Can live-streaming e-commerce boost purchase intention? An application to Chinese luxury market under COVID-19 pandemic situation

Yuan Wan, PhD
Assistant Professor
University of Waikato Institute, Hangzhou City University, Hangzhou, China
Email address: shwanyuan@qq.com

Maxime Koromyslov, PhD
Associate Professor
ICN Business School (Paris-Nancy-Berlin), France
CEREFIGE Research Lab
Email address: Maxime.Koromyslov@icn-artem.com

Abstract

Live-streaming e-commerce, an integration of social media marketing and e-commerce, is a new type of business model but quick prevailing all over the world. With the emergence of the COVID-19 pandemic, luxury companies have had to focus on livestreaming, despite concerns about the possible negative impact on their brand image. The aim of this study was to ascertain whether live-streaming e-commerce can boost purchase intent. Despite all expectations, the study failed to demonstrate the positive impact of live-streaming e-commerce on customer's purchase intention for luxury goods.

Key Words: Luxury, purchase intention, livestreaming

Track Choice: Luxury Goods Marketing

1. Introduction

Since 2016, live-streaming e-commerce has been emerging in China and it became extremely popular during the period of the COVID-19 pandemic. The people were fascinated in this new form of e-commerce, as the customers can interact live with other customers and even their favorite blogger, while the blogger provides the goods at a good price, always at a very good discount. Like other emerging social media platform, the audience felt quite interested and viewed the live-streaming e-commerce as a leisure activity. Considering its potential market capacity, almost every company in China starts its marketing campaign via livestream (Lin et al.,2021). Live-streaming platform combines multiple media forms, such as text, image, and video, and has emerged as a unique form of social media (Hu et al., 2017). In 2020, the COVID-19 pandemic has influenced the global market. People have had to stay at home and use social media applications to contact their friends and colleagues. Brands are aware of people's infatuation with social media activities and are increasingly capitalising on their use of social networking sites (Statista, 2017; Weismueller, 2020). To attract customers' attention at home, live e-commerce is increasingly used. In China, live e-commerce relies on the social media platform (WeChat) and digital commerce websites such as Taobao, Douyin, Kwai, Red and Pingduoduo. These superApps are widely used by Chinese millennials. Meanwhile, people are spending more time on the internet, increasing from 5,6 hours in March 2019 to 7,8 hours in March 2023 on a daily basis (QuestMobile, 2023). Inspired by growing prevalence trends and financial stress, luxury companies are trying to go digital. The role of live-streamers is becoming increasingly important.

Table 1.　　Definition

Celebrity	A celebrity is someone who has achieved significant recognition in traditional media, such as film, television, music, or sports.
Influencer	An influencer is an individual who has built a strong online presence on social media platforms.
Live streamers	A live streamer is an individual who broadcasts real-time video content through online streaming platforms.

In March 2020, Louis Vuitton carried out its first online livestreaming on RED. In August 2020, Bottega Veneta invited the famous live-streamer Austin Li Jiaqi to promote and sell its "Cabat" bag on Taobao Livestreaming (Hu, 2020). Unlike other influencers, they tend to have a more persuasive buying power and the customer can complete the purchase simply by clicking on the links on the livestream page. Normally, the link is to an e-commerce site, such as Tmall or Jingdong (the two biggest e-commerce giants). The customer can quickly purchase the goods via Alipay or WeChat Pay, and sometimes Alipay or WeChat offers an interest-free facility (from 3 to 24 months). Celebrities and influencers aren't the only ones taking part in the live event, with senior officials also joining in this new economic activity to promote local agricultural products.

However, there is a growing doubt that live-streaming is a good business option. Fake trade volume and return requests have discouraged the brand from investing in live marketing (Liu et al., 2023). But at the same time, we note that the company wants live e-commerce to boost purchases during the live streaming phase.

To date, no effort has been made to systematically review and synthesise existing studies on the marketing potential of live streaming for luxury brands, so this research helps to answer the following question: **does live-streaming e-commerce lead to successful purchase intention?** It should be noted that in our paper luxury products do not include cosmetics, as their absolute value is not high enough. Therefore, the luxury categories refer to leather bags and jewellery, with a value of more than 1,500 euros (12,000 RMB) for each item.

