

Consumer psychological traits, live-streaming interactivity, and product display techniques: Basis for virtual shopper retention framework for live streaming platforms

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Abstract

The study explores the relationship between consumer psychological traits, live-streaming interactivity, and product display techniques to develop a virtual shopper retention framework for live streaming platforms in China. By examining these factors, the study contributes to a deeper understanding of the key elements that drive shopper retention in a dynamic and competitive digital marketplace. The descriptive design provides a solid foundation for exploring the complex relationships between consumer psychological traits, live-streaming interactivity, and product display techniques in the context of live streaming platforms. It allows for an in-depth analysis of the current state of these variables. The study employed a survey questionnaire as the data-gathering tool, which allowed for statistical analysis to identify significant relationships and trends, offering valuable insights into these variables. A sample of 409 respondents was selected for the study. The analysis revealed that consumer psychological traits, such as empathy, trust, and engagement, along with live-streaming interactivity factors like ease of navigation, chatroom participation, and reaction usage, significantly influence shopper retention. Furthermore, product display techniques, including the effectiveness of video demonstrations, visibility of user testimonials, and attractiveness of presentation style, were also found to play a crucial role. Due to the non-normal distribution of the data, as indicated by the Shapiro-Wilk Test (p -values < 0.05), Spearman's rho was used to test the significant relationships among these variables. A significant relationship was found among consumer psychological traits, live-streaming interactivity, and product display techniques. By providing a comprehensive understanding of the factors influencing shopper retention on live streaming platforms in China, the study can contribute to the growth and competitiveness of the e-commerce sector and inform evidence-based strategies for virtual shopper retention.

Keywords: consumer psychological traits, live-streaming interactivity, product display techniques, virtual shopper retention, live-streaming platforms

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1. Introduction

In recent years, China's livestreaming e-commerce industry has developed rapidly, exhibiting strong market vitality. From the number of platforms, workforce, participating industries, product categories, live broadcasts to sales amounts, the overall trend shows rapid growth. According to the 52nd Statistical Report on China's Internet Development (CNNIC, 2023), national online retail sales reached 7.16 trillion yuan as of June 2023, a 13.1% year-on-year increase. The number of online shoppers was 884 million, accounting for 82.0% of internet users, an increase of 38.8 million from December 2022. IRUI Research predicts China's livestreaming e-commerce market will reach 4.9 trillion yuan in 2023, with a 35.2% year-on-year growth rate and an 18.0% CAGR from 2024 to 2026, entering a refined development stage (IRUI CONSULTANT, 2024).

Live streaming has not only driven consumer spending but has also become essential for businesses of various scales (Putri, 2024), offering a highly interactive and dynamic platform. This innovative form of shopping frequently leads to impulsive buying behavior driven by strong emotional responses (Li et al., 2024). According to Li et al. (2024), this novel type of shopping frequently induces widespread instances of emotional, impulse buying behavior, which involves immediate purchases prompted by intense emotional reactions. Moreover, livestreaming e-commerce brings together media consumption and real-time interactions, creating unique shopping experiences through real-time engagement (Luo et al., 2020). Live-streaming has created new opportunities for e-commerce development. With the growth of social media platforms, live streaming has become a key tool to directly involve consumers through integrating shopping with social interaction (Ting et al., 2021). This 'live social shopping' has integrated live streaming, sociality, and electronic commerce to form a model for marketing that encourages consumer engagement such as never before (Xue et al., 2020). Big platforms like Taobao, Pinduoduo, and TikTok engage in livestreaming sales. Live streaming enables customers to become aware of products through anchor descriptions and consumer interaction and facilitates well-informed decision-making while purchasing. Merchants can demonstrate products, processes, quality, and other information visually, promoting communication to understand consumer intentions. Live-streaming websites act as a connection bridge for live broadcasting, presenting the viewer with feelings of community for the event through real-time communication technologies (Chen et al., 2018). The emergence of live stream commerce is rapidly growing to be an international phenomenon that enables firms to connect with customers in an instant, giving it an interactive shopping experience compared to typical e-commerce sites (Wang et al., 2022).

As many small traders have now adopted live-streaming platforms such as Facebook Live to sell their products in real time, real-time interaction is now central to their success (Wongkitrungrueng et al., 2020). Such interaction assists in encouraging good consumer interaction, which is one of the primary differentiating aspects of the livestream shopping experience (Lv et al., 2022). Consumer psychological traits play a significant role in consumption behaviors, particularly within the interactive and changing environment of live stream commerce. Studies established that consumer spending is a reflection of individuals' values, identities, and psychological characteristics (Tovanich et al., 2021; Levy, 1999). These are influenced by a complex blend of emotional, cognitive, and social processes, resulting in the formation of consumer motivations and engagement with brands and products (Gladstone et al., 2019). For instance, during livestream shopping activities, customers' immersion, trust in the host, and emotional connection can significantly increase their engagement and purchase intentions (Shiu et al., 2023). Among livestream shopping, live interaction, personalized advice, and the feel of host genuineness evoke a stronger sense of emotional connection, emulating an experience very much like face-to-face in-person buying (Shiu et al., 2023). Livestream platforms allow sellers to showcase their products dynamically via video presentations, customer reviews, and attractive presentations, grabbing the attention of

potential buyers. These strategies not only enhance product visibility but also help companies bridge the gap between buying online and in-store by providing consumers with in-depth information regarding features and benefits of products (Wang et al., 2022). Example: Video explanations demonstrate product functions by clearly highlighting product features and usage options, making decision-making on consumer purchase easier (Siddik, 2024; Camilleri et. al.,2021).

Besides, authentic user reviews posted in real-time during live streams are social proof, which builds confidence by portraying actual consumer experiences (Roethke et al.,2020; Luo et al.,2021). Real-time interaction minimizes uncertainty and builds confidence in product usability and quality (Shiu et al., 2023). The allure of such sessions is beyond the benefits of the product; hosts may employ novel narration, emotive stories, and novel graphics to captivate audiences (Xu et al., 2020; Tuncer, 2021). Such methods not only make livestream shopping informative but entertaining too, with a unique and interactive experience being provided to customers (Jiang et al., 2019). Through the use of dynamic presentation styles, such as attention-grabbing product displays and entertaining hosting, live-streaming platforms can capture and maintain consumer attention, enhancing activity levels and purchasing intentions (Lu et. al.,2021; Bashirzadeh et al., 2022). As a result, product display techniques have become essential in fostering trust, reducing uncertainty, and encouraging purchase decisions in the context of live stream e-commerce (Qin et al., 2023).

This research examines relationships between these variables in virtual livestream shopping. It proposes that consumer traits determine the importance of interactivity and display features, which impact consumer platform loyalty. Specifically: Consumer traits affect responsiveness to interactive and visual approaches. Higher interactivity fulfills social and entertainment needs. Impactful demonstrations address information needs and concerns. These variables combine to influence virtual shopper retention. With the rapid rise of livestream commerce platforms like TikTok's live-streaming service, businesses increasingly rely on influencers to create engaging shopping experiences that enhance consumer interaction (Lin et. al.,2022). This has made understanding the attributes of live-streaming critical for marketing success (Qin et al., 2023). However, this research faces several challenges that must be addressed to ensure a comprehensive understanding of the topic. The survey-based methodology, while effective in gathering user perceptions, may not fully capture the dynamic and real-time nature of livestreaming interactivity. Livestream shopping is inherently a fluid and interactive process, where consumer behavior evolves in response to real-time stimuli such as live comments, reactions, and spontaneous influencer actions. Capturing this dynamism through static survey responses can be limiting. Additionally, data collected from users of five major Chinese livestream platforms introduces potential sampling bias. These platforms have diverse user bases, and the findings may not entirely represent the broader spectrum of platform users. Cultural and regulatory environments specific to China also complicate the generalizability of results to other international markets, rendering it difficult to make conclusions that apply universally.

