A Service System Study on the Effects of the Influencers' Characteristics on Purchase Intention

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Abstract. Nowadays, the rapid development and popularity of online media technology, live commerce platforms have emerged and are rapidly developing. Live commerce has become not only a simple form of entertainment, but also an important means of information and communication for consumers. The e-commerce live broadcast jointly created by live broadcast and e-commerce has created a lot of attention. Especially with the rapid development of self-media, there are many influencers in the live commerce. These influencers sharing and disseminating product information will have an impact on the consumer's choice, and then influence the consumer's purchase intention. This dissertation focuses on the influence of influencers on Chinese consumers' consumption choices of goods in live commerce. Therefore, this study clarifies the concept of influencer and consumers' purchase intention by sorting out the prior studies on influencers and their four characteristics namely professionalism, credibility, attractiveness and interactivity. Furthermore, this study introduces two mediating variables, flow and perceived value, and constructs a corresponding research model. Samples were collected by means of questionnaires and empirical analysis was conducted using SPSS 22.0 and Smart PLS2.0 (Structural Equation Package) to verify the hypotheses. The following conclusions are drawn. First, professionalism has no effect on flow. H1-1 is rejected. Attractiveness has no effect on flow. H1-3 is also rejected. And, H1-2, H1-4 are Accepted. H1 is partially adopted. Second, professionalism has no effect on perceived value. H2-1 is rejected. H2-2, H2-2, H2-3 are accepted. H2 is partially adopted. Third, flow positively influences purchase intention. H3 is adopted. Fourth, perceived value positively influences purchase intention. H4 is adopted.

Keywords: Influencer characteristics, professionalism, credibility, attractiveness, interactivity, flow, perceived value, purchase intention

1. Introduction

In today's world of evolving Internet technology and 5G technology, live commerce has a subtle influence on people's daily lives. People gradually communicate with each other and obtain relevant information through live commerce platform. Various industries are also actively exploring the "live commerce" mode and constantly innovating marketing methods. China's live commerce started in 2016, and as of December 2020, the scale of live commerce users reached 617 million, accounting for 62.4% of Internet users as a whole. With the accelerated development of online consumption habits of users during the COVID-19 pandemic, live e-commerce has become a widely loved by users of the emerging shopping methods. The data shows that live e-commerce have accounted for 66.2% of the overall live e-commerce users, with 17.8% of them spending more than 30% of their total online purchases (Gao, Hui. Shen, Jia., 2016). With the development of live commerce, merchandising is also continuously combined with live commerce, and shopping in live commerce is becoming more and more common.

Traditional business marketing content uses a one-way communication method, consumers can only see but not say, passive to receive. In live commerce, the content is transmitted in a two-way manner between consumers and consumers, as well as between consumers and businesses. Consumers and merchants are closer to each other, and are able to give direct feedback to merchants on their personal feelings and opinions about the products they use. In addition, there are many ways to communicate personal feelings and opinions to other consumers, such as commenting, sharing, replying and forwarding, which greatly enhances the convenience of information transfer (Dang, Jun. Ma, Junshu, 2021).

In the network shopping, reputation, prices, and other factors are more important among network users. IWOM is the word-of-mouth information formed by users using the Internet to share their experiences with products or services. However, with all the information available on the internet, consumers need guidance from people with a broad perspective and insight on how to filter the information they need from the vast amount of online content and how to make the right choices and judgements on the information they have interpreted. People with high professionalism and high visibility in this part share their experiences and give comments and suggestions through live commerce channels, and they are also known as influencers.

Influencers act as word-of-mouth communicators, will have an impact on consumers' purchase intention through their relevant recommendations. The influencers in the live commerce platform give full play to their influences and communication powers to share relevant products through the live commerce platform, and the products they recommend will be favored by consumers, thus stimulating the desire to buy and generating purchase intention. According to the theory of rational behavior, not only consumers' attitudes and subjective standards will influence their behavioral intentions, but also their perceived behaviors will play

a role in their behavioral choices. Rational consumers will choose to collect content such as influencers' feelings and evaluations of the product or service in the network. Online shopping to achieve the purpose of reducing the uncertainty of the product or service, reducing the possibility of consumer risks and enhancing their own perceived value (Meng, Fei, 2012). In other words, the higher the consumer's perceived value, the stronger the desire to buy. Influencer can generate purchase intention by increasing perceived value.

Similarly, when web users reach a state of flow, they feel interesting, happy, and engaged, staying in cyberspace continuously. The longer one stays in cyberspace, the more likely one is to be exposed to more brands, products, advertisements. The flow experienced by consumers can have an impact on the perceived quality, engagement or danger of the exposed brand or product, ultimately stimulating the purchase intention (Kwak, Jihye. Yoh, Eunah, 2021).

