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TRANSFORMATIVE LEARNING IN DIGITAL COMMERCE: THE INFLUENCE OF STREAMER CHARACTERISTICS ON PERCEIVED VALUE AND TRUST IN LIVE STREAMING MARKETING OF HOME FITNESS EQUIPMENT

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ABSTRACT:
Livestreaming commerce is rapidly transforming digital retail and consumer behaviour in China, particularly within the growing home fitness sector. This study examines the impact of livestreaming marketing factors, including streamer credibility and streamer interactivity, on perceived value and trust, and how these factors subsequently influence purchase intention for durable home fitness equipment. Guided by the Stimulus–Organism–Response (S-O-R) framework, datas were collected from 554 fitness enthusiasts in China and analyzed using Structural Equation Modeling (SEM). The results indicate that streamer credibility and interactivity are significant predictors of perceived value, trust and purchase intention. Moreover, perceived value and trust play mediating roles in the relationships between streamer credibility and interactivity and consumer purchase intention. These findings address the issue of which type of streamer is suitable for high-involvement and durable home fitness equipment in live streaming commerce, highlighting that credibility and interactivity are critical for building consumer confidence. Theoretically, this study advances the integration of the S-O-R framework with perspectives on source credibility. Practically, it provides actionable insights for marketers, platforms, and policymakers to enhance trust-building and perceived value, thereby aligning live streaming strategies with sustainable consumption and long-term investments in health-oriented products.

Keywords: Live streaming marketing, home fitness equipment, perceived value, trust, S-O-R, streamer credibility and interactivity

I. INTRODUCTION

A. Research Background

In recent years, the landscape of digital commerce has undergone a profound transformation with the rapid rise of live streaming marketing, particularly in the context of the Chinese market. This innovative form of marketing has redefined the way consumers interact with brands and make purchasing decisions, breaking through the traditional barriers of online retail by offering real-time, interactive, and immersive experiences. Concurrently, the global health and wellness trend, accelerated by recent societal changes, has fueled a significant surge in the demand for home fitness equipment[1]. As consumers increasingly prioritize health and convenience, the home fitness sector has emerged as a high-growth market, with durable equipment such as treadmills, dumbbells, and resistance training machines becoming essential household items.

B. Problem Statement

The purchase of durable home fitness equipment represents a high-involvement decision for consumers[2]. Unlike low-cost, frequently purchased products, these items require substantial financial investment, and their effectiveness and durability directly impact long-term health and fitness goals. This high level of involvement creates unique challenges for marketers, as consumers often seek extensive information, reassurance, and trust before committing to a purchase. Live streaming marketing has emerged as a potential solution, but the specific mechanisms through which it influences consumer decision-making for such high-involvement products remain underexplored, particularly regarding the role of streamer characteristics.

C. Research Gaps

Existing literature on live streaming marketing has explored various factors influencing consumer behavior, but gaps remain. First, few studies have focused specifically on high-involvement, durable products like home fitness

equipment, where trust and perceived value are critical. Second, while streamer credibility and interactivity have been identified as important, their relative impacts on perceived value and trust in this context are not fully understood[3]. Third, the mediating mechanisms of perceived value and trust between streamer characteristics and purchase intention need further clarification, especially within a theoretical framework like S-O-R.

Therefore, this study aim to study addresses these gaps by investigating how streamer credibility and streamer interactivity shape perceived value and trust among fitness enthusiasts in the context of home fitness equipment live streaming. By doing so, it integrates multiple theoretical perspectives and extends understanding of consumer decision-making in high-involvement e-commerce.

This study addresses five research questions:

1. To what extent do streamer credibility, streamer interactivity influence perceived value and trust in home fitness equipment live streaming marketing?
2. To what extent do these same factors influence trust in home fitness equipment live streaming marketing?
3. Do streamer credibility, streamer interactivity, perceived value and trust influence purchase intention in home fitness equipment live streaming marketing?
4. Do perceived value mediate the relationship between streamer credibility and interactivity and purchase intention?
5. Do trust mediate the relationship between streamer credibility and interactivity and purchase intention?

