBC2	I have the time and opportunity to participate in live shopping.	.74***	.77	.72	.47
PBC3	Whether or not to participate in live shopping is entirely up to me.	.62***			
	Subjective Norm (SN)				
SN1	People who are important to me (e.g., family, colleagues, friends, etc.) will recommend me to participate in live shopping.	.72***			
SN2	People who are important to me (e.g., family, colleagues, friends, etc.) will support my participation in live shopping.	.72***	.79	.77	.52
SN3	I think participating in live shopping is already a mainstream consumer trend in society.	.72***			
	Attitude Towards Use of Live Streaming E-Commerce Platforms (ATTP)				
ATTP1	I think shopping through the live streaming platform is a good way to shop.	.76***			
ATTP2	I like the shopping method of live streaming e-commerce very much.	.80***	.83	.83	.62
ATTP3	As a consumer, shopping through a live e-commerce platform is a wise choice.	.81***			
	Attitude Towards Brands (ATTB)				

ATTB1	Through live streaming e-commerce, I have developed a good feeling for the products.	.82***			
ATTB2	Through live streaming e-commerce, I have established good relationships with certain corporate brands and products.	.79***	.85	.86	.66
ATTB3	I will continue to pay attention to other brand products in live e-commerce.	.84***			
	Purchase Intention (PI)				
PI1	I am willing to continue to use the live e-commerce platform for shopping.	.79***			
PI2	I plan to make my next purchase through the live e-commerce platform.	.78***	.84	.84	.64
PI3	When I want to shop, I choose the live e-commerce platform to make a purchase.	.83***			

Note: VIS=live streaming e-commerce features–visibility; INT=live streaming e-commerce features–interactivity; PD=live streaming e-commerce features–price discount; CE=live streaming e-commerce features–celebrity endorsement; PBC=perceived behavioral control; SN=subjective norm; ATTP=attitude towards platform use; ATTB=attitude towards brands; PI=purchase intention. χ^2 = 751.734, df = 226, χ^2/df = 3.33, SRMR = .03, RMSEA = .043 [90% CI=.040-.047], CFI = .98, TLI = .97, n = 1239; AVE= Average Variance Extracted; CR = composite reliability; *** $p<.001$.

Table 3

Descriptive Statistics and Correlations (N=1239)

Construct	VIS	INT	PD	CE	PBC	SN	ATTP	ATTB	PI
VIS	1								
INT	.59**	1							
PD	.63**	.52**	1						
CE	.50**	.72**	.55**	1					
PBC	.63**	.48**	.68**	.48**	1				
SN	.61**	.70**	.64**	.71**	.63**	1			
ATTP	.64**	.65**	.68**	.65**	.65**	.77**	1		
ATTB	.66**	.71**	.63**	.70**	.63**	.78**	.79**	1	
PI	.62**	.64**	.66**	.63**	.63**	.75**	.82**	.78**	1
Means	4.05	3.71	4.06	3.68	4.12	3.87	3.97	3.91	3.95
S.D.	.70	.90	.67	.97	.66	.72	.71	.75	.74

Note. ** Correlation is significant at the 0.01 level (2-tailed). VIS=live streaming e-commerce features–visibility; INT=live streaming e-commerce features–interactivity; PD=live streaming e-commerce features–price discount; CE=live streaming e-commerce features–celebrity endorsement; PBC=perceived behavioral control; SN=subjective norm; ATTP=attitude towards platform use; ATTB=attitude towards brands; PI=purchase intention.

Table 4

Results of Hierarchical Regression Analysis Predicting Chinese Consumers' Attitude and Purchase Intention (N=1239)

	Model: Chinese consumers' attitude towards platforms	
	M1	M2
Step 1: Demographics		
Gender [d]	-.03	-.03
Age	-.10**	-.02
Education	-.04	-.02
Monthly Income	-.001	.02
Live Shopping Frequency	.28***	.06**
Step2: Features of Live Streaming E-commerce		
Visibility		.20***
Interactivity		.19***
Price Discount		.32***
Celebrity Endorsement		.22***
ΔR^2	.09***	.54***
Total R^2 (%)	.63***	

Note: Entries are standardized regression coefficients.

* $p < .05$; **$p < .01$; *** $p < .001$

[d] Dummy variable. Gender (male: 1, female: 2).

	Model: Chinese consumers' attitude towards Brands	
	M1	M2
Step 1: Demographics		
Gender [d]	-.04	-.02
Age	-.07*	.01
Education	-.03	-.01
Monthly Income	-.004	.02
Live Shopping Frequency	.26***	.03
Step2: Features of Live Streaming E-commerce		
Visibility		.24***
Interactivity		.25***
Price Discount		.19***
Celebrity Endorsement		.29***
ΔR^2	.07***	.59***
Total R^2 (%)	.66***	

Note: Entries are standardized regression coefficients.

* p < .05; **p < .01; *** p < .001

[d] Dummy variable. Gender (male: 1, female: 2).