This thesis specifically explores the influence of influencers on consumers' purchase intention by using flow and perceived value as mediating factors. Deeply exploring how influencer's professionalism, credibility, attractiveness and interactivity have an impact on flow and perceived value, and how they influence purchase intention through flow and perceived value.

2. Theoretical background

2.1. Influencer characteristic

The traditional form of opinion leader is also evolving with the new means of online communication and the emergence of online opinion leader. Therefore, the opinion leader in this thesis refers to the online opinion leader in live commerce, i.e., an influencer who has certain influence in social media and is good at sharing content and conveying opinions and insights on social media.

Influencers are people who are constantly talking about recent social trends, products or specific topics on social media. They have a large number of followers on social media, and influencers are generally located at the center of the network structure and have the ability to connect people and facilitate the diffusion of information throughout the network. Influencers are an important factor influencing public opinion on the internet. They are highly influential, have their own unique ideas and insights in a certain field, are highly appreciated, and have excellent expression skills (Kim, Hyunkyung, 2020).

Influencers usually have rich experience in product purchase and experience, and constantly share their feelings in the process of using products through social media and live commerce, so that consumers can reach empathy in order to make purchases (Yao, Lingzi, 2020). Compared with the traditional form of opinion leaders, online opinion leaders break the limitation of time and space, which makes the influence of opinion leaders further expand. Influencers are a key part of the online communication structure, sharing content including but not limited to product

information, daily life, current events commentary, and values output. Due to their special skills, unique knowledge and special interests, consumers can seek and accept their advice to reduce uncertainty and risk (Moon, Jihye, 2020).

This thesis applies the characteristics of online opinion leaders covered in previous studies to influencers, and lists four characteristics of influencers: professionalism, credibility, attractiveness and interactivity for this paper.

2.2. Professionalism

Professionalism refers to whether the information provider has the knowledge or ability to convey information correctly, which is the degree to which it is perceived by the information recipient. The ability to come up with the right solution or sound judgment on a given topic. Professionalism is the possession of considerable knowledge and experience in a specific field, or the ability to perform at a level above the average person in certain areas (Song, Yuntao, Lee, Jongho, 2021).

Consumers will think the expertise of the provider fucased on the product knowledge conveyed by the information provider. If they think the expertise is high, they will be persuaded by the information they provide, and if they think the expertise is low, they will show a negative and defensive attitude. Consumers rely on experts and other sources of information, often consulting relevant experts for information and advice before making a purchase decision, and the information they provide may have a significant impact on consumer behavior.

The professionalism of informant's activities on social media also influences consumers' attitudes. Consumers judge the professionalism of online celebrities by the quality of content such as visible photos or short videos, as well as the level of information contained in their content, the content of replies, the number of replies and the number of followers. Professionalism can have an impact on the effectiveness of communication between information providers and consumers. In other words, the more expertise or experience an influencer selling a product has with the product, the more positively it will affect the brand (Lee, Youngae. Ha, kyusoo, 2020).

2.3. Credibility

Credibility is the degree to which an information provider can present his or her position, ideas or opinions on a specific topic or focal issue, disinterestedly and from a pure perspective. When the credibility of an information provider is high, consumers are less likely to doubt its information, thus increasing their purchase intention. In recent years, with the intensification of business competition, the increase of false information due to exaggerated marketing has also increased consumers' distrust. The credibility of influencers can establish a bond of trust with consumers. Once consumers trust the information provided by influencers, they will agree with the viewpoint position of influencers and react positively to the information provided by influencers.

Credibility can be described as a social phenomenon formed in mutual relationships between users, and credibility at the marketing level including mutual relationships can be defined as believing each other's words and actions. In the past, entertainers, experts, and operators were used as information providers, but in recent years there has been a gradual inclination toward social netizens. The media using information providers has been extended to mobile platforms. The source of power that influencer has is credibility, and if credibility is reduced, it cannot force consumers to resonate. If an influencer that consumers trust shows a product that is inconsistent with the lifestyle or image they previously pursued, it will cause cognitive dissonance, purchase intention detrimental to the credibility of both the product and the influencer. Influencer can only form credibility and improve authenticity by choosing products that are consistent with their usual lifestyles, purchase intention beneficial to their long-term development (Oh, Jiyeon. Sung, Youlhong, 2019).