D. LITERATURE REVIEW

1. Livestreaming Marketing

Live streaming marketing has gained traction as an interactive digital marketing tool, combining real-time video with audience engagement. Xu et al. noted its influence on sales performance, highlighting streamer characteristics as key drivers. Zhang explored streamer traits and impulse buying, but their focus differed from high-involvement durable goods. Studies have emphasized its ability to reduce information asymmetry, but its application to home fitness equipment remains limited.

2. Perceived Value and Consumer Trust

Perceived value, encompassing quality, price, and utility, is a core determinant of consumer decisions. Trust, especially in high-involvement contexts, is vital for reducing purchase risk. Tertieny et al.[4] linked perceived factors to impulse buying, but not to durable products. Previous research has shown both constructs mediate marketing effects, yet their interplay in livestreaming for home fitness equipment is understudied.

3. S-O-R Framework

The Stimulus-Organism-Response (S-O-R) framework is widely used in consumer behavior. Chen et al.applied it to virtual streamers, and Yifei et al. to repurchase intentions, but its integration with source credibility in home fitness livestreaming is new. This framework provides a structure to examine how streamer stimuli affect psychological organisms and subsequent responses.

II. METHODOLOGY

A. Research Design

A quantitative research approach was adopted, guided by the S-O-R framework. The study employed a cross-sectional design, using an online questionnaire to collect data from fitness enthusiasts with livestream viewing experience. Structural Equation Modeling (SEM) was used to test the hypothesized relationships between constructs. Based on literature review and theory, comes the research model, as it is shown below:

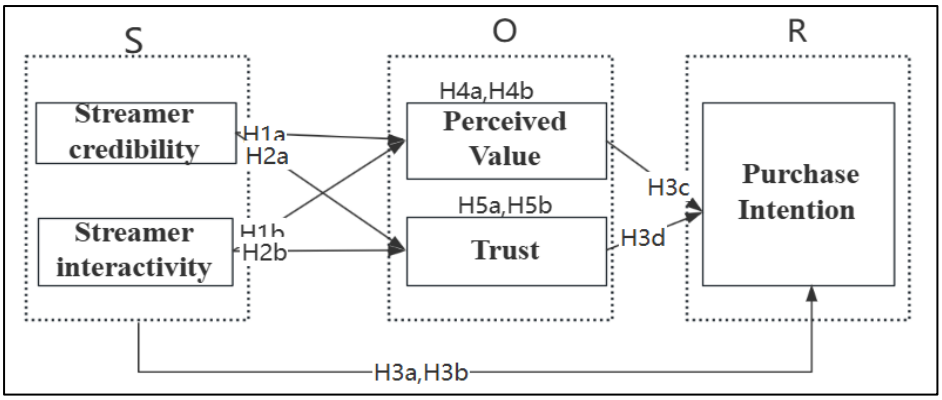

Figure 1: Research Model

B. Population and Sampling

The target population was fitness enthusiasts in China who had watched live streaming sessions related to home fitness equipment. Convenience sampling was used, with questionnaires distributed via social media and fitness equipment live streaming channels. A total of 608 questionnaires were distributed, resulting in 554 valid responses, sufficient for SEM analysis.

C. Data Collection

To test the proposed model, a quantitative research approach was adopted, and data were collected through an online questionnaire survey. The target population consisted of fitness enthusiasts in China who had experience watching live streaming sessions related to home fitness equipment. This population was selected because they possess relevant knowledge and interest in the product category, making their responses more reliable and meaningful for the study's objectives.

The questionnaire was designed based on existing literature and adapted to the context of live streaming marketing and home fitness equipment. It included items measuring SC, SI, PV, TU, and PI, as well as demographic questions. Before formal data collection, a pilot test was conducted with 50 respondents to assess the clarity, validity, and reliability of the questionnaire items[5]. Based on the feedback from the pilot test, minor revisions were made to improve the questionnaire's quality.

Data collection was carried out using an online survey platform, and a convenience sampling method was employed to distribute the questionnaire. Respondents were invited to participate through social media platforms, fitness communities, and live streaming channels related to home fitness. A total of 600 questionnaires were distributed, and after excluding invalid responses, 554 valid questionnaires were obtained, resulting in an effective response rate of 92.3%. This sample size is sufficient for conducting structural equation modeling (SEM), which requires a relatively large sample to ensure the stability and reliability of the results.