2. Literature review

Considering the live-streaming is a new type of business, it is interesting for researchers to investigate the potential antecedents and outcomes in terms of marketing. Live-streaming promotes authenticity, visualization and interactivity in online shopping. Huang et al. (2019) report that perceived trust in mass media has more remarkable effects in predicting purchase intention of functional products in China. A negative interaction between trust and mass information will lead the customer to resist the recommendation (Chen et al., 2017). Therefore, trust in the live-streamers is a key element to drive the transaction (Abubakar et al, 2016). Based on the previous observations, it is assumed that consumers weight the value of luxury items based on social, personal, and functional features. Consumers purchase luxury brands for the exchange of value consistent with the amount spent or for the value that satisfies their needs and wants (Kuo et al., 2009). In view of the above, further research is needed to determine whether trust in livesteaming ecommerce can enhance the purchase intention. Therefore, we propose H1: perceived trust can create positive social value; H2: perceived trust can create positive personal value; H3: perceived trust can create positive functional value.

In addition, perceived value will create positive purchase satisfaction (Eggert and Ulaga, 2002; Zhao et a, 2022). Perceived value was considered as a cognitive variable, while customer satisfaction was considered as an affective variable. Therefore, we add and test H4 (social value leads to positive online shopping satisfaction), H5 (personal value leads to positive online shopping satisfaction) and H6 (functional value leads to positive online shopping satisfaction).

Recent studies (Rose et al.,2012; Vivek et al.,2002; Zhao et al.,2020) have adopted and further developed Eggert and Ulaga's model (2002). Based on this model, purchase intention and word-of-mouth were considered as conative variables. Further research has improved this model by including different antecedents. For example, Rose et al. (2012) find evidence of linear relationships between satisfaction and purchase intention

in the e-commerce environment. El-Adly (2019) further indicates that meeting demand of customer value can favor the positive purchase intention. Therefore, we formulate two hypotheses: online purchase satisfaction will have a positive impact either on purchase intention (H7) or on word-of-mouth (H8). On the other hand, Yan proved that online customers recommend their shopping environment when buying goods online (Yan et al, 2016), therefore we place a hypothesis H9 to test whether the same is true in the luxury industry.

Fig.1.   Conceptual model
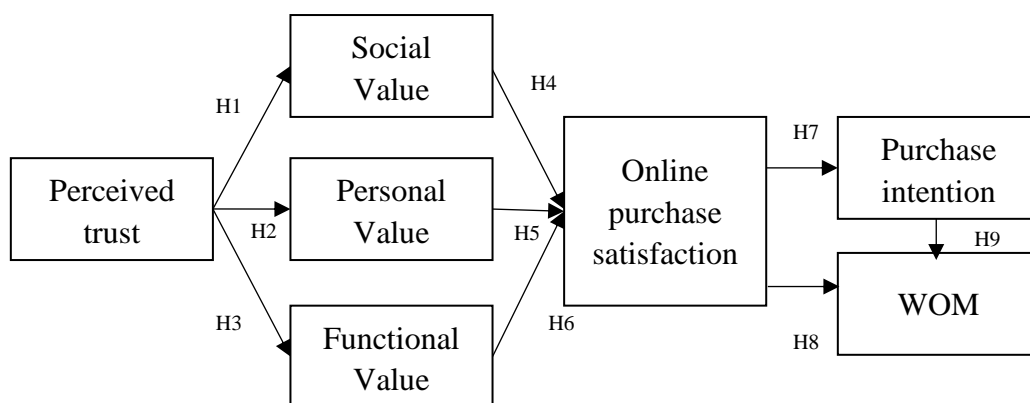
3.   Empirical study

Methods and analysis: This research was conducted in September 2020 during the COVID-19 pandemic. In this context and to avoid unnecessary social interaction, online distribution methods were adopted as part of this research. We used the partial least squares method (PLS) which is considered suitable for the early stages of theory development (Tsang 2002, p.841). PLS-SEM, also known as variance-based SEM, was developed by to offer a structural equation modelling approach with greater flexibility compared to the covariance-based structural equation model (Jöreskog et al, 1982; Rose et al., 2012). PLS-SEM is useful at the initial stage of model development (Rose et al., 2012), particularly at the current stage of live-streaming e-commerce research without full recognition of the relationships between variables.

Samples: We designed the questionnaires and distributed them to over 400 people via WJX.cn, which is the most famous online survey tool in China. Many scholars use this tool when they conduct the similar research in China (Hu, 2017; Zhao et al, 2020). WJX rely on its online system tool to find the most suitable respondents and avoid the data selection bias. Only respondents who completed the questionnaire for more than 90 seconds are recorded in this sample. 318 people were successfully registered in our database.