2.4. Attractiveness

Attractiveness is the main variable explaining the image of influencers, advertising models and celebrities. Information receivers develop positive feelings toward attractive information providers and are more easily persuaded. The attractiveness of an information provider may be perceived not only physically, but also from various characteristics of his intelligence, personality, and lifestyle, including physical attractiveness and psychological attractiveness. The attractiveness of an influencer has the effect of increasing persuasiveness when conveying a message. Consumers are more attracted to attractive influencers, which will lead to positive attitudes toward the advertisement or brand.

Attraction is a fundamental factor in forming relationships, a judgment of whether or not you like the other person and have a good feeling about the other person's presence. Attractive people are evaluated as fair and trustworthy, and over time have a better standard of living than people who do not have this characteristic (Liu, Yang, 2017).

In recent years, influencer can be said to be a part of consumers' daily life, they have built a strong bond with their fans and know what part of the fans can really feel the attraction. Consumers trust more the attractive influencer who is similar to them. The attraction lies in highlighting the product image and features, using the product flexibly, by distributing the influencer's various images to attract consumers. As an information provider, the attractiveness of the influencer is an emotional factor of the information source, an important communication factor that influences consumers' attitudes and actions.

2.5. Interactivity

Interactivity can be defined as the multiple behaviors of communication with others through media, which occur continuously between message providers and receivers,

and between people and media, and people in order to achieve mutual purposes. With the active online transactions and SNS consumption, interactivity has become a major factor influencing consumers' purchase intentions, re-purchase actions, purchase attitudes, and cognitive dissonance.

Interactivity is generated in online marketing through dialogue, information exchange and information sharing. The more consumers feel a smooth interaction with the seller during online transactions, the more they will form a positive attitude towards the shopping site, therefore, online shopping site operators can continuously engage in direct dialogues with consumers and maintain this state in order to increase consumers' purchase intention.

SNS is not restricted by time and place, and communication is possible at any time, and information exchange and interaction are very active, thus promoting active participation of users. In addition, interactive activities on SNSs are online communication mediated by computers and smartphones, and have the importance of sharing information, ideas, and experiences between consumers and consumers, and sellers and consumers. Therefore, interactivity is an important factor that positively influences the intimacy and purchase actions of each other or products in the online market (Zhao, Shuang. Kim, Mihyun, 2020).

2.6. Flow
The success of online marketing relies on their ability to create opportunities for consumers to experience flow. When internet users reach a state of flow, they feel interesting, happy, and engaged, and continue to stay in the online space (Lee, Chaeyeon, 2012). Once consumers are immersed, they have a positive experience, and a positive experience leads to repeat visits, even if it does not compensate the consumer specifically (Hung, Shinyuan. Tsai, Jacobchiaan. Chou, Shintzu, 2016).

Flow is the psychological state that guides human and organizational behavior, the psychological force that interprets individuals into specific behaviors, and the structural state that makes it difficult to cancel or change behavior. Flow is necessary to build successful relationships and is the highest level of relational bonding. Since it is important to maintain an ongoing relationship with the user, it is especially important to put maximum effort in order to maintain this relationship.

2.7. Perceived value
In the product domain, value is the satisfaction consumers receive. The value perceived by different consumers for the same product is different. Researchers have proposed the concept of perceived value to explain why consumers choose a particular product or service. It was first introduced by Peter Drucker in his book "Management Practice", where he argued that consumers buy a product because they value the actual value it brings rather than the product itself (Pietro, Schipani, 2019). Perceived value is the consumer's comprehensive assessment of a product's utility, and this comprehensive assessment is based on the perceived benefits and costs that

the product can bring. Consumers buy products not because they are satisfied with the product, but because they believe that the product can bring the most value, which is consumers will buy the product for which they perceive the most value (Bing, Yan. Mo, Yunyi, 2020).

In terms of utility, perceived value is a specific utility evaluation, a perception that arises when the consumer compares the value received with the cost paid and evaluates the utility of the product. In other words, perceived value is the result of a compromise between the utility of the product and the cost that the consumer bears when purchasing or using the product. In terms of rationality, in real life, consumers are always in a situation of information asymmetry, so rationality is relative. In the case of insufficient information, perceived value is the ratio between the consumer's gain and loss, and the consumer's perceived value responds to the exchange between the perceived quality or benefit of the product and the loss of interest caused by the payment. In other words, perceived value is a general measure of the consumer relative to the fees and benefits paid.