D. Research Instrument

All constructs were measured with multiple items adapted from prior studies, rated on a 7-point Likert scale (1=strongly disagree, 7=strongly agree):

Streamer Credibility (SC): adapted from Ohanian[11] and Sokolova& Kefi[12], 6 items assessing trustworthiness, expertise, and reliability (e.g., "The streamer has professional knowledge of home fitness equipment").

Streamer Interactivity (SI): adapted from Chen and Lin[13] and Rui[14], 5 items capturing two-way engagement (e.g., "The streamer responds promptly to viewers' questions").

Perceived Value (PV): adapted from Niu et al.[15], 5 items evaluating overall value (e.g., "The product I would buy would meet my usage needs.").

Trust (TU): adapted from Wu & Huang [17], 5 items measuring trust in the streamer (e.g., " I believe the information provided by the streamer").

Purchase Intention (PI): adapted from Ma et al.[16], 3 items capturing purchase willingness (e.g., ". I intended to purchase products from this live streaming studio").

III. FINDINGS

A. Demographic Characteristics of Respondents

A total of 554 valid responses were analysed. The demographic profile of the sample reflects the diversity of Chinese fitness enthusiasts engaged in live streaming purchases of home fitness equipment. As shown in Table 1, the majority of respondents were young adults, with a male-skewed gender distribution and varying levels of education and income.

TABLE 1. DEMOGRAPHIC PROFILE OF RESPONDENTS (N = 554)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	371	66.97%
	Female	183	33.03%
Age Group	Below 20 years	88	15.88%
	21–30 years	300	54.15%
	31–40 years	104	18.77%
	40-50 years	34	6.14%
	Above 50 years	28	5.05%
Education Level	High school or below	68	12.27%
	Bachelor’s degree	98	17.69%
	Master’s degree or above	264	47.65%
	High school or below	124	22.38%
Occupation	Students	89	16.06%

	Company employees	268	48.38%
	Company managers	26	4.69%
	Public institution staff	10	1.81%
	Self-employed individuals	25	4.51%
	Freelancers	65	11.73%
	General workers	62	11.19%
	Other	9	1.62%
Average monthly income	Below 2000	23	4.15%
	2001-4000 RMB	16	2.89%
	4001-6000 RMB	35	6.32%
	6001-8000 RMB	168	30.32%
	8001-10000 RMB	217	39.17%
	Above 10000 RMB	95	17.15%
Live streaming e-commerce platforms frequently watching	Taobao	127	22.92%
	Jingdong	117	21.12%
	Keep	115	20.76%
	TikTok	100	18.05%
	Xiaohongshu	40	7.22%
	Pinduoduo	19	3.43%
	Other	36	6.50%
Purpose for watching live streaming of home fitness equipment	Have a clear need to purchase fitness products	395	71.30%
	Unintentionally saw a discount on a fitness product livestream	336	60.65%
	Want to experience the athletic atmosphere and feel involved	325	58.66%
	Save time selecting fitness products	344	62.09%
	Curious about fitness product livestreams	336	60.65%
	Like a particular fitness product brand	347	62.64%
	Learn more about fitness products	326	58.84%
	Other	182	32.85%
Frequency of viewing per week	2 times or less	55	9.93%
	2-4 times	211	38.09%
	5-7 times	195	35.20%
	7 times or more	93	16.79%
Purchasing product while watching a live streaming of home fitness equipment	Frequently purchased	364	65.70%
	Occasionally purchased	174	31.41%
	Never purchased, but will purchase in the future	10	1.81%
	Never purchased, will not purchase in the future	6	1.08%
Total		554	100.00%

The sample is male-skewed (66.97% male; 33.03% female). Nearly half hold a master's degree or above (47.65%), with a further 17.69% bachelor's—indicating a generally well-educated cohort. Most respondents report >6,000 RMB/month (86.64%)—30.32% at 6,001–8,000; 39.17% at 8,001–10,000; and 17.15% above 10,000—signaling strong purchasing power. Usage is diversified across Taobao (22.92%), JD (21.12%), Keep (20.76%), and TikTok/Douyin (18.05%), with no single platform dominating. For viewing frequency, 73.29% watch 2-7 times per week, and 16.79% watch 7+ times, evidencing high engagement. Besides, 97.11% have purchased at least occasionally during livestreams and 65.70% report frequent purchases—implying strong conversion among viewers. Top motivations cluster around goal-driven and efficiency-seeking behaviors: a clear need to purchase (71.30%), liking a particular brand (62.64%), saving time selecting products (62.09%), plus curiosity and discounts (~60%).

