

Factors Affecting Customer Online Purchasing Intention in Live Streaming Marketing Context

Tawfeeq Mohammed Alanazi¹

Abstract

The current research is concerned with exploring some of the factors influencing customer online purchasing intention in live streaming marketing arena. Using an online questionnaire to gather research data from a convenience sample consisted of 260 participants, three hypotheses were tested via IBM SPSS 25.0 and Smart PLS 3.0 software. The results pointed out that customer online purchasing intention is significantly and positively affected by customer perceptions, online purchasing stimuli, and marketing mix elements. Hence, it was concluded that lifting customer intention could be attained through considering factors related to customers such as their perceptions about product quality, internal and external factors in marketing environment such as chat rooms and online interactions, as well as marketing mix elements like equitable prices and discounts as well as broadcaster knowledge of the product. The research contributes to the literature on live streaming marketing through filling a considerable gap in emerging economies and instructs managers to develop their own strategy of live streaming to enhance sales as a result of adopting digital marketing applications.

Keywords: *Live streaming marketing, customer online purchasing intention, customer perceptions, online purchasing stimuli, marketing mix elements.*

1. Introduction

Social media platforms are key tools to stimulate brands and work together with customers. Live streaming has been viewed as one of the most advantageous online shopping strategies. Generally, the literature on live streaming marketing is divided into two main streams, which are motivations of customer involvement in live video streaming and the impact of live video streaming on customer behavior (Zhang et al., 2020). The current study belongs to the second stream of live streaming marketing literature as it investigates the factors that influence customer purchasing intention in live streaming context. The contribution of this research is that it fills a considerable gap in the literature on the impact of live streaming marketing strategy on customer online purchasing intention. It was acknowledged that research on such a relationship is still narrow (Zhang et al., 2020). Therefore, there is a need to find a broad thoughtful of live streaming marketing strategy through considering the factors that affect its impact on customer purchasing intention. Live streaming marketing (LSM) as a marketing strategy goes together with substantial benefits such as direct communications between broadcaster-customer and customer-customer to explain products (Wongsunopparat & Deng, 2021; Clement-Addo et al., 2021). An important outcome of using LSM tools is

¹ Associate professor, Marketing Department, Faculty of Business Administration, University of Tabuk, Saudi Arabia, tawfeeqmohammad697@yahoo.com

that it boosts customer purchasing intention (Zhang et al., 2020) upon which companies can predict customer purchasing actual behavior (Lakhan et al., 2021). However, some factors should be considered to achieve sufficient prediction of customer online purchasing intention including customer perceptions (Song et al., 2022), online purchasing stimuli (Huang and Suo, 2021), marketing mix elements (Apasrawirote and Yawised, 2022; Ho et al., 2022), streamer attractiveness, social interaction, information quality (Xu et al., 2020), customer immersion as a construct affected by characteristics like informativity and interactivity (Lv et al., 2022), customer attitudes and satisfaction (Hua & Nuangjamnong, 2021), website and product characteristics, variety seeking, and social influence (Zahari et al., 2021) as well as purchase and cognitive demand, and customer engagement (Liu et al., 2023). For the current research paper, three factors as whole constructs were chosen to investigate their effects on customer online purchasing intention in LSM environment. It represents an initial step for exploring such factors through developing a model based on empirical findings. Building such a model reflects an enriches LSM literature as it reports the crucial factors influencing customer online purchasing intention in line with digital marketing efforts. Both academics and managers benefit from the empirical results about how to direct customer behavior. Scholars can reinvestigate the current effects and more potential pivotal factors and managers can lay the foundation for marketing strategy success.