In terms of experience, in this view, consumers are not always rational in the consumption process, but are also influenced by various subjective factors, the most important of purchase intention which is their consumption experience. Perceived value is a subjective consumer perception of price, and the degree of perception is related to economy, technology, efficiency and service. In other words, perceived value is the consumer's assessment of whether the role and efficacy of a good can meet his or her needs (Pietro, Schipani, 2019). Perceived value is the overall evaluation of the overall utility of a product formed by consumers in the shopping process based on the comparison of gains and losses, and is a key indicator of product evaluation and consumer experience (Bing, Yan. Mo, Yunyi, 2020).

2.8. Purchase intention

We determine whether there is a purchase intention by identifying the products that consumers need and collecting relevant product information on the basis of their personal needs and personal circumstances. Purchase intention is the subjective possibility of consumers' perceptions and attitudes manifesting into behavior, and is the probability of beliefs and attitudes evolving into purchase actions, so the higher the purchase intention, the higher the probability of actual purchase actions occurring (Kim, Pilseong, 2020).

In terms of motivation, consumers' purchase intention is generated after comparing the information of the product with themselves. If the match between the two is high, then the purchase intention will be strong, and vice versa, the purchase intention is weak. From the perspective of motivation, the higher the match, the stronger the motivation. In terms of purchase likelihood, purchase intention is the likelihood that consumers will buy certain products, and generally speaking the

stronger the purchase intention, the higher the likelihood that consumers will buy (Yoon, Jiyoung. Joung, Soonhee, 2019).

3. Research model and research hypothesis

3.1. Research model

In live commerce, influencers have a significant impact on consumers' purchase intentions. In the process of watching a live commerce, influencers play a promotional role, which in turn influences consumers' purchase intentions (Liu, Yang, 2017). In this thesis, four characteristics of influencers, namely, professionalism, credibility, attractiveness, and interactivity, are selected for study. Mediating variables are also needed in the process of the influence of influencer on consumers' purchase intention, and two mediating variables, flow and perceived value, are selected in this thesis to study the influence on consumers' purchase intention. The specific research model is shown in Fig. 1.
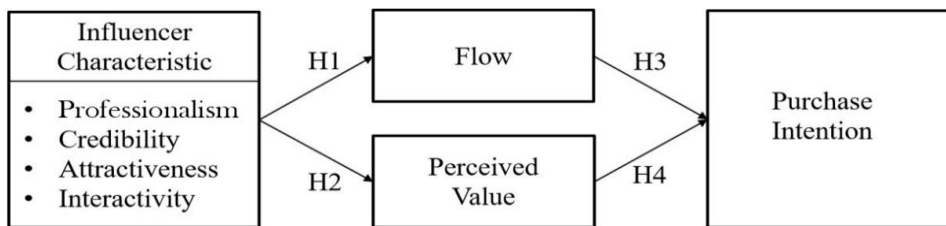

Fig. 1: Research model

3.2. Research hypothesis

3.2.1. Characteristic of influencer and flow

The professionalism, credibility, attractiveness, and interactivity of an influencer are important influencing factors for flow. Otherwise it will lead to consumers not being able to create a sense of flow, finding the content tasteless and not continuing to watch (Zhao, Shuang. Kim, Mihyun, 2020). Based on previous studies, this thesis establishes the following hypotheses in order to verify whether the characteristics of an influencer have an impact on flow.

Hypothesis H1-1: The professionalism of an influencer has a positive (+) effect on flow.
Hypothesis H1-2: The credibility of an influencer has a positive (+) effect on flow.
Hypothesis H1-3: The attractiveness of an influencer has a positive (+) effect on flow.
Hypothesis H1-4: The interactivity of an influencer has a positive (+) effect on flow.

3.2.2. Characteristic of influencer and perceived value

The professionalism, credibility, attractiveness and interactivity of influencer will reduce the perceived risk in the shopping process of consumers, and the perceived value of consumers can be increased based on the useful information given by the influencer (Bing, Yan. Mo, Yunyi, 2020). Based on previous studies, this thesis establishes the following hypotheses in order to verify whether the influencer characteristics have an impact on perceived value.

Hypothesis H2-1: The professionalism of an influencer has a positive (+) effect on perceived value.
Hypothesis H2-2: The credibility of an influencer has a positive (+) effect on the perceived value.
Hypothesis H2-3: The attractiveness of an influencer has a positive (+) effect on perceived value.
Hypothesis H2-4: The interactivity of an influencer has a positive (+) effect on perceived value.

3.2.3. Flow and purchase intention

Flow is a continuous need to consider the value of each other and maintain the transaction, and the increase of network flow can improve the transaction success rate and increase the purchase intention in the long term (Kim, Hyunkyung, 2020). Based on previous studies, this thesis establishes the hypothesis below in order to verify whether flow has an effect on purchase intention.
Hypothesis H3: Flow has a positive (+) effect on purchase intention.