	Model: Chinese consumers' Purchase Intention		
	M1	M2	M3
Step 1: Demographics			
Gender [d]	-.02	-.02	-.002
Age	-.10[*]	-.02	-.01
Education	-.03	-.02	-.007
Monthly Income	-.001	.02	.001
Live Shopping Frequency	.30[***]	.09[***]	.05[**]
Step2: Features of Live Streaming E-commerce			
Visibility		.18[***]	.01
Interactivity		.20[***]	.04
Price Discount		.30[***]	.07[**]
Celebrity Endorsement		.21[***]	.01
Step3: Components of TPB			
Platform Attitude			.41[***]
Brand Attitude			.22[***]
Subjective Norm			.14[***]
Perceived Behavior Control			.06[**]
ΔR^2	.10[***]	.50[***]	.14[***]
Total R^2 (%)	.74[***]		

Note: Entries are standardized regression coefficients.

* $p < .05$; **$p < .01$; *** $p < .001$

[d] Dummy variable. Gender (male: 1, female: 2).
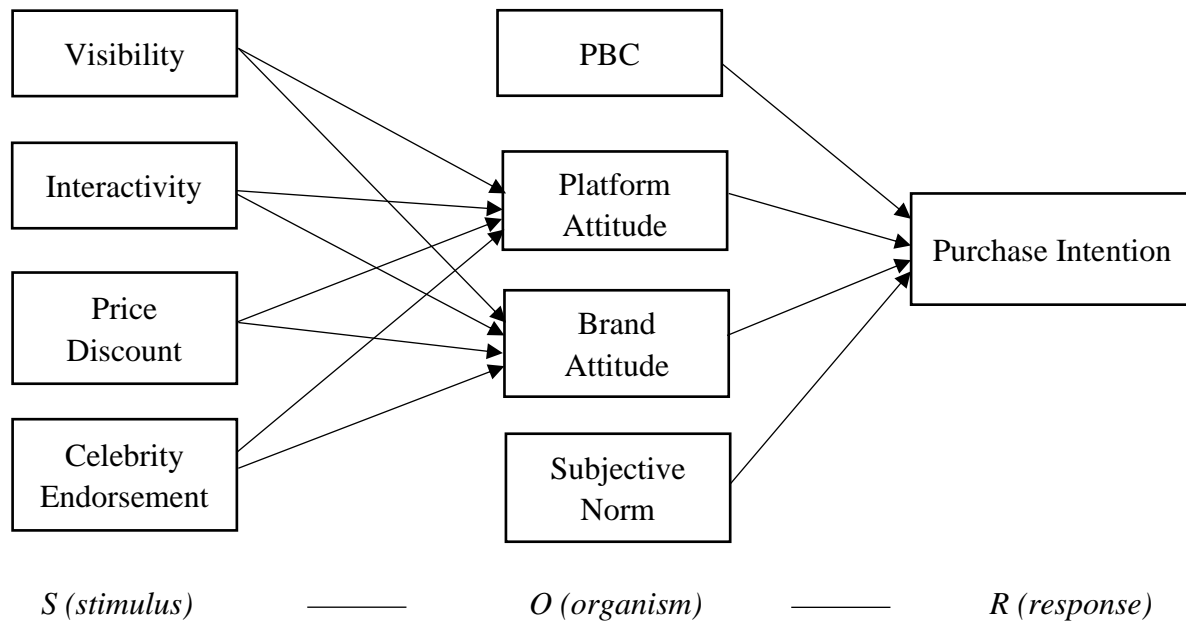
Figure 1.

S (stimulus) ———— O (organism) ———— R (response)

Fig. 1. Conceptual Research Framework

Appendix A

Institutional Review Board Memorandum

Syracuse University

**INSTITUTIONAL REVIEW BOARD
MEMORANDUM**

TO: Hua Jiang
DATE: March 23, 2022
SUBJECT: **Determination of Exemption from Regulations**
IRB #: 22-071
TITLE: *OMG Buy It! The Impact of Live Streaming E-Commerce Features on Chinese Consumers' Attitude and Purchase Intention*

The above referenced application, submitted for consideration as exempt from federal regulations as defined in 45 C.F.R. 46, has been evaluated by the Institutional Review Board (IRB) for the following:

1. determination that it falls within one or more of the eight exempt categories allowed by the organization;
2. determination that the research meets the organization's ethical standards.

It has been determined by the IRB this protocol qualifies for exemption and has been assigned to category **2**. This authorization will remain active for a period of five years from **March 22, 2022** until **March 21, 2027**.

CHANGES TO PROTOCOL: Proposed changes to this protocol during the period for which IRB authorization has already been given, cannot be initiated without additional IRB review. If there is a change in your research, you should notify the IRB immediately to determine whether your research protocol continues to qualify for exemption or if submission of an expedited or full board IRB protocol is required. Information about the University's human participants protection program can be found at: http://researchintegrity.syr.edu/human-research/. Protocol changes are requested on an amendment application available on the IRB web site; please reference your IRB number and attach any documents that are being amended.

STUDY COMPLETION: Study completion is when all research activities are complete or when a study is closed to enrollment and only data analysis remains on data that have been de-identified. A Study Closure Form should be completed and submitted to the IRB for review (Study Closure Form).

Thank you for your cooperation in our shared efforts to assure that the rights and welfare of people participating in research are protected.

