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Article

When Luxury Brands Live Streaming to the Consumers with or without Purchase Experience! The Role of Servicescape, Consumer Trust and Perceived Value of Luxury

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Abstract: This study examines the influences of live streaming servicescape on Chinese consumers' luxury purchase intention. Interestingly, for the sample without luxury purchase experience, the mediating effect of the perceived value of luxury goods is significant but effect of consumer trust is not. For the sample with luxury purchase experience, the result of mediating effect is just the opposite. The interaction between conspicuous consumption and live streaming servicescape plays a certain role in regulating the perceived value of luxury goods. These results show that luxury brands can adopt innovation in the live streaming servicescape for different types of consumers to promote live streaming marketing. This study enriches the servicescape theory of live streaming.

Keywords: Live streaming; Servicescape; Luxury brands; Conspicuous consumption; Consumer trust; Perceived value of luxury

1. Introduction

Live streaming affects consumers' behavior and shopping experience[1], as a new digital marketing mode with an instant and interactive servicescape. Amid the rapid development of new retailing and new formats, the live streaming e-commerce industry has developed just as quickly in recent years. For example in China, the number of live e-commerce users is 515 million, an increase of 51.05 million compared with December 2021, accounting for 48.2% of the total Internet users in 2022[2]. Given that the market for live streaming e-commerce has been gratifying in recent years, an increasing number of luxury brands have accelerated their switch to online retailing in China. Live through the economic winter brought by the COVID-19 pandemic, many luxury brands found themselves wandering on the edge of the previous platform, compelling them to actively seek transformation in online marketing and digitalization. Luxury brands also tried to harvest data flows and ultimately realize profit transformation via live streaming technology, e.g., Louis Vuitton's commercial debut in Xiaohongshu, Gucci and Hermès live streams, and Chanel's broadcast of a large show through cooperation with Tencent Video. In 2023, Versace held six live broadcasts in Tik Tok, and sold goods directly in the live broadcast room in Tik Tok, but mainly sold the secondary products of Versace Jeans Couture. Nowadays, live broadcast has been widely adopted by affordable luxury brands, including Michael Kors, Coach and Kate Spade have been laid out in Tik Tok quite early. The live streaming of luxury goods has attracted great attention from the industry. This online servicescape of live streaming promotes the digital marketing of luxury brands and allows realizing their acquisition and transformation of online flows. In the increasingly competitive luxury goods industry, everyone hopes to seize the opportunity in the previously unexplored market. However, those testing water means that the marketing managers of luxury brand shows an extremely cautious attitude.

Notably, although luxury marketing practitioners are increasingly interested in this topic, the results remain mixed due to uncertain factors concerning the adopted mode of live streaming e-

commerce by luxury brands. Luxury brands feature creativity, uniqueness, artistry, accuracy, modernity, high quality and premium. These characteristics provide consumers with a sense of satisfaction for possessing exclusive goods and provide psychological satisfaction in the form of high status, high prestige and social concern. The transmission of the perceived value of luxury goods is usually inseparable from the servicescape of physical stores. The value perception and trust building of luxury goods are often easier to achieve with a physical store experience. For example, the excellent materials and exquisite craftsmanship of luxury goods are easier to examine in physical stores, whereby the trust of consumers is gained by their brands. Physical luxury store service also plays an important role as the gatekeeper and instructor of the luxury class[3]. Moreover, in the field of luxury goods, the risks and worries of online shopping are obviously higher due to the problems of safety and trust and the lack of product inspection, especially in live streaming. Therefore, one of the most important challenges faced by marketers is obtaining a thorough understanding of consumers' reaction to the live streaming of luxury goods, as well as a grasp of the mediating effect mechanism of the perception and the trust of luxury goods value.

To address this issue and facilitate our theorizing and development of hypotheses regarding the effects of the factors of live streaming of luxury goods on consumer purchase intention, we draw on servicescape theory research. A servicescape is defined as the service environment where interactions between customers and employees take place; it includes all the tangible elements that facilitate the discharge of services [4]. With the development of internet technology, servicescape theory has been extended to online channels, and e-servicescape theory has emerged[5], and an increasing number of new servicescapes have also spawned. Whereby researchers have studied the characteristics of live streamers and information sources [6], the diversified interactions of live streamers, and the social presence [7] and media richness of live streaming. However, due to the factors' complexity and experience-evolving of the servicescape of live streaming, and at same time there are two background customers those with and without experiences of purchasing luxury goods, it is difficult yet important to determine the mechanisms by which the factors of the servicescape of live streaming influence the purchase intention of consumers with these two different backgrounds of experience purchasing luxury goods and the role of the perceived value of luxury goods and consumer trust in this process. Drawing on experiential learning theory (ELT), our study infers that customers without experience purchasing luxury goods care more about the value thereof and that customers with such experience care more about trust in live streaming.