3.2.4. Perceived value and purchase intention

The higher the perceived value obtained by the consumer, the more purchase intention is generated. When consumers watch the webcast, the influencer delivers information about the goods, and consumers perceive and weigh the goods, which leads to purchase intention (Bing, Yan. Mo, Yunyi, 2020). Based on previous studies, this thesis establishes the hypothesis below in order to verify whether perceived value has an impact on purchase intention.
Hypothesis H4: Perceived value has a positive (+) effect on purchase intention.

3.3. Operational definition of variables

The operational definition of the terms used in the study are shown in Table 1.

Table 1: Operational definition of study variables and related studies

Variable Name	Operational Definition	References

Influencer	A person who has expertise in a particular field, has extensive experience, communicates regularly in a variety of ways, and can influence others.	(Meng, Fei, 2012)
Professionalism	The receiver of the message will sense the familiarity and expertise of the message sender.	(Song, Yuntao, Lee, Jongho, 2021)
Credibility	The receiver of the message will sense the familiarity and expertise of the message sender.	(Meng, Fei, 2012)
Attractiveness	The degree to which consumers actively perceive things or people.	(Oh, Jiyeon. Sung, Youlhong, 2019)
Interactivity	The extent to which mutual information is exchanged between influencer and consumer using tools such as online platforms.	Moon, Jihye. (2020)
Flow	The overall feeling that people experience when they are fully engaged.	(Zhao, Shuang. Kim, Mihyun, 2020)
Perceived Value	A subjective assessment, purchase intention the consumer's perception of the value they receive compared to the cost they pay.	(Bing, Yan. Mo, Yunyi, 2020)
Purchase Intention	The process by which consumers find, select, buy, use, evaluate and eliminate products or services to meet their needs and requirements.	(Yoon, Jiyoung. Joung, Soonhee, 2019)

3.4. Operational definition and measurement of the variables

In order to analyze the influence of influencer characteristics on purchase intention, the questionnaire contains 6 concepts and 30 questions, including professionalism, credibility, attractiveness, interactivity, flow, perceived value and purchase intention.

Professionalism refers to the degree of familiarity and expertise of the sender as perceived by the receiver of the information. Four questions were premeditated to examine professionalism.

Credibility refers to the willingness to be influenced by the actions of others and is an important influencing factor for trusting the behavior of others. Four questions were premeditated to examine credibility.

Attractiveness is the willingness to be influenced by the actions of others and is an important influencing factor for trusting the behavior of others. Four questions were premeditated to examine attractiveness.

Interactivity refers to the degree to which consumers actively perceive things or people. Four questions were premeditated to examine interactivity.

Flow refers to the extent to which mutual information is exchanged between the influencer and the consumer using tools such as online platforms. Four questions were premeditated to examine flow.

Perceived value refers to a subjective assessment, the purchase intention the consumer's perception of the value they receive compared to the cost they pay. According to prior research, perceived value is divided into: functional value, emotional value and social value, so six questions were premeditated to examine perceived value.

Purchase intention refers to the process of finding, selecting, buying, using, evaluating and eliminating products or services to satisfy consumers' needs and requirements. Four questions were premeditated to examine purchase intention.

Table 2. Operational definition and measurement items

Variables		Details	Prior Study
Influencer Characteristic	Professionalism	- the influencers I watched had expert knowledge of the product - the influencers I watch have professional live commerce capabilities - the influencers I watched were adept at live content and product-related information - the influencers I watch can keep up with the latest product trends	(Gao, Hui. Shen, Jia, 2016),(Meng, Fei, 2012),(Kwak, Jihye. Yoh, Eunah, 2021)
	Credibility	- I think the product information provided by influencers is true and accurate - I believe in the expertise of influencers to explain the product - I think influencers recommend products that fit their description - I think the product information recommended by influencers is unbiased	(Dang, Jun. Ma, Junshu, 2021),(Kim, Hyunkyung, 2020)