Tracy Cromp, M.S.W.
Director

DEPT: Public Relations, 443 Newhouse 3   **STUDENT:** Tianmeng Yan

Office of Research Integrity and Protections   T: 315.443.3013
214 Lyman Hall, 100 College Place   orip@syr.edu
Syracuse, NY 13244

Appendix B

Informed Consent (English)

SYRACUSE UNIVERSITY

Department of Communication

Protocol Title: OMG Buy It! The Impact of Live Streaming E-Commerce features on Chinese Consumers' Attitude and Purchase Intention

Principal Investigator: Dr. Hua Jiang, Associate Professor, S.I. Newhouse School of Public Communications, email: **hjiang07@syr.edu**, phone: **315-443-3475**

My name is Tianmeng Yan, and I am a grad student at S.I. Newhouse School of Public Communications in Syracuse University. I am interested in learning more about the relationship between different live streaming e-commerce features and Chinese consumers' attitude and purchase intention.

I am inviting you to participate in a research study. Involvement in the study is voluntary. This means you can choose whether to participate and that you may withdraw from the study at any time without penalty.

You will be asked to fill out a survey which have some questions about your live streaming shopping experience and your attitude for some statement about live streaming ecommerce. This will take approximately 10~15 minutes of your time.

All information will be kept confidential. This means that your name will not appear anywhere, and your specific answers will not be linked to your name in any way. No names or identifying information would be included in any publications or presentations based on these data, and your responses to this survey will remain confidential.

Whenever one works with e-mail or the Internet there is always the risk of compromising privacy, confidentiality and/or anonymity. Your confidentiality will be maintained to the degree permitted by the technology being used. It is important for you to understand that no guarantees can be made regarding the interception of data sent via the internet by third parties.

Anticipated benefits from this study: You will earn random 2-6 RMB rewards when you completed this survey.

If you have any questions, concerns or more information regarding this research, you may contact Tianmeng Yan, S.I. Newhouse School of Public Communications, email: tyan03@syr.edu.

I am 18 years of age or older and I understand what my participation in this research involves. I have printed a copy of this form for my personal records.

By continuing I agree to participate in this research study.

(1) Yes

(2) No

Appendix C

Informed Consent (Chinese)

SYRACUSE UNIVERSITY

Department of Communication

项目名称：天呐，买它！电商直播的特性对消费者态度及购买意愿的影响

主要研究员：Dr. Hua Jiang, 副教授，雪城大学纽豪斯新闻传播学院，邮件：**hjiang07@syr.edu**, 电话：**315-443-3475**

您好，我是雪城大学 S.I. Newhouse 公共传播学院媒体研究专业在读研究生。我有兴趣进一步了解不同直播电商特性对中国消费者购买态度及购买意愿之间的关系。

我诚邀您参加这项研究。参与研究是自愿的。这意味着您可以选择是否参加。且随时可以退出研究。

您需要填写一份调查问卷，其中有一些与您的电商直播购物体验相关的问题，以及关于您对电商直播的态度和看法。这约需要花费您 10-15 分钟的时间。

所有的信息都将保密。这意味着您的名字不会出现在任何地方，您的答案也不会以任何方式与您的名字相关联。基于这些数据的任何出版物或演示文稿中都不会包含姓名或识别信息，并且您对本次调查的回答都将保密。

每当有人使用电子邮件或网络时；始终存在损害隐私，机密性和/或匿名性的风险。您的机密性将保持在所使用技术允许的程度。重要的是要您理解，不能保证第三方对通过互联网发开的数据的拦截。

有效完成此调查问卷后，您将随机获得 2-6 元人民币作为奖励。

如果您对此研究有任何疑问，疑虑或需要更多信息，可以联系 S.I. Newhouse 公共传播学院学生闫天蒙，电子邮件：tyan03@syr.edu。

我今年 18 岁以上，并且了解参与这项研究的内容。我已经打印了此表格的副本作为个人记录。

继续，我同意参加这项研究。

（1） 是

（2）不是

Appendix D

Major Questionnaire Items (English)

Visibility

To what extent do you disagree or agree with the following statements?

	1 Very disagree	2-4	5 Very agree
I can learn more about the characteristics and information related to the product.			
I get valid information about how people feel when using the product.			
I can have complete knowledge of the product or brand.			

Interactivity

To what extent do you disagree or agree with the following statements?

	1 Strongly disagree	2-4	5 Strongly agree
I will actively participate in the interaction with the host.			
I will actively interact with the host and receive practical guidance and advice.			

I will actively participate in some

entertainment activities initiated by

the host (e.g., participating in a lucky

lottery, joining the fan group,

sending virtual gifts, etc.)

Price Discount

To what extent do you disagree or agree with the following statements?

	1 Strongly disagree	2-4	5 Strongly agree

I think various promotions are one

of the main features of live

streaming e-commerce platforms.

I think price concessions are the

main strategies by which e-

commerce platforms attract

consumers.

I believe that the price of products

on the live streaming platform

will be lower than other shopping

methods.

Celebrity Endorsement

To what extent do you disagree or agree with the following statements?

| | 1 Strongly disagree | 2-4 | 5 Strongly agree |

If celebrities are involved, it will attract me to watch live e-commerce.

The main reason I watch live e-commerce streams is because there have hosts or celebrities that I like.

I would go to the live studio to watch the live streaming to support the host or the celebrity.

Perceived Behavioral Control

To what extent do you disagree or agree with the following statements?

| | 1 Strongly disagree | 2-4 | 5 Strongly agree |

I can decide how often I want to participate in live shopping.

I have the time and opportunity to participate in live shopping.

Whether or not to participate in live shopping is entirely up to me.

Subjective Norm

To what extent do you disagree or agree with the following statements?

	1 Strongly disagree	2-4	5 Strongly agree

People who are important to me (e.g., family, colleagues, friends, etc.) will recommend me to participate in live shopping.

