

Exploring Social Experience as Mediator of Shopping Behavior in Live Streaming Commerce

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Abstract

The purpose of this study is to provide insights into live streaming consumer purchase intention by drawing on congruence between consumer and influencer factors and live shopping contents factors during the spread of COVID-19. We surveyed 348 individuals who have watched Fresh Hema's live streaming. SPSS and AMOS were used for data analysis. We determined that only actual congruity between influencer and consumer significantly influenced the consumer social experience. On the other hand, both the informativeness and entertainment value of live shopping contents positively impacted the consumer social experience. Additionally, social experience was significantly related to consumer co-experience and purchase intention. Moreover, the significant mediation effect of social experience was found amongst congruence between consumer and influencers, live shopping contents, co-experience, and purchase intention.

Keywords: *Social Experience, Co-experience, Live Shopping Contents, Congruence between Consumer and Influencer, Purchase Intention*

1. Introduction

Live streaming services are becoming increasingly popular in China [1]. Many of these services have started to promote online marketing with offline marketing and have adopted living streaming as an effective tool on social commerce platforms to improve sales performance [2]. According to Taobao live streaming (2019), live streaming shopping on Taobao.com assists vendors to reach over 100 billion Yuan in sales, particularly during the COVID-19 pandemic [3]. As the COVID-19 continues to spread across the world, consumer daily life has radically changed; changes have also taken place in consumer consumption behavior. During the spread of COVID-19, consumers could only partake in limited daily activities and shopping channels have changed from offline to online channels. Moreover, consumers started to purchase their daily food necessities through online channels due to social distancing. Fresh Hema, a daily food delivery service in China, has achieved high sales with 5 seconds through living streaming service. The question of how to offer consumers the same experience seems more critical in the push to satisfy their needs.

With this change, live streaming shopping research is required to help marketers improve marketing performance. Live streaming shopping-related research has largely focused on the effect of live streaming

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services. For example, previous studies of live streaming shopping have mainly drawn on the effect of live streaming on customer purchase intention and consumer engagement [4,5]. These studies have indicated that consumers' perceived utilitarian and hedonic values positively influence consumer attitudes and behaviors [6]. Some studies have drawn on the motivation of consumers using live streaming shopping services. These studies have investigated information on how hedonic benefit motivation affects consumer satisfaction and consumption. In addition, previous studies identified the IT affordance factors, which include visibility affordance, guidance shopping affordance, and voicing affordance influence consumer behavior [2]. Meanwhile, influencer or celebrity endorsements have also been pointed to as a critical factor affecting consumption behavior [7]. These studies have offered lots of strategies for creating sustainable consumers.

Previous studies argued that live streaming shopping is an essential form to offer human-computer interaction experiences [1]. Specifically, consumer daily activities have been limited following disease control instructions during the spread of COVID-19. As a result, consumers are not allowed to view products in physical stores. In this logistics environment, it is necessary to offer consumers online interaction experiences as a means to satisfy their offline experience needs. Existing research on this topic observed that consumer online experience strongly impacted consumer engagement and behavior [4]. However, insufficient academic attention has been paid to the consumer social experience on live streaming services.

This study intends to gain insight into the effect of the consumer social experience in relation to live streaming shopping behavior. Research has offered a deeper understanding of the effect of influencer factors, arguing that influencer attractiveness influenced the consumer social experience [6]. However, these studies could not explain the effect of the image of influencers. Previous research has investigated the congruence between influencers and consumers to positively improve the consumer social experience. In addition, live shopping contents is now more important than before. As consumers could not view products in person during the COVID-19 pandemic, live shopping contents have become a critical influence on the consumer social experience. Based on the S-O-R theory, live streaming shopping contents strongly enhances the consumer flow experience and affects consumer behavior [8]. Notably, live streaming shopping contents consists of informativeness and entertainment factors. This study intends to put forward a more definite understanding of live streaming contents.

Our research aims to fill the gaps in the previous studies by investigating how consumers watch live streaming and how this form of media influenced their experience and behavior relating to social live streaming commerce during the COVID-19 pandemic. To achieve this goal, we developed a research model to explore the factors that influence the consumer social experience, as well as investigate the effect of social experience on consumer co-experience and purchase intention. Second, our study considers both the congruence between influencer and consumer and live shopping contents factors on the consumer social experience. Our study can offer theoretical insights into social live streaming shopping and provide managerial suggestions for marketers to better leverage live streaming to effectively market their products during the pandemic.