Table 2.   Respondents' characteristics (n=318)

		Percentage			Percentage
Gender	Male	46.4%	Previous luxury purchase	Yes	56.08%
	Female	53.6%		No	43.92%
Region	Affluent areas	60.55%	Future luxury intention	Yes	62.03%
	Non affluent areas	39.45%		No	37.97%
Pop star fans	Yes	61.04%	Internet luxury purchase intention	Yes	61.04%
	No	38.96%		No	38.96%

Design: We adopted the 5-point Likert scale in Table 3. We listed the adapted scale and the scale references. To avoid respondents' impatience, we encouraged them to complete the questionnaire accurately by offering incentives (less than 2 yuan for each effective questionnaire).

Table 3.   Questionnaire

Construct	Adapted Scale
Trust (Abubakar and Ilkan, 2016)	TR1: Internet shopping is reliable. TR2: In general, I can rely on Internet vendors to keep the promises that they make. TR3: Internet shopping can be trusted, there are no uncertainties.
Social Value (Kuo et al., 2009)	SV1: Owning luxury goods indicates a symbol of achievement. SV2: Owning luxury goods indicates a symbol of wealth. SV3: Owning luxury goods indicates a symbol of prestige. SV4.: Luxury goods are important to me because they make me feel that acceptable in my work circle. SV5: I purchase luxury goods to gain/increase social status.
Personal Value (Kuo et al., 2009)	PV1: Purchasing luxury goods increase my happiness. PV2: It sometimes bothers me quite a bit that I can't afford to buy all the luxury goods I want. PV3: While shopping for luxury goods, I feel the excitement of the hunt. PV4: When shopping for luxury goods, I am able to forget my problems.
Functional Value (Kuo et al., 2009)	FV1: I like to own new luxury goods before others do. FV2: I believe luxury goods are of superior quality. FV3: In my mind, the higher price charged by luxury goods indicate higher quality. FV4. I always have to pay a bit more for the best

	PS1: I am satisfied with my overall experiences of Internet shopping.
Online purchase satisfaction (Eggert and Ulaga, 2002)	PS2: I am satisfied with the pre-purchase experience of Internet shopping websites
	PS3: I am satisfied with the purchase experience of Internet shopping websites
	PS4: I am satisfied with the post-purchase experience of Internet shopping websites
Purchase intention (Zhao et al., 2020)	PI1: I have strong possibility to purchase luxury items.
	PI2: I'm likely to purchase luxury items.
Word-of-Mouth (Chen et al., 2017)	WOM1: I would recommend the luxury items to my friends and relatives.
	WOM2: If my friends were looking for a new item, I would tell them to try the luxury items I have used.

Results: The explanatory power (R^2) of the predictor variables was between 0.56 and 0.87, indicating a high percentage of variance explained (R2 figures above 0.65 are considered high, Chin, 1998). The Cronbach's alpha of all the scales exceeds 0.9, indicating excellent internal consistency (George and Mallery, 2003). Composite reliability is greater than 0.8, implying good reliability (Bacon et al., 1995).

Table 4.   The validity and reliability

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Functional Value	0.908	1.035	0.922	0.749
Perceived Trust	0.905	0.937	0.933	0.776
Personal Value	0.902	0.942	0.93	0.77
Purchase intention	0.909	0.945	0.935	0.781
Satisfaction	0.909	1.168	0.929	0.766
Social Value	0.923	0.039	0.882	0.604
WOM	0.916	1.089	0.937	0.79

Table 5 illustrates the correlation between the scales. We discover that few strong correlations exist in any cross-relationships. It indicates that the live stream doesn't leave strong image to the customers.

Table 5.　Correlation of scale

	Functional Value	Perceived Trust	Personal Value	Purchase intention	Satisfaction	Social Value	WOM
Functional Value	0.87						
Perceived Trust	-0.04	0.88					
Personal Value	0.01	0.07	0.88				
Purchase intention	-0.01	0.03	-0.06	0.88			
Satisfaction	0.04	-0.06	0.06	0.01	0.88		
Social Value	-0.09	-0.04	-0.05	-0.02	-0.02	0.78	
WOM	0.08	0.02	0.012	-0.05	-0.04	-0.05	0.89

The results are rather surprising, as all nine hypotheses were not confirmed (as shown in table 6). Not all hypotheses are supported at either the 1% or 5% significance level. Trust in livestreaming cannot create added value for luxury products; moreover, this online experience cannot have other consequences (e.g. satisfaction, intention and WOM) in the luxury purchase experience.