The utilization of self-reported data also has the danger of accuracy problems because the respondents inadvertently skew their behaviors or attitudes, particularly toward subjective psychological traits like trust, interaction, or responsiveness to interactive content. Moreover, the dynamic, rapidly changing nature of livestream commerce, where the platforms are constantly innovating and influencers always experimenting, makes an added problem when exploring the dynamics between the variables under examination. Addressing these challenges is vital to the robustness of the proposed framework for virtual shopper retention. By acknowledging these limitations, this study seeks to provide nuanced insights into how consumer psychological traits, interactivity, and product display techniques interact in the live-streaming environment, ultimately contributing to the growing body of knowledge in this field and supporting the development of more effective engagement strategies for live-streaming platforms.

The motivation for conducting this research is deeply rooted in my interest in the transformative potential of livestream shopping as a cornerstone of the digital economy, particularly in the post-pandemic era. This field represents not only a significant shift in consumer behavior but also a critical evolution in how businesses engage with audiences. The rise of live-streaming platforms, especially in China, showcases the convergence of

technology, interactivity, and real-time commerce, making it a vital area of study for understanding the future of digital marketplaces and employment landscapes. Personally, I view this study as an opportunity to explore the factors driving consumer retention on livestream platforms, which is key to sustaining their success. Given the dynamic nature of live-streaming, analyzing how consumer traits, interactivity, and product display techniques contribute to virtual shopper retention allows me to engage with an area that is shaping the direction of digital commerce. Moreover, it aligns with my broader aspirations of contributing to fields that bridge theory and practical application, providing insights that reflect the demands of a rapidly evolving digital economy. On a broader level, this study holds practical value for businesses operating within China's livestream ecosystem. By addressing challenges such as the diversity of user behaviors, the dynamic nature of interactivity, and the critical role of product presentation, this research offers actionable strategies to enhance consumer loyalty and retention. It also provides a structured framework that businesses and platforms can adapt to refine their marketing and engagement strategies in an increasingly competitive landscape.

Objectives of the Study - The study aimed to examine the consumer psychological traits, live-streaming interactivity, and product display techniques in China that will be the basis in developing virtual shopper retention framework for Live-streaming Platforms in China. It specifically determined the consumer psychological traits, in terms of consumer empathy, trust, and consumer engagement; described the live streaming interactivity focusing on ease of navigation, chat-room participation, and reaction usage; evaluated the product display techniques as to efficacy of video demonstrations, visibility of user testimonials, and attractiveness of the presentation style, tested the significant relationships between consumer psychological traits, live streaming interactivity and product display techniques; and developed a virtual shopper retention framework to enhance the shopping experience.

2. Methods

Research Design - This study employed a descriptive study design, and survey procedures were applied to in-depth examine the research objectives like consumer psychological attributes, interactivity of live-streaming, and ways of presenting products in the perspective of Live Streaming Platforms in China. Survey study design aims at the customers of the top five live streaming platforms in China, i.e., TikTok, Kuai Shou, Taobao Live, Little Red Book, and Pinduoduo. Descriptive research design was employed to provide a true interpretation of the findings (Thorne, 2016). It is a type of research in which pertinent facts, data, and information on the existing state of consumer behavior on live streaming platforms are gathered. Data will be gathered through survey questionnaires distributed to the target respondents.

Participants of the Study - The study targeted a participant pool of virtual shoppers who actively use the top five popular livestream platforms in China: TikTok, Kuaishou, Taobao Live, Little Red Book, and Pinduoduo. The participants were selected to ensure a geographically diverse sample that reflects the broad and varied landscape of livestream shopping behaviors across China. Respondents were drawn from several key regions, including Eastern China, Coastal South China, North China, Central China, Southwestern China, and Northeast China, as well as all other provinces and municipalities within mainland China. Data was initially collected from 437 respondents. After excluding incomplete or invalid responses, 409 valid responses were retained for analysis. All respondents met the following inclusion criteria: they were over 18 years old, regularly participated in livestream activities, and had made at least one purchase through livestream platforms. Using purposive convenience sampling, respondents were selected based on specific criteria such as gender, age, region, frequency of platform use, income, education, platform preference, occupation, years of livestream shopping experience, session duration, and purchase frequency. Non-purchasing users, as well as respondents who had never made a purchase through livestream shopping platforms, were excluded to ensure the study targeted active and relevant livestream shopping consumers. This method allowed for a focused sample that aligned with the research objectives while maintaining practical feasibility in the selection process. Data collection was conducted through email, online survey platforms, and manual outreach.

Instruments of the Study - The questionnaires framed by the research team themselves in the current research were prepared with extreme caution so as to serve the exact purpose and objectives of the research. The questionnaires were divided into four parts, each of which was focused towards solving the central issues of the research. The first part focused on gathering the demographic information of the respondents, and the later parts assessed the main variables of the research: consumer psychological attributes, interactivity of live-streaming websites, and methods of presenting products. The survey instrument employed a four-point Likert scale with answer categories from 1 = Strongly Disagree (SD) to 2 = Disagree (D) to 3 = Agree (A) to 4 = Strongly Agree (SA). Part 1 sought to collect basic demographic information via a series of single-choice questions, which were customized for this research. Demographic questions included gender, age, region, income, educational level, profession, years of experience in livestream shopping, length of a session, and purchasing frequency. Part 2 assessed consumer psychological traits using a Likert scale questionnaire that had empathy, trust, and involvement statements. Part 3 examined livestream platform interactivity, measuring factors such as navigation ease, chat room interaction, and reaction utilization. Finally, Part 4 concentrated on product display techniques, utilizing a customized Likert scale to gauge the effectiveness of video demonstrations, the visibility of user testimonials, and the overall attractiveness of presentation styles.