2. Theoretical Background and Hypotheses Development

2.1 Congruence between Consumer and Influencer and Social Experience

Based on the self-congruity theory, the consumer chooses to purchase goods or use services that have a user image consistent with their own self-image [9]. For example, people always choose products or brands that are self-relevant and communicate a given identity [10]. Recently, many studies have assumed that the theory of congruency can extend beyond brands to include celebrities or influencers as human brands [11]. Depending on the previous studies, the congruence between consumer and influencer perspective consists of multiple dimensions, including ideal self-congruity and actual self-congruity [12]. According to a previous study, actual

self-congruity refers to when a consumer prefers to behave in a way that is consistent with their self-view [10]. On the other hand, ideal self-congruity refers to how consumers wish to appear in a way that reflects their ideal self-image [13]. In marketing, many studies have applied the congruence theory to illustrate the brand-consumer relationship, consumer brand attitude, and consumer behavior [14]. Recently, congruence theory has been applied to social media to explain the effect of congruence between consumer and influencer on consumer attitude and behavior [15]. In line with these perspectives, the present study also applies self-congruity theory to investigate consumer social experience and behavior.

According to previous studies, individuals will image social interactions with celebrities when they perceive them as real and similar to their self-image [16]. Thus, we can argue that self-congruity positively relates to the consumer social experience. Moreover, another study also found that individuals specifically seek out celebrities that are congruent with them [17]. The high congruency promotes consumers to build relationships with influencers and engage in interaction behaviors with influencers [14]. The following hypothesis is proposed:

Hypothesis 1 (H1): Congruence between consumer and influencer has a positive influence on social experience.

2.2 Live Shopping Contents and Social Experience

Live shopping contents provides various forms of value for consumers, such as utilitarian and hedonic value [7]. Utilitarian value refers to how beneficial or useful the contents offered is to the consumer. According to previous studies, informativeness could be a form of utilitarian value, which refers to the conveyance of accurate information pertaining to a virtual good [18]. On a live streaming platform, the product is intangible. Therefore, it is necessary to provide accurate information to consumers. Meanwhile, consumers are unable to experience the product; if they are interested in the product, they may have to interact with the influencer to obtain more information about it [19]. On the other hand, live streaming shopping entertainment contents is another critical factor, which reflects hedonic value. Hedonic value always refers to the degree of playfulness that the shopper derives from the live shopping contents [4]. Following these perspectives, consumers can obtain informativeness utilitarian value and entertainment hedonic value from the live shopping contents.

These contents values attract consumers to interact with influencers or carry out view behavior. Based on the previous studies, the most critical value for audiences is contents value, which argues that the more attractive contents the influencer presents, the more attention and interactions can be achieved. In the online environment, when consumers obtain value, this encourages them to experience para-social interactions [20]. Also, previous studies have indicated that live streaming commerce has examined the contents value impact of consumer participation in live streaming shopping, which refers to their social experiences, such as engaging in social interactions with influencers and others [21]. Thus, the present study argues that consumer perceived informativeness value and entertainment contents value positively influence the consumer online social experience.

The following hypothesis is proposed:

Hypothesis 2 (H2): Live shopping contents has a positive influence on social experience.

2.3 Social Experience, Co-Experience, and Purchase Intention

Marketing research has argued that the consumption of experience product offerings often takes place in socially constructed contexts, in which interactions and experiences with other consumers form a key part of the experience [22]. Depending on the social servicescape conceptualized, consumers share and shape their

social experience together, making the experience more enjoyable, valuable, and memorable [23]. Moreover, para-social interaction in live streaming refers to the type of consumer social experience [24]. Following this perspective, live streaming offers consumers the opportunity to engage in para-social interactions with influencers, which could provide them with a social experience that enhances their experience. This experience could influence consumer sharing experience and purchase intention.

Although scholars have recently drawn on consumer experience, consumer co-experience and sharing experience-related studies still have received very little attention [25]. Depending on the previous studies, the co-experience in the online environment refers to consumer experience which is created from their participation in order to make contents with influencers [26]. Therefore, the co-experience could be referred to as a creative participant in the technology use, such as live streaming, which will elicit positive emotions. The co-experience could be facilitated from the social interaction experience [27].