2. Literature review and hypotheses development

2.1 Live streaming marketing (LSM)

LSM is used interchangeably with several terms such as live video streaming (LVS) and live streaming shopping (LSS). Such terms refer to a marketing strategy in which retailers or broadcasters and customers are interacted through real-time videos (Zhang et al., 2020; Ho et al., 2022). Hence, LSM can be defined as using real-time broadcasts to promote sales through creating an active interaction virtual environment in which broadcasters and customers are simultaneously interacted. For Clement-Addo et al. (2021), live streaming represents a collaborative situation in which watchers and streamers as well watchers and watchers are simultaneously interacted. One of the most advantages of LSM is that it induces customer behavioral intentions due to its basic features like real-time communications and profound interactions and straightforward scenario assistances (Zhang et al., 2020). Such an advantage is constructed on the basis of LSM features like explaining products to customers, direct interactions with customers (Wongsunopparat & Deng, 2021). Examples of live streaming video platforms include Facebook live, Instagram live and YouTube live by which users can broadcast and share live videos from digital devices to their followers (Gilbert, 2019).

2.2 Customer online purchasing intention (COPI)

In social media context, CPI refers to customer inclination to purchase a product using social media tools (Zhang et al., 2021). COPI has been defined as a component of customer cognitive behavior about how a customer intends to purchase a specific product (Clement-Addo et al., 2021). From Ajzen's 1985 theory of planned actions perspective, a person's behavioral intention refers to the motivational factors that drive his or her actions resulting in performing and expressing actual actions (Apasrawirote & Yawised, 2022). According to Lakhan et al. (2021), customers' purchase intention can be used to predict customers' actual purchase behavior. In fact, COPI under LSM is affected as reported in the literature by numerous factors including the factors that highlighted in the following sections.

2.3 Factors influencing COPI in LSM context

LSM embodies a significant stimulus on customer purchasing intention due to reasons such as LSM dynamic information, i.e., sight, sound, and motion on products upon which

customers can rely to assess products, in addition to the interaction opportunity between current customers, e-retailers and other customers during watching live videos on specific products, which means that LSM provides concurrent live videos and chatrooms (Zhang et al., 2020). Live streaming e-commerce has been regarded as a marketing model that utilize live streaming to show, endorse and retail products to customers (Wongsunopparat & Deng, 2021). Reviewing the literature on the factors influencing customer purchasing intention in live streaming marketing revealed numerous factors. These factors can be categorized into four sets, which are customer perceptions, online purchasing stimuli, marketing mix elements, and live streaming quality. The potential effects of these factors on customer purchase intention are emphasized in the following sections.

Customer perceptions and customer purchasing intention

Customer perceptions in customer behavior research refer to a customer internal cognitive state. In line with SOR theory (stimulus-organism-response), a customer behavior as a response is affected by his or her internal cognitive state as an organism (Song et al., 2022). Such perceptions symbolize how a customer feels towards a product in terms of his or her social and psychological traits, attitudes and motivations, as well as previous shopping experiences. Customer perceptions characterize antecedent factors of customer perceived value which in turn affects customer behavioral intention and customer online purchasing intention (Apasrawirote & Yawised, 2022). Components of customer perception include customer perceived value of a product or a service (Song et al., 2022). Customer perceived value has been conceptualized in terms of customer perceived utility, customer perceived trust, (Song et al., 2022), customer functional value, customer emotional value (Lakhan et al., 2021) and customer perceived uncertainty (Zhang et al., 2020). Concerning the impact of customers' perceptions on their intention to purchase products, a study by Zhang et al. (2020) found that customer psychological distance and perceived uncertainty have pivotal effects of customer decision making behavior. Moreover, the results of Song et al. (2022) pointed out significant effects of customer perceived functional and emotional values on customer purchase intentions. Measuring customer perceptions as a construct of customer perceived functional value such as product quality, customer perceived trust, and customer emotional value, the current study seeks to test the next hypothesis:

H1: Customer perceptions positively affect customer online purchase intention.

