Contents lists available at ScienceDirect



International Journal of Information Management

journal homepage: www.elsevier.com/locate/ijinfomgt



# How livestream engagement inspires tourist purchasing behaviour: A multi-study approach

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ARTICLE INFO

Keywords: Livestreaming Tourism Inspiration Impulse buying Cross-buying OSL

# ABSTRACT

In the rapidly evolving digital landscape, livestream commerce has become a powerful tool for tourism providers. This study underscores the pressing need for businesses within the tourism sector to understand the nuances of this dynamic medium and align their marketing strategies accordingly. In responding to calls, this research utilises a rigorous mixed-methods approach to examine the interactions between streamers, viewers, and the broader online community. Inspiration theory and optimum stimulation level theory are applied in a tourism context to examine how livestream viewers' individual differences influence their inspiration for impulse buying and cross-buying. Further, sociomateriality is adopted to examine how the interconnectedness of livestreaming has an impact on inspiration and behaviours. Findings from in-depth interviews and an online survey of social media users who had livestreaming commerce experience indicate that impulse buying and cross-buying are driven by antecedents such as two-way communications between streamers and individuals and online communities and individuals, as well as the perception of inspiration. These relationships are moderated by the optimum stimulation level. This study offers directions for further research and insights for managers, suggesting a focus on the dynamics of livestream commerce.

# 1. Introduction

Livestreaming has emerged as an innovative, digital, multiinteractive communication platform that facilitates efficient online purchasing for users. This channel has revolutionised online traffic, customer acquisition, and real-time shopping behaviour (Zheng et al., 2023). In 2023, the livestreaming market in China alone surged to almost 5 trillion yuan (USD 698 billion), a substantial increase from 420 billion yuan (USD 58bn) four years earlier, and it is forecast to reach 8.16 trillion yuan (USD1.14 trillion) by 2026 (Statista, 2024a). Livestreaming is rapidly gaining traction globally, with industry data estimating that livestreaming commerce sales in the US reached US\$50 billion in 2023 and are projected to grow by 36 % over the next three years (Statista, 2024b). While, traditionally, livestreaming was used to sell fashion, cosmetics, and other physical products, the tourism sector is beginning to embrace this channel, recognising the potential it offers for virtual tourism, travel destination marketing, and tourism products (Deng et al., 2019; Lin et al., 2022; Polat et al., 2023).

Livestreaming facilitates interactive and personalised exchanges, enabling businesses to engage directly with their audience, demonstrate product features, and foster community (He et al., 2023; Kang et al., 2021; Khoi & Le, 2024). The channel has democratised the e-commerce and s-commerce landscapes, empowering individuals and small operators to reach a global audience with minimal barriers to entry (Azad Moghddam et al., 2025; Zheng et al., 2023). This democratisation promotes entrepreneurship, economic empowerment, and market diversity, enriching users' purchase experience worldwide (Zheng et al., 2023). In acknowledgement of market growth and the innate benefits of livestreaming, tourism and destination marketing scholars have focused on examining this interactive and engaging form of commerce (Zhang et al.,

https://doi.org/10.1016/j.ijinfomgt.2025.102903

Received 25 September 2024; Received in revised form 16 February 2025; Accepted 23 March 2025 Available online 31 March 2025 0268-4012/© 2025 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

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Livestreaming research within a tourism, travel and destination marketing context remains at a nascent stage. However, the channel is becoming a focus of attention. Two recent systematic literature reviews (SLR) (see Lin et al., 2022; Polat et al., 2023) offer extensive insights into livestreaming in the tourism sector. Lin et al. (2022) extensively synthesises 39 peer-reviewed articles published between 2019 and 2022. Their analysis offers a 'demand-side' and 'supply-side' review, identifying several key themes. Polat et al. (2023) later, SLR builds upon this earlier work and broadens it to include 'user-generated videos' (UGV). Their review synthesised 66 peer-reviewed published articles on UGV in tourism between 2009–2023, noting the term 'livestream tourism' only began to emerge conceptually in 2019 (Deng et al., 2019). Like Lin et al. (2022), their work offers future research directions for theory building, contextual applications and methodological opportunities for tourism, hospitality and destination marketing scholars.

# 1.1. Rationale and research objectives

As presented above, this research is motivated by (1) the global size, growth and economic impact of livestream commerce (Statista, 2024 a, b) and (2) the embryonic but emergent stage of livestreaming research within a tourism, travel and destination marketing context (Lin et al., 2022; Polat et al., 2023). This research aims to; (1) examine the interactions between livestreamers, users and viewers; (2) investigate how livestreaming cultivates inspiration and enhances engagement between these groups; (3) employ a 'sociomateriality' lens to focus on the social interactions among stakeholders; and (4) acknowledging the subjectiveness of tourism experiences, the research responds to calls to employ both qualitative and confirmatory, quantitative methods to deliver richer findings.