This social experience also positively impacts consumer behavior. According to previous studies, the para-social interaction experience with Instagram and Youtube bloggers positively influences consumer purchase intention [28]. Consumer social experience interactions impact consumer perceived brand value and perceived brand-user-imagery fit, which will positively affect consumer purchase intention, due to the social experience formation of a positive attitude to the product [29]. Moreover, fashion product research determined that social experience positively influences consumer purchase intention [30]. Thus, this study argues that social experience positive influences consumer purchase intention.

The following hypotheses are proposed:

Hypothesis 3 (H3): Social experience positively influences co-experience.

Hypothesis 4 (H4): Social experience positively influences purchase intention.

2.4 Co-Experience and Purchase Intention

Purchase intention refers to consumers’ intention to purchase a product. A positive relationship has also been identified between co-experience and consumer purchase intention. Consumers receive product-related information and their trust will be enhanced, which positively influences consumer purchase intention [31].

The following hypothesis is proposed:

Hypothesis 5 (H5): Co-experience positively influences purchase intention.

As shown in Figure 1, this conceptual model includes congruence between consumer and influence, live shopping contents, social experience, co-experience and purchase intention.

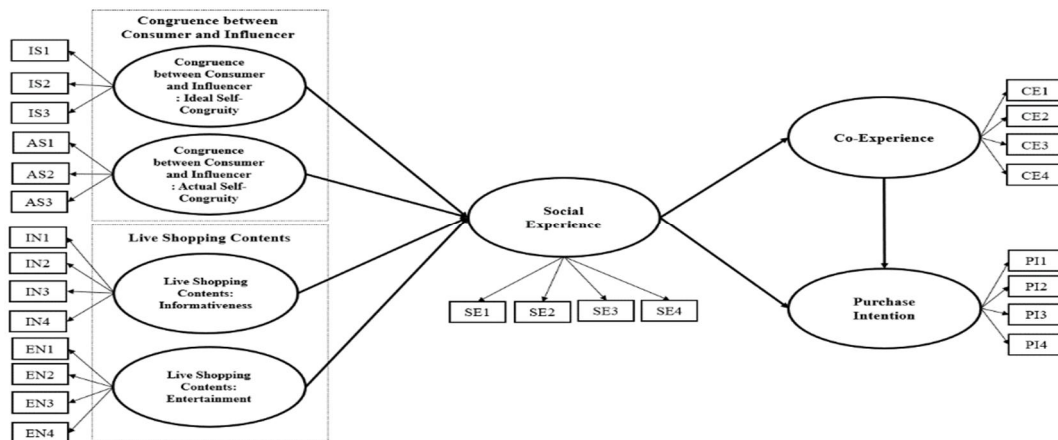


Figure 1. Research Model

3. Method

3.1 Measurement Development

This study adopted measurements from previous studies in order to measure the constructs. In order to fit the current research environment, some necessary modifications were made. Self-congruity refers to the image congruence between consumer and influencers, which reflects the real self or the person that the consumer wishes to be seen by others. Ideal self-congruity and actual self-congruity measurements were developed from [10,13]. Informativeness is defined as the food live streaming contains, along with up-to-date information related to products, which are measured using four items from [32]. Entertainment can be explained as live streaming enjoyment, which is adopted from [33]. Social experience includes four items from [34,35], which pertain to para-social interactions with other participants. Co-experience was measured with four items from [36]. All of the measurements were taken from literature published in English. The English terms were translated into Chinese by the researcher. Next, the translated Chinese measurements were back-translated into English by an English professor to confirm whether the Chinese version had the same meaning. Then, the pre-test was conducted with 30 graduate school students to confirm whether there was any meaning ambiguity. Finally, the Chinese version of the survey was produced.

3.2 Data Collection and Sample Characteristics

This research drew on social commerce platforms that offer live streaming shopping. Taobao.com, Tiktok, JD.com and Sina Weibo are the typically social commerce platforms in China. This study specifically concentrates on Fresh Hema for several reasons. First, Fresh Hema is one the largest e-commerce platforms in China that offers live streaming shopping functions. Second, Fresh Hema is widely used by consumers of all ages, and unlike the other social commerce platforms, Fresh Hema offers consumers a direct way to purchase while live streaming. Additionally, this platform allows consumers to buy daily food. Consumers can focus on the live streaming experience without worrying about missing online store links. Therefore, Fresh Hema is the most suitable platform for this research purpose.