Table 1

Reliability Summary Table – Consumer Psychological Traits, Live-Streaming Interactivity, and Product Display Techniques Instrument

Indicators	Cronbach Alpha	Remarks
Consumer Psychological Traits, Live-Streaming Interactivity, and Product Display Techniques Instrument	0.932	Excellent
Per Variable		
Consumer Psychological Traits	0.933	Excellent
Consumer Empathy	0.920	Excellent
Trust	0.918	Excellent
Consumer Engagement	0.891	Good
Live-Streaming Interactivity	0.903	Excellent
Ease Of Navigation	0.941	Excellent
Chatroom Participation	0.940	Excellent
Reaction Usage	0.935	Excellent
Product Display Techniques	0.756	Acceptable
Efficacy Of Video Demonstration	0.956	Excellent
Visibility Of User Testimonial	0.947	Excellent
Product Display Technique	0.934	Excellent

George and Mallery (2003) provide the following rules of thumb: “_ > .9 – Excellent, _ > .8 – Good, _ > .7 – Acceptable, _ > .6 – Questionable, _ > .5 – Poor, and _ < .5 – Unacceptable”

Based on result, the Consumer Psychological Traits, Live-Streaming Interactivity, and Product Display Techniques Instrument has an Excellent consistency as exhibited by the Cronbach’s Alpha value of (.932) This was validated by the Excellent remark from Consumer Psychological Traits (.933); it was confirmed by the Excellent results from Consumer empathy (.920) and trust (.918) and Good Result from consumer immersion (.891). Also, it was validated by the Excellent remark from Live-stream Interactivity (.903); it was confirmed by the Excellent results from ease of navigation (.941), chatroom participation (.940), and reaction usage (.935). It was further validated by the Acceptable result from Product Display Techniques (.756); it was confirmed by the Excellent results from efficacy of video demonstration (.956), visibility of user testimonial (.947), and product display technique (.934); which shows that the instrument at hand passed the reliability index test.

Data Gathering Procedure - This study aimed to explore consumer behaviors and perceptions related to livestreaming e-commerce in China. The target population included regular users of major livestreaming platforms, specifically those who engage in shopping activities on platforms such as Douyin (TikTok), Kuaishou, Taobao Live, Little Red Book, and Pinduoduo. Respondents were required to have experience making purchases via these livestream channels. To ensure the reliability of the data, a reliability test was conducted with livestream platform users who have at least five years of experience in the industry. The questionnaire was designed with both closed-ended and Likert scale questions, focusing on demographics, consumer psychological traits, interactivity, and product display techniques, all based on established literature. After obtaining the

necessary approvals, the survey was administered via multiple channels: online platforms, mail, and face-to-face paper-based responses, targeting respondents who met the selection criteria. A total of 437 respondents participated in the survey, and after filtering for completeness and accuracy, 409 valid responses were included in the final analysis. With thorough data collection, the survey results reflect a diverse sample based on the following stratified sampling categories: gender, age, region, frequency of platform use, income, education, platform preference, occupation, years of livestream shopping experience, session duration, and purchase frequency. Participation was voluntary, and confidentiality was maintained throughout the process. The collected data were systematically organized and analyzed using statistical tools such as frequency distribution, descriptive statistics, and cross-tabulation. These analyses provided valuable insights into consumer behavior and were instrumental in understanding how livestream platforms can enhance retention strategies.

Data Analysis - Weighted mean and rank were used to assess the consumer psychological traits as to consumer empathy, trust and consumer immersion; described the live streaming interactivity in terms of ease of navigation, chatroom participation and reaction usage; determined the product display technique as to efficacy of video demonstration, visibility of user testimonial and attractiveness of presentation style. The result of the Shapiro-Wilk Test showed that p-values of all variables were less than 0.05 which means that the data set was not normally distributed. Therefore, Spearman rho was used as part of the non-parametric tests to determine the significant relationship. All analyses were performed using SPSS version 28.

Ethical Considerations - Ethical considerations play a pivotal role in the execution of this research, especially in compliance with the confidentiality regulations imposed by online survey platforms. Prior to deploying the online questionnaire, explicit consent was sought from virtual shoppers through transparent communication channels. The research ensured the utmost confidentiality and anonymity by intentionally excluding personally identifiable information from the collected data. In accordance with the robust privacy policies of the selected online survey platform, participants were assured that their responses were handled with the highest level of security, and only aggregated, anonymized data was presented in the final analysis. The voluntary nature of participation was emphasized, highlighting participants' autonomy in deciding which questions to respond to. Additionally, the research steadfastly prioritized the safety and well-being of the participants, cultivating a secure and discomfort-free online survey experience. This comprehensive ethical framework not only upheld academic research standards but also aligned with and respected the confidentiality guidelines outlined by online survey platforms, fostering trust and integrity throughout the research process.

3. Results and discussion

Table 2

Summary Table on Consumer Psychological Traits

Key Result Areas	Composite Mean	VI	Rank
Consumer Empathy	3.11	Agree	2
Trust	3.09	Agree	3
Consumer Engagement	3.13	Agree	1
Grand Composite Mean	3.11	Agree	

Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree

Of the consumer psychological traits, Consumer Engagement had the highest value with a mean of 3.13, as seen in Table 2. This finding highlights that engagement-behaviors such as "When I watch a livestream, I feel as if I am in a real shopping situation" are most significant in retaining virtual shoppers. Consumer Engagement emphasizes the need to create interesting and interactive shopping experiences that tap into multiple viewer affinities and retain them during the livestream. This is further supported by studies by Wohn et al. (2018), which explains that a sense of presence and active engagement has a significant role to play in promoting consumer retention. Just behind are Consumer Empathy and Trust with a mean score of 3.11 and 3.09, respectively. Both of these characteristics have some moderate impact on shopper retention but are narrowly trumped by Consumer Engagement in regard to overall influence. Consumer Empathy focuses upon the need for livestream hosts to be

empathetic and engage with shoppers' needs and emotional states. Empathy-driven engagement, such as producing good moments or merely being sincerely interested in enhancing the shopping experience, produces a feeling of unity between the viewer and the host. Shiu et al. (2023) are convinced that these affective bonds contribute significantly to generating customer loyalty within competitive livestreaming shopping environment.

Although Trust is number three, it remains a fundamental aspect to which customers pay heed when they go shopping on livestreaming websites. Trust particularly comes in handy in cases where the customer has no prior experience with the host or the product because it guards purchasers of authenticity of the host and quality of products being displayed. Phrases such as "The live streamer provides me with dependable advice to allow me to make highly well-informed purchasing decisions" emphasize the importance of reliability and authenticity in building consumer trust. Luo et al. (2021) observe that uncertainty reduction and repeat purchasing require trust, and thus it is a significant component of livestream shopping. Grand Composite Mean of 3.11 indicates that, on average, consumer psychological traits contribute a moderate but significant factor in virtual shopper retention. This requires the significance of livestream platforms and hosts achieving balance across all three traits—Engagement, Empathy, and Trust—to optimize their retention strategy. By utilizing engagement to draw in viewers, empathy to create emotional connection, and trust to develop confidence, livestream shopping websites are able to build a master and effective buying experience that will appeal to repeat and first-time buyers. Findings attest to the importance of fulfilling aspects of consumer psychological attributes in order to gain growth and success in the market of livestream shopping.

Table 3

Summary Table on Live Streaming Interactivity

Key Result Areas	Composite Mean	VI	Rank
Ease of Navigation	3.07	Agree	2
Chatroom Participation	2.98	Agree	3
Reaction Usage	3.14	Agree	1
Grand Composite Mean	3.06	Agree	

Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree

Based on Table 3 assessment, Reaction Usage is the highest-ranking live streaming interactivity feature with a composite weighted mean of 3.14, meaning Agree. This result underlines the leading role of interactive elements, e.g., emojis, animations, or gifting, in live streaming shopping since such elements are responsible for creating an interesting and dynamic environment that generates enthusiasm and stimulates engagement, thus allowing shopper retention. Siddik (2024) observes that live responses not only grab consumer attention but also encourage active interaction, the secret to facilitating engagement over time. Ease of Navigation, at a composite average rating of 3.07, is ranked second and is also in the Agree category. This highlights the importance of natural layout and smooth platform functionality in facilitating an excellent buying experience. Fast loading, well-organized layouts, and seamless navigation enable shoppers easily to locate desired products and interact with live streamed content without unnecessary obstacles. According to Ebrahimi et al. (2023), those websites that center on usability and ease the customer experience are apt to enjoy higher levels of satisfaction and retention.