#### 1.2. Research gaps and contributions

Despite the emergence of research on livestreaming commerce within the tourism and destination marketing literature, several gaps remain. This new work fills these gaps and contributes to tourism literature and practice. Firstly, livestreaming studies have separately examined single groups of stakeholders, either the user/customer or streamer. However, it has been argued that the success of livestreaming may rely on the interactions between different entities, such as the streamers, platforms, viewers, and travel providers, suggesting the value of livestreaming is co-created by multiple stakeholders (Liu et al., 2023; Su et al., 2021). These conclusions suggest that livestreaming in a travel context manifests through stakeholder collaboration (Saito & Ruhanen, 2017; Waavers et al., 2012). Therefore, this study provides valuable insights into the interactions between streamers, users, and the broader community of viewers. By exploring these dynamics, it offers a deeper understanding of the livestreaming experiences of different stakeholders in the tourism and hospitality sector. Secondly, research has investigated how livestreaming cultivates inspiration and enhances engagement (Song et al., 2024). While Böttger et al.'s (2017) inspiration theoretical framework suggested that individual variables may influence the experience of inspiration, they acknowledged their study did not examine these individual differences. The relationships between streamers, tourists and others, or individuals' characteristics, such as the level of excitement or stimulation they attain from the experience, may influence purchase outcomes. Optimum Stimulation Level (OSL) refers to the degree to which individuals engage in novel, non-functional behaviours purely for the sake of these experiences (Rodríguez-Ardura & Meseguer-Artola, 2019). Accordingly, this research applies Böttger et al.'s (2017) inspiration theory and Zuckerman's (1979) OSL theory to a tourism context to examine how livestream viewers' individual differences influence their inspiration to impulsively buy and cross buy.

Thirdly, Lin et al. (2022) suggested that future studies should consider building on behavioural and social science theories to shift the

research focus toward social interactions among stakeholders in the livestreaming system. This research adopts 'sociomateriality' as an appropriate theoretical lens to examine how the interconnectedness of livestreaming impacts inspiration and behaviours (Guzik et al., 2021; Orlikowski, 2007). Sociomaterial studies emphasise the materiality of digital technologies in 'effecting', rather than simply 'supporting' society (Cecez-Kecmanovic et al., 2014). Finally, Polat et al. (2023) identified that qualitative research was better suited to capturing the complexities of perceptions and behaviours as livestreaming penetrates the tourism sector. Others similarly propose that as tourism is heavily influenced by human behaviour and subjective experiences, qualitative research is more appropriate for studying these phenomena before confirmational, quantitative methods are applied (Ketter & Avraham, 2021). Accordingly, this new work aims to follow these methodological directions, beginning with a qualitative design (in-depth interviews) to uncover critical themes before confirmatory, quantitative methods (online surveys) are employed. This comprehensive investigation enhances our understanding of livestreaming and its implications for tourism, travel and destination marketing.

# 2. Literature review

Livestreaming has become a transformative force in the tourism industry, redefining how service providers and marketers engage with potential travellers (Ji et al., 2024; Wang et al., 2024; Xiao et al., 2025). By delivering real-time, immersive experiences, livestreaming bridges the gap between virtual exploration and physical travel, significantly shaping consumer decision-making, travel behaviour, and destination marketing strategies (Lim et al., 2021; Xu et al., 2023; Zhang, Zhang et al., 2024). As livestreaming continues to gain prominence in tourism promotion, research has examined its impact from two primary perspectives: the demand-side and the supply-side (Lin et al., 2022; Polat et al., 2023).

The demand-side perspective focuses on tourists and potential travellers as consumers of tourism services, emphasizing how livestreaming influences their experiences across different travel stages. In the pretravel stage, it facilitates need recognition, travel research, and decision-making (Dai et al., 2022; Liu, Li, et al., 2022; Xu et al., 2021a, 2021b). Ji et al. (2024) highlight how livestreaming servicescapes enhance travel intentions through interactivity and visual appeal. Sang et al. (2023) investigate how information quality and source credibility shape tourist perceptions and decision-making. However, previous studies have largely overlooked the real-time interconnectedness between individuals, livestreamers, and online communities, which is crucial in shaping consumer engagement and trust.

During the travel stage, livestreaming fosters real-time interactivity and engagement, enabling travellers to adjust their itineraries and optimize their experiences dynamically (Deng et al., 2021; Dolnicar & Talebi, 2020; Onderdijk et al., 2021). Liu et al. (2024) examine parasocial interactions, where virtual engagement with livestreamers fosters emotional connections that influence on-site travel behaviour. However, existing research has yet to explore how consumers derive inspiration from livestreamers and online communities. Additionally, it has not examined the moderating role of personality traits-such as Optimal Stimulation Level (OSL)-in shaping consumer behavioural intentions in livestreaming commerce. Beyond its role during the travel experience, livestreaming continues to impact consumer behaviour even after the journey ends. Tourists engage with livestreaming content post-travel, contributing to electronic word-of-mouth (eWOM) and influencing future travel decisions (Liu et al., 2022; Zhang et al., 2022). Ye et al. (2022) find that livestreaming's interactive and visual features enhance post-travel satisfaction and the likelihood of destination recommendations. However, research remains limited in examining impulse buying and cross-buying as behavioural outcomes, critical indicators of the effectiveness and success of livestreaming commerce.