The present study draws on Fresh Hema's live streaming food influencers. The reasons that this study selected food shopping are as follows. Food live streaming is one of the most popular forms of contents. According to the statistical results, the young generation enjoys watching food live streaming. Second, new foods are always introduced through food live streaming. Food live streaming has already become a new way for retailers to promote their food. Thirdly, food live streaming influencers are ranked highly among all influencers. This study considered influencer-related variable self-congruity. This study also had to choose popular contents to collect more useful data. Thus, prior to data collection, this study selected the most popular food live streaming influencer. After conducting a survey, it was found that Lizhiqi was the most popular food live streaming influencer. Therefore, this study will focus on Lizhiqi's food live streaming.

This study used an online survey link for data collection. Due to COVID-19, people have to maintain social distancing. This study started with some clear questions: "Have you ever watched food live streaming on FreshHema.com?", "Have you ever watched Lizhiqi's food live streaming?" and "Are you a fan of Lizhiqi?". Only those responses that responded "yes" to these questions were used for data analysis.

4. Results

4.1 Measurement Model

This study used SPSS 25 and AMOS 25 for data analysis. Confirmatory factor analysis was performed with

the seven constructs measured in this study. Initially, confirmatory factory analysis was performed on all the items to evaluate whether the overall goodness-of-fit was satisfactory. Based on the previous studies, the overall goodness-of-fit was indicted by CFI, GFI, NFI > 0.9; RMSEA < 0.08 [37]. The results of the study indicated that the measurement model achieved satisfactory fitness, as presented in Table 1. $X^2 = 2.664$, (df = 278, $P < .000$), RMSEA = 0.060, CFI = 0.944, NFI = 0.913, GFI = 0.884.

This study used Cronbach's alpha and composite reliability to test the model's reliability. Table 1 shows that the Cronbach's alpha values range from 0.823 to 0.906, which exceed the suggested required value of 0.7 [38]. Table 1 shows that the CR values range from 0.835 to 0.902. All of the CR values were higher than the required value of 0.7 [38]. Therefore, this model satisfied the reliability requirement. Next, this study used AVE to measure convergent validity. The AVE values of this study ranged from 0.559 to 0.745, as shown in Table 1. The AVE values exceeded the accepted value of 0.5 suggested by previous studies [39]. These results indicate that the convergent validity was accepted. This study then performed discriminant validity analysis. Discriminant validity was proved as the squared correlations between pairs of constructs were all less than the AVE [40]. As can be seen from Table 1, the results show that the AVE was higher than the squatted correlations between pairs of constructs.

Table 1. Reliability, Convergent Validity

	IS	AS	IN	EN	SE	CE	PI
IS	0.732						
AS	0.621 (0.386)	0.745					
IN	0.472 (0.223)	0.832 (0.692)	0.697				
EN	0.789 (0.623)	0.788 (0.621)	0.701 (0.491)	0.617			
SE	0.612 (0.375)	0.795 (0.632)	0.775 (0.601)	0.707 (0.500)	0.689		
CE	0.750 (0.563)	0.594 (0.353)	0.352 (0.124)	0.748 (0.560)	0.665 (0.442)	0.671	
PI	0.292 (0.085)	0.344 (0.118)	0.215 (0.046)	0.339 (0.115)	0.354 (0.125)	0.359 (0.129)	0.559
Mean	3.54	3.83	4.00	3.76	3.83	3.49	1.122
SD	1.07	0.890	0.820	0.860	0.880	1.12	1.11
Reliability	0.891	0.898	0.902	0.865	0.898	0.891	0.835
Alpha	0.897	0.873	0.859	0.823	0.871	0.906	0.861
Goodness – of – Fit: $X^2 = 2.664$, (df = 278, $P < .000$), RMSEA = 0.060, CFI = 0.944, NFI = 0.913, GFI = 0.884							
Note. AVE is represented on the diagonal							

a All correlations were significant at .01 level

b IS = Congruence between consumer and influencers: ideal self-congruity, AS = Congruence between consumer and influencers: actual self-congruity, IN = live shopping contents: informativeness, EN = live shopping contents: entertainment, SE = Social experience, CE = Co-experience, PI = Purchase intention