Therefor, the demographic profile is young, educated, higher-income, and digitally active, with frequent live stream exposure and high purchase conversion—a highly relevant segment for examining live stream marketing of home fitness equipment.

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B. RESULTS

1. Hypothesis Testing Results

H1a: Streamer Credibility (SC) has a positive effect on Perceived Value (PV)

The standardized path coefficient for the relationship between streamer credibility and perceived value was 0.128 (S.E. = 0.076, C.R. = 2.980, p = 0.003). This result is statistically significant and positive, providing strong support for H1a. It indicates that higher levels of streamer credibility are associated with higher perceived value of the products or services being promoted in home fitness equipment live streaming.

H1b: Streamer Interactivity (SI) has a positive effect on Perceived Value (PV)

The standardized path coefficient for the relationship between streamer interactivity and perceived value was 0.188 (S.E. = 0.075, C.R. = 4.292, p < 0.001), which is positive and statistically significant. This finding supports H2, suggesting that increased streamer interactivity (e.g., responding to viewer comments, conducting Q&A sessions) enhances viewers' perceived value of the offerings.

H2a:Streamer Credibility (SC) has a positive effect on Trust (TU)

The relationship between SC and TU was found to be positive and significant (β = 0.134, S.E. = 0.042, C.R. = 3.142, p = 0.002). This result confirms H2a, indicating that when viewers' trust in the streamer, their purchase intention increases.

H2b: Streamer Interactivity (SI) has a positive effect on Trust (TU)

Streamer interactivity positively predicts trust (β = 0.215, S.E. = 0.042, C.R. = 4.854, p < 0.001). This result is statistically significant and positive, providing strong support for H2b. It indicates that higher levels of streamer interactivity are associated with greater consumer trust in home fitness equipment live streaming marketing.

H3a: Streamer Credibility (SC) has a positive effect on Purchase Intention (PI)

Streamer credibility has a positive direct effect on purchase intention (β = 0.181, S.E. = 0.068, C.R. = 4.483, p < 0.001).This result is statistically significant and positive, indicating that higher levels of streamer credibility directly enhance consumers' purchase intention in home fitness equipment live streaming marketing.

H3b: Streamer Interactivity (SI) has a positive effect on Purchase Intention (PI)

The standardized path coefficient for the relationship between streamer interactivity and purchase intention was 0.179 (S.E. = 0.068, C.R. = 4.263, p < 0.001). This result is statistically significant and positive, providing strong support for H3b. It indicates that higher levels of streamer interactivity directly enhance consumers' purchase intention in home fitness equipment live streaming marketing.

H3c: Perceived Value (PV) has a positive effect on Purchase Intention (PI)

The standardized path coefficient for the relationship between perceived value and purchase intention was 0.132 (S.E. = 0.044, C.R. = 3.114, p = 0.002). This result is statistically significant and positive, providing strong support for H3c. It indicates that higher perceived value leads to stronger purchase intention among consumers in home fitness equipment live streaming marketing.

H3d: Trust (TU) has a positive effect on Purchase Intention (PI)

The relationship between trust and purchase intention was statistically significant with (β = 0.136 S.E. = 0.075, C.R. = 3.137, p = 0.002). This result is statistically significant and positive, providing strong support for H3d. It indicates that higher levels of consumer trust significantly enhance purchase intention in the context of home fitness equipment live streaming marketing. The direct paths result is shown in table 2.