Chatroom Participation ranks third, with a composite mean of 2.98, also within the Agree category. While chat rooms offer opportunities for interaction and community building, their overall influence on retention is comparatively modest. Many users remain passive observers, engaging only occasionally. Enhancing the perceived value of chatrooms, such as by integrating product discussions or incentivizing active engagement, could make them a more meaningful part of the livestream experience. Ebrahimi et al. (2023) further emphasize that fostering a sense of community through chatrooms can complement other interactivity features, contributing to a holistic user experience.

Based on the analysis of Table 4, Attractiveness of Presentation Style ranks first among the product display techniques, with a composite mean of 2.97, indicating Agree. This suggests that presentation style plays a

notable role in enhancing the livestream shopping experience. Visually appealing and creatively designed presentations are particularly effective in capturing attention and creating a more engaging shopping environment. Wang et al. (2019) emphasizes that attractive presentation styles significantly enhance viewer engagement by making livestreams more enjoyable and visually stimulating. But while presentation style is the most effective of the product presentation techniques, its overall effect on customer retention is mid-level.

Table 4

Summary Table on Product Display Technique

Key Result Areas	Composite Mean	VI	Rank
Efficacy of Video Demonstration	2.91	Agree	2
Visibility of User Testimonial	2.88	Agree	3
Attractiveness of Presentation Style	2.97	Agree	1
Grand Composite Mean	2.92	Agree	

Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree

Effectiveness of Video Demonstration, with a composite mean of 2.91, is in the second position. This reflects the significance of video demonstrations in allowing consumers to understand product features and usage scenarios. Shiu et al. (2023) comment that effective video demonstrations can improve consumer knowledge of product functionality, providing useful information at the time of decision-making. Lu et al. (2016) note that physical interaction limitation may limit their ability to build consumer confidence, meaning that video demonstrations help to improve product understanding but their impact on shopper retention is very minimal.

Visibility of User Testimonial is third with a composite mean of 2.88. While testimonials give social proof which can positively impact purchase, its impact on retention appears to be minimal. However, according to the findings, while the customers like hearing people's experiences, this aspect by itself is not a good enough motivator to get them interested in the livestream. Lu et al. (2016) further contribute that the authenticity of testimonials would depend on how credible and relevant they are to the concerned audience.

Table 4 reports that in terms of presentation style approach within the product exhibition, Attractiveness of Presentation Style's influence on maintaining virtual shoppers slightly exceeds that of other approaches. While all three factors—Video Demonstration, User Testimonials, and Presentation Style—fall within the Agree category, presentation style holds a marginally more significant influence. Platforms should prioritize enhancing the visual and creative elements of product presentations to better capture consumer interest. Additionally, improving the clarity and interactivity of video demonstrations and ensuring the authenticity of user testimonials can further strengthen their collective impact on retention. Wang et al. (2019) suggests that attractive presentations are crucial for engaging viewers, while Shiu et al. (2023) emphasize that combining effective demonstrations and credible testimonials can create a more comprehensive and engaging shopping experience.

Table 5

Relationship Between Consumer Psychological Traits and Live Streaming Interactivity

Consumer Empathy	rho-value	p-value	Interpretation
Ease of Navigation	.544**	<.001	Highly Significant
Chatroom Participation	.338**	<.001	Highly Significant
Reaction Usage	.560**	<.001	Highly Significant
Trust			
Ease of Navigation	.387**	<.001	Highly Significant
Chatroom Participation	.366**	<.001	Highly Significant
Reaction Usage	.445**	<.001	Highly Significant
Consumer Engagement			
Ease of Navigation	.517**	<.001	Highly Significant
Chatroom Participation	.312**	<.001	Highly Significant
Reaction Usage	.564**	<.001	Highly Significant

Legend: Significant at p-value < 0.01

As seen in Table 5, the computed rho-values ranging from .312 to .564 ($p < .001$) indicate that there is a

statistically significant, albeit weak to moderate, direct relationship between consumer psychological traits (empathy, trust, and engagement) and dimensions of live streaming interactivity (ease of navigation, chatroom participation, and reaction usage). Specifically, these significant correlations (all $p < 0.01$) suggest that certain interactive features within a live streaming platform are not only appreciated by consumers but also closely aligned with their underlying psychological predispositions.

Focusing on empathy, the strongest correlations emerge with reaction usage ($\rho = .560$, $p < .001$) and ease of navigation ($\rho = .544$, $p < .001$). One reason why there is a significant relationship between consumer psychological traits and live streaming interactivity is that interactive features align closely with the innate ways individuals process and respond to social and emotional cues. Consumers are not merely passive recipients of information; rather, their underlying personality, emotions, and cognitive tendencies actively shape their perceptions of and reactions to online environments. Live streaming adds the crucial element of real-time feedback, presence, and personalization, which can evoke strong emotional responses and influence decision-making processes. For instance, individuals who place a high value on emotional authenticity (a trait related to empathy) are likely to respond more positively to platforms that allow them to experience the seller's genuine concern and attentiveness. A smooth navigation system, immediate reactions like emojis and virtual gifts, and the ability to participate in chatrooms all help to simulate the warmth and responsiveness of in-person interactions. This resonates with Shiu et al. (2023), who highlight that seamless, emotionally resonant online experiences enhance immersion and satisfaction. Similarly, Wohn et al. (2018) suggest that personalized, face-to-face-like exchanges foster stronger emotional bonds, supporting the idea that empathetic consumers derive greater emotional gratification from interactive tools. However, empathy's relatively weaker correlation with chatroom participation ($\rho = .338$, $p < .001$) suggests that chatrooms primarily support broader community bonding rather than individualized emotional connections. Lv et al. (2022) observed that chatrooms contribute to a sense of belonging, which enhances collective engagement within the streaming environment.

Trust demonstrates significant correlations across all interactivity dimensions, with reaction usage ($\rho = .445$, $p < .001$) emerging as a key factor. Real-time reactions, such as acknowledging gifts or responding to comments, reinforce trust by signaling the host's credibility and authenticity. Luo et al. (2021) found that such personalized acknowledgments enhance consumer trust by making interactions feel meaningful and reciprocal. Similarly, ease of navigation ($\rho = .387$, $p < .001$) plays a foundational role in establishing trust. A seamless interface reduces uncertainty and signals platform reliability, indirectly bolstering trust in the host. Carreras (2024) supported this, noting that efficient navigation reassures users, encouraging more confident purchasing decisions. Chatroom participation ($\rho = .366$, $p < .001$), while slightly weaker, also contributes to trust through peer validation. Comments and discussions within chatrooms provide social proof, reinforcing confidence in product quality and host credibility (Bigne et al., 2020). However, the variable nature of peer feedback may explain why chatrooms are perceived as less reliable than direct host interactions.