While the demand-side perspective highlights how livestreaming

influences consumer engagement and decision-making, the supply-side perspective explores how businesses leverage this tool to shape consumer perceptions and drive marketing innovation. The supply-side perspective examines how businesses, organizations, and industry stakeholders utilize livestreaming as a strategic tool for branding, engagement, and value co-creation. Rather than merely a unidirectional marketing tool, livestreaming is now recognized as an interactive ecosystem that shapes both consumer behaviour and business strategy. Scholars emphasize that multiple stakeholders co-create value within livestreaming environments, highlighting its growing influence in virtual tourism, destination marketing, and service innovation (Liu et al., 2024; Yang et al., 2022). In the pre-travel stage, livestreaming is not just a promotional tool but a strategic platform for destination branding, product promotion, and relationship-building (Lin et al., 2022; Su et al., 2021; Volgger et al., 2021; Xu et al., 2021a, 2021b). This evolving role underscores the importance of crafting immersive and engaging digital experiences. Ji et al. (2024) further stress that effective servicescape design is crucial for shaping consumer perceptions, urging businesses to optimize digital content to maximize engagement. Despite these advancements, there remains a gap in understanding how livestreaming inspires consumers and influences their purchasing behaviours, especially when considering the moderating effect of OSL. Addressing this gap could offer valuable insights into designing more impactful livestreaming experiences.

During the travel stage, beyond destination marketing, livestreaming travel agencies, hotels, and tourism platforms utilize livestreaming to enhance customer engagement and service innovation. Liu et al. (2024) highlight the effectiveness of celebrity-endorsed livestreaming platforms such as Dongfang Xuan in building consumer trust and engagement, reinforcing its role in tourism branding strategies. Despite growing interest in livestreaming, a key gap remains in understanding how different sources-such as streamers versus online communities-uniquely impact consumer inspiration and engagement. This distinction is crucial for crafting targeted marketing strategies that resonate with diverse audience segments. Furthermore, in the posttravel stage, livestreaming has evolved beyond promotional use, becoming an integral part of product innovation, business performance management, and customer experience strategies (Grewal et al., 2020; Lau, 2020; Tavitiyaman et al., 2021). Sang et al. (2023) demonstrate that livestreaming enhances source credibility, fostering consumer trust and driving business performance. This finding aligns with Ye et al. (2022), who highlight the role of interactive and visual elements in enriching customer experiences, thereby offering valuable insights for platform development and destination marketing. However, a critical gap persists: prior research has not fully explored how consumer inspiration mediates the relationship between livestreaming engagement and actual purchasing behaviours, such as impulse buying and cross-buying. Addressing this gap could provide a deeper understanding of livestreaming's potential to convert viewer engagement into tangible business outcomes.Collectively, livestreaming is reshaping tourism by influencing both demand-side consumer behaviours and supply-side business strategies. However, existing research has yet to fully explore how the livestreaming environment inspires tourists and subsequently drives purchasing behaviours, including impulse buying and cross-buying. This study addresses these gaps by integrating insights from Sociomateriality Theory (Orlikowski, 2007), Inspiration Theory (Böttger et al., 2017), and Optimal Stimulation Level (OSL) Theory (Zuckerman, 1979). Specifically, it examines the mechanisms through which inspiration mediates the relationship between livestreaming engagement (from both streamers and communities) and purchasing behaviours (impulse buying and cross-buying), while also considering the moderating role of OSL in a tourism context. Furthermore, responding to calls for greater methodological diversity in tourism research (Ketter & Avraham, 2021; Polat et al., 2023), this study adopts a mixed-methods approach to provide a comprehensive understanding of livestreaming commerce's impact on tourism consumption

behaviours.

#### 3. Theoretical background

Sociomateriality is a theoretical framework for examining technology that highlights the interrelation of the technology and human capabilities, perceptions, and behaviours, as well as interactions among users (Sarker et al., 2021; Wang et al., 2024). Sociomateriality theory explains why implementing a piece of technology, software or mobile app, can create differing perceptions and behavioural responses for users, recipients, organisations and broader communities. Sociomateriality theory holds the potential to contribute to the tourism, travel and destination marketing literature by re-orienting our understanding of the relationships between livestreaming platforms, streamers, individuals, and the broader online community. In acknowledging sociomateriality as an appropriate approach through which to examine the perceptions, motivations and behaviours of individuals, tourism scholars have continued to employ the theory in recent works (Chai, 2024; Pumputis, 2024; Stumpf et al., 2020; Wang et al., 2024).