Online purchasing stimuli and customer purchasing intention

In customer behavior literature, many scholars used SOR (stimulus-organism-response) theory to investigate customers' purchasing intentions. Zhang et al. (2021) considered the effect of stimuli (external and internal stimuli) on customer purchasing intention through the mediating roles of customer attitudes towards online influences and the advertising products. Similarly, Huang and Suo (2021) applied SOR framework to examine customer buying decision in LSM context using stimuli (price promotion, perceive opportunity cost, product promotion time, customer-customer interaction, customer-streamer interaction, and visual appeal), organism (perceived risk), and response (buying decision) and found that all stimuli factors have significant effects on customer buying decision as well as perceived risk significantly mediated the effect of these factors on customer buying decision. Song et al. (2022) regarded a customer behavioral intention as a response of his or her internal cognitive state and found that purchase stimuli have significant effects on customer purchase intention. For Dong et al. (2022), live streaming e-commerce quality have significant effects on customer trust, which in turn shows a significant effect on customer purchasing intention. In order to explore the effects of online purchasing stimuli on customer purchase intention as perceived by the current participants, the following hypothesis was suggested:

H2: Online purchasing stimuli positively affect customer online purchase intention.

Marketing mix elements

Ho et al. (2022) explored the effect of seven marketing mix elements (product, price, promotion, placement, process, people, and physical evidence) on customer purchasing intention through customer watch intention and found that three marketing mix elements (promotion, placement, and physical evidence) have significant effects on customer purchase intention and the effect of the seven marketing mix on customer purchasing intention is significantly mediated by customer watching intention. For Apasrawirote and Yawised (2022), marketing mix plays a significant role in triggering customer online purchasing intention through its positive impact on customer perceived value of products offered through live streaming marketing. Apasrawirote and Yawised (2022) indicated that the effect of marketing mix is emerged due to high quality products and services, payment methods, and equitable pricing. On the other side, studying the factors affecting customer purchasing intention in live streaming e-commerce, Wongsunopparat and Deng (2021) found that some elements such as price, promotion, interaction, and image of live streamer have no significant effects on customer purchase intention. In order to explore the effects of marketing mix elements on customer online purchase intention in LSM context from perceptions of the current participants, the following hypothesis was introduced:

H3: Marketing mix elements positively affect customer online purchase intention.

3. Research methodology

3.1 Research sample and data collection

A convenience sample of online participants was utilized to collect research data in Sudi Arabia. They were asked about their perceptions on products quality, product utility, customer excitement, and trust, external and internal purchasing drivers, marketing mix elements, and customer online purchasing intentions. Two hundred and seventy-three responses were collected, out of them 13 responses were excluded as outliers, which means that the final total number of valid responses was 260. Such responses were gathered using a question designed as a 5-point Likert scale in which 1 refers to “strongly disagree”, 2 “disagree”, 3 “neutral”, 4 “agree” and 5 “strongly agree”. The scale as shown in the next section consists of 19 items.

3.2 Research measures

The current research contains four variables: three independent variables (customer perceptions, online purchasing stimuli, and marketing mix elements) and on dependent variable (customer online purchase intention). The measures that have been utilized to assess these variables are shown in Table 1. Such measures were developed based on previous related works (Lakhan et al., 2021; Song et al., 2022; Zhang et al., 2021; Dong et al., 2022; Ho et al., 2022; Wongsunopparat & Deng, 2021; Apasrawirote and Yawised, 2022).

Table 1. Research measures

Factors	Items	Sources
Customer perceptions	Products on live streaming have high quality. Products live streaming fulfill intended utilities. Excitement while watching product live streaming videos Trust others' opinions and actions in product live streaming videos	Lakhan et al. (2021); Song et al. (2022).
Online purchasing stimuli	Personality and appearance of online influencer Relevance, timeliness and accuracy of online content Enjoyable atmosphere of purchasing virtual environment	Zhang et al. (2021); Dong et al. (2022); Hou et al.

(Internal & external stimuli)	Live chatting to encourage online interactions Quality of live streaming like timely responses to customer questions Products fit customer self-image	(2020).
Marketing mix elements	Products have good prices and high quality Relevance prices with discounts Sufficient information on skills for using products Easy and quick purchases Broadcaster knowledge of the product Thorough clear demonstrations	Ho et al. (2022); Wongsunopparat & Deng (2021); Apasrawirote and Yawised (2022).
Customer online purchase intention	Keeping LSM in mind in purchasing process Intention to use LSM more often in the future Desire of LSM to other purchasing methods	Ho et al. (2022)

3.3 Research theoretical model

The theoretical model of the current research as shown in Figure 1 indicates that customer online purchase intention is linked to three factors with hypothesized effects. The figure demonstrates connections between three exogenous factors (customer perceptions, online purchasing stimuli, and marketing mix elements) and on endogenous variable (customer online purchase intention).