People who are important to me (e.g., family, colleagues, friends, etc.) will support my participation in live shopping.

I think participating in live shopping is already a mainstream consumer trend in society.

Attitude Towards Platform use

How much do you agree or disagree the following description about your attitude towards Live streaming e-commerce platforms in live streaming e-commerce?

	1 Strongly disagree	2-4	5 Strongly agree

I think shopping through the live streaming platform is a good way to shop.

I like the shopping method of live

streaming e-commerce very

much.

As a consumer, shopping through

a live e-commerce platform is a

wise choice.

Attitude Towards Brands

How much do you agree or disagree the following description about your attitude

towards brands in live streaming e-commerce?

	1 Strongly disagree	2-4	5 Strongly agree

Through live streaming e-

commerce, I have developed a

good feeling for the products.

Through live streaming e-

commerce, I have established

good relationships with certain

corporate brands and products.

I will continue to pay attention to

other brand products in live e-

commerce.

Purchase Intention

How much do you agree or disagree with the following description of your purchase

intention in live streaming e-commerce?

	1 Strongly. disagree	2-4	5 Strongly agree
I am willing to continue to use the live e-commerce platform for shopping.			
I plan to make my next purchase through the live e-commerce platform.			
When I want to shop, I choose the live e-commerce platform to make a purchase.			

Appendix E

Major Questionnaire Items (Chinese)

可见性

您是否同意下列关于在电商直播过程中关于可见性的表述？

1 非常不同意　　　　2-4　　　　5 非常同意

在电商直播中，我可以：

了解更多关于商品相关的

特性和信息。

获取到关于商品使用体验

感受的有效信息。

对某个商品信息或是品牌

知识有更全面的了解。

互动性

您是否同意下列关于在电商直播过程中关于互动性的表述？

1 非常不同意　　　　2-4　　　　5 非常同意

在电商直播过程中，

我会积极参加与主播的互

动交流。

我会与主播积极互动交流

并得到有效的指导建议。

我会积极参与一些主播发

起的娱乐互动（例如，福

袋抽奖，加入粉丝团，刷

礼物等）。

价格优惠

您是否同意下列关于在电商直播过程中关于价格优惠的表述？

　　　　　　　　　　　　　　1 非常不同意　　　　　2-4　　　　5 非常同意

在电商直播的过程中，

我认为各种优惠活动是电

商平台的主要特征之一。

我认为价格优惠是电商平

台吸引消费者的主要手

段。

我相信直播平台的商品价

格会低于其他购物方式的

价格。

明星效应

您是否同意下列关于在电商直播过程中关于明星效应的表述？

　　　　　　　　　　　　　　1 非常不同意　　　　　2-4　　　　5 非常同意

在电商直播的过程中，

如果有明星参与，会更

吸引我观看电商直播。

我观看电商直播的主要

原因是因为有我喜欢的

主播和明星。

我会为了支持主播或是

明星，而去直播间。

感知行为控制

您是否同意下列关于参与直播电商购物行为的表述？

	1 非常不同意	2-4	5 非常同意

我可以自己决定参与
直播购物的频率。

我有时间和机会参与
直播购物。

是否参与直播购物完
全取决我自己。

主观规范

您是否同意下列关于参与直播电商购物行为的表述？

	1 非常不同意	2-4	5 非常同意

对我而言重要的人（家
人，同事，朋友）会推
荐我参与直播购物。

对我而言重要的人（家
人，同事，朋友）会支
持我参与直播购物的行
为。

我认为参与直播购物已
经是一种社会主流消费
趋势。

对平台使用态度

您对于参与直播电商购物中电商平台的态度是？

	1 非常不同意	2-4	5 非常同意

我认为通过电商平台购物是一个好的购物方式。

我很喜欢电商直播购物这种购物方式。

对于消费者来说，通过直播电商平台购物是一种明智的购物方式。

对品牌态度

您对于参与直播电商购物中品牌商家的态度是？

1 非常不同意 2-4 5 非常同意

通过直播电商，我对某些品牌的产品产生了好感。

通过直播电商，我与某些企业品牌和商品建立了良好的关系。

我会持续关注在直播电商中出现的品牌旗下的其他产品。

购买意愿

您是否同意下列关于参与电商直播的行为的表述？

1 非常不同意 2-4 5 非常同意

我愿意继续使用直播电商平台进行购物。

我计划通过直播电商平台进行下一次的购物。

当我想要购物时，我会选择直播电商平台进行购买。

References

Aaker, D. A., & Keller, K. L. (1990). Consumer Evaluations of Brand Extensions. *Journal of Marketing*, *54*(1), 27–41.

Abamecha, F., Godesso, A., & Girma, E. (2013). Intention to voluntary HIV counseling and testing (VCT) among health professionals in Jimma zone, Ethiopia: the theory of planned behavior (TPB) perspective. BMC public health, 13(1), 140

Agarwal, R., and Prasad, J. (1997). "The Role of Innovation Characteristics and Perceived Voluntariness in the Acceptance of Information Technologies," Decision Science (28:3), pp. 557-582.

Ajzen, I. (1985). From intention to actions: A theory of planned behavior. In Action control. Springer, Berlin, Heidelberg.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179-211.

Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. Journal of applied social psychology, 32(4), 665-683.