	Attractiveness	- the influencers I watch dress well - the influencers I watch look good - the influencers I watch are very popular - the influencers I watch are charming, and I have a soft spot for influencers	(Dang, Jun. Ma, Junshu, 2021),(Meng, Fei, 2012)
	Interactivity	- the influencers I watched in the live commerce room were always quick to respond to comments from netizens - the influencers I watch often interact with netizens in the live commerce room - influencers are always responsive and receptive to questions or opinions from netizens - I often check in with influencers for product information or product experience sharing	(Gao, Hui. Shen, Jia, 2016),(Kwak, Jihye. Yoh, Eunah, 2021),(Kim, Hyunkyung, 2020)
Flow		- when I watch influencers live commerce, I feel like I'm immersed - when I watch influencers live commerce, I feel focused - when I watch influencers live commerce, I don't feel the passage of time - when I watch influencers live commerce, I have no thoughts other than buying stuff	(Yao, Lingzi, 2020),(Moon, Jihye, 2020)
Perceived Value		- the influencers I watched recommended good value for money - influencers can save me more time and energy when shopping - I feel excited and happy watching the products recommended by influencers - I like products recommended by influencers - I think I get more compliments from influencers - I think the products recommended by influencers can help me build a good personal image	(Dang, Jun. Ma, Junshu, 2021),(Bing, Yan. Mo, Yunyi, 2020)

Purchase Intention	- watching influencers make me want to buy - if there is a need to buy, I will first buy the goods recommended by influential people - I buy things that influencers recommend again or more times - I recommend the products of influencers to my friends	(Gao, Hui. Shen, Jia, 2016),(Dang, Jun. Ma, Junshu, 2021)

4. Empirical analysis

4.1. Data collection

This study was empirically analyzed by means of a questionnaire. The questionnaire was released online through China Questionnaire Enterprise for Chinese consumers. The questionnaire survey started on August 15, 2021 and lasted for 10 days with 156 questionnaires distributed, with 33 invalid questionnaires were deleted, and 123 valid questionnaires were recovered.

From the gender composition, the proportion of women is 67.48% and the proportion of men is 32.52%, with the proportion of women is much larger than the proportion of men, because most of the consumers watching influencer live commerce are women, and the proportion of women in online shopping is larger than the proportion of men, from which we can see that women are still the main force of online shopping. In terms of age composition, it is basically concentrated between 20-29 years old, with a proportion of 53.68%, which also reflects that the younger group is more susceptible to the influence of influencer, and are more likely to accept the advice of influencer. In terms of educational composition, 60.16% of the respondents have graduated from university or above, which shows that most of them have received higher education and are more capable of accepting new things, and they are also willing to buy the products recommended by influencer when watching webcast. Based on the above explanation, the sample distribution of this study is basically in line with the actual webcast consumers, and the sample is representative to a certain extent.

Table 3. Demographic characteristics (n=123)

Item		Frequency	Ratio(%)
Gender	male	40	32.52
	female	83	67.48
Age	under 20	1	0.8

	20~29	66	53.68
	30~39	39	31.71
	40~49	10	8.13
	50~59	6	4.88
	over 60	1	0.8
Education	below high school	24	19.51
	graduated from high school	25	20.33
	university graduation	60	48.78
	master or PhD	14	11.38
Job	student	17	13.82
	staff	43	34.96
	civil servants	3	2.44
	merchant	2	1.63
	housewife	17	13.82
	unemployed/laid-off/unemployed	2	1.63
	retiree	3	2.44
	self-employed/freelance	22	17.89
	other	14	11.38

4.2. Data analysis method

To perform the survey analysis, SPSS 22.0 and Smart PLS2.0 (Structural Equation Package) were used for the basic statistics. Centralized validity was examined for each factor for factor loading values, Component reliability (CR) and Average Value Extraction (AVE). Usually with factor loading values equal to or greater than 0.6, component reliability values equal to or greater than 0.7, and variance extraction index values of 0.5 or greater. As a result of comparing the square root value of the variance extraction index value and the correlation coefficient, discriminant validity is not an issue for discriminant validity because the value of variance extraction index is greater than the value of vertical and horizontal correlation coefficient. In this study, the measurement model is first analyzed, followed by a structural equation analysis, in order to carry out an analysis of the reliability and validity of the research model. The results of the analysis are shown in Table 4.

Table 4. Reliability and internal consistency

Variable name		Factor Loading	AVE	Composite Reliability	Cronbach's Alpha
Professionalism	PRO1	0.697	0.659	0.885	0.825
	PRO2	0.841			
	PRO3	0.833			
	PRO4	0.865			
Credibility	CRE1	0.895	0.726	0.913	0.873
	CRE2	0.869			
	CRE3	0.865			
	CRE4	0.774			
Attractiveness	ATT1	0.799	0.672	0.891	0.840
	ATT2	0.828			
	ATT3	0.803			
	ATT4	0.849			
Interactivity	INE1	0.825	0.713	0.909	0.867
	INE2	0.852			
	INE3	0.856			
	INE4	0.845			
Flow	FLO1	0.867	0.678	0.893	0.840
	FLO2	0.869			
	FLO3	0.810			
	FLO4	0.740			
Perceived Value	PER1	0.800	0.696	0.932	0.912
	PER2	0.799			
	PER3	0.875			
	PER4	0.852			
	PER5	0.840			
	PER6	0.838			
Purchase Intention	PUR1	0.826	0.731	0.916	0.877
	PUR2	0.853			
	PUR3	0.915			
	PUR4	0.824			