Sociomateriality studies emphasized the role of digital technologies in 'effecting', rather than merelv 'supporting' society (Cecez-Kecmanovic et al., 2014). Aligned with Leonardi, (2013) contextualisation of sociomateriality, emerging technologies, particularly mobile technology, can deliver tourism operators, tourists and live streamers both 'affordances' and/or 'constraints' (Deng et al., 2021). For example, in a society obsessed with 'nowness' (Buhalis & Sinarta, 2019), livestreaming can encourage interactivity, engagement and personalisation of exchanges between streamers, users and other viewers in real-time (Bawack et al., 2023). These socio-technological facilitated interactions may inspire individuals to book travel or purchase additional travel products (tours, insurance, car hire) during the livestreaming event (Lv, Zhang, et al., 2022; Ma et al., 2024).

# 4. Methodology

Guided by a sequential, unequally weighted design (Davis et al., 2011), our methodology combines qualitative insights with quantitative validation to comprehensively understand the research questions. In the qualitative phase (Study One), in-depth interviews with livestreaming platform users explored their experiences, identifying key themes around technological affordances, social interactions, and psychological processes. This phase uncovered constructs like the role of inspiration in purchasing decisions and varying engagement levels across user groups, laying the groundwork for the quantitative phase.

In Study Two, we used a survey-based approach to test and validate the constructs identified in Study One. This phase allowed us to assess the relationships between sociomateriality, inspiration, and OSL, and explore their combined effect on user behaviour in livestreaming commerce. The quantitative phase validated the theoretical framework and empirically tested the conceptual relationships proposed in the qualitative phase. This sequential design strengthens the study's findings by rigorously testing and refining the qualitative constructs, offering a comprehensive and reliable understanding of the factors influencing consumer behaviour in livestreaming commerce.

# 4.1. Study one: in-depth interviews

#### 4.1.1. Sample

Participants were carefully recruited across Chongqing, China, in July 2023. To identify valid participants, screening questions were used, and participants were required to do the following: (1) identify the livestreaming platform where a purchase was made; (2) recall the livestreamer; and (3) detail the travel product purchased. Data were collected from 14 validated participants through face-to-face interviews, which were recorded and transcribed. Each participant received 50 RMB (Chinese yuan) for their time. A review of the sample profile of the

participants interviewed can be found in Table 1.

#### 4.1.2. Procedure

Participants were purposively invited based on their prior experience in livestreaming commerce in the tourism context. The sample size was determined by achieving thematic saturation, wherein no new information emerged, confirming the adequacy of the sample. This approach aligns with similar mixed-method studies, such as those by Goncalves et al. (2024) and Xu et al. (2021b), which explored complex behaviours. One-to-one, in-person, semi-structured interviews were administrated to participants, each lasting 30-40 minutes. This approach facilitated participants articulating their views and authorised the interviewer to adapt, pose subsequent questions, and request clarification (Kallio et al., 2016). Participants were encouraged to share their stories, experiences, and insights from their livestream commerce journey, particularly in relation to buying travel products (such as flights, tours, hotels, insurance, and car hire) (Li et al., 2024). These narratives provided rich, detailed insights into individuals' experiences, perspectives, and behaviours related to the research topic. In-depth interviews were conducted until theoretical saturation, as demonstrated by redundancy, emerged (Lincoln & Guba, 1985; Mason, 2010). The analysis involved a grounded theory approach (Barratt-Pugh et al., 2019; Shaw, 2014). In the initial phase, Nvivo 12 auto-coding was employed to extract key insights from the interviews. Thirty key points were generated categorised into six themes during the second phase. These themes were reflected within prior literature, including antecedents - 'communication between the streamer and individual', 'communication between the online community and individual and "inspiration"; consequences -'impulsive purchasing' and 'cross-buying'; and moderators, such as OSL.

#### 4.1.3. Findings

The **first theme** highlighted was the bidirectional communication between streamers and individuals. The term **'streamer-to-individual' (S2I)** refers to two-way communication between both parties during a livestreaming event (Jahn & Kunz, 2012). According to Guo et al. (2021), streamers in livestreaming commerce are often characterised by their warmth, humour, and communication style. The quotations below illustrate how the interactivity between streamers and individuals in livestreaming can inspire action, enhance the purchase experience, foster engagement, and build trust and rapport.

During the livestream, the streamer engaged with the audience by asking polls and quizzes, which made the whole experience interactive and fun. [Female, 21, ID.4]

I really enjoyed the way the streamer engaged with me during the live session. In addition, his clever replies had me laughing throughout the entire duration. It was like a one-on-one comedy show! [Female, 21, ID.4]

The streamer's excitement and personal engagement made me feel more connected and assured about my purchase. [Male, 20, ID.9]

The **second theme** identified was again related to two-way communication, but this time between the individual and others engaged with the event. The term **'community-to-individual' (C2I)** can be understood as the extent of interactions between an individual

Table	1
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Sample	of na	articinan	ts inte	rviewe	d (n =	= 14).