Table 6.　Results of the hypothesis test

	Hypothesis	T-test		
		T-Stat	P Values	Result
H1	Perceived Trust -> Social Value	0.35	0.73	Not supported
H2	Perceived Trust -> Personal Value	1.53	0.13	Not supported
H3	Perceived Trust -> Functional Value	0.53	0.60	Not supported
H4	Social Value -> Satisfaction	0.73	0.47	Not supported
H5	Personal Value -> Satisfaction	0.80	0.43	Not supported
H6	Functional Value -> Satisfaction	0.64	0.53	Not supported
H7	Satisfaction -> Purchase intention	0.1	0.86	Not supported
H8	Satisfaction -> WOM	0.56	0.58	Not supported
H9	Purchase intention -> WOM	0.97	0.34	Not supported

(P.S: It should be mentioned that the experiment was performed twice. Both results indicate that none of the hypotheses mentioned were confirmed).

4. Conclusion

Theoretical implications

This research makes a timely contribution to the current research field. Firstly, current research only focuses on the endorsement effect of celebrities in the luxury

industry (Weismueller et al., 2020). Research has shown that meaning transfer can be achieved in social media, but the same issue has never been explored in relation to the livestreaming sector. The theoretical contribution of this research is to provide a conceptual model for the livestreaming sector. Secondly, the marketing effect of social media is complex, as the   live-streamers' image is frequently exposed. Therefore, we need to examine the combined effect of live streamers and social media marketing. Current trends suggest that live streamers not only endorse products, but also act as salespeople to encourage customers to buy products directly from the brand. However, as livestreaming is considered a point of sale in China, this research has been fruitful in providing a model to explain whether this approach is well suited to luxury brands. Given that the service provided to consumers is an integral part of the premium price charged for luxury products, it is essential to know whether livestreaming can stimulate customers' desire to visit offline shops.

Managerial implications

Firstly, we found limited evidence supporting the claim that live streamers stimulate positive purchase intention. This study failed to prove that live-streaming e-commerce can provide any benefit for luxury companies. This suggests that luxury companies should not consider all digital tools. Luxury brands should be cautious about adopting any new tool until it has proven effective in retaining existing customers and attracting the attention of new customers. Secondly, recent news reflects how the livestreaming e-commerce industry suffers from the problem of fake data, which can be used to mislead the customers by describing very high business activity and volumes. For luxury companies, it is vital to maintain the image of the brand, and trust is an important step in its sustainable development. Thirdly, although travel overseas is still restricted, luxury consumption in mainland China (excluding Hong Kong, Macau and Taiwan) has increased abnormally. As a result, the luxury sector is under intense pressure to use new marketing tools to increase sales volumes and capture potential customers. Appropriate streamers should be nominated to endorse the brand. Ethics investigation is needed before the decision of the live streamers' endorsement. In December 2021, WEI Ya, one of China's top two live streamers, was charged 1.3 billion RMB (roughly 150 million Euros) for tax evasion. She has entirely disappeared from the online market and no longer endorse any brand. Soon after she was charged, dozens of brands have announced the endorsement dismission.

Limitations and future research avenues

It is assumed that consumers with different income levels will have different perceptions of luxury values (i.e., social value, personal value, and functional value) and behaviours (i.e., social media WOM engagement) (Park et al., 2021). However, we only considered the livestream effect on the client themselves, thus neglecting the power of Word of Mouth (WOM) and consumer engagement. Nowadays, WOM communication on social media is the most persuasive information source online (Abubakar and Ilkan, 2016), which has led to significant changes in consumer

behaviours (Gomez-Suarez et al., 2017). Consumer engagement, a vital component of relationship marketing, refers to the level of consumer participation and connection with a firm's offerings or activities (Vivek et al., 2012; Wongkitrungrueng and Assarut, 2018). The question of whether and how customer engagement has a potential impact on customer decision making needs to be considered in future research.

References

Abubakar, A.M., Ilkan, M., 2016. Impact of online WOM on destination trust and intention to travel: a medical tourism perspective. JDMM 5, 192–201. https://doi.org/10.1016/j.jdmm.2015.12.005.

Bacon, D. R., Sauer, P. L., & Young, M. (1995). Composite Reliability in Structural Equations Modeling. Educational and Psychological Measurement, 55(3), 394–406. doi:10.1177/0013164495055003003

Chen, X., Zhang, X., Wu, Z., Wang, H. W., Wang, G. H., & Li, W. (2017). Opinion evolution in different social acquaintance networks. Chaos, 27(11), 113111.