Table 5. Correlation and discriminant validity

Variable name	AVE	1	2	3	4	5	6	7
Professionalism	0.659	0.812						
Credibility	0.726	0.770	0.852					

Attractiveness	0.672	0.627	0.540	0.820				
Interactivity	0.713	0.596	0.518	0.741	0.844			
Flow	0.678	0.538	0.615	0.563	0.644	0.823		
Perceived Value	0.696	0.639	0.664	0.645	0.663	0.774	0.834	
Purchase Intention	0.731	0.632	0.641	0.627	0.584	0.718	0.781	0.855

4.3. Verification of the structural model

In this study, the fit is high if the R^2 value is above 0.26, medium if it is 0.26 to 0.13, and low if it is less than 0.13. Flow (0.524) and perceived value (0.604) can be evaluated as high, and purchase intention (0.642) can be appraised as high.

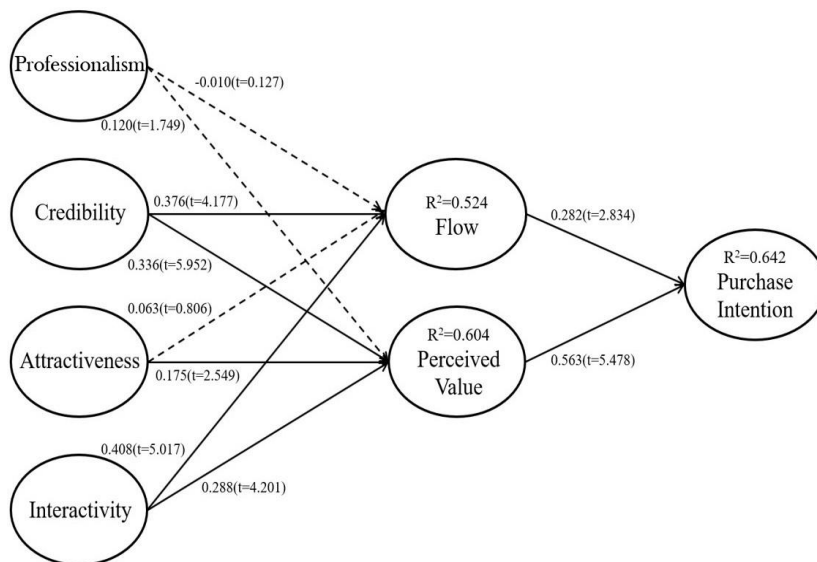The model of the study results is shown in Fig. 2.

Fig. 2: The results of research model

The results of the model analysis are as follows: Hypothesis H1-1 "Influencer's professionalism has a positive (+) effect on flow" is statistically significant at the 95% significance level (H1-1; β=-0.010, t=0.127, p<0.05). Hypothesis H1-1 is rejected. Hypothesis H1-2 "Influencer's credibility has a positive (+) effect on flow" is statistically significant at the 95% significance level (H1-2; β=0.376, t=4.177, p<0.05). Hypothesis H1-2 is adopted. Therefore, the higher the credibility of

influencer, the higher the consumer's flow. This result is same as with the previous research. Hypothesis H1-3 "Influencer's attractiveness has a positive (+) effect on flow" is statistically significant at the 95% significance level (H1-3; β=0.063, t=0.806, p<0.05). hypothesis H1-3 is rejected. Hypothesis H1-4 "Influencer's interactivity has a positive (+) effect on flow" is statistically significant at the 95% significance level (H1-4; β=0.408, t=5.017, p<0.05). hypothesis H1-4 is adopted. Therefore. the higher the interactivity of influencer, the higher the flow of consumers. This result is same as with the previous research.