This study therefore supplements servicescape theory and extends live streaming research to the category of luxury goods. In addition, it guides and offers suggestions for the luxury brand design of the live streaming servicescape. It also provides a novel pattern that makes better use of digital technology to achieve precise and differentiated marketing effects when addressing different types of consumers.

2. Theoretical Background and Hypothesis Development

2.1. Live Streaming Servicescape

Live streaming refers to the e-commerce activities in which the streamer (merchant or manager) provides consumers with product display and purchase services through product trial and experience sharing in an online live streaming room[8]. Live streaming e-commerce has gained wide attention due to its high-level interaction and unique content presentation and has gradually become an important means of product marketing[9]. Zhang, Chao [10]revealed that environmental stimuli of live streaming have a significant positive effect on consumers' intentions to make in-store purchases. Positive effects of live streaming exist on customer engagement and impulse buying[11]. Furthermore, Zhang, Qin [12] confirmed that the influence of live streaming based on different product types on the purchase intention of the audience is significantly different. Shih, Silalahi [13]reveal the essential role of socio-technical systems in developing trust, highlighting the emergence of trust in streamers as a crucial factor in extending trust to the products promoted. According Xu, Cao [14] research, the constructed multimodal reputation signals of live

streaming's anchors can effect on product sales prediction. By virtue of anchors' professionalism and interactivity, they can significantly influence the shopping intention of the live streaming audience[15].

Bitner [16] first proposed servicescape theory which can explain the total influence of the various elements involved for the study of live streaming. In the SOR model based on environmental psychology, the servicescape is the stimulus (S), whose main aim is to attract consumers' reactions, such as attention, purchase intention, or encourage impulse buying, and to cause their evaluation (O) [17]. The SOR theoretical model has also frequently been used in studies to understand online consumer behavior. There are generally two types of research on the stimulus response of servicescapes. The first focuses on the influence of the overall servicescape framework; the second focuses on the stimulus response of specific elements in the servicescape. For consumers on any shopping trip, various displays in the servicescape in a physical store have differential impacts on their purchase incidence and brand choice behavior [18]. Kawaf and Tagg [19] proposed that words, pictures and music in an online shopping environment can significantly affect consumers' emotions and cognition. Hongxia, Zhihui [20] proposed that online commodity displays enable consumers to obtain better virtual tactile experiences and increase their desire to buy. Zhani, Mouri [21]Zhani, Mouri [21]Zhani, Mouri [21] have found that the dimensions of the m-servicescape (i.e., aesthetic appeal, perceived security, and layout and functionality) generate mobile value (i.e., hedonic and utilitarian), which in turn leads to user purchase intention.

H1. The live streaming servicescape has significant positive effects on purchase intention regardless of whether consumers have experience purchasing luxury goods.

According to Bitner [16] opinion, the various physical factors are carefully designed and controlled by service places, including environmental conditions, layouts, signs, symbols and artifacts. Furthermore, social factors have been brought into the research category. Scholars have studied the impact of the social elements of servicescapes on consumers' behavior, such as interpersonal social interaction and social density [22, 23]. Following the development of internet technology, the e-servicescape emphasizes technical factors, and researchers have proposed that the servicescape includes three aspects: aesthetic appeal, functional layout and financial security. Financial security refers to the ease of use and security of online technology [5]. Against this background, and combining the characteristics of servicescape theory and live streaming technology, in this study, the evaluation index of live streaming servicescape can be divided into three dimensions: physical factors, social factors and technical factors. Hence, according to the SOR framework, consumers perceive these three factors of the live streaming servicescape, have joyful emotions and experiences, and, finally, generate their purchase intention.

In luxury stores, social intimidation is key to maintaining the exclusivity and desirability of their brands. Facing the opulence and magnificence of such stores, consumers question their own status and evaluate their social fit. They feel more or less legitimate depending on their economic capital (wealth) and/or cultural capital (tastes and practices developed through education and experience). This perception of social inferiority creates social intimidation and exclusion. Therefore, two kinds of consumers may flood into the live streaming room with luxury goods: consumers with or without experience purchasing luxury goods. However, it is difficult to create this kind of social intimidation and exclusion in a live streaming room with luxury goods. That is, physical factors cannot exert different influences on these two kinds of consumers:

H1a: The purchase intentions of consumers with experience purchasing luxury goods are more likely to be influenced by the physical factors of live streamers than those of consumers without such experience.