Chin, W.W., 1998. The partial least squares approach for structural equation modelling In: Marcoulides, G.A. (Ed.), Modern Methods for Business Research. Lawrence Erlbaum Associates Publishers, Mahwah, NJ, pp. 295–358.

Eggert, A., & Ulaga, W. (2002). Customer perceived value: a substitute for satisfaction in business markets? Journal of Business & Industrial Marketing, 17(2/3), 107–118. doi:10.1108/08858620210419754

El-Adly, M. I. . (2019). Modelling the relationship between hotel perceived value, customer satisfaction, and customer loyalty. Journal of Retailing and Consumer Services, 50.

George, D., & Mallery, P. (2003). SPSS for Windows step by step: A simple guide and reference. 11.0 update (4th ed.). Boston: Allyn & Bacon.

Hu, M., & Chaudhry, S. S. (2020). Enhancing consumer engagement in e-commerce live streaming via relational bonds. Internet Research, 30(3), 1019–1041. doi:10.1108/intr-03-2019-0082

Hu, M., Zhang, M. and Wang, Y. (2017), "Why do audiences choose to keep watching on live video streaming platforms? An explanation of dual identification framework", Computers in Human Behavior, Vol. 75, pp. 594-606.

Huang, L., Bai, L., & Gong, S. (2019). The effects of carrier, benefit, and perceived trust in information channel on functional food purchase intention among Chinese consumers. Food Quality and Preference, 103854. doi:10.1016/j.foodqual.2019.103854

Jöreskog, Karl G. and Herman Wold (1982), "The ML and PLS Techniques for Modeling with Latent Variables: Historical and Comparative Aspects," in Systems under Indirect Observation: Causality, Structure, Prediction, Part1, Jöreskog K. G. and Wold H., eds. Amsterdam: New Holland.

Kuo, Y. F., Wu, C. M. , & Deng, W. J. . (2009). The relationships among service quality, perceived value, customer satisfaction, and post-purchase intention in mobile value-added services. Computers in Human Behavior, 25(4), 887-896.

Lin, G. Y. , Wang, Y. S. , Wang, Y. M. , & Lee, M. H. . (2021). What drives people's intention toward live stream broadcasting. Online Information Review

Liu, Z. , Jiang, X. , Zhu, P. , Li, X. , & Zhu, M. X. . (2023). The influences of livestreaming on?online purchase intention: examining platform characteristics and consumer psychology. Industrial Management & Data Systems, 123(3), 862-885.

Park, H. J., & Lin, L. M. (2020). The effects of match-ups on the consumer attitudes toward internet live streamers and their live streaming contents in the context of product endorsement. Journal of Retailing and Consumer Services, 52, 101934. doi:10.1016/j.jretconser.2019.101934

QuestMobile. 10.76 亿用户每月花 64 小时看视频 [EB/OL]. [2023-7-1]. https://baijiahao.baidu.com/s?id=1771105706938081265&wfr=spider&for=pc.

Rose, S., Clark, M., Samouel, P., Hair, N., 2012. Online customer experience in e-retailing: an empirical model of antecedents and outcomes. J. Retail. 88 (2), 308–322.

Statista (2017). Number of Global Social Media Users 2010- 2021 . Available at: https://www.statista.com/statistics/278414/ number- of- worldwide- social-network- users/ (Accessed: 10 August 2018).

Tsang, Eric (2002), "Acquiring Knowledge by Foreign Partners from International Joint Ventures in a Transition Economy: Learning-by doing and Learning Myopia," Strategic Management Journal, 23 (9), 835–54.

Vivek, S.D., Beatty, S.E. and Morgan, R.M. (2012), "Customer engagement: exploring customer relationships beyond purchase", Journal of Marketing Theory and Practice, Vol. 20 No. 2, pp. 122-146.

Weismueller, J. , Harrigan, P. , Wang, S. , & Soutar, G. N. . (2020). Influencer endorsements: how advertising disclosure and source credibility affect consumer purchase intention on social media. Australasian Marketing Journal (AMJ).

Wongkitrungrueng, A. and Assarut, N. (2018), "The role of live streaming in building consumer trust and engagement with social commerce sellers", Journal of Business Research, doi: 10.1016/j.jbusres.2018.08.032.

Yan Q , Wu S , Wang L , et al. E-wom from e-commerce websites and social media: which will consumers adopt?[J]. Electronic Commerce Research and Applications, 2016:S1567422316300175.

Zhao, S., Fang, Y., Zhang, W., & Jiang, H. (2020). Trust, Perceived Benefit, and Purchase Intention in C2C E-Commerce. Journal of Global Information Management, 28(1), 121–141.