ID	Gender	Age Group	ID	Gender	Age Group
1	Female	18-24	8	Female	25-34
2	Male	18-24	9	Male	25-34
3	Male	18-24	10	Male	35–44
4	Female	18-24	11	Female	35–44
5	Female	18-24	12	Male	35–44
6	Male	18-24	13	Male	55-64
7	Male	18-24	14	Female	55-64

and an online community (i.e., virtual viewers) (Blasco-Arcas et al., 2014). The quotations below illustrate how the interactive nature of livestreaming fosters connections and conversations among users, engendering a sense of community and augmenting the overall experience.

I loved how, during the livestream, other viewers were commenting and asking questions about the location. It felt like a community, and seeing their reactions and feedback helped me make my decision to purchase. [Female, 36, ID.11]

The live chat feature during the stream was amazing! Not only could I ask the host questions, but I also loved reading comments from others sharing their thoughts and opinions. It felt like we were all in it together. **[Male, 41, ID.10]** 

The **third theme**, related to '**inspiration**', represents an individual's subjective or personal evaluation of the motivation they receive from a specific source, content, or experience (Böttger et al., 2017). Böttger et al. (2017) conceptualise inspiration two-dimensionally, including being 'inspired by' and 'inspired to'. Consequently, these themes were present in the analysis. The findings indicated that individuals were inspired *by* sources, including inspirational content, streamer engagement, and other online participants. Once inspired by these sources, individuals were inspired *to* undertake further information-searching, engage in another livestreaming event, make impulsive purchases and, in some cases, make additional purchases (Cao et al., 2021; Sheng & Kairam, 2020; Wei & Xi, 2024).

I felt inspired by the positive reviews and recommendations from other customers in the live chat, which helped me feel more confident in my decision to purchase a travel package. [Male, 22, ID. 6]

Watching the streamer demonstrate different ways to use the travel products sparked my creativity and gave me new ideas for how to incorporate it into my daily life. **[Male, 60, ID. 13]** 

I decided to start creating my own content and reviews after being inspired by the streamer's captivating style. **[Male, 25, ID.9]** 

In addition to the immersive experiences above, the **fourth theme** participants shared related to their behaviours after livestreaming events, namely, '**impulsive purchasing**'. Analysis identified that viewers were motivated to make impulsive, unplanned purchases of (travel) products (Azad Moghdam et al., 2024; Kakaria et al., 2023).

I admit, I made a quick purchase during the livestream because the streamer offered a limited-time discount, and I didn't want to miss out on the deal. [Female, 21, ID.1]

I bought something on a whim because the streamer makes it look so appealing. [Male, 19, ID.2]

I believe this is a common experience for everyone. When people see substantial discounts with good recommendations, they often end up buying a product that they hadn't planned to. [Female, 55, ID. 14]

The **fifth theme** that emerged from the analysis again focused on reported behaviours. This time, incidents were identified where the individual was inspired to make additional purchases after an initial purchase. **Cross-buying** has been reported in previous studies, where an individual undertakes to buy (travel) products, and the products acquired initiate a sequence of purchasing related to additional (travel) products (Evanschitzky et al., 2017; Woodside & King, 2001).

The streamer's suggestions encouraged me to buy some other travel offers from the operator. **[Female, 19, ID. 5]** 

After purchasing in the live stream, I ended up buying an additional tour that was recommended by the streamer and other viewers. [Male, 22, ID. 6]

I had the experience of purchasing a range of products from the same firm when streamer offered a 50 % discount for a second purchase. [Male, 24, ID. 7]

Other than antecedents and consequences, further analysis suggests possible moderators were at play. Accordingly, the **sixth theme** identified was OSL (Zuckerman, 1979, p. 10). OSL has been proposed as a fundamental individual personality construct in hedonic consumption contexts (Helm & Landschulze, 2009; Mahatanankoon, 2007), such as may be found in livestreaming. OSL theorists contend that individuals possess an inherent motivation to achieve a particular desired level of stimulation (Raju, 1980; Steenkamp & Baumgartner, 1992, 1995).

I love watching livestreaming because there's always something new to see and talk about. [Male, 24, ID. 7]

Even though I'm not always sure about the locations, I find livestream shopping exciting because it gives me a lot of options and keeps me interested. **[Female, 25, ID.8]** 

I love how various livestreams are always revealing new things to me about new places. These livestreams really stimulate me to find out more about new places. **[Male, 19, ID.2]** 

Study One identified interactions between individuals, streamers, and online communities that inspire purchase behaviour, such as impulse buying and cross-buying. Furthermore, OSL emerged as a possible moderator. Following this initial exploratory study, the identified themes were examined via a confirmatory, quantitative method in Study Two.