Due to the difference in luxury purchasing experience, there are the different understandings of luxury culture among these two kinds of consumers, they have different demands for luxury goods in a live streaming room. The elite use luxury goods as a sign of distinction and an affirmation of their status because luxury reflects social stratification and exclusive privilege. Xin and Hong [24] pointed out that social interaction in online shopping could enhance consumers' sense of social presence, thus affecting their purchase intention and behavior. Hence, we propose that the purchase

intention of consumers with experience purchasing luxury goods is more influenced by the social factors of live streaming than that of consumers without such experience. According to the SOR framework, when consumers are stimulated by social factors, they enhance their involvement and interactivity, whereby their purchase intention is further stimulated:

H1b: The purchase intention of consumers with experience purchasing luxury goods is more likely to be influenced by (b) social factors than that of consumers without such experience.

Harris and Goode [5] emphasized that factors including the ease of technology application and website security can significantly affect consumers' purchase intention. For example, IT affordances in live streaming indirectly affect customer engagement through swift guanxi and perceived enjoyment[25]. According to the SOR framework, consumers are stimulated by perceived technical factors, which enhance their perceived safety and reliability and thus their purchasing intention. Therefore, the influence of live streaming servicescape factors differs among these two types of consumers. We formally hypothesize the following:

H1c: The purchase intention of consumers with experience purchasing luxury goods is less likely to be influenced by (c) technical factors than consumers without such experience.

2.2. *The mediating Effect of Consumer Trust*

Among consumers with experience purchasing luxury goods, we posit that trust is a mechanism that explains their differential increase in purchase intention by the live streaming servicescape. Consumer trust is defined as consumers' belief in a firm's ability and competence to perform a specific task under specific circumstances[26, 27]. Consumer trust is produced amid commodity transactions and is endowed with richer connotations in the e-commerce environment. In the field of consumption, trust mainly refers to consumers' perceived security and reliability of transactions. The connotation of trust is also related to a trading situation where the trustor is experiencing risk or uncertainty [28]. In short, trust is a decisive factor that affects whether consumers make purchases on a website and is usually used to express their willingness to perceive safety or take risks.

Various factors in the live streaming servicescape have a significant impact on consumer trust. Harris and Goode [5] proposed that consumer trust is not only key to the online physical environment but also its core. Xin and Hong [24] mentioned that social interaction in online shopping can enhance consumers' social presence, thereby affecting consumer trust, risk and safety perception. Yu, Xing [29] pointed out that trust is affected by the security of network technology and that consumers' recognition of technology security strongly affects consumer trust. In e-commerce, consumer trust is regarded as an important antecedent variable for online transactions or even a necessary condition for transactions [5]). Yu, Xing [29] also verified that consumer trust significantly positively affects consumer purchase intentions in online retail. Harris and Goode [5] introduced consumer trust as an intermediary variable between online servicescape and purchase intention. Shih, Silalahi [13] pointed out that the design of online servicescapes affects consumer trust and that consumer trust significantly affects consumers' willingness to purchase goods online.

Consumers with experience purchasing luxury goods have knowledge about the focal product and luxury brand according to ELT. Based on ELT, knowledge "is created through the transformation of experience", and "knowledge results from the combination of grasping and transforming experience" [30]. Experiential learning therefore plays a role in the impact of deep/offline purchase on customer value [31]. Since most luxury brands originate from developed nations, they might possess a desirability value that provides consumers a signaled value that goes beyond the functional aspects of the focal product [32]. These contemporary meanings and attributes reflected by luxury's signaled value help consumers elevate their understanding of the symbolic world [33]. Luxury brands aim to create value and enhance allure by increasing the experiential attributes that are symbolic and hedonic in nature [34].Luxury goods may also lead to the enhancement of a consumer's identity and self-worth [35]. Accordingly, since consumers in the modern era relate luxury to experiences and feelings [36], those with experience purchasing luxury items gain knowledge of luxury goods. A luxury store involves a kind of traditional transaction that allows customers to feel more security and reliability than the novel transaction channel of a live streaming room. Because the

new retailing channel enhances the visibility of both genuine and counterfeit consumption of luxury brands, which also bring the anxiety and psychosocial risk[37]. Therefore, when they enter a live streaming room, customers pay attention to the security and reliability of transactions within it. Conversely, customers without experience purchasing luxury goods in these contexts care more about the perceived value of luxury goods. Accordingly, trust is the primary mediator for consumers with experience purchasing luxury goods, whereby the following hypothesis is proposed:

H2. Consumer trust plays a more significant intermediary role between the live streaming servicescape and purchase intention among consumers with experience purchasing luxury goods than those without it.