Hypothesis H2-1 "Influencer's expertise has a positive (+) effect on perceived value" is statistically significant at the 95% level of significance (H2-1; β=0.120, t=1.749, p<0.05). Hypothesis H2-1 is rejected. Hypothesis H2-2 "Influencer's credibility has a positive (+) effect on perceived value" is statistically significant at the 95% level of significance (H2-2; β=0.336, t=5.952, p<0.05). Hhypothesis H2-2 is adopted, so that the higher the credibility of influencer, the higher the perceived value of consumers. This result is same as with the previous research. Hypothesis H2-3 "Influencer's attractiveness has a positive (+) effect on perceived value" is statistically significant at the 95% significance level (H2-3; β=0.175, t=2.549, p<0.05). Hypothesis H2-3 is adopted, therefore, the higher the attractiveness of influencer, the higher the perceived value of the consumer. This result is same as with the previous research. Hypothesis H2-4 "Influencer's interactivity has a positive (+) effect on perceived value" is statistically significant at 95% significance level (H2-4; β=0.288, t=4.201, p<0.05). Hypothesis H2-4 is adopted, therefore, the higher the interactivity of the influencer, the higher the perceived value of the consumer. This result is same as with the previous research.

Hypothesis H3 "Flow has a positive (+) effect on purchase intention" is statistically significant at the 95% significance level (H3; β=0.282, t=2.834, p<0.05). Hypothesis H3 is adopted, therefore, the higher the consumer's flow, the higher the purchase intention. This result is same as with the previous research.

Hypothesis H4 "Perceived value has a positive (+) effect on purchase intention" is statistically significant at the 95% significance level (H4; β=0.563, t=5.478, p<0.05). Hypothesis H4 is adopted, therefore, the higher the perceived value of the consumer, the higher the purchase intention. This result is same as with the previous research.

Table 6: hypothesis test result summary

	Cause variable	Result variable	Path coefficient	T-value	Result
H1-1	Professionalism	Flow	-0.010	0.127	Reject
H1-2	Credibility	Flow	0.376	4.177*	Accept
H1-3	Attractiveness	Flow	0.063	0.806	Reject

H1-4	Interactivity	Flow	0.408	5.017*	Accept
H2-1	Professionalism	Perceived Value	0.120	1.749	Reject
H2-2	Credibility	Perceived Value	0.336	5.952*	Accept
H2-3	Attractiveness	Perceived Value	0.175	2.549*	Accept
H2-4	Interactivity	Perceived Value	0.288	4.201*	Accept
H3	Flow	Purchase Intention	0.282	2.834*	Accept
H4	Perceived Value	Purchase Intention	0.563	5.478*	Accept
$T \geq 1.960*$ (p<0.05)					

5. Conclusion

This study mainly focuses on Chinese consumers with the research results of prior studies. It constructed a model based on the four characteristics of the influencers as independent variables. The flow and perceived value are the mediating variables. Consumers' willingness to purchase is a dependent variable. Online questionnaires were distributed online and a total of 123 valid accomplished surveys were used for data analysis. These data were used to analyze the research hypotheses, which led to the following conclusions.

First, among the hypotheses of the effect of influencer characteristics on flow, professionalism has no positive effect on flow. Attractiveness has no positive effect on flow. H1 is partially adopted. In other words, the credibility and interactivity of the influencer have a significant effect on consumers' flow. In the webcast, consumers trust the influencer, and the influencer maintains a two-way interaction with consumers, who can ask questions about the product and the influencer responds positively to relevant questions, which can enhance consumers' flow to a certain extent and thus stimulate purchase intention. However, the influencer professionalism can introduce products professionally during the live commerce process, but their professionalism does not enhance the flow of consumers. Similarly, the influencer attractiveness can increase their popularity, but it does not increase consumer flow.

Secondly, among the hypotheses of the effect of the influencer characteristics on perceived value, professionalism has no positive effect on perceived value. H2-1 is rejected. H2 is partially adopted. In other words, the credibility, attractiveness and interactivity of influencer have significant effects on consumers' perceived value. In the webcast, if the product recommended by the influencer is the most popular and value for money, slowly consumers will become more and more emotionally dependent on the advice of the influencer. It will continuously enhance the perceived value of consumers and stimulate their willingness to purchase to a greater extent.

However, the influencer professionalism cannot increase the perceived value of consumers. Perhaps the perceived value of consumers also comes from the product itself.

The limitation of this study is the limited characteristics of the independent variables. Through the exploration of prior studies, the characteristics of influencers are diverse, and only four characteristics namely professionalism, creditability, attractiveness and interactivity are selected to be studied in this paper, without including more, so it may not be a comprehensive representation of influencers. The influencing factors in this paper are also not comprehensive. In the specific consumption, consumers' willingness to choose products will also be affected by a variety of other factors. Consumers' own characteristics and the characteristics of the webcast will also have an impact on the willingness to purchase. Moreover, the sample size is small, with 123 valid questionnaires, which may affect the data of this study and make the error bigger. Future research should improve these shortcomings to make the study more comprehensive.

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