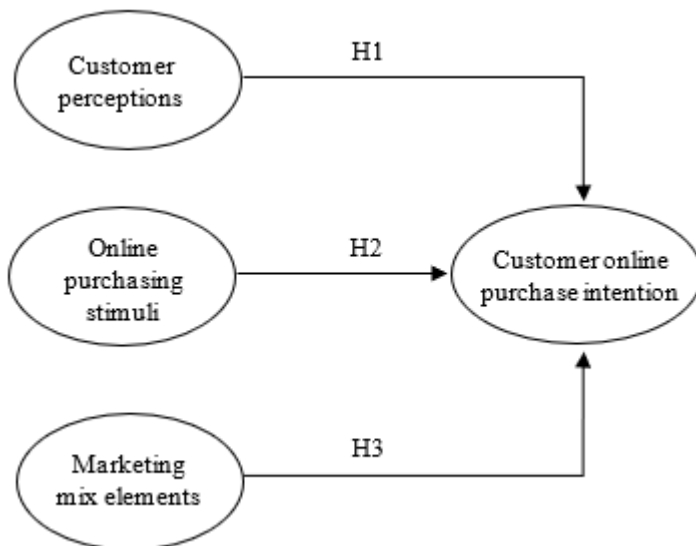


Figure 1. Research theoretical model

4. Data analysis and results

4.1 Reliability and validity

Convergent validity was tested based on items' factor loadings. As a rule of thumb, values of factor loadings should be higher than 0.50 (Zhang et al., 2020; Wu & Huang, 2023). On the other hand, reliability was verified using Cronbach's alpha coefficient (α) and composite reliability (CR). The values of both alpha coefficients and CR should be higher than 0.70. The results of reliability and validity as displayed in Table 2 confirm that reliability measures show acceptable values as Cronbach's alpha coefficients and composite reliability values are higher than 0.70: customer perception ($\alpha = 0.80$, CR = 0.87), online purchasing stimuli ($\alpha = 0.84$, CR = 0.88), marketing mix elements ($\alpha = 0.87$, CR = 0.90), and customer online purchase intention ($\alpha = 0.80$, CR = 0.88). Values of factor loadings are above 0.70: customer perceptions (0.771-0.817), online purchasing

stimuli (0.702-0.811), marketing mix elements (0.749-0.801), and customer online purchase intention (0.821-0.879). The values of AVE are greater than 0.50: customer perception (AVE = 0.63), online purchasing stimuli (AVE = 0.56), marketing mix elements (AVE = 0.61), and customer online purchase intention (AVE = 0.71).

Table 2. Results of reliability and validity

Factors and items	Factor loadings	AVE	CR	α
Customer perceptions	0.771-0.817			
CP1	0.768			
CP2	0.805	0.625	0.869	0.802
CP3	0.771			
CP4	0.817			
Online purchasing stimuli	0.702-0.811			
PS1	0.734			
PS2	0.798			
PS3	0.757	0.562	0.884	0.843
PS4	0.702			
PS5	0.811			
PS6	0.781			
Marketing mix elements	0.749-0.801			
MM1	0.801			
MM2	0.749			
MM3	0.777	0.605	0.902	0.869
MM4	0.774			
MM5	0.776			
MM6	0.788			
Customer purchasing intention	0.821-0.879			
PI1	0.825	0.710	0.880	0.795
PI2	0.879			
PI3	0.821			

4.2 Descriptive statistics and correlations

Descriptive statistics as extracted by means and standard deviations were computed as shown in Table 3. It can be noted that the degree of customer perceptions is high (M = 3.68, SD = 0.81), the degree of online purchasing stimuli is moderate (M = 3.60, SD = 0.74), the degree of marketing mix elements is moderate (M = 3.49, SD = 0.89), and the degree of customer online purchasing intention is high (M = 3.76, SD = 0.76). All these variables are positively correlated with correlation coefficients ranging from 0.640 to 0.741. Correlations between independent variables signify that the current data is free of multicollinearity problem.