4.2 Structural Model

In this study, the structural equation modeling path coefficients and level of significance were used to test the proposed hypotheses. The model goodness-of-fit indicated that the structural model achieved satisfactory model fit as shown in Table 2. Specifically, $X^2 = 3.258$, (df = 286, $P < .000$), RMSEA = .070, CFI = .921, NFI = .891, GFI = .857. Per the results of path analysis, only the actual self-congruity was significantly related to consumer social experience, whilst ideal self-congruity was not significantly related to consumer social

experience. Food live contents factors positively impacted the consumer social experience. Entertainment exhibited a greater influence than contents informativeness. Consumer food live social experience positively impacted consumer co-experience and purchase intention. Lastly, consumer co-experience significantly influenced consumer purchase intention.

Table 2. Results of Structural Model

Hypothesized relationship	Standardized estimates	t value	Results
H1a: Congruence between consumer and influencer: ideal self-congruity -> social experience	0.059	0.875	Rejected
H1b: Congruence between consumer and influencer: actual self-congruity -> social experience	0.246	2.671**	Supported
H2a: Live shopping contents: informativeness -> social experience	0.185	2.329*	Supported
H2b: Live shopping contents: entertainment -> social experience	0.472	4.655***	Supported
H3: Social experience -> co-experience	0.709	12.788***	Supported
H4: Social experience -> purchase intention	0.225	2.932**	Supported
H5: Co-experience -> purchase intention	0.200	2.620**	Supported
R2 (Social experience) = 0.774	Goodness-of-fit: $X^2/df = 3.258$, ($df = 286$, $P < .000$), RMSEA = 0.070, CFI = 0.921, NFI = 0.891, GFI = 0.857		
R2 (Co-experience) = 0.503			
R2 (Purchase intention) = 0.155			
*** $p < .001$, ** $p < .01$, * $p < .05$			

4.4 Mediation Analysis

This study conducted mediation analysis by bootstrapping. Table 3 shows the indirect effect on the path. First, only the actual self-congruity had a positive significant impact on co-experience ($\beta_{AS-SE-CE} = 0.28$, $p < .05$) and purchase intention ($\beta_{AS-SE-PI} = 0.068$, $p < .05$) through social experience, whilst ideal self-congruity did not present a significant indirect effect. However, actual self-congruity only had a significant direct effect on purchase intention. Thus, actual self-congruity had a full mediation effect on co-experience and a partial mediation effect on purchase intention. Indeed, the significant indirect effect of actual self-congruity ($\beta_{AS-SE-CE-PI} = 0.043$, $p < .05$) has been found in relation to consumer purchase intention through social experience and co-experience.

Next, entertainment of live streaming contents was found to have a significant indirect effect on co-experience ($\beta_{EX-SE-CO} = 0.423$, $p < .01$) and purchase intention ($\beta_{EX-SE-PI} = 0.163$, $p < .01$) through social experience. However, informativeness was not found to have a significant indirect effect. The results of the direct significance of co-experience and purchase intention illustrate that entertainment fully mediates purchase intention and partially mediates co-experience. Moreover, entertainment ($\beta_{EX-SE-CE-PI} = 0.103$, $p < .01$) has a full mediation effect on purchase intention through social experience and co-experience.

Table 3. Results of mediation effect

Indirect	Mediator		Bootstrapping		95% CI		p-values	Result
			Estimate	Lower	Upper			
IS	-> SE	CE	0.033	-0.067	0.120	0.507	Rejected	
AS	-> SE	CE	0.176*	0.028	0.393	0.025	Supported	
IN	-> SE	CE	0.146	-0.046	0.286	0.123	Rejected	
EN	-> SE	CE	0.423**	0.205	0.667	0.001	Supported	
IS	-> SE	PI	0.013	-0.027	0.054	0.510	Rejected	
AS	-> SE	PI	0.068*	0.005	0.188	0.031	Supported	
IN	-> SE	PI	0.056	-0.019	0.129	0.129	Rejected	
EN	-> SE	PI	0.163**	0.036	0.322	0.007	Supported	