Ajzen, I., & Fishbein, M. (2005). The influence of attitudes on behavior. The handbook of attitudes, 173(221), 31.

Ajzen, I. (2006). Constructing a theory of planned behavior questionnaire.

Ajzen, I., & Madden, T. J. (1986). Prediction of goal-directed behavior: Attitudes, intention, and perceived behavioral control. Journal of experimental social psychology, 22(5), 453-474.

Alreck, P., & Settle, R. B. (2002). Gender effects on internet, catalogue, and Store Shopping.

　　Journal of Database Marketing & Customer Strategy Management, *9*(2), 150–162.

Ao, P. (2016). Why Online Celebrity Is So Popular--- Analysis and Thinking for

　　Online Celebrity. Journal of Contemporary Communication, 4, 40-44.

Appelbaum, A. (2001). The constant customer. https://news.gallup.com/businessjournal/745/

　　constant-customer.aspx

Babbie, E. R. (2013). The basics of social research. Cengage learning.

Belanche, D. et al. (2017). Understanding Interactive Online Advertising: Congruence

　　and Product Involvement in Highly and Lowly Arousing, Skippable Video Ads [J]. Journal

　　of Interactive Marketing, 2017, 37(75-88.

Bergkvist, L., Hjalmarson, H., & Mägi, A. W. (2015). A new model of how

　　celebrity endorsements work: Attitude toward the endorsement as a mediator of celebrity

　　source and endorsement effects. *International Journal of Advertising*, *35*(2), 171–184.

Bhuvanesh, K. S., & Vimal, K. B. (2018). Impact of social media on Consumer Buying

　　Behavior - A Descriptive Study on TAM Model. *I-manager's Journal on Management,*

　　13(1), 34. doi:10.26634/jmgt.13.1.14048

Bland, J. M., & Altman, D. G. (1997). Statistics notes: Cronbach's alpha. Bmj, 314(7080), 572.

Brislin, R. W. (1970). Back-translation for cross-cultural research. Journal of

　　cross-cultural psychology, 1(3), 185-216.

Cai, J.; Wohn, D.Y. (2019). Live streaming commerce: Uses and gratifications approach

to understanding consumers' motivations. In Proceedings of the 52nd Hawaii International

Conference on System Sciences, Grand Wailea, Maui, HI, USA, 8–11.

Chan, D. K. S., & Fishbein, M. (1993). Determinants of College Women's Intention to Tell

Their Partners to Use Condoms 1. Journal of Applied Social Psychology, 23(18), 1455-

1470.

Chan, A., Lu, Y., & Wang, B. (2017). Customers' purchase decision-making process in

social commerce: A social learning perspective. *International Journal of Information

Management, 37*(6), 627-638.

Chan, K., Leung Ng, Y., & Luk, E. K. (2013). Impact of celebrity endorsement in advertising on

Brand Image among Chinese adolescents. *Young Consumers*, *14*(2), 167–179.

Chang, C.-W., Huang, H.-C., Wang, S.-J., & Lee, H. (2019). Relational bonds,

customer engagement, and service quality. The Service Industries Journal, 1–25.

Chen, C., & Lin, Y. (2018). What drives live-stream usage intention? The perspectives of flow,

entertainment, social interaction, and endorsement. *Telematics and Informatics, 35*(1), 293-303.

Cheung, M. F., & To, W. M. (2017). The influence of the propensity to trust on mobile

users' attitudes toward in-app advertisements: An extension of the theory of planned

behavior. Computers in Human Behavior, 76, 102-111.

Choudhury, S. R. (2020). The Chinese version of TikTok now has 600 million daily active users.

CNBC.

China's live streaming e-Commerce reaches new heights. (2020). The China Guys.

https://thechinaguys.com/chinas-live-streaming-e-commerce-reaches-new-heights/

Clement Addo, P., Fang, J., Asare, A. O., & Kulbo, N. B. (2021). Customer engagement

and purchase intention in live-streaming digital marketing platforms. *The Service Industries*

Journal, 1–20.

Collins, R. (2004). *Interaction ritual chains*. Princeton University Press.

Conner, M., & Norman, P. (2005). Predicting health behavior. McGraw-Hill Education (UK).

Cunningham, S., Craig, D., & Lv, J. (2019). China's livestreaming industry: Platforms, politics,

and precarity. *International Journal of Cultural Studies*, *22*(6), 719–736.

Drummond, A. (2017). Feasibility and pilot studies: Why are they important? British Journal

of Occupational Therapy, 80(6), 335–336.

Dong, X., Wang, T., Benbasat, I. (2016). IT affordances in online social commerce:

con- ceptualization validation and scale development, In: Twenty-Second Americas

Conference on Information Systems, San Diego, American, pp. 1–10.

Dong, X., & Wang, T. (2018). Social tie formation in Chinese online social commerce: The

role of IT affordances. *International Journal of Information Management, 42*, 49-64.

Dehghani, M., et al. (2016) Evaluating the influence of YouTube advertising for attraction

of young customers [J]. Computers in Human Behavior, 59(165-72.

Erkan, I.; Evans, C. (2016). The influence of eWOM in social media on consumers'

purchase intentions: An extended approach to information adoption. Comput. Hum. 47–55.

Estelami, H. The Effect of Price Presentation Tactics on Consumer Evaluation Effort of

Multi-dimensional Prices. J. Mark. Theory Pract. 2003, 11, 1–16.