Engagement shows the strongest correlations across interactivity dimensions, particularly with reaction usage ($\rho = .564$, $p < .001$) and ease of navigation ($\rho = .517$, $p < .001$). These findings highlight the centrality of interactivity in creating immersive live-streaming experiences. Real-time reactions allow consumers to actively participate, fostering a dynamic and engaging atmosphere. Tuncer (2021) noted that reactions serve as immediate feedback mechanisms, encouraging sustained attention and emotional investment. Ease of navigation also plays a critical role in sustaining engagement by enabling uninterrupted interaction. Platforms with streamlined navigation reduce distractions, allowing consumers to remain focused on the content. Ryu et al. (2021) observed that intuitive design enhances the depth and duration of consumer engagement. Chatroom participation ($\rho = .312$, $p < .001$), while comparatively lower, still supports engagement by fostering community-driven discussions. Lv et al. (2022) noted that chatrooms encourage interaction among viewers, enhancing the sense of social presence within the live-streaming environment.

Table 6*Relationship Between Consumer Psychological Traits and Product Display Technique*

Consumer Empathy	rho-value	p-value	Interpretation
Efficacy Of Video Demonstration	.372**	< .001	Highly Significant
Visibility Of User Testimonial	.345**	< .001	Highly Significant
Attractiveness of Presentation Style	.553**	< .001	Highly Significant
Trust			
Efficacy Of Video Demonstration	.416**	< .001	Highly Significant
Visibility Of User Testimonial	.368**	< .001	Highly Significant
Attractiveness of Presentation Style	.450**	< .001	Highly Significant
Consumer Engagement			
Efficacy Of Video Demonstration	.412**	< .001	Highly Significant
Visibility Of User Testimonial	.381**	< .001	Highly Significant
Attractiveness of Presentation Style	.448**	< .001	Highly Significant

Legend: Significant at $p\text{-value} < 0.01$

As seen in Table 6, the computed rho-values ranging from .345 to .553 ($p < .001$) indicate that there is a statistically significant, moderate to strong direct relationship between consumer psychological traits (empathy, trust, and engagement) and dimensions of product display techniques (efficacy of video demonstration, visibility of user testimonial, and attractiveness of presentation style). Specifically, these significant correlations (all $p < 0.01$) suggest that well-designed product display techniques not only resonate with consumers but also align with their psychological traits, enhancing their overall experience and trust in the live-streamed content.

For consumer empathy, the strongest correlation emerges with the attractiveness of presentation style ($\rho = .553$, $p < .001$), suggesting that empathetic consumers are particularly drawn to visually appealing and emotionally engaging displays. This relationship likely stems from the tendency of empathetic individuals to seek deeper emotional connections and experiences during shopping, which visually engaging presentations are designed to evoke. When consumers perceive a presentation to be well thought out and aesthetically pleasing, it communicates care and intentionality on the part of the presenter, appealing to empathetic consumers' desire for authenticity and substance in their interactions. Besides, affectively appealing visuals and storyline within these presentations are capable of eliciting positive feelings such as joy or bonding, which would appeal to the empathetic consumer's desire to enjoy relational and emotional cues. This connection is supported by Shiu et al. (2023), who confirmed that visually creative product presentations enhance emotional resonance, leading to a sense of immersion and attachment to the shopping experience. Similarly, Bashirzadeh et al. (2022) stress the role of well-designed visuals to capture attention and hold the interest of customers, particularly those more empathetically engaged with the world around them. These findings suggest that empathetic consumers will perceive aesthetically appealing presentations as not only a demonstration of the value of the product, but also as a reflection of the effort that the presenter goes to in order to create a memorable shopping experience.

The correlation between empathy and video demonstration effectiveness ($\rho = .372$, $p < .001$) attests to the benefit of videos in helping empathetic customers visualize product usage, as reflected in Tuncer (2021) in explaining dynamic visual content in enriching appreciation for product function. Exposure to user testimonials ($\rho = .345$, $p < .001$) is reflective of the relational dimension of empathy since testimonials offer relatable experiences and social proof, which enhance the consumer's affinity for the product (Bigne et al., 2020).

For trust, appeal of presentation style again reveals the strongest correlation ($\rho = .450$, $p < .001$), suggesting the value of professional and aesthetically pleasing presentations in creating credibility. The correlation is understandable in terms of the psychological effect of visual stimuli on consumer perceptions of reliability and professionalism. When the buyers see that they are receiving a sophisticated and good-looking presentation, this sends a signal to them that the seller has invested time and money in creating a quality experience. This attention is seen as a reflection of care, attention to detail, and commitment, all of which are critical to trust creation. Moreover, visually engaging presentations are likely to reduce uncertainty by providing clear, organized, and appealing depictions of products, making the shopping process feel more transparent and less risky. For trust to

be established, consumers must feel confident that they are engaging with a credible and competent source. The alignment between professional visuals and these expectations creates a foundation of reliability, where trust is not only built on the product's perceived value but also on the overall experience of interacting with the brand. As Lu et al. (2021) argue, the perceived reliability of visually attractive designs plays a central role in building consumer trust, particularly when the presentation is both engaging and reflects professionalism.

The efficacy of video demonstration ($\rho=.416$, $p<.001$) also plays a critical role, as detailed and transparent video content reduces perceived risks and builds confidence in product quality (Wongkitrungrueng et al., 2020). Although the visibility of user testimonials shows a slightly weaker correlation ($\rho=.368$, $p<.001$), it remains significant, reflecting the role of authentic feedback in enhancing trust. Testimonials provide social validation, as observed by Roethke et al. (2020), particularly when they are detailed and relatable, thereby reinforcing consumer confidence in their purchase decisions.

For consumer engagement, attractiveness of presentation style continues to be a dominant factor ($\rho = .448$, $p < .001$), emphasizing the importance of creative and interactive displays in capturing and retaining consumer interest. This aligns with Tuncer (2021), who highlights that storytelling, high-quality visuals, and innovative layouts contribute to creating a flow state, allowing consumers to become deeply immersed in the shopping experience. The efficacy of video demonstration ($\rho = .412$, $p < .001$) further reinforces engagement by providing consumers with clear and detailed product information, as noted by Camilleri et al. (2021), who underscores the immersive and informative value of video content. Visibility of user testimonials ($\rho = .381$, $p < .001$), while showing a slightly weaker relationship, still contributes meaningfully to engagement by offering relatable, real-world applications of the product. Bigne et al. (2020) support this view, noting that testimonials enhance cognitive and emotional engagement through the inclusion of authentic consumer perspectives.

