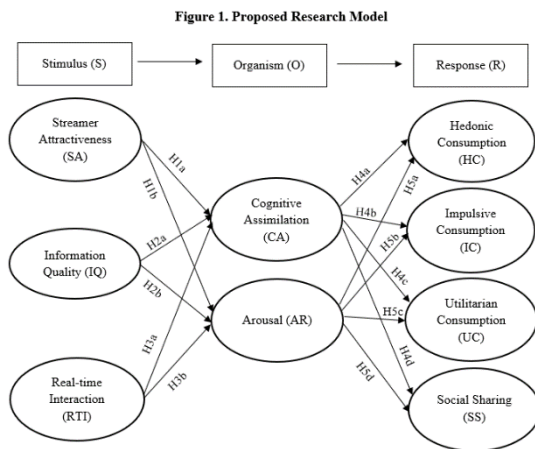


Live streaming ecommerce is transforming apparel shopping: a study of U.S. consumers

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Introduction and Literature Review. In recent years, live streaming, a new function to broadcast video and sound of an event over the internet as it happens, has become very popular on social media (Wongkitrungrueng & Assarut, 2020). An increasing number of retailers and brands such as Amazon, Nordstrom, American Eagle Outfitters have started exploring live streaming function to promote and sell goods or services. Live streaming ecommerce is emerging as the new growth phenomenon within the ecommerce. Undoubtedly, live streaming ecommerce brings a lot of opportunities to the market compared to traditional ecommerce. Streamers can interact with viewers, quickly respond to their questions, and acquire information in real time. These unique features help engage consumers in the live event and enhance their trust in and willingness to buy products (Chen & Chi, 2021; Xu, Wu, & Li, 2020). While there is a great amount of background research on the beginning and evolution of live streaming ecommerce, particularly about the recent success of live streaming ecommerce in Asian countries such as China, South Korea, India, there is a lack of studies that help understand how live streaming ecommerce affects the U.S. consumers' apparel shopping behaviors. Therefore, this study aimed to identify the key factors influencing the U.S. consumers' responses toward apparel live streaming ecommerce. Specifically, the objectives of this research were fourfold. First, building on the Stimulus-Organism-Response (S-O-R) framework, an enhanced SOR research model for live streaming ecommerce is proposed. Second, the psychometric properties of the proposed research model are examined using the primary data collected by an online survey. Third, the statistical relationships between the constructs in the proposed model are determined. The findings can help understand the drivers and barriers for the growth of apparel live streaming ecommerce in the U.S. Finally, some implications were provided for academia and industrial practitioners. Figure 1 illustrates the developed model with the proposed hypotheses.



Methodology. The sale for streamer attractiveness (SA) was adapted from Ha & Lam (2017). The sale for information quality (IQ) was adapted from Chen & Chang (2018) and Dong et al. (2014). The scale for real-time interaction (RTI) was adapted from Etemad-Sajadi (2016). The scales for cognitive assimilation (CA), arousal (AR), hedonic consumption (HC), impulsive consumption (IC) were adapted from Xu, Wu, & Li (2020). The scale for utilitarian consumption (UC) was adapted from Ma (2021). The scale for social sharing (SS) was adapted from Galbreth et al. (2012) and Godey et al. (2016). A five-point Likert scale was applied for all

adapted scales. The demographic variables including gender, age, education level and income level were included as control factors. The primary data were collected by a Qualtrics survey of U.S. consumers. 357 eligible responses were gathered for data analysis and hypothesis testing. Unidimensionality, reliability, and validity of the investigated constructs were first tested for proving model adequacy. The statistical assumptions including normality, multicollinearity, and correlations were examined. Multiple regression method was applied for determining the proposed statistical relationships (hypotheses) using SPSS 27.

Findings, Discussion and Conclusions. Table 1 presents the testing results of all the hypotheses. 13 of 14 hypotheses were statically significant at a $p < 0.05$ level and only H4b was insignificant. Streamer attractiveness, information quality, and real-time interaction all significantly affect the

Table 1. Results of Hypothesis Testing

Hyp.	DV	IDV	Std. Coef. (β)	t-value	Sig. at $p < .05$	Control variable	Std. Coef. (β)	t-value	Sig. at $p < .05$	Total R^2	Sig. at $p < .05$
	CA	Constant		1.795	.074	Age	.004	.090	.928		
H1a	Y	SA	.155	2.910	.004	Gender	-.013	-.324	.746	.438	<.000
H2a	Y	IQ	.170	2.995	.003	Education	.100	2.362	.019		$F = 38.84$
H3a	Y	RTI	.440	7.939	.000	Income	.001	.035	.972		(7/349)
	AR	Constant		2.175	.030	Age	-.027	-.641	.522		<.000
H1b	Y	SA	.156	2.828	.005	Gender	-.042	-.979	.328	.404	$F = 33.78$
H2b	Y	IQ	.213	4.040	.000	Education	.087	1.991	.047		(7/349)
H3b	Y	RTI	.359	6.296	.000	Income	.018	.409	.682		
	HC	Constant		4.750	.000	Age	.084	2.271	.024		<.000
H4a	Y	CA	.308	6.843	.000	Gender	-.059	-1.580	.115	.534	$F = 66.82$
H5a	Y	AR	.481	10.681	.000	Education	-.066	-1.709	.088		(6/350)
						Income	.060	1.571	.117		
	IC	Constant		2.882	.004	Age	-.072	-1.483	.139		<.000
H4b	N	CA	.066	1.101	.272	Gender	-.019	-.386	.700	.179	$F = 12.68$
H5b	Y	AR	.345	5.764	.000	Education	.137	2.697	.007		(6/350)
						Income	-.015	-.290	.772		
	UC	Constant		6.087	.000	Age	.025	.588	.557	.371	<.000
H4c	Y	CA	.329	6.302	.000	Gender	-.041	-.932	.352		$F = 34.41$
H5c	Y	AR	.350	6.679	.000	Education	-.028	-.624	.533		(6/350)
						Income	-.034	-.769	.443		
	SS	Constant		2.915	.004	Age	-.067	-1.444	.150	.263	<.000
H4d	Y	CA	.115	2.031	.043	Gender	.036	.759	.448		$F = 20.81$
H5d	Y	AR	.426	7.513	.000	Education	.096	2.001	.046		(6/350)
						Income	-.040	-.837	.403		

Note: Hyp = Hypothesis; Y: Hypothesis Supported; N: Hypothesis Not Supported; Std. Coef.=Standardized Coefficients, DV: Dependent variable. IDV: Independent variable; Streamer attractiveness=SA, information quality=IQ, real-time interaction=RTI, cognitive assimilation=CA, arousal=AR, hedonic consumption=HC, utilitarian consumption=UC, impulsive consumption=IC, social sharing=SS.

U.S. consumers' cognitive assimilation and arousal toward apparel live streaming ecommerce. Consequently the U.S. consumers' cognitive assimilation and arousal lead to the significantly positive behaviors toward apparel live streaming ecommerce. The only exception is the U.S. consumers' cognitive assimilation doesn't affect their impulsive consumption. The model shows a good explanatory power. Stimuli including streamer attractiveness, information quality, and real-time interaction account for 43.8% and 40.4% of variances in consumers' cognitive assimilation and arousal respectively. The consumers' cognitive assimilation and arousal account for 53.4%, 17.9%, 37.1% and 26.3% of their responses (i.e., hedonic consumption, impulsive consumption, utilitarian consumption, and social sharing) toward apparel live streaming ecommerce.

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