#### 4.2. Study two: online survey

In the quantitative phase, participants (n = 748) were recruited via an online survey platform using purposive sampling, supported by screening questions to ensure that they had engaged with livestreaming commerce in the past six months. This sampling strategy ensured the inclusion of respondents who could provide relevant insights into the research context. Inclusion criteria: Participants must have engaged in livestreaming commerce within the previous six months; purchased at least one tourism-related product through a livestreaming platform; and been aged 18 years or older. Exclusion criteria: Individuals under the age of 18 years or with no prior experience in livestreaming commerce. Incomplete or low-quality survey responses, such as those by respondents who failed attention-check questions, were also removed from the final dataset. Recruitment procedure: A screening survey was administered to verify eligibility based on the inclusion and exclusion criteria. This survey included questions on livestream engagement frequency, recent purchases, and familiarity with tourism-related livestreaming platforms. Eligible participants received a unique link to the full survey, ensuring that only prequalified respondents completed the questionnaire.

The sample size was substantially larger than the minimum required for robust partial least squares structural equation modelling (PLS-SEM) analysis, adhering to the '10 times rule' method (Hair et al., 2011; Peng & Lai, 2012). This large sample size enhances statistical power and ensures the reliable detection of relationships, providing a strong foundation for the study's findings. Study One was exploratory in nature and focused on identifying theoretically grounded and practically relevant themes. Thematic saturation was reached after 14 interviews, ensuring that all critical dimensions of livestreaming commerce were thoroughly captured. These themes were then validated against the established literature and theoretical frameworks, such as the sociomateriality and inspiration theories, to confirm their relevance and robustness.

The constructs used in the PLS-SEM approach in Study Two were directly derived from these validated themes and operationalised using established scales from prior research. For example, S2I and C2I communication represent the sociotechnical interactions integral to livestreaming commerce, while inspiration (inspired-by and inspired-to) captures motivational processes aligned with inspiration theory. Behavioural outcomes, such as impulse buying and cross-buying, were similarly grounded in foundational consumer behaviour theories. Although Study One did not establish causal links, its findings provided a solid exploratory foundation for Study Two, where PLS-SEM was employed to rigorously test these relationships quantitatively. Integrating qualitative insights, theoretical frameworks, and validated measurement scales ensures that the identified themes are comprehensive and appropriate for causal testing. These considerations enhance the robustness and relevance of the constructs in the livestreaming commerce context.

While constructs such as trust, perceived value, and authenticity are noted in prior studies (Guo et al., 2021; Liu & Sun, 2024; Wu & Huang, 2023), our analysis indicated that these elements were indirectly reflected in the core themes identified, such as in the trust-building aspects of S2I and C2I communication. To ensure robust data collection for Study Two, participants were screened to verify livestreaming commerce experience within the past six months, with data quality reinforced through integrity checks and a rigorous back-translation process, achieving a Kappa coefficient of 0.77 for linguistic reliability (Landis & Koch, 1977). While Study One was exploratory and not designed to establish causality, its findings informed the operationalisation of constructs in Study Two, where validated scales were employed to test causal relationships within the PLS-SEM framework. For instance, inspiration and communication constructs were mapped directly to variables that quantitatively demonstrated their impacts on impulse buying and cross-buying behaviours. This methodological rigour ensures that the identified themes are both comprehensive and grounded in theoretical and practical relevance.

Therefore, Study Two is designed to test the associations between the variables identified in Study One, specifically S2I, C2I, 'Inspiration-By' (INSBY), 'Inspiration-To' (INSTO), 'Impulse Buying' (IMB), 'Cross-Buying' (CRB), and OSL. The following sections explain the theoretical underpinnings of the nomological network and hypothesised relationships.

#### 5. Research model and hypotheses

# 5.1. S2I communication

Two-way communication is pivotal in shaping individuals' cognitive and emotional states, significantly influencing their purchasing behaviours (Zheng et al., 2023). From a sociomateriality theory perspective, livestreaming platforms (e.g., TikTok live) are digital environments where technology and social elements are intertwined, driving dynamic interactions between streamers and travellers. These platforms function as sociomaterial assemblages that facilitate connectivity, transforming the travel-related purchasing experience. (Ramaswamy & Ozcan, 2018; Sun et al., 2019).

Study One identified two critical dimensions of this two-way communication: S2I and online C2I. Within the tourism context, S2I communication refers to the interaction or collaboration between the streamer and the viewer during a livestreaming event, where the streamer's engagement has a direct impact on the viewer's decisionmaking process (Bawack et al., 2023; Jahn & Kunz, 2012). Communication is essential, allowing travellers to quickly obtain information about travel-related products, enhancing the overall experience (Wongkitrungrueng & Assarut, 2020). Such engagement enhances trustworthiness and reduces risks associated with purchasing travel-related packages online (Xu et al., 2021b; Xu & Ye, 2020), ultimately enhancing the overall experience). This effect is amplified by the parasocial relationship between the streamer and the traveller, where this bond is further strengthened by the authenticity and persuasiveness of the streamer's recommendations (Ko & Chen, 2020). This relationship creates a fertile environment for spontaneous travel bookings. Based on