Table 7

Relationship Between Live Streaming Interactivity and Product Display Technique

Ease of Navigation	rho-value	p-value	Interpretation
Efficacy Of Video Demonstration	.426**	< .001	Highly Significant
Visibility Of User Testimonial	.369**	< .001	Highly Significant
Attractiveness of Presentation Style	.514**	< .001	Highly Significant
Chatroom Participation			
Efficacy Of Video Demonstration	.354**	< .001	Highly Significant
Visibility Of User Testimonial	.309**	< .001	Highly Significant
Attractiveness of Presentation Style	.378**	< .001	Highly Significant
Reaction Usage			
Efficacy Of Video Demonstration	.445**	< .001	Highly Significant
Visibility Of User Testimonial	.361**	< .001	Highly Significant
Attractiveness of Presentation Style	.478**	< .001	Highly Significant

Legend: Significant at $p\text{-value} < 0.01$

As seen in Table 7, the computed rho-values ranging from .309 to .514 ($p < .001$) indicate a statistically significant, moderate to strong direct relationship between live streaming interactivity (ease of navigation, chatroom participation, and reaction usage) and product display techniques (efficacy of video demonstration, visibility of user testimonial, and attractiveness of presentation style). These significant correlations suggest that interactive features within live streaming platforms enhance the effectiveness of product display techniques, allowing consumers to engage more deeply with the content and make informed decisions.

The strongest correlation for ease of navigation is with attractiveness of presentation style ($\rho=.514$, $p < .001$), indicating that when a platform is easy to navigate, consumers are more likely to engage with and appreciate visually appealing product displays. An intuitive interface reduces distractions and cognitive burden, allowing consumers to focus on the visual and creative aspect of the presentation. The smooth interaction facilitates immersion since customers can shop around without being annoyed at having to wrestle with an unwieldy system. Where intuitive navigation is employed, this creates a good first impression that is in line with the visual appeal of product presentation, which contributes to the enjoyment and engagement of the shopping experience.

This is also confirmed by Shiu et al. (2023), who discovered that "the navigation system and visual design of platforms play a crucial role in designing an immersive shopping experience, in which consumers can engage with the interface easily."

The strong correlation between usability and video demonstration effectiveness ($p = .426, p < .001$) implies that user-friendly websites enhance video content understandability and effectiveness. Xue et al. (2020) note that easy navigation allows customers to view and access product demonstration videos easily, thus reducing perceived risks and uncertainties. Similarly, Siddik (2024) illuminates that simple navigation systems persuade viewers to gain more knowledge on video demonstrations, instilling confidence and trust in the quality and performance of the product. The correlation with user testimonial visibility ($p = .369, p < .001$) shows that easy navigation enhances consumer feedback availability through useful social proof for potential consumers. Bigne et al. (2020) found that easy interfaces make it easier for users to discover and comprehend reviews so that testimonials have a stronger impact on establishing consumer trust and purchase intentions. Easy navigation not only makes it easy to find testimonials but also makes the information easily understandable and usable (Putri, 2024).

For chatroom participation, the strongest correlation is again with attractiveness of presentation style ($p = .378, p < .001$), indicating that attractive product presentations are a key driver in encouraging consumers to take an active role in live chats. Since the product is displayed on screen in an innovative and visually appealing manner, individuals view it with curiosity, and the shopper's buying experience feels more entertaining and engaging. In this healthy atmosphere naturally built, consumers approach more often to interact, raise questions, and talk more, being psychologically related more to the live-streamed environment as well as to the product being observed. The combination of dynamic images and interactivity generates the sense of enthusiasm and interaction that stimulates real-time communication. The interaction concurs with Bashirzadeh et al. (2022), who confirmed that visual aspects, such as images and video, greatly maximize engagement through presenting a more engaged and customized environment. Similarly, Tuncer (2021) established that visually pleasing presentation generates an amiable setting that stimulates real-time communication between customers and streamers. These findings indicate that engaging presentation styles not only draw attention but also encourage consumers to participate more actively, thus making the entire experience of live chats more engaging.

The high correlation between chatroom activity and video demonstration effectiveness ($p = .354, p < .001$) indicates that sophisticated video presentations provide a good platform for discussion, encouraging viewers to ask questions and share observations. Wongkitrungrueng et. al., (2020) explain that effective video demonstrations create interest and discussion, creating chatroom interactions more engaging and valuable. In addition, Shiu et al. (2023) describe the role of video demonstrations in making live conversations lively, which increases consumers' understanding of product characteristics. The lower but significant correlation with user testimonial visibility ($p = .309, p < .001$) reflects the role of testimonials as icebreakers in chatrooms. Luo et al. (2020) established that testimonials and reviews possess a tendency to prompt observers to seek clarification or share their own experiences, making interactivity in the chatroom environment higher. Such exchanges build additional layers of social proof, further strengthening consumer trust and confidence.

To apply for reactions, it has the most correlation with presentation attractiveness of style ($p = .478, p < .001$), revealing that good-looking product presentations will strongly trigger customers to respond emotively in live streams. Whenever product presentations look good, these create an air of excitement and communality, which will motivate viewers to spread their reaction such as liking the stream, making comments, or sending virtual presents. These responses are just one of the ways that consumers can thank the content for it and interact with the experience in the moment. The interactivity combined with creative imagery enhances the mood at the emotional level, raising the level of fun and active participation. This observation is supported by Bashirzadeh et al. (2022), who pointed out that visual factors, such as images and video clips, bring about participation by rendering it more engaging and personalized. Furthermore, Lv et al. (2022) found that responses help create a sense of mutual excitement and interaction, enhancing the general experience of live-streaming. Together, these

results suggest that visually striking presentations not only attract attention but also evoke emotional responses that heighten consumer participation and make shopping more interactive.

High between-reactions association with the demonstration effectiveness of the video ($p = .445$, $p < .001$) suggests dynamic and descriptive videos on YouTube move viewers to offer reactions of appreciation or excitement as customers. Camilleri et al. (2021) verifies that through demonstration videos, users are shown a compelling, interactive way to witness product presentation that encourages active participatory user experience in regard to visible reaction from customers. Tuncer (2021) also highlights how video content provides meta-voicing affordances that allow consumers to participate in the live stream without necessarily doing so through verbal contribution:

The correlation of visibility of user testimonial ($p = .361$, $p < .001$) is consistent with the influence of authentic consumer feedback in eliciting responses. Bigne et al. (2020) argue that testimonials serve as emotional and social cues that encourage viewers to express their agreement or appreciation through reactions. This is consistent with Meng et al. (2021), who note that visible social proof, such as user testimonials, generates enthusiasm and encourages further interaction.

According to the data across three tables, certain trends become clear that speak to how users interact with live streaming platforms and respond to product presentations. One thing that stood out was the consistently strong link between Reaction Usage and Engagement, with correlations like $\rho = .564$ and $\rho = .478$. This tells that users really value being able to express themselves in real-time, whether it's through emojis, virtual gifts, or quick feedback, as if these little actions make them feel more involved and connected to the experience. Another thing was Ease of Navigation. It might seem basic, but its impact is everywhere—like how it connects to Engagement ($\rho = .517$) and even to how users perceive the Attractiveness of Presentation Style ($\rho = .514$). This shows how much a simple, user-friendly design can lower frustration and help people stay focused on the actual content instead of being distracted by clunky interfaces. The role of Attractiveness of Presentation Style also feels significant. Its strong correlation with Empathy ($\rho = .553$) and Trust ($\rho = .450$) makes me think about how visuals can go beyond just being "pretty." They might actually be communicating effort, care, and professionalism—all things that help users trust the platform and the products being shown. Chatroom Participation, on the other hand, seems to play a quieter but still important role. Its weaker correlations, like $\rho = .312$ with Engagement, make me think it's less about driving individual emotions and more about creating a sense of community. It's like the difference between chatting with a group at a party versus having a one-on-one conversation—both are valuable, but they serve different purposes.