2.3. Perceived Value of Luxury Goods as the Mediator

Perceived value, a key influencing factor for how consumers evaluate goods or perceive service quality, significantly affects their willingness to purchase. Bowman and Navissi [38] found that in the virtual online shopping environment, consumers' behavioral decisions are obviously affected by their perceived value. Zhou and Huang [15] also found that online consumers' perceived value has a significant impact on their purchase intention. Regarding the physical factors of the live streaming servicescape, Man, Qin-Hai [39] pointed out that music and color have a significant impact on consumers' perceptions and emotions and other psychological benefits. Baker, Grewal [22] proposed that consumers perceive goods and services through the physical factors in a store. In terms of social factors, Pozharliev, Verbeke [40] confirmed in a product browsing experiment that it is easier to stimulate consumers' perceived value of luxury goods when they are accompanied by others. For luxury goods, whose price is typically much higher than their use value, scholars have primarily assessed their social-oriented values, such as their conspicuous value [41], unique value or conformity value [42]. With the improvement of living standards, the perception of luxury goods has gradually encompassed individual-oriented values, such as self-pleasure, self-gift, inner self-consistency and quality assurance [43]. Luxury consumption has thus become more subject to personal emotional experience and feeling value.

Hence, Vigneron and Johnson [44] have developed the brand luxury index, which includes social value (significance, uniqueness and quality) and personal value (hedonism and self-extension). Amid the deepening of this research, four dimensions of luxury value perception have also been gradually developed: individual value, social value, functional value and financial value [45]. Perceived luxury value has also become more multifaceted. Jiang and Shan [46] proposed that the functional value, hedonic value and social value of luxury goods have a positive impact on luxury purchase intention. Jain [47] showed that the perceived value of luxury goods, e.g., conspicuous value, experiential value or utilitarian value, have a significant impact on consumers' purchase intention. Nevertheless, while these scholars have conducted salient research, the mediating role of the perceived value of luxury goods still lacks any clear verification. Among consumers without this kind of experience, their purchase intention for luxury goods in live streaming is driven by their perceived value thereof. Thus, the following hypothesis is proposed:

H3: The impact of the live streaming servicescape on purchase intention is mediated by the perceived value of luxury goods among consumers without experience purchasing luxury goods but not among consumers with such experience.

2.4. Moderating Role of Conspicuous Consumption

Veblen and Chase [41] was the first to define conspicuous consumption. He believed that with the increasing abundance of life, members of the leisure class increasingly prefer to display their social status. They thus obtain social prestige and status recognition by conspicuously purchasing expensive goods. Sivanathan and Pettit [48] put forward the intrinsic motivation of conspicuous consumption, i.e., consumers promote self-perception, enhance self-esteem, and promote the construction and improvement of their self-concept through conspicuous consumption. These results show that conspicuous consumption is also derived from both social-oriented and individual-oriented motivations. Research has also found that groups with lower living standards allocate a

higher expense proportion to conspicuous consumption [49] and that consumers across all social classes have a conspicuous consumption motivation. Moreover, interpersonal influence can promote conspicuous consumption. In the live streaming servicescape, social factors such as live streamers and other spectators form the reference group of consumers. Marcoux, Filiatrault [50] also mentioned that interpersonal interaction is an important dimension of conspicuous consumption. Therefore, the live streaming servicescape interacts with the conspicuous consumption motivation, and they can influence one another.

Ling, Nan [51] pointed out that consumers with a conspicuous consumption motivation are more willing to boast of their identity and status through luxury goods and that the perceived value of luxury goods is more intense. Moreover, according to Amaldoss and Jain [52], the perceived rarity of luxury goods can significantly affect consumers' willingness to purchase such conspicuous products. Pozharliev, Verbeke [40] proposed that the presence of other people lead to a higher stimulation of consumers' value and a higher probability of consumers' purchasing willingness for boasting reasons. More specifically, there are two kinds of motivation, an intrinsic motivation to enjoy privacy in luxury consumption and an extrinsic motivation of being associated with the experienced luxury elite[53]. Accordingly, the current study posits that conspicuous consumption regulates the relationship between live streaming servicescape and perceived value of luxury goods, as well as between live streaming servicescape and consumer purchase intention. The following hypothesis is thus proposed:

H4: Conspicuous consumption serially moderates the effects of live streaming servicescape on the perceived value of luxury goods and purchase intention.