Faircloth, J. B., Capella, L. M., & Alford, B. L. (2001). The effect of brand attitude and brand

 image on Brand Equity. *Journal of Marketing Theory and Practice*, *9*(3), 61–75.

Fan, X. J., Jiang, X. Y., & Ni, R. R. (2020). Influence of Interactivity of Mobile Live-Video.

 Broadcaston Intention of Continuous Use of Users. J. Journal of Systems & Management.

 29(02):294-307.

Flynn, L. R., Goldsmith, R. E., & Eastman, J. K. (1996). Opinion leaders and opinion

 seekers: Two new measurement scales. Journal of the Academy of Marketing Science,

 24(2), 137-147.

Fishbein, M. E. (1967). Readings in attitude theory and measurement.

Fishbein, M., & Ajzen, I. (1980). Understanding attitudes and predicting social behavior.

Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables

 and measurement error: Algebra and statistics.

Fortin, D. R., & Dholakia, R. R. (2005). Interactivity and vividness effects on social presence

 and involvement with a web-based advertisement. *Journal of Business Research*, *58*(3),

 387–396.

Gaes, G. G., Kalle, R. J., & Tedeschi, J. T. (1978). Impression management in the

 forced compliance situation: Two studies using the bogus pipeline. Journal of Experimental

 Social Psychology, 14(5), 493-510.

Ghen, K.J. and Liu, G.M. (2004). Positive brand extension trial and choice of

 parent brand. *Journal of Product and Brand Management*, Vol. 13 No. 1, pp. 25‑36.

Gordon, M. L. (2018). Modeling Sun-Related Behavior among Adolescent Cancer

Survivors Using Cancer Affect, Perceived Risk, and the Theory of Planned Behavior (Doctoral dissertation, The New School).

Goldsmith, R. E. (2010). Opinion leadership and market mavens. Wiley International Encyclopedia of Marketing.

Gu, Y.W. (2020). Research on the influence of e-commerce live broadcast on consumers' purchasing decision. J. Price: Theory & Practice. (02):124-127.

Hair JF, Howard MC, Nitzl C (2020) Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. J Bus Res 109(1):101–110

Hou, F., Guan, Z., Li, B., & Chong, A. Y. (2019). Factors influencing people's continuous watching intention and consumption intention in live streaming. *Internet Research*, *30*(1), 141–163.

Hu, M., & Chaudhry, S. S. (2020). Enhancing consumer engagement in e-commerce live streaming via Relational bonds. *Internet Research*, *30*(3), 1019–1041.

Hu, W., & Lu, H. (2018). A research on China's online celebrity economy-live economy. *International Journal of Humanities, Social Sciences and Education*, *5*(9).

Huang, N.; Hong, Y.; Burtch, G. (2015). Digital social visibility, anonymity, and user content generation: Evidence from natural experiments. SSRN, 4.

Kang, K., Lu, J., Guo, L., & Li, W. (2021). The dynamic effect of interactivity on customer engagement behavior through tie strength: Evidence from live streaming commerce platforms. International Journal of Information Management, 56, 102251.

Karahanna, E., Straub, D. W., and Chervany, N. L. (1999). "Information Technology

Adoption across Time: A Cross-Sectional Comparison of Pre-Adoption and Post-Adoption Beliefs," MS Quarterly (23:2), pp. 183-213.

Katz, E. (1957). The two-step flow of communication: An up-to-date report on an hypothesis. *Public Opinion Quarterly*, *21*(1, Anniversary Issue Devoted to Twenty Years of Public Opinion Research), 61.

Kim, Y., Sohn, D., & Choi, S. M. (2011). Cultural difference in motivations for using social network sites: A Comparative Study of American and Korean college students. *Computers in Human Behavior*, *27*(1), 365–372.

Kwahk, K.-Y., & Kim, B. (2016). Effects of social media on consumers' purchase decisions: Evidence from Taobao. *Service Business*, *11*(4), 803–829.

Lau, A. (2020). New technologies used in COVID-19 for business survival: Insights from the hotel sector in China. *Information Technology & Tourism*, *22*(4), 497–504.

Lee, C.-H., & Chen, C.-W. (2021). Impulse buying behaviors in live streaming commerce based on the stimulus-organism-response framework. *Information*, *12*(6), 241.

Lee, J., & Lee, J.-N. (2013). How purchase intention consummates purchase behavior: The stochastic nature of product valuation in Electronic Commerce. *Behavior & Information Technology*, *34*(1), 57–68.

Li, Y., Li, X., & Cai, J. (2021). How attachment affects user stickiness on live streaming platforms: A socio-technical approach perspective. *Journal of Retailing and Consumer Services*, *60*, 102478.

Lim, Y. J., Osman, A., Salahuddin, S. N., Romle, A. R., & Abdullah, S. (2016).

Factors Influencing Online Shopping Behavior: The Mediating Role of Purchase Intention. *Procedia Economics and Finance, 35*, 401-410.

Li, D., & Han, X. (2020). Assessing the influence of goal pursuit and emotional attachment on customer engagement behaviors. Journal of Retailing and Consumer Services, Article 102355.

Liao, M.-jie, Zhang, J., Wang, R.-mei, & Qi, L. (2021). Simulation research on online marketing strategies of branded agricultural products based on the difference in opinion leader attitudes. *Information Processing in Agriculture*, *8*(4), 528–536.