Table 3. Descriptive statistics and correlations

Research variables	M	SD	(1)	(2)	(3)	(4)
(1) Customer perceptions	3.68	0.81	-			
(2) Online purchasing stimuli	3.60	0.74	0.692**	-		
(3) Marketing mix elements	3.49	0.89	0.640**	0.701**	-	
(4) Customer online purchasing intention	3.76	0.76	0.670**	0.734**	0.742**	-

4.3 Model fit

Model fit was tested using Stone-Geiser's (Q²), the effect size (f²), determination coefficient (R²). Q² is a measure of the model's predictive power and its threshold value should be higher than zero (Hair et al., 2011), f² value shows a low effect of independent variable on the dependent variable when (f² = 0.02), medium effect (f² = 0.15), and strong effect (f² = 0.35), and R² value represents a low explaining power (R² = 0.19), a medium explaining power (R² = 0.33), and a strong explaining power (R² = 0.67). The results of model fit indicate that the current model is accepted in terms of its goodness of fit to test the proposed hypotheses. Stone-Geiser's value of the model as extracted using Blindfolding feature in Smart-PLS 3.0 software is 0.463, which is higher than zero. The effect size of customer perceptions on customer online purchasing intention is low (f² = 0.058), which is higher than 0.02 and less than 0.15, the effect size of online purchasing stimuli on customer online purchasing intention is low (f² = 0.130), and the effect size of marketing mix elements on customer online purchasing intention is medium to strong (f² = 0.183). In terms of the explaining power as measured by R², the results showed that the three influencing factors explain about 66% of the variance in customer online purchasing intention (R² = 0.663) meaning that the explaining power of the model is relatively strong.

4.4 Research structural model

Hypotheses testing as shown in Figure 2 indicated that the three independent variables have positive significant effects on customer online purchasing intention.

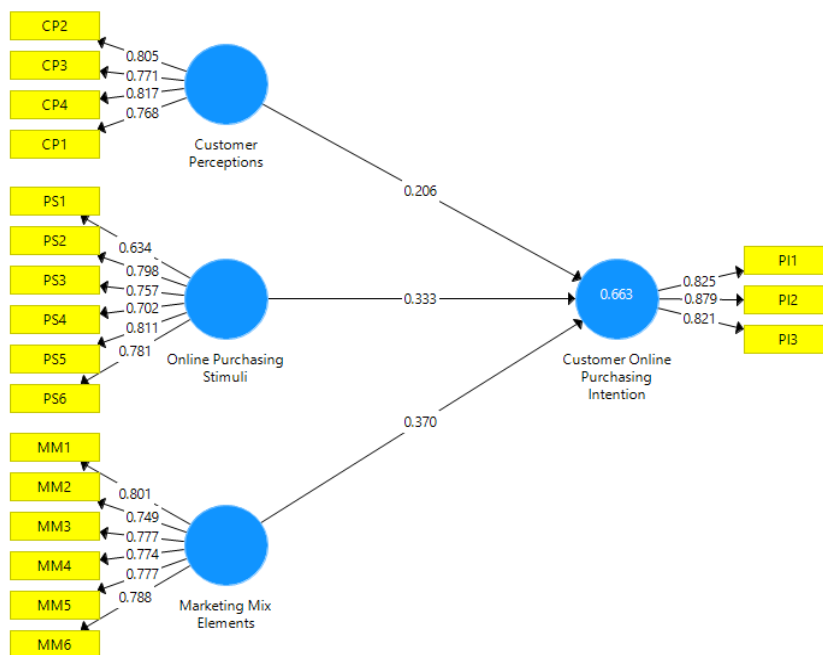


Figure 2. Research structural model

In detail, Table 4 shows that customer perceptions had a significant effect on customer online purchasing intention ($\beta = 0.21$, T-value = 3.07, P-value = 0.002). Online purchasing stimuli had a significant effect on customer online purchasing intention ($\beta = 0.33$, T-value = 4.90, P-value = 0.000), marketing mix elements had a significant effect on customer online purchasing intention ($\beta = 0.37$, T-value = 5.54, P-value = 0.000). The results of hypotheses testing as shown in Table 4 indicate that the three hypothesized effects of the independent variables (IVs); customer perceptions, online purchasing stimuli, and marketing mix elements on the dependent variable (DV); customer online purchasing intention (COPI) were supported. It can be noted that the effect of marketing

mix elements on COPI is the largest one followed by the effect of online purchasing stimuli and then the effect of customer perceptions.