Virtual Shopper Retention Framework

The proposed framework illustrated on Figure 1 integrates the interplay of consumer psychological traits, live-streaming interactivity, and product display techniques to establish a robust foundation for virtual shopper retention on live-streaming platforms. Each component contributes uniquely to the retention process.

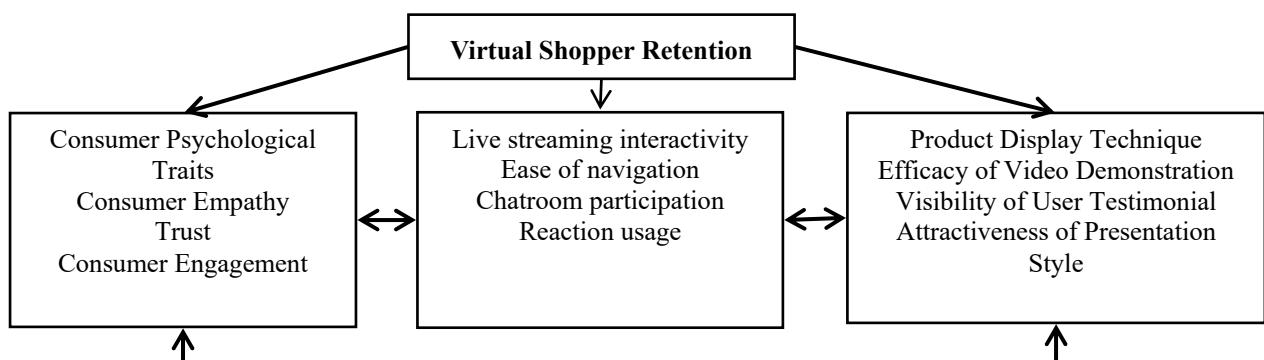


Fig 1. Virtual Shopper Retention Framework

Consumer psychological traits, such as empathy, trust, and involvement, play significant roles in understanding consumer interests, behaviors, and responses to live-streaming platform stimuli. Empathy plays a vital role in highlighting the importance of emotionally engaging experiences. Empathetic consumers favor customized and interactive content, as supported by high correlations with usage of reactions ($\rho=.560$) and attractiveness of presentation style ($\rho=.553$). Trust, on the other hand, builds long-term consumer loyalty through minimizing perceived risk. This can be seen with its high correlations with ease of navigation ($\rho=.387$) and quality of video demonstrations ($\rho=.416$), proving that trust and transparency are important in fostering trust. Engagement is a pillar of retention by drawing consumers' attention through interactive and immersive experiences. Its highest correlations with reaction use ($\rho=.564$) and presentation style attractiveness ($\rho=.448$) suggest its applicability in the development of an exciting and interactive shopping environment.

Second, live-stream interactivity, characterized by ease of navigation, chatroom interaction, and reaction utilization, significantly enhances the shopping experience through real-time interaction, social connection, and active engagement. Ease of navigation ensures effortless discovery of content, meeting consumer needs for convenience and ease. Its high correlation with attractiveness of presentation style ($\rho=.514$) and video demonstration effectiveness ($\rho=.426$) indicates its role in facilitating ease of shopping. Chatroom engagement, conversely, allows immediate communication and social approval and community formation. This interactivity aspect fosters affective relationships, as evident in its correlation with attractiveness of presentation style ($\rho=.378$). Lastly, reaction use, such as likes and gifts, creates a participatory space that amplifies emotional involvement. Its strong relationship with presentation style attractiveness ($\rho=.478$) highlights the contribution of appealing visual content to inspiring consumer responses.

Finally, product presentation approaches, including presentation style appeal, video presentations, and customer endorsements, are utilized to enhance the visual and informative appeal of live-stream shopping. Presentation style appeal is a consistent high performer, with consistently strong associations across variables. Its consistency with empathy ($\rho=.553$) and employing reactions ($\rho=.478$) testifies to its ability to create emotional and engaging responses. Video demonstrations also confirm the framework by reducing perceived risk and mystifying product functionality. The demonstrations, associated with trust ($\rho=.416$) and engagement ($\rho=.412$), create consumer confidence in product quality. User testimonials, as social proof, confirm trust ($\rho=.368$) and engagement ($\rho=.381$) by showing common experiences and supporting product quality.

Finally, the merged retention model threads these together to emphasize the connectivity between consumer psychological traits, live-streaming interactivity, and product presentation formats. Trust is the foundation, built by way-finding ease and open product presentations to reduce uncertainty and support repeat use. Engagement is the trigger, triggered by interactive conditions like chatroom participation and emoticon responses, which create involving experiences. Finally, emotional connection is a motivator, stimulated by the power of presentation style and personalized interactions that foster loyalty. Overall, this model provides a systematic approach for live-streaming destinations to enhance shopper retention through carefully designed experiences that are attuned to consumer profiles, maximize interactivity, and leverage compelling product presentations.

4. Conclusions and recommendations

The study demonstrates overall agreement on the consumer psychological traits in the context of consumer empathy, trust and consumer involvement. Consensus was observed among the participants regarding the ease of navigation, usage of chat rooms, and use of reactions showing positive user experience in live streaming sessions. The study revealed consensus on the companies' product demonstration techniques in the context of video demonstration effectiveness, noticeable user testimonials, and attractiveness of the presentation style. A significant relationship was found between consumer psychological traits, live streaming interactivity and product display technique. The virtual shopper retention framework was developed to provide a holistic approach for enhancing the shopping experience on live streaming platforms.

Online companies may ensure transparency in pricing and fees, as well as implementing strong security measures in order to foster a secure and reliable shopping experience. In order to promote live streaming chat room participation, online retailers may focus on building a friendly and interactive community by conducting Q&A sessions, asking interesting questions, and conducting contests which can incite discussion and invite viewer participation. The e-businesses may highlight customer positive reviews on conspicuous locations, such as product pages and homepage sliders that can capture potential buyers' attention and can make them more appealing and trustworthy. The online customer retention model may be utilized by e-businesses to consolidate the customer experience and build long-term online shopper relationships. Future studies may examine how AI-powered personalized recommendations, chatbots, and virtual assistants can be utilized to enhance customer experiences and loyalty.