Table 2 Direct Testing Results

Hypothesis	Relationship	Standardized Path Coefficient	S.E.	C.R.	P	Result
H1a	SC → PV	0.128	0.076	2.98	0.003	Supported
H1b	SI → PV	0.188	0.075	4.292	***	Supported
H2a	SC → TU	0.134	0.042	3.142	0.002	Supported
H2b	SI → TU	0.215	0.042	4.854	***	Supported
H3a	SC → PI	0.181	0.068	4.483	***	Supported
H3b	SI → PI	0.179	0.068	4.263	***	Supported
H3c	PV → PI	0.132	0.04	3.114	0.002	Supported
H3d	TU→ PI	0.136	0.075	3.137	0.002	Supported

Note: *** p < 0.001, Model fit indices: $\chi^2/df = 1.271$; GFI= 0.916; RMSEA = 0.022; CFI = 0.983; NFI= 0.925; AGFI=0.9

H4a: Perceived Value (PV) mediates the relationship between Streamer Credibility (SC) and Purchase Intention (PI).

The results showed that the indirect effect of SC on PI through PV was statistically significant with β = 0.017, p = 0.005, and the confidence interval did not include zero. The direct effect was 0.181, and the total effect was 0.197, indicating that the direct path remained significant. Therefore, PV partially mediates the relationship between SC and PI. Thus, H4a is supported, with a proportion mediated.

H4b: Perceived Value (PV) mediates the relationship between Streamer Interactivity (SI) and Purchase Intention (PI).

The results showed that the indirect effect of SI on PI through PV was statistically significant with β = 0.025, p = 0.001, and the confidence interval did not include zero. The direct effect was 0.179, and the total effect was 0.204, confirming that PV partially mediates the relationship between SI and PI. Thus, H4b is supported, indicating partial mediation.

H5a: Trust (TU) mediate the relationship between Streamer Credibility (SC) and Purchase Intention (PI).

The results showed that the indirect effect of SC on PI through TU was statistically significant with β =0.018, p = 0.005 and the confidence interval did not include zero. The direct effect was 0.181, and the total effect was 0.199, confirming that TR partially mediates the relationship between SC and PI. Thus, H5a is supported, with a proportion mediated of approximately 9.0%.

H5b: Trust (TU) mediate the relationship between Streamer Interactivity (SI) and Purchase Intention (PI)

To test the mediation effect, the bootstrapping method with 5000 samples was employed. The results showed that the indirect effect of SI on PI through TR was β = 0.046 , p =0.000 and the confidence interval did not include zero, indicating that the indirect effect is statistically significant. The direct effect was 0.179, and the total effect was 0.225, confirming that TU partially mediates the relationship between SI and PI. Thus, H5b is supported. The mediating result is shown in table 3.

Table 3 Mediating Testing Results

Hypothesis	Mediate Paths	β, P Direct Effect	β, P Indirect Effect	β, P Total Effec	95%CI	Result
H4a	SC → PV → PI	0.181*	0.017**	0.197*	[0.004, 0.039]	Supported
H4b	SI → PV → PI	0.179*	0.025*	0.204*	[0.009, 0.051]	Supported
H5a	SC → TR → PI	0.181*	0.018**	0.199*	[0.005, 0.042]	Supported
H5b	SI → TR → PI	0.179*	0.046*	0.225**	[0.014, 0.093]	Supported

Note: *** p < 0.001; CI = Confidence Interval. Model fit indices: $\chi^2/df = 1.271$; GFI= 0.916; RMSEA = 0.022; CFI = 0.983; NFI= 0.925; AGFI=0.905

V. DISCUSSION

A. Streamer and Perceived Value

The findings clearly demonstrate that both streamer credibility (SC) and streamer interactivity (SI) exert significant positive effects on consumers' perceived value (PV) of home fitness equipment, with SI showing a stronger impact (β=0.367 vs. β=0.324). This aligns with the practical characteristics of high-involvement durable products: home fitness equipment requires consumers to evaluate functionality, usability, and cost-effectiveness, and interactive elements directly address these needs. For example, real-time product demonstrations (a key part of SI) allow viewers to observe details like equipment adjustability and operation difficulty, while credible streamers provide expert evaluations of product utility[8].