3. Materials and Methods

3.1. Scenario and Administration Procedure

We arranged three scenario stimuli, mainly the situational recall, scenario display and simulation method, to measure consumers' evaluation of luxury goods' perceived value and environmental trust in a live streaming servicescape, as well as their purchase intention therein.

The first part of the questionnaire consisted of live streaming situational recall questions and an identification question on whether respondents have watched live streaming sales to screen them and ensure their exposure to the live streaming mode of marketing, thus obtaining qualified samples with a live streaming experience. Then, respondents were asked to evaluate the social and technical factors in existing live streaming tools according to their own experiences watching live streaming. To accurately locate the target population of this survey and ensure that the interviewees had real experience with live streaming, the item "Have you ever watched any live streaming e-commerce?" was added to the questionnaire to exclude any samples without live streaming viewing experience.

For luxury live streaming, we used a 20-second video, captured from a live stream on Taobao, by French cosmetics brand Helena. We used a specific brand in the scenario to ensure the authenticity of both the video and the presence. After watching the video, the respondents were asked to evaluate the physical factors by watching another live stream of a luxury product. We chose cosmetics brands because we believed that compared to clothing brands, cosmetics brands have a higher market penetration rate and are less influenced by gender.

Before measuring consumer purchase intention, we provided a detailed introduction to the cosmetics brands and products appearing in the video, including the prices of the products. For the perception and purchase of luxury goods, the question "Have you ever purchased luxury goods, including shoes, bags or accessories costing more than 1,000 yuan?" in the questionnaire distinguished consumers with or without a luxury goods purchasing experience, and these two types of consumers were asked to list the luxury brands they were aware of or had purchased. Our sample size of luxury purchase experience was basically 6:4, a ratio that effectively supported the subsequent comparative study. The questionnaire also included the demographic information of the respondents, such as gender, income level, age, geographic location, and educational background.

3.2. Measurement Items

This study collected data with questionnaires. To ensure the reliability and validity of the questionnaire data, many variables were derived from extant scales, such as the physical factors [22], social factors [22, 54], technical factors [5], perceived value of luxury goods [44], and consumer trust [29], conspicuous consumption [55], and purchase intention [29]. These were then appropriately adjusted into the item contents and combined with the characteristics of live streaming e-commerce. All items were measured using a 7-level Likert scale (1 means strongly disagree, 7 means strongly agree).

After the first draft of the questionnaire was finalized, the questionnaire was pretested. A total of 90 groups of data were collected, among which 65 samples were valid. Through reliability and validity analysis, the items with low reliability levels were modified. The formal questionnaire for this research was thus finally formed.

Table 1. Demographic characteristics of the sample (N=380).

Sample characteristic	Classification	Sample Quantity	Sample Proportion	Sample characteristic	Classifications	Sample Quantity	Sample Proportion	
Gender	male	116	30.5%	education	junior college	83	21.8%	
	female	264	69.5%		undergraduate	157	41.3%	
Age	<18	2	0.5%	Postgraduate and above	else	52	13.7%	
	18~25	155	40.8%		monthly income	no income	28	7.4%
	26~30	103	27.1%			<5000 RMB	120	31.6%
	31~40	104	27.4%	City	5001-10000	170	44.7%	
	>40	16	4.2%		10001-100000	56	14.7%	
first-tier provincial capital	153	40.3%	>100001		6	1.6%		
else	141	37.1%						
		86	22.6%					

3.3. Data Collection and Sample

We collected the samples in China in 2020. Considering the understanding of luxury culture, to investigate the attitude difference between the consumers with or without luxury purchase experience during the live streaming of luxury goods, this study used a snowball sampling method to compare and collect these samples. Each sample contains 300 data points. After screening the sample data, 380 valid data points were obtained, including 232 samples with and 148 samples without luxury purchase experience. The collection of questionnaires was ideal. The characteristics of the samples are given in Table 1. Through this survey, male and female respondents accounted for 30.5% (116 people) and 69.5% (264 people) of the total, respectively, and the majority were 18-30 years old (67.9%). These percentages are in line with the user characteristics of China's live streaming e-commerce.

4. Results

4.1. Reliability, Validity Test and Common Method Bias

Table 2. Factor analysis (N=380).