5. References

- Bashirzadeh, Y., Mai, R., & Faure, C. (2022). How rich is too rich? Visual design elements in digital marketing communications. *International journal of research in marketing*, 39(1), 58-76.
- Bigne, E., Chatzipanagiotou, K., & Ruiz, C. (2020). Pictorial content, sequence of conflicting online reviews and consumer decision-making: The stimulus-organism-response model revisited. *Journal of Business Research*, 115, 403-416.
- Camilleri, M. A., & Falzon, L. (2021). Understanding motivations to use online streaming services: integrating the technology acceptance model (TAM) and the uses and gratifications theory (UGT). *Spanish Journal of Marketing-ESIC*, 25(2), 217-238.
- Carreras, I. (2024, May 16). 5 essential UX tips for your eCommerce. Novicell.
<https://www.novicell.es/en/blog/5-essential-ux-tips-for-your-ecommerce>
- Chen, C. C., & Lin, Y. C. (2018). What drives live-stream usage intention? The perspectives of flow, entertainment, social interaction, and endorsement. *Telematics and Informatics*, 35(1), 293-303.
- China Internet Network Information Center (CNNIC) (2023) The 52nd China Statistical Report on Internet Development. <https://www.cnnic.net.cn/n4/2023/0828/c88-10829.html>
- Ebrahimi, P., Khajeheian, D., Soleimani, M., Gholampour, A., & Fekete-Farkas, M. (2023). User engagement in social network platforms: what key strategic factors determine online consumer purchase behaviour?. *Economic Research-Ekonomska Istraživanja*, 36(1).
- George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference* (4th ed.). Allyn & Bacon.
- Gladstone, J. J., Matz, S. C., & Lemaire, A. (2019). Can psychological traits be inferred from spending? Evidence from transaction data. *Psychological science*, 30(7), 1087-1096.
- IRUI CONSULTANT. (2024) 2023 China Livestreaming E-commerce Industry Research Report
<https://www.27sem.com/article/8054>
- Jiang, C., Rashid, R. M., & Wang, J. (2019). Investigating the role of social presence dimensions and information support on consumers' trust and shopping intentions. *Journal of Retailing and Consumer Services*, 51, 263-270.
- Levy, S. J. (1999). *Brands, consumers, symbols and research: Sidney J Levy on marketing*. Sage.
- Li, L., Chen, X., & Zhu, P. (2024). How do e-commerce anchors' characteristics influence consumers' impulse buying? An emotional contagion perspective. *Journal of Retailing and Consumer Services*, 76, 103587.
- Lin, Q., & Nuangjamnong, C. (2022). Exploring the role of influencers and customer engagement on purchase intention in TikTok live streaming shopping. *International Journal of Social Sciences and Humanities Invention*, 9(12), 7469-7498.
- Lu, B., & Chen, Z. (2021). Live streaming commerce and consumers' purchase intention: An uncertainty reduction perspective. *Information & Management*, 58(7), 103509.
- Lu, B., Fan, W., & Zhou, M. (2016). Social presence, trust, and social commerce purchase intention: An empirical research. *Computers in human behavior*, 56, 225-237.
- Luo, H., Cheng, S., Zhou, W., Yu, S., & Lin, X. (2021). A study on the impact of linguistic persuasive styles on

- the sales volume of live streaming products in social e-commerce environment. *Mathematics*, 9(13), 1576.
- Luo, M., Hsu, T. W., Park, J. S., & Hancock, J. T. (2020). Emotional amplification during live-streaming: Evidence from comments during and after news events. *Proceedings of the ACM on human-computer interaction*, 4(CSCW1), 1-19.
- Lv, J., Cao, C., Xu, Q., Ni, L., Shao, X., & Shi, Y. (2022). How live streaming interactions and their visual stimuli affect users' sustained engagement behaviour—a comparative experiment using live and virtual live streaming. *Sustainability*, 14(14), 8907.
- Meng, L. M., Duan, S., Zhao, Y., Lü, K., & Chen, S. (2021). The impact of online celebrity in livestreaming E-commerce on purchase intention from the perspective of emotional contagion. *Journal of Retailing and Consumer Services*, 63, 102733.
- Putri, A. J. (2024, May). Factors Influencing Consumers Purchase Intention Mediated by Immersive Experience: A research agenda. In *Journal of International Conference Proceedings* (Vol. 7, No. 1, pp. 55-66).
- Qin, C., Zeng, X., Liang, S., & Zhang, K. (2023). Do Live Streaming and Online Consumer Reviews Jointly Affect Purchase Intention?. *Sustainability*, 15(8), 6992.
- Qin, F., Le, W., Zhang, M., & Deng, Y. (2023). How perceived attributes of livestreaming commerce influence customer engagement: a social support perspective. *Journal of Service Theory and Practice*, 33(1), 1-22.
- Roethke, K., Klumpe, J., Adam, M., & Benlian, A. (2020). Social influence tactics in e-commerce onboarding: The role of social proof and reciprocity in affecting user registrations. *Decision Support Systems*, 131, 113268.
- Ryu, S., & Ryu, S. (2021). Feeling excited and fluent: how consumers respond to the visual appeals of products in an online shopping environment. *Behaviour & Information Technology*, 40(11), 1219-1233.
- Shiu, J. Y., Liao, S. T., & Tzeng, S. Y. (2023). How does online streaming reform e-commerce? An empirical assessment of immersive experience and social interaction in China. *Humanities and Social Sciences Communications*, 10(1), 1-8.
- Siddik, M. A. B. (2024, June 20). The impact of video marketing on consumer behavior. Professional Digital Marketing Manager. <https://www.linkedin.com/pulse/impact-video-marketing-consumer-behavior-md-abu-bocor-siddik-arb-wc/>
- Thorne, S. (2016). Interpretive description: Qualitative research for applied practice. Routledge.
- Ting, D. H., Abbasi, A. Z., & Ahmed, S. (2021). Examining the mediating role of social interactivity between customer engagement and brand loyalty. *Asia Pacific Journal of Marketing and Logistics*, 33(5), 1139-1158.
- Tovanich, N., Centellegher, S., Seghouani, N. B., Gladstone, J., Matz, S., & Lepri, B. (2021). Inferring psychological traits from spending categories and dynamic consumption patterns. *EPJ Data Science*, 10(1), 24.
- Tuncer, I. (2021). The relationship between IT affordance, flow experience, trust, and social commerce intention: An exploration using the SOR paradigm. *Technology in Society*, 65, 101567.
- Wang, X., & Wu, D. (2019). Understanding user engagement mechanisms on a live streaming platform. In *HCI in Business, Government and Organizations. Information Systems and Analytics: 6th International Conference, HCIBGO 2019, Held as Part of the 21st HCI International Conference, HCII 2019, Orlando, FL, USA, July 26-31, 2019, Proceedings, Part II 21* (pp. 266-275). Springer International Publishing.
- Wang, Y.S., Yeh, C.H., Wang, Y.M., Tseng, T.H., Lin, H.H., Lin, S., & Xie, M.Q. (2019). Investigating online consumers' responses to product presentation modes: Does product type really matter?. *Internet research*, 29(6), 1233-1255.
- Wang, Y., Lu, Z., Cao, P., Chu, J., Wang, H., & Wattenhofer, R. (2022). How live streaming changes shopping decisions in E-commerce: A study of live streaming commerce. *Computer Supported Cooperative Work (CSCW)*, 31(4), 701-729.

- Wohn, D. Y., Freeman, G., & McLaughlin, C. (2018, April). Explaining viewers' emotional, instrumental, and financial support provision for live streamers. In Proceedings of the 2018 CHI conference on human factors in computing systems (pp. 1-13).
- Wongkitrungrueng, A., & Assarut, N. (2020). The role of live streaming in building consumer trust and engagement with social commerce sellers. *Journal of business research*, 117, 543-556.
- Xu, X., Wu, J. H., & Li, Q. (2020). What drives consumer shopping behavior in live streaming commerce? *Journal of electronic commerce research*, 21(3), 144-167.
- Xue, J., Liang, X., Xie, T., & Wang, H. (2020). See now, act now: How to interact with customers to enhance social commerce engagement?. *Information & Management*, 57(6), 103324.