Table 4. Results of hypotheses testing

IVs	Path	DV	β	T-value	P-value	Result
Customer perceptions	→	COPI	0.206	3.072	0.002	Accepted
Online purchasing stimuli	→	COPI	0.333	4.895	0.000	Accepted
Marketing mix elements	→	COPI	0.370	5.536	0.000	Accepted

5. Discussion and conclusion

The aim of this research is to investigate factors affecting customer online purchase intention using three potential exogenous factors, which are customer perceptions, online purchasing stimuli, and marketing mix elements. Therefore, three hypotheses were developed based on the literature. The first hypothesis (H1) assumes that customer perceptions are significantly related to customer online purchase intention. The current results in line with previous works (e.g., Zhang et al., 2020; Lakhan et al., 2021; Song et al., 2022; Apasrawirote & Yawised, 2022) showed that H1 is supported. Logically, this result asserts that customer online purchase intention is a function of customer perceptions about product quality, product utility, as well as customer excitement, and trust. The second hypothesis (H2) postulated that online purchasing stimuli such as price promotion, perceive opportunity cost, product promotion time, customer-customer interaction, customer-streamer interaction, and visual appeal as a whole construct has a significant effect on customer online purchase intention. Such a hypothesis was supported based on the current data as echoed in previous studies (e.g., Zhang et al., 2021; Huang and Suo, 2021; Song et al., 2022; Dong et al., 2022). Furthermore, the results indicated that the third hypothesis (H3), which assumed that marketing mix elements in terms of products' price and quality, sufficient information on using products, easy and quick purchasing process, broadcaster knowledge of products, and clear demonstrations in live streaming videos have as a whole construct a significant effect on customer online purchase intention. Similar findings were reported in the literature regarding the significant effects of promotion, placement, and physical evidence (Ho et al., 2022), high quality products and services, payment methods, and equitable pricing (Apasrawirote and Yawised, 2022), and price, promotion, interaction, and image of live streamer (Wongsunopparat and Deng, 2021) on customer purchase intention. Based on these results, it was established that customer online purchase intention in live streaming marketing is affected by numerous factors related to customer perceptions, internal and external stimuli, as well as marketing mix elements, which means that exploring customer purchase intention can be carried out through considering these critical factors upon which the actual customer purchasing behavior can be encouraged.

6. Implications and limitations

In theoretical terms, the current study contributes to the literature through exploring factors influencing customer purchasing intention in live streaming marketing environment as few studies were carried out to achieve such an aim. Moreover, the study constructs a theoretical model for factors that affects customer purchasing intention in live streaming marketing context. This model consists of three exogenous factors, which are customer perceptions, online purchase stimuli, and marketing mix elements. In managerial terms, the results of the current research inspire companies to consider live

streaming marketing and develop their own strategies to advance their sales as such a trend in marketing arena help them to develop active simultaneous communication with customer and sell their products in line with new digital advancements. Besides, this study attests that the effect of live streaming marketing on customer purchasing intention is subject to numerous factors related to customer perceptions, online purchase stimuli, and marketing mix elements; therefore, companies should consider these factors to ensure a positive customer purchase intention. Despite the importance of the current findings, this research is still limited as it considers some factors based on participants' subjective perceptions, i.e., the perceived effects of these factors on purchase intention. Future research should consider a participant's experience in purchasing products via live streaming channels as well as use actual measures such as order counts on live streaming pages to assess customer online purchase intention. Likewise, the effects of participants' demographic characteristics were not reflected in the current research, which leaves a room for investigating the moderating roles of some characteristics like customer gender, age and education in the relationship between independent factors and customer online purchasing intention. Additionally, scholars are required to examine the mediating parts of some variables such as live streaming quality.