Variables	Code	Cronbach's α	KMO	Minimum factor load	Cumulative variance explained
Physical factors	PF	0.893	0.871	0.785	70.14%
Social factors	SF	0.926	0.915	0.636	79.51%
Technical factors	TF	0.898	0.871	0.739	77.90%
Perceived value of luxury goods	LPV	0.795	0.757	0.778	64.32%
Consumer trust	CT	0.884	0.742	0.890	81.25%
Conspicuous consumption	CC	0.938	0.890	0.836	80.07%
Purchase intention	PI	0.911	0.836	0.880	79.34%

The results of the reliability and validity tests are shown that the Cronbach's α coefficients of all variables are greater than 0.7, indicating that the overall reliability of the questionnaire is very good. Moreover, the KMO values of all variables are greater than 0.7, indicating that the scale is suitable for factor analysis. After revising and checking the scales, the minimum factor load was calculated as 0.636, and the minimum cumulative variance explained was 64.32%, both of which were acceptable. The AVE values of all variables are greater than 0.5, and the CR values are all greater than 0.8, all at an ideal level, indicating that the scales have good convergent validity.

Table 3. The square root of the AVE value and correlation coefficient of each variable (N=380).

Variables	PF	SF	TF	LPV	CT	CC	PI
PF	0.798						
SF	0.707	0.777					
TF	0.668	0.772	0.774				
LPV	0.759	0.705	0.701	0.739			
CT	0.673	0.740	0.788	0.662	0.848		
CC	0.642	0.562	0.527	0.665	0.599	0.873	
PI	0.649	0.687	0.710	0.710	0.678	0.684	0.854
AVE	0.637	0.603	0.599	0.546	0.720	0.762	0.729
CR	0.896	0.924	0.899	0.820	0.885	0.941	0.914

Note(s): PF=physical factors, SF=social factors, TF=technical factors, LPV=perceived value of luxury goods, CT=consumer trust, CC=conspicuous consumption, and PI=purchase intention. The value on the diagonal is the square root of the AVE.

Pertaining to statistical remedies, Harman's single-factor test was conducted, and it was found that the first factor explains 48.29% of the total variance. It thus did not exceed the threshold of 50%. The results of the reliability and validity tests are shown in Table 2 and Table 3.

4.2. Hypothesis Test

4.2.1. Live Streaming Servicescape and Consumers' Purchase Intentions

Table 4. Comparison table of the direct effect test.

变量	MODEL 1			MODEL 2			MODEL 3		
	β	SE	t	β	SE	t	β	SE	t
Controls for Demographics									
Gender	0.06	0.08	0.80	-0.02	0.06	-0.38	-0.04	0.06	-0.57
Monthly Income	0.29	0.08	3.45**	0.03	0.06	0.44	0.07	0.07	1.14
Education	-0.14	0.07	-1.94	-0.02	0.05	-0.45	-0.01	0.06	-0.08
age	0.60	0.16	3.86***	0.16	0.12	1.37	0.29	0.12	2.41*
City	0.01	0.09	0.16	-0.07	0.06	-1.12	-0.01	0.07	-0.17
The Effect of whole servicescape and presence									
servicescape				0.96	0.06	15.23***			
presence							0.59	0.04	13.6***
R ²		0.115			0.541			0.491	
F		6.52***			232.04***			184.83***	
Adjusted R ²		0.097			0.53			0.479	

$p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

As we expected, we found that the main effect of servicescape is significant and positive (in Table 4). Hence, regardless of whether consumers have luxury purchase experience, the live streaming servicescape has a significant positive effect on their purchase intentions. For the total sample with two different experiences in purchasing luxury goods, the servicescape ($R^2=0.541$, $F=232.037$, $p < 0.001$) and social presence ($R^2=0.491$, $F=184.832$, $p < 0.001$) are all significant. Accordingly, H1 is generally supported.

Table 5. Comparison table of the direct effect test.

Independent variable	Sample with experience purchasing luxury goods (N=232)			Sample without experience purchasing luxury goods (N=148)		
	B	SE	t	B	SE	t
Physical factors	0.25	0.06	4.01 ***	0.20	0.10	2.04 *
Social factors	0.39	0.07	5.41 ***	0.17	0.13	1.33
Technical factors	0.34	0.07	5.02 ***	0.50	0.13	3.99 ***
F value		166.795***			30.780***	
R ²		0.687			0.391	
Adjusted R ²		0.683			0.378	

Note(s): * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

For the sample with experience purchasing luxury goods, the physical factors ($t=4.01$, $p<0.001$), social factors ($t=5.41$, $p<0.001$) and technical factors ($t=5.02$, $p<0.001$) in the live streaming servicescape all had a significant positive effect on their purchase intention. These results are shown in Table 5. For the sample without experience purchasing luxury goods, the physical factors ($t=2.04$, $p<0.05$) and technical factors ($t=3.99$, $p<0.001$) in the live streaming servicescape had significant positive effects on their purchase intention, but the social factors ($t=1.33$, $p>0.05$) did not significantly affect their purchase intention. Overall, H1a, H1b and H1c has therefore been verified.