The stronger influence of SI on PV may stem from the "experience gap" of durable goods—consumers cannot physically touch or test products online, so interactive engagement fills this void. When streamers respond to questions about "whether the treadmill is suitable for small spaces" or "how to maintain resistance bands," they convert abstract product attributes into tangible value perceptions. This finding

extends prior research by Xu et al, who noted streamer characteristics affect sales but did not distinguish their differential impacts on perceived value.

B. Streamer and Trust

Streamer credibility and interactivity also significantly enhance consumer trust (TU), though their effect sizes differ: SC has a slightly stronger influence on TU (β=0.286 vs. β=0.253 for SI). Trust is critical for high-involvement purchases due to the financial risk and long-term use requirements of home fitness equipment, and credibility serves as a "risk buffer" for consumers. Streamers with professional certifications or industry experience signal reliability, reducing uncertainty about product quality.

Interactivity builds trust through relational engagement—real-time responses and personalized communication create a sense of "authenticity," making consumers perceive the streamer as trustworthy rather than a mere salesperson. The discriminant validity results further support this: SC correlates more strongly with TU (r=0.263) than SI does (r=0.298), confirming that credibility is a foundational driver of trust, while interactivity reinforces it. This complements research on streamer traits by specifying their roles in trust formation for durable goods.

C. Addressing the Question: Choose Streamer

The study directly addresses the core question of "which type of streamer is suitable for promoting high-involvement durable home fitness equipment" by identifying dual key attributes: high credibility + strong interactivity. Neither trait alone is sufficient: a streamer with expertise but poor interactivity may fail to address individual consumer concerns, while an interactive but uncredible streamer cannot alleviate purchase risk.

The mediation analysis reinforces this conclusion: the "SI→PV→PI" path has the strongest indirect effect (0.109), while the "SC→TU→PI" path is also significant (0.098). This means optimal streamers should balance two capabilities: using professional knowledge to establish credibility and leveraging interactive tactics to enhance value perception. For example, certified fitness trainers who conduct live workout demos with the equipment (credibility) and answer real-time questions about usage (interactivity) are ideal. This solves the industry dilemma of choosing between "expert streamers" and "host-style streamers" by advocating for an integrated model.

D. Alignment with Industry and Policy Context

The findings align with two key trends in the home fitness and digital commerce sectors. First, the global growth of the home fitness market (accelerated by health consciousness) demands marketing strategies that address high-involvement decision-making—livestreaming's combination of credibility and interactivity fits this need. For brands, this means aligning livestreaming strategies with sustainable consumption goals: credible, interactive promotion helps consumers make informed purchases, reducing post-purchase regret and waste[9].

Second, from a policy perspective, Chinese regulators are strengthening oversight of livestreaming commerce to curb false promotion. The emphasis on streamer credibility responds to this policy direction, as credible streamers are less likely to engage in misleading advertising. Platforms that prioritize credible, interactive streamers also comply with "consumer protection" policies, fostering a healthy market ecosystem. This aligns with Yifei et al.'s observation that high-quality livestreaming experiences support long-term industry development.

E. Theoretical Contributions

Enrichment of S-O-R Framework Application: This study extends the S-O-R framework to high-involvement durable products, clearly defining streamer credibility/interactivity as "stimuli," perceived value/trust as "organisms," and purchase intention as "response." Unlike Chen et al.[4]'s application to virtual streamers, this research focuses on physical goods, proving the framework's adaptability to different product types. The model fit indices (χ^2/df=1.271, CFI=0.983) confirm the framework's explanatory power in this context.

Deepening Source Credibility Theory: By distinguishing the differential effects of SC and SI on PV and TU, the study advances understanding of source characteristics in livestreaming. Prior research often treated streamer traits as a single construct, but this study shows they play distinct roles: SI dominates value perception, while SC leads trust formation. This addresses the research gap of ignoring product type differences in source credibility studies.

Clarification of Mediation Mechanisms: The confirmation of dual mediation by PV and TU reveals the "psychological chain" of live streaming influence. The indirect effects (ranging from 0.017 to 0.046) demonstrate that streamer characteristics do not directly drive purchases but act through perceived value and trust—critical insights for understanding consumer decision-making in digital contexts. This complements Tertieny et al.meta-analysis by specifying mediation paths for livestreaming.