References

- Apasrawirote, D. and Yawised, K. (2022). Factors influencing the behavioral and purchase intention on live-streaming shopping. *Asian Journal of Business Research*, 12(1), 39-56.
- Clement-Addo, P., Fang, J., Asare, A. O. and Kulbo, N. B. (2021). Customer engagement and purchase intention in live-streaming digital marketing platforms: The Service Industries Journal, 41(11-12), 767-786.
- Dong, X., Zhao, H. and Li, T. (2022). The role of live-streaming e-commerce on consumers' purchasing intention regarding green agricultural products. *Sustainability*, 14(7), 4374.
- Gilbert, M. A. (2019). Strengthening your social media marketing with live streaming video. In *Smart Technologies and Innovation for a Sustainable Future: Proceedings of the 1st American University in the Emirates International Research Conference-Dubai, UAE 2017* (pp. 357-365). Cham: Springer International Publishing.
- Hair, J. F., Ringle, C. M. and Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing theory and Practice*, 19(2), 139-152.
- Ho, C. I., Liu, Y. and Chen, M. C. (2022). Factors influencing watching and purchase intentions on live streaming platforms: From a 7Ps marketing mix perspective. *Information*, 13(5), 239.
- Hou, F., Guan, Z., Li, B. and Chong, A. Y. L. (2020). Factors influencing people's continuous watching intention and consumption intention in live streaming: Evidence from China. *Internet Research*, 30(1), 141-163.
- Hua, J. H. and Nuangjamnong, C. (2021). Influencing factors of consumer behavior thru online streaming shopping in entertaining marketing. *Graduate School of Business and Advanced Technology Management*, 2, 1-14.
- Huang, Y. and Suo, L. (2021). Factors affecting Chinese consumers' impulse buying decision of live streaming E-commerce. *Asian Social Science*, 17(5), 16-32.
- Lakhan, G. R., Ullah, M., Channa, A., Abbas, M. and Khan, M. A. (2021). Factors effecting consumer purchase intention: live streaming commerce. *Psychology and Education*, 58(5), 601-611.
- Liu, C., Sun, K. and Liu, L. (2023). The Formation and transformation mechanisms of deep consumer Engagement and purchase behavior in e-commerce live streaming. *Sustainability*, 15(7), 5754.
- Lv, X., Zhang, R., Su, Y. and Yang, Y. (2022). Exploring how live streaming affects immediate buying behavior and continuous watching intention: A multi-group analysis. *Journal of Travel & Tourism Marketing*, 39(1), 109-135.

- Song, Z., Liu, C. and Shi, R. (2022). How do fresh live broadcast impact consumers' purchase intention? based on the SOR Theory. *Sustainability*, 14(21), 14382.
- Wongsunopparat, S. and Deng, B. (2021). Factors influencing purchase decision of Chinese consumer under live streaming E-commerce model. *Journal of Small Business and Entrepreneurship*, 9(2), 1-15.
- Wu, Y. and Huang, H. (2023). Influence of perceived value on consumers' continuous purchase intention in live-streaming e-commerce mediated by consumer trust. *Sustainability*, 15(5), 4432.
- Xu, X., Wu, J. H. and Li, Q. (2020). What drives consumer shopping behavior in live streaming commerce? *Journal of electronic commerce research*, 21(3), 144-167.
- Zahari, N. H. M., Azmi, N. N. N., Kamar, W. N. I. W. A. and Othman, M. S. (2021). Impact of live streaming on social media on impulse buying. *Asian Journal of Behavioural Sciences*, 3(1), 13-23.
- Zhang, M., Qin, F., Wang, G. A. and Luo, C. (2020). The impact of live video streaming on online purchase intention. *The Service industries journal*, 40(9-10), 656-681.
- Zhang, P., Chao, C. W. F., Aljaroodi, H. M. and Chiong, R. (2021). Live stream influencer marketing on consumers' offline purchase intention: A quantitative study. *The Pacific Asia Conference on Information Systems (PACIS) at AIS Electronic Library (AISeL)* (p. 111).