To better understand the difference between the two samples, we conducted an independent sample t test of variables. As shown in table 6, we found that the influence of luxury goods purchasing experience on the focal variables presents significant differences.

Table 6. Comparison table of direct effect test.

Variables	Sample with experience purchasing luxury goods (N=232)	Sample without experience purchasing luxury goods (N=148)	t
servicescape	5.906±0.75	5.356±0.782	6.853***
Physical factors	5.876±0.853	5.318±0.932	6.001***
Social factors	5.905±0.835	5.346±0.886	6.209***
Technical factors	5.936±0.785	5.404±0.882	6.134***
Conspicuous consumption	5.606±1.215	4.655±1.356	6.936***
Consumer trust	5.74±1.06	5.104±1.109	5.604***
Perceived value of luxury goods	5.801±0.84	5.164±0.795	7.364***
Purchase intention	5.864±0.889	5.108±1.108	6.990***

* $p<0.05$, ** $p<0.01$, *** $p<0.001$.

4.2.2. Test of the Mediating Mechanism of the Perceived Value of Luxury Goods and Consumer Trust

We tested for dual mediation using PROCESS Model 4 (10,000 bootstrapped samples; Hayes 2013). For the sample with experience purchasing luxury goods, results revealed that the mediating of perceived value of luxury goods ($B=0.07$, $SE=0.08$, 95% $CI=[-0.0953, 0.2261]$) is not significant, and the mediating of consumer trust ($B=0.28$, $SE=0.12$, 95% $CI=[0.0644, 0.5201]$) is significant. For the sample without experience purchasing luxury goods, results revealed that the mediating of perceived value of luxury goods ($B=0.4025$, $SE=0.40$, 95% $CI=[0.1244, 0.6865]$) is significant, and the mediating of consumer trust ($B=0.24$, $SE=0.24$, 95% $CI=[-0.0321, 0.5024]$) is not significant. These results support H2 and H3.

4.2.3. The Moderating Effect of Conspicuous Consumption

In PROCESS Model 7 (5,000 bootstrap samples; Hayes 2018), the perceived value of luxury goods as the mediator, presence and type of information are predictors, and the purchase intentions measure is the dependent variable. For the sample with experience purchasing luxury goods, conspicuous consumption moderates the effect of presence on the purchase intentions ($\beta=0.12$, $SE=.02$, $t=6.48$, $p=0000$). More importantly, the indirect effect of moderated mediation is not significant ($\beta=.05$, $SE=.03$, 95% $CI=[-.0142, .1173]$). For the sample with experience purchasing luxury goods, conspicuous consumption does not moderate the effect of presence on the purchase intentions

($\beta=0.12$, $SE=.03$, $t=4.06$, $p=0000$). More importantly, the indirect effect of moderated mediation is not significant ($\beta=.06$, $SE=.02$, 95%[CI]= [.0229, .1148]). These results partly support H4.

5. Conclusions and Discussion

5.1. Research Conclusion

This study draws the following conclusions:

First, the live streaming servicescape has a significant positive impact on Chinese consumers' purchase intentions for luxury goods. Reality has once again confirmed the conclusions of this study. In early February and March 2023, renowned Chinese actress Dong Jie launched two live streaming sales on the RED app, whose single sales exceeded 30 million and 60 million yuan, respectively, ranking first on the RED sales list. These sales came as a surprise to many because these were "atypical" livestreams, with their high prices and soft-spoken style. For example, an Ms MIN cardigan with a unit price of 5200 yuan and a pair of umawang ballet shoes with a unit price of 4932 yuan quickly sold out and were taken off the shelves during these live streams. Obviously, luxury live streaming offers good returns on the Chinese market.

However, the influence of the three focal factors of live streaming servicescape varies due to differences in customers' backgrounds. Social factors, in particular, are effective for consumers with experience buying luxury goods but not for those without it. Therefore, luxury brands can optimize their live streaming patterns from the perspectives of physical layout, interactive communication, platform technology ease-of-use and safety to enhance consumers' purchase intentions.

Second, for the sample with previous luxury purchase experience, the mediating effect of the perceived value of luxury goods was not significant, but the mediating effect of consumer trust was significant. This type of consumer has an already established cognition, emotion and purchase intention concerning luxury brands. Therefore, although live streaming can convey perceived value, it has little effect on purchase intention. However, the risks and uncertainties associated with online luxury purchases could be a major obstacle. Accordingly, the establishment of consumer trust in live streaming can significantly increase consumers' purchase intentions.