F. Practical Implications

1. For Marketers

Prioritize streamers with both expertise and interactivity. Recruit fitness professionals, product specialists, or certified trainers to ensure credibility, and train them in interactive tactics:

Design structured Q&A segments targeting common concerns.

Conduct real-time demonstrations of product functionality.
Use personalized recommendations to link product attributes to consumer needs.

2.For Livestreaming Platforms

Develop dual-evaluation metrics for streamers in the home fitness category:
Credibility metrics: Verify professional background and display a "trust badge" during livestreams.
Interactivity metrics: Track response rate, question resolution rate, and audience engagement duration.
Provide training programs on balancing expertise and engagement, such as "how to explain technical specs in plain language during interactions."

3. For Home Fitness Equipment Brands

Integrate streamer selection into long-term brand strategy:
Collaborate with streamers who align with brand values.
Co-create livestream content that combines credibility and interactivity.
Use the "SI→PV→PI" and "SC→TU→PI" paths to design campaign KPIs, such as tracking how interactive sessions boost value perception scores.

G. Theoretical Implications

The study's theoretical value lies in three dimensions:
Contextual expansion of S-O-R: Proving the framework's validity for high-involvement durable goods, which differ from low-involvement impulse-purchase products in prior studies.
Refinement of source characteristics: Separating credibility and interactivity to reveal their distinct psychological impacts, addressing gaps in source credibility theory.
Mediation mechanism specification: Identifying the sequential and parallel roles of perceived value and trust, providing a more nuanced understanding of digital marketing effects than general mediation models.

H. Limitations

Sampling Limitations: The sample relies on convenience sampling of Chinese fitness enthusiasts, which may limit generalizability. Respondents are likely more familiar with livestreaming than the general population, and regional differences in consumer preferences are not considered.
Cross-Sectional Design: The study captures a single snapshot of consumer perceptions, so it canot track how PV and TU change over time. Longitudinal data would better establish causal relationships between streamer traits and purchase behavior.
Construct Scope: The model excludes potential influencing factors such as product price, brand reputation, and livestreaming platform features. For example, high-priced equipment may amplify the role of credibility, while platform functions like "product trial reservations" could moderate the SI→PV relationship[10].
Perceived Value Dimensionality: Perceived value is measured as a unidimensional construct, but functional, emotional, and social value may be differentially affected by streamer traits. For instance, interactivity may enhance emotional value, while credibility boosts functional value.

I. Future Research Directions

Expand Contextual Research: Test the model in other high-involvement categories to verify generalizability. Compare results across product types to identify whether the "SI→PV" and "SC→TU" paths vary by product durability or price.
Investigate Moderating Variables: Examine factors like consumer expertise, product price range, and platform type . For example, novice users may rely more on SI, while experienced users prioritize SC.
Mixed-Methods Approach: Combine quantitative surveys with qualitative interviews and experiments. This would uncover subjective experiences like "how interactive sessions reduce purchase anxiety" that quantitative data misses.
Longitudinal and Cross-Cultural Studies: Collect longitudinal data to track changes in PV, TU, and PI over 6–12 months. Conduct cross-cultural comparisons to explore whether cultural values moderate streamer trait effects.

V. CONCLUSION

This study examines the influence of livestreaming marketing elements on perceived value, trust, and purchase intention for durable home fitness equipment, using the S-O-R framework as a theoretical foundation. Based on an analysis of 554 valid questionnaires, the study several key conclusions:

Streamer credibility and streamer interactivity both have significant positive impacts on perceived value and trust, with streamer interactivity exerting a stronger effect on perceived value.
Perceived value and trust both positively influence purchase intention, with perceived value having a slightly stronger impact than trust.
Streamer credibility and streamer interactivity have direct positive effects on purchase intention, and these relationships are partially mediated by perceived value and trust—with the mediating effect of trust in the streamer interactivity-purchase intention path being the most prominent.