IS	-> SE -> CE	PI	0.008	-0.017	0.035	0.507	Rejected
AS	-> SE -> CE	PI	0.043*	0.003	0.117	0.032	Supported
IN	-> SE -> CE	PI	0.035	-0.009	0.091	0.123	Rejected
EN	-> SE -> CE	PI	0.103**	0.023	0.220	0.008	Supported

^a Goodness-of-fit: $X^2/df = 2.669$, ($df = 279$, $P < .000$), RMSEA = 0.060, CFI = 0.943, NFI = 0.913, GFI = 0.883

^b *** $p < .001$, ** $p < .01$, * $p < .05$

5. Discussion

With the global spread of COVID-19, consumers are required to maintain social distancing and stay at home to reduce infections. Due to the protracted quarantines and stay-home measures, consumers had to rely on online communication and online channels to obtain different experiences and achieve purchase behavior. The purpose of this study is to investigate the significant factors influencing consumer social experience, co-experience, and purchase intention. This study collected 348 pieces of data, from individuals who have Fresh Hema's live streaming contents. The results determined that only actual self-congruity significantly influenced the consumer social experience, while both informativeness and entertainment contents value significantly influenced consumer social experience. These results are consistent with previous studies [17,20]. Moreover, the effect of social experience on consumer co-experience and purchase intention was significant. Also, co-experience was found to be significantly related to consumer purchase intention, which was also the same as previous studies [27,28]. Lastly, the significant mediation effect of social experience was observed. Based on these results, the following theoretical and managerial implications are developed.

6. Conclusion

Several theoretical propositions can be put forward. First, this study reconfirmed the relationship among variables relating to live streaming services. This study illustrated that congruence between consumer and influencer is also a critical factor influencing the consumer social experience. Previous studies focused on influencer attractiveness or online technological stimuli to investigate the consumer social experience. This study offered other insights that drew on consumer-influence image congruency to illustrate the consumer experience. In this way, further live streaming research should also include the image of influencers or vloggers to investigate consumer attitudes and behavior. In addition, online channels have become more important than ever before during the spread of COVID-19. To reduce COVID-19 infections, the public has been required to maintain social distancing. As such, it is hard for them to complete purchase behavior in the offline stores, which means they could not directly obtain product experiences. This research has investigated how providing live streaming services could satisfy their needs and address the missing offline experience. This research found that both informativeness and entertainment value could significantly predict consumer social experience. This study also provided new insights on viewing, experience, and engagement behavior during the spread of COVID-19. Due to the spread of COVID-19, non-contact services started. Consumers found the full path from consumer viewing to experience and to consumer engagement behavior. Further studies could consider expanding these paths to investigate a more effective relationship.

The following managerial implications can also be put forward. First, this study found that actual congruity could enhance consumer interaction experience. Unlike other live streaming services, Fresh Hema's live streaming is used to provide product information and a purchase channel. As consumers cannot have a direct product experience, consumers will interact with influencers who they have congruency with. Following this perspective, firms should choose influencers who have the nature and appetency image that can positively

enhance the consumer online interactive experience. Live streaming service contents values are also found to have a significant impact. Based on these results, firms need to consider how to provide consumers with more utilitarian and hedonic value when they are viewing live streaming services. Depending on these results, live streaming could develop new functions to offer consumers more product-related information, as consumers may dismiss part of the product introduced by influencers. At this time, the consumer can easily find their dismissed information and continue interacting with the influencer. On the other hand, more entertainment factors need to be offered than before. Live streaming services need to improve their functionality to stimulate consumer interest, which will influence their experience and engagement behavior.

There are several limitations to this study. First, this study could have collected more data to illustrate this model. This research only focused on the one Fresh Hema live streaming influencer. Future studies should consider other influencers or other shopping live streaming contexts, such as TikTok. Moreover, this study did not compare demographic differences. Following previous studies, it argued that males and females prefer different shopping contexts [41]. Future studies should consider comparing the moderating effect of gender. Also, the age difference is also a critical moderation variable. While different ages present different technical knowledge, resulting in different experiences. Future studies should include age differences. Finally, this study did not consider online environment factors, which are essential variables in the online research. Future studies should consider environmental factors to determine which ones exert more of an influence on consumer experience.

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