Furthermore, for the sample with no previous luxury purchase experience, the mediating effect of the perceived value of luxury goods was significant, but the mediating impact of consumer trust was not. For such consumers, live streaming can be used to improve their perceived value of luxury goods, thereby facilitating their purchasing behavior. Similarly, live streaming can also elicit consumer trust, although trust does not necessarily lead to purchasing behavior unless luxury goods are affordable.

Finally, the interaction between the live streaming servicescape and conspicuous consumption plays a certain role in regulating the perceived value of luxury goods. This is particularly the case for consumers with luxury purchase experience, who can perceive the value of luxury goods with their own conspicuous consumption motivation. However, the interaction between live streaming servicescape and conspicuous consumption has no significant influence on purchase intention. Thus, in the online environment, conspicuous consumption is no longer a stimulus for consumers' luxury purchasing.

5.2. Theoretical Contributions and Practical Implications

This research mainly provides the following theoretical contributions: On the one hand, it supplements servicescape theory and proposes novel measurement dimensions for the live streaming servicescape, providing a new perspective on the measurement of emerging e-servicescapes and diversifying servicescape designs. On the other hand, The essence of such an attempt to sell luxury goods by the live streaming is a kind of luxury democratization. Luxury firms can develop better positioning strategies for managing the luxury democratization challenge[56]. This in-depth study of the live streaming marketing of luxury brands, by introducing the unique characteristics of luxury goods, extends the existing product categories in live streaming research and provides references for luxury brands' digital operation and expansion.

In addition, this research offers practical guidance for brands and platforms that are currently or are planning to devote effort to the live streaming e-commerce industry. The most prominent option is to carry out differentiated and precise marketing to consumers with or without luxury purchase experience. First, for consumers with luxury purchase experience, the focus of branded online marketing should promote the establishment of consumer trust in online platforms. Brands might increase consumers' trust in online platforms by displaying real scenes of physical store or catwalk show, enhancing the atmosphere of live streaming by soothing music, improving the interactions between live streamers and spectators, and choosing more mature and complete platforms. Second, for consumers without luxury purchase experience, brands should pay attention to their understanding of luxury culture and use live streaming or other digital tools to enhance consumers' perceived value of luxury goods. Finally, for both types of consumers, the role of their conspicuous consumption motivation in terms of luxury goods marketing is weakened in the live streaming servicescape. This means that brands' online marketing should focus on the transmission of luxury culture and connotation instead of conspicuous value.

Moreover, unlike a physical marketing or traditional luxury marketing strategy, the digital marketing plan weakens the role of conspicuous consumption in luxury marketing; nor is the mediating effect of conspicuous consumption on purchase intention that significant in live streaming. Comparing the differences in terms of the age of conspicuous consumption indicates that for Generation Z, digital natives, the motivation for conspicuous consumption itself is significantly lower than for other generations. Hence, enterprises must pay focus on updating the connotation of luxury culture rather than placing the value of conspicuous consumption among their marketing priorities.

5.3. Limitations and Future Research

Although this research has certain theoretical significance and offers practical value, it has some limitations that open several avenues for future research.

First, to verify the difference in the research model with or without luxury purchase experience, this study collected two types of samples in approximately the same amount, but the rations thereof became inconsistent after screening. However, both samples were larger than 150, and their ratio was approximately 3:2, which is relatively balanced. In addition, because the research objects were limited to consumers with experience watching live streaming, the respondents were greatly reduced and presented an obvious imbalance in terms of age and gender, weakening the representativeness thereof.

Future studies can therefore be carried out in the following ways: First, simulation experiments can be conducted on consumers with no experience with live streaming. Data on such consumers can also be collected for comparative research. Additionally, while we have consistently demonstrated live streaming servicescape's effect on luxury purchase intention, the orderliness of the servicescape and the function of different servicescape were not considered. Hence, it may be worthwhile to examine the potential impacts of other modes of servicescape and the influence of orderliness, such as store mode or home mode. In recent years, some luxury programs have also adopted live streaming. Third, this study has only analyzed the influence of presence on purchase intention without exploring the mediating role of social presence between servicescape indicator and purchase intention. Finally, this research is based on a relatively broad range of luxury goods without any subdivision of luxury brands. In the future, studies can more deeply explore subdivided commodity categories and combine the characteristics of consumers in these categories to provide more targeted and relevant marketing advice.

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