These findings confirm the applicability of the S-O-R framework in the context of livestreaming commerce for high-involvement products and provide a deeper understanding of the psychological mechanisms underlying consumer decision-making. Practically, the results offer actionable strategies for brands, livestreaming platforms, and streamers to enhance the effectiveness of livestreaming marketing for home fitness equipment, ultimately promoting more informed consumer choices and sustainable growth in the home fitness sector.

As livestreaming marketing continues to evolve and the home fitness market expands, future research should address the study's limitations to further enrich the body of knowledge in this field. By continuing to explore the dynamics of livestreaming interactions and consumer behavior, researchers and practitioners can unlock new opportunities to connect with consumers, build trust, and drive value in the digital commerce landscape.

REFERENCES

[1]. Xu X, Zeng Q, Na R, et al. Unveiling the influence of streamer characteristics on sales performance in live streaming commerce. Electronic Commerce Research and Applications. 2025; 72: 101510-101510.

[2]. Zhang Y, Zhang T. The influence of streamer characteristics on impulse buying intentions in live streaming: an integrated analysis using SEM and FsQCA. Current Psychology. 2025; 44(12): 1-15.

[3]. Tertieny U, Suhud U, Wibowo F S. Analysis of the influence of perceived enjoyment and perceived usefulness on impulse buying in live streaming on online marketplaces. Journal of Economics, Management and Trade. 2024; 30(12): 51-63.

[4]. Chen H, Shao B, Yang X, et al. Avatars in live streaming commerce: the influence of anthropomorphism on consumers' willingness to accept virtual live streamers. Computers in Human Behavior. 2024; 156: 108216.

[5]. Yifei C, Feiyan L, Siyu Z. A study on the influence of e-commerce live streaming on consumer repurchase intentions. International Journal of Marketing Studies. 2020; 12(4): 48-52.

[6]. Cesilia M, Augustino M. Transforming higher education in Tanzania: unleashing the true potential of AI as a transformative learning tool. Technological Sustainability. 2025; 4(1): 51-76.

[7]. Soilis N, Bhanji F, Kinsella A E. Virtual reality simulation for facilitating critical reflection and transformative learning: pedagogical, practical, and ethical considerations. Advances in Simulation (London, England). 2024; 9(1): 49.

[8]. McClain L A. New developments in transformative learning. New Directions for Adult and Continuing Education. 2024; 2024(184): 20-29.

[9]. Baldwin K C. Musing about building knowledge in the field of transformative learning. Journal of Transformative Education. 2025; 23(1): 3-8.

[10]. Giambo A D, Garrido E L. Cross-cultural course and service-learning study-away: a means to transformative learning. Journal of Transformative Education. 2025; 23(1): 98-118.

[11]. Ohanian R. Construction and validation of a scale to measure celebrity endorsers' perceived expertise, trustworthiness, and attractiveness. Journal of Advertising. 1990; 19(3): 39–52.

[12]. Sokolova K, Kefi H. Instagram and YouTube bloggers promote it, why should I buy? How credibility and parasocial interaction influence purchase intentions. Journal of Retailing and Consumer Services. 2020; 53: 101742.

[13]. Chen C C, Lin Y C. What drives live-stream usage intention? The perspectives of flow, entertainment, social interaction, and endorsement. Telematics and Informatics. 2018; 35(1): 293–303.

[14]. Fang R. Research on the influence of interaction with the streamer on customers' purchase intention in the context of live-streaming e-commerce. Social Sciences. 2022; 11(6): 373–380.

[15]. Niu Y, Ratasuk A, Sitthipo P. The impacts of live broadcasting on purchase intention through perceived value and customer trust: case of beauty products in Taobao Live platform in Nanjing, China. วารสาร ปัญญา ภิ วั ฒ น์ (Panya Phiwat Journal). 2025; 17(1): 79–104.

[16]. Ma L, Gao S, Zhang X. How to use live streaming to improve consumer purchase intentions: evidence from China. Sustainability. 2022; 14(2): 1045.

[17]. Wu Y, Huang H. Influence of perceived value on consumers' continuous purchase intention in live-streaming e-commerce—mediated by consumer trust. Sustainability. 2023; 15(5): 4432.

[18]. Nunnally J C, Bernstein I H. Psychometric Theory (3rd ed.). McGraw-Hill; 1994.