Liu, Y., & Shrum, L. J. (2002). What is interactivity and is it always such a good thing? implications of definition, person, and situation for the influence of interactivity on advertising effectiveness. *Journal of Advertising*, *31*(4), 53–64.

Liu, Z., Yang, J., & Ling, L. (2021). Exploring the influence of live streaming in mobile commerce on adoption intention from a social presence perspective. *Research Anthology on E-Commerce Adoption, Models, and Applications for Modern Business*, 1115–1135.

"Livestream Shopping Market Contributing 24.2 billion RMB in China's Mid-year Shopping Festival -- Released by O'Ratings." (2020). China Weekly News, p. 108. Gale OneFile: News.

Lu, Z., Xia, H., Heo, S., & Wigdor, D. (2018). You watch, you give, and you engage. *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*.

Lv, J., Wang, Z., Huang, Y., Wang, T., & Wang, Y. (2020). How can e-commerce

businesses implement discount strategies through social media? *Sustainability*, *12*(18), 7459.

Ma, Y. (2021). "In 2020, nearly half of live streaming e-commerce service users in China were.

younger than 30 years old. In comparison, younger live streaming users preferred Douyin

over Kuaishou." Statisita.

Mariola, P.; Delgado, E. (2009). The moderating role of price consciousness on the effectiveness

of price discounts and premium promotions. J. Prod. Brand Manag 18, 306–312.

Meheabian, J., Russe, A. (1974). Cambridge, Massachusetts: MIT press. *Ergonomics*,

19(2), 243-243.

Meng, L. (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.

Meyrowitz, J. (1994). In David Crowley and David Mitchell, (Eds.), Communication

Theory Today, Cambridge, UK: Polity Press, 50-77.

Miller, S. J., Mazis, M. B., & Wright, P. L. (1971). The influence of Brand Ambiguity on Brand

Attitude Development. *Journal of Marketing Research*, *8*(4), 455.

Moták, L., Neuville, E., Chambres, P., Marmoiton, F., Monéger, F., Coutarel, F.,

& Izaute, M. (2017). Antecedent variables of intention to use an autonomous shuttle:

Moving beyond 87 TAM and TPB?. European Review of Applied Psychology, 67(5), 269-

278.

Nan, X. (2006), Affective cues and brand‐extension evaluation: exploring the influence

of attitude toward the parent brand and attitude toward the extension ad. *Psychology and*

Marketing, Vol. 23 No. 7, pp. 597‑616.

Navaneethakrishnan, K.; Sathish, A. S. (2020). It's all about brand love- expressing through

purchase intention, Brand Trust and Brand Attitude. *Journal of Critical Reviews*, *7*(04).

Nisar, T.M.; Prabhakar, G.P. (2017). What factors determine e-satisfaction and

consumer spending in e-commerce retailing? J. Retail. Consum.135–144.

Nunnally, J. C. (1994). Psychometric theory 3E. Tata McGraw-Hill Education.

Park, H. J., & Lin, L. M. (2020). The effects of match-ups on the consumer attitudes

toward internet celebrities and their live streaming contents in the context of product

endorsement. *Journal of Retailing and Consumer Services*, *52*, 101934.

Plouffe, C. R, Hulland, J. S., and Vandenbosch, M. (2001). "Research Report: Richness

Versus Parsimony in Modeling Technology Adoption Decisions? Understanding Merchant

Adoption of a Smart Card-Based Payment System," Information Systems Research (12:2),

pp. 208-222.

Raykov, T. (1997). Estimation of composite reliability for congeneric measures.

Applied Psychological Measurement, 21(2), 173-184.

Ru, X., Qin, H., & Wang, S. (2019). Young people's behaviour intention towards reducing

PM2. 5 in China: Extending the theory of planned behaviour. Resources, Conservation and

Recycling, 141, 99-108.

Scheibe, K., Fietkiewicz, K. J., & Stock, W. G. (2016). Information behavior on social live

streaming services. *Journal of Information Science Theory and Practice*, *4*(2), 6–20.

Sheahan, Jennifer, et al. (2014). *Social Ecommerce.* O'Reilly Media.

Sheng, H., and Joginapelly, T. (2012). "Effects of Web Atmospheric Cues on Users'

    Emotional Responses in E-Commerce," AIS Transactions on Human-Computer Interaction

    (4:1), pp 1-24.

Shufiana, A., Sulhaini, S., & Saufi, A. (2021). The Influence of Attitude (ATTD), subjective

    norm (SN), perceived behavioral control (PBC), and self-efficacy (SE) on purchase

    intentions (INT) and behavior (BHV) using e-commerce. *International Journal of*

    Multicultural and Multireligious Understanding, *8*(12), 123.

Sijtsma, K. (2009). Reliability beyond theory and into practice. Psychometrika, 74(1), 169

Singh, R. P., & Banerjee, N. (2018). Exploring the influence of celebrity worship on brand

    attitude, advertisement attitude, and purchase intention. *Journal of Promotion*

    Management, *25*(2), 225–251.

Sparks, P., Guthrie, C. A., & Shepherd, R. (1997). The dimensional structure of the perceived

    behavioral control construct1. Journal of Applied Social Psychology, 27(5), 418–438.

Stahle, E. (2020). China's Live Streaming E-Commerce Reaches New Heights.

    Retrieved October 22, 2020.

Su, Q., Zhou, F., & Wu, Y. J. (2020). Using virtual gifts on live streaming platforms as

    a sustainable strategy to stimulate consumers' green purchase intention. Sustainability,

    12(9), 3783.

Sun, Y., Shao, X., Li, X., Guo, Y., & Nie, K. (2019). How live streaming influences

purchase intentions in social commerce: An IT affordance perspective. *Electronic Commerce Research and Applications*, *37*, 100886.

Taobao.com Site Overview. (2009). Alexa Internet. Archived from the original on 2009-04-07. Retrieved 2019-02-21.

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. International journal of 91 medical educations, 2, 53

Teng, L. (2009). A comparison of two types of price discounts in shifting consumers' attitudes and purchase intentions. J. Bus. Res. 62, 14–21.

Wang, S., Fan, J., Zhao, D., Yang, S., & Fu, Y. (2016). Predicting consumers' intention to adopt hybrid electric vehicles: using an extended version of the theory of planned behavior model. Transportation, 43(1), 123-143

Wang, Z., & Lee, S. (2018). Factors Influencing Product Purchase Intention in Taobao Live Streaming Shopping. *Journal of Digital Contents Society. 19,* 649-659.

Wongkit Rungrueng, A., Dehouche, N., & Assarut, N. (2020). Live streaming commerce from the sellers' perspective: Implications for online relationship marketing. *Journal of Marketing Management*, *36*(5-6), 488–518.

Wongkit Rungrueng, A., & Assarut, N. (2020). The role of live streaming in building consumer trust and engagement with social commerce sellers. *Journal of Business Research*, *117*, 543–556.

Wekeza, S., & Sibanda, M. (2019). Factors influencing consumer purchase intentions

of organically grown products in Shelly Centre, Port Shepstone, South Africa. *International Journal of Environmental Research and Public Health*, *16*(6), 956.

Wu, S. I., & Lo, C. L. (2009). The influence of core‑brand attitude and consumer perception on purchase intention towards extended product. *Asia Pacific Journal of Marketing and Logistics*, *21*(1), 174–194.

Xie, K.; Lee, Y.J. (2015). Social Media and Brand Purchase: Quantifying the Effects of Exposures to Earned and Owned Social Media Activities in a Two-Stage Decision Making Model. J. Manag. Inf. Syst. 32, 204–238.

Xu, X.; Wu, J.H.; Li, Q. (2020). What Drives Consumer Shopping Behavior in Live Streaming. Commerce? J. Electron. Commerce. 144–167.

Xu, Y., & Ye, Y. (2020). Who watches live streaming in China? examining viewers' behaviors, personality traits, and motivations. *Frontiers in Psychoyanggy*, *11*.

Yang, C.-H., & Ho, C.-T. (2015). *A study on behavior intention to use live streaming video platform ...* IAFOR. Retrieved June 10, 2022.

Yi, Y., & Yoo, J. (2011). The long-term effects of sales promotions on brand attitude across monetary and non-monetary promotions. *Psychology & Marketing*, *28*(9), 879–896.

Yim, M. Y.-C., Chu, S.-C., & Sauer, P. L. (2017). Is augmented reality technology an effective tool for e-commerce? an interactivity and vividness perspective. *Journal of Interactive Marketing*, *39*, 89–103.

Yu, E., Jung, C., Kim, H., & Jung, J. (2018). Impact of viewer engagement on gift-giving in live video streaming. *Telematics and Informatics*, *35*(5), 1450–1460.

Yu, X. (2020). Study on The Communication Impact of Live Streaming E-Commerce Mode in

China.

Zhang, M., Qin, F., Wang, G. A., & Luo, C. (2019). The impact of live video streaming

on online purchase intention. *The Service Industries Journal*, *40*(9-10), 656–681.

Zhao, M.Y. (2016.) Analysis of the current situation and characteristics of Live Streaming

in China. Western Academic Journal.

Zhu, F., & Zhang, X. (M. (2010). Impact of online consumer reviews on sales: The moderating

role of product and consumer characteristics. *Journal of Marketing*, *74*(2), 133–148.

Zimmer, F. (2018). A content analysis of social live streaming services. *Lecture Notes*

in Computer Science, 400-414.

Vita

Tianmeng Yan

Tyan03@syr.edu|https://www.tianmengsparadise.com/

EDUCATION

Master of Arts., Syracuse University
Media Studies, June 2022
GPA: 3.68

Bachelor of Arts., University of Oregon, Eugene, Oregon
Advertising, August 2020
GPA: 3.70

RESEARCH INTERESTS
- Live streaming features, and live streaming e-commerce
- Intercultural communication——self-media
- Differences between Chinese and American social media

EXPERIENCE

S.I. Newhouse School, Syracuse, NY
Research Assistant; Dr. Kyla Wagner
February 2012 – May 2022
- Assisting in a content analysis of sexual health and COVID-19 messages, editing, and testing the codebook
- Complete full coding of all collected materials for the content analysis

Chinese philanthropic leadership Association Program officer
- Kept programs in line with established mission parameters
- Turned strategic mandates into actionable program plans
- Provided key leadership to project managers, directors, and other team members
- Created and implemented program frameworks, performance standards and quality assurance requirements
- Audited new projects and environmental department activities to identify and resolve concerns

SKILLS
- SPSS, Nvivo
- Adobe Premiere Pro, Final Cut Pro, Adobe Photoshop, Adobe XD, Adobe InDesign
- HTML, CSS