#### this understanding, it is hypothesised that:

#### H1a. : S2I communication has a positive impact on impulsive buying.

Personalised communication through livestreaming events can influence a traveller's perception of travel packages and tourist-related services (Xu et al., 2021a; Y. Xu & Ye, 2020). This interaction influences travellers to purchase complementary products beyond their initial interests, thereby driving cross-buying behaviour (Mukerjee & Shaikh, 2019; Mukerjee, 2020). The sociomaterial features of the platform, such as real-time chat and dynamic visual displays, combined with the social interaction facilitated by the streamer, create a powerful environment (Bawack et al., 2023; Ye et al., 2022) where cross-buying is more likely to occur. The streamer's ability to tailor suggestions based on the viewer's preferences makes these additional services seem more relevant and enhances the perceived benefits of purchasing them together. Therefore, we hypothesise:

# H1b. : S2I communication has a positive impact on cross-buying.

Inspiration theory offers a valuable lens to understand how livestreaming interactions influence travellers' behaviour and decisionmaking. Böttger et al. (2017) assert that inspiration constitutes a multifaceted psychological process that involves transmitting information and transforming the individual receiving it. This transformation is often triggered by a 'human-message interaction' or communication that evokes a sense of possibility, ultimately leading to a desire for action (Bawack et al., 2023). Streamers who exhibit warmth, charisma, and effective communication are well positioned to inspire travellers. Knowledgeable about specific destinations, travel packages, or experiences, they serve as catalysts for inspiration by presenting travel-related information that resonates emotionally with the audience (Ji et al., 2024; Song et al., 2024). As noted by Andonopoulos et al. (2023), the credibility of the source (the streamer) enhances the effectiveness of this inspiration. Therefore, combining a credible streamer and inspirational communication in livestreaming can significantly drive viewers to convert their inspiration into action. Based on these arguments, it is hypothesised that:

H1c. : S2I communication has a positive impact on individuals' INSBY state in livestreaming commerce.

# 5.2. C2I communication

C2I communication refers to the interactions between an individual and the online community (comprising other virtual viewers) during a livestreaming event (Blasco-Arcas et al., 2014). These interactions are crucial as they replicate the social dynamics of traditional shopping environments. Sociomateriality suggests that technology (the livestreaming platform) and social interactions (community engagement) are inextricably linked, working together to create the overall experience and influence outcomes (Orlikowski & Scott, 2008). This real-time engagement is further amplified by viewers participating by commenting and chatting with each other. This creates a dynamic environment where potential travellers feel a sense of affiliation with others who share similar interests (Lo et al., 2022), making travellers more comfortable with impulse purchasing (Liu, Yuan, et al., 2022; Zhao et al., 2019). For example, when potential travellers observe others expressing interest or committing to a booking during a livestreaming event, their trust in the product increases the probability of a comparable purchasing decision. When the streamer offers exclusive deals during the event, the collective enthusiasm and fear of missing out can significantly heighten viewers' urgency to book immediately (Sun & Bao, 2023). Therefore, we hypothesise:

# H2a. : C2I communication has a positive impact on IMB.

CRB refers to a consumer's willingness to purchase additional or complementary products from the same brand or seller after an initial purchase (Mukerjee, 2020). By applying sociomateriality theory, we can deepen our understanding of how communication dynamics within online communities of fellow travellers during livestreaming influence this behaviour (Orlikowski, 2007). When potential travellers join a livestreaming event, they engage in real-time discussions with other viewers who share similar interests (Li et al., 2024). This interaction creates a sociomaterial environment where the community support enabled by the platform significantly enhances individuals' perceptions of comfort and confidence in purchasing decisions (Ma et al., 2023, 2024). This shared experience within the livestream environment can promote cross-buying behaviours in tourism. For example, a traveller who initially planned to book only a flight might be influenced by the community's excitement and end up booking a guided tour or travel insurance. Thus, we hypothesise:

# H2b. : C2I communication has a positive impact on CRB.

The INSBY state refers to an individual's motivational state triggered by external stimuli, such as engaging content, streamers' presentations, or peer feedback, which fosters new ideas and drives emotional engagement (Böttger et al., 2017). This aligns with inspiration theory, which emphasises the psychological process whereby individuals are moved by information to act (Böttger et al., 2017), playing a pivotal role in inspiring and encouraging the consumption of travel-related products and services. As previously mentioned, during a livestreaming event, potential travellers can interact with the streamer and other viewers in real time. The arousal of hedonic feelings such as admiration and emotional trust while interacting fosters a sense of participation (Barnes, 2021; Kang et al., 2021; Ming et al., 2021). In this environment, travellers are not merely passive recipients of information but active members of a community engaging in real-time discussions about travel destinations, accommodations, or experiences. This communal interaction creates a shared sense of excitement and validation, where individuals see others in the community expressing interest or enthusiasm for travel-related services (Li et al., 2024; Xu et al., 2021a). In the tourism context, this inspiration and alignment with community behaviour are particularly powerful, as emotions and the perceived experiences of others often influence travel decisions. Therefore, we hypothesise:

**H2c.** : *C2I* communication positively impacts individuals' INSBY state in livestreaming commerce.

#### 5.3. The effects of individuals' inspiration in livestream commerce

Prior research has emphasised the critical role of inspiration in shaping individuals' behaviours (Dai et al., 2022; Liu, Li, et al., 2022; Tsaur et al., 2022). In tourism, inspiration can ignite the desire to explore new destinations or experiences. Perceived inspiration often stems from inspiring sources, such as compelling travel content, which can generate fresh ideas and aspirations in viewers' minds (Cao et al., 2021; Sheng & Kairam, 2020; Wei & Xi, 2024). From a psychological perspective, inspiration in tourism can be triggered either by external stimuli or a motivational condition (i.e., state) that mediates the relationship between these stimuli and viewers' reactions (Khoi & Le, 2024). Livestreaming platforms offer viewers interactive elements such as polls, quizzes, Q&A sessions, live chats, connecting microphones (or Lianmai in Chinese), reactions, clickable links, and even virtual gifts and gamification features. (Guo et al., 2021). These features can inspire viewers by delivering highly personalised product recommendations (Hu & Chaudhry, 2020). The online community also plays a crucial role by sharing their experiences, helping viewers and travellers make more informed decisions (Liu et al., 2018).

Böttger et al. (2017) delineated two critical domains of individual inspiration: the activation domain (INSBY) and the intention domain (INSTO), aligning with prior research on inspiration as a psychological construct. In tourism, when travellers enter the INSBY state, they are moved by livestreamed content that may feature stunning travel destinations, cultural experiences, or enticing vacation packages. This initial state signifies the spark that motivates them to consider new travel possibilities. The transition to the INSTO state represents their shift from merely contemplating these travel ideas to actively planning and booking their trips. Building on this, it is proposed that travellers are first inspired by their interactions with streamers (S2I) and the online community (C2I) during a livestreaming event, and that these interactions motivate them to act, such as booking travel or purchasing additional tourism offerings, leading to the following hypothesis:

**H3.** : In livestreaming commerce, an INSBY state positively predicts an INSTO state.

#### 5.4. The consequences of inspiration

Based on inspiration theory (Thrash et al., 2010, 2014), individuals are motivated to extend the desirable qualities of an evocative object to other objects. In the context of tourism, this could mean that travellers are inspired by the destination and related experiences or services, such as accommodations, tours, or local activities. Thrash and Elliot (2004) suggest that the use of phrases like 'inspired by' and 'inspired to' can have distinct effects on motivation and mindset, which is crucial in understanding consumer behaviour in the travel industry.

According to Böttger et al. (2017), inspiration can influence purchase intentions. It is essential to distinguish between motivation and intention as separate stages in the decision-making process (Gollwitzer, 1990). During the motivation phase, a traveller may develop aspirations and reflect on their goals, such as exploring new destinations or experiencing unique cultural events. Once fully committed to these travel objectives, the focus shifts to the initiation and execution of actionable plans, such as booking flights, accommodations, or tours. Heckhausen and Gollwitzer (1987) employ the metaphor of 'crossing the Rubicon' to illustrate the transition from a motivational to a volitional state of mind during the action phases, a framework known as the Rubicon model.

We argue that the state of being inspired is closely related to one's motivational mindset and can lead to the development of behavioural intentions, particularly in the context of traveller decision-making. This inspiration can significantly influence impulse buying and cross-buying behaviours during livestreaming commerce, such as booking spontaneous travel experiences or purchasing complementary tourism products. When travellers are inspired by livestreamed content showcasing unique destinations or exclusive travel deals, their motivation to act quickly and explore additional offerings is heightened, increasing their overall engagement and spending in the tourism sector.

Recent studies have shown that livestreaming can be a powerful tool for influencing an individual's behaviour, particularly in encouraging impulse buying and cross-buying in tourism. For instance, Song et al. (2024) found that being inspired often leads to consumers' intentions to engage in livestream shopping. Similarly, Khoi and Le (2024) observed that the role of inspiration state significantly impacts viewers' inclinations to make impulsive purchases while livestreaming commerce. This phenomenon is evident in the tourism industry, where livestreamed tours of exotic destinations can spur viewers to quickly book trips or vacation packages, as they are emotionally stirred by the vivid experiences and enthusiastic endorsements shared by other viewers. Therefore, we hypothesise:

# H4. : Individuals' INSTO state positively influences their impulse purchasing.

In addition to its influence on impulse purchases, inspiration extends its impact by motivating travellers to explore and purchase related products, leading to cross-buying behaviour. This effect is particularly pronounced in livestreaming commerce, where the dynamic nature of the content can encourage viewers to venture beyond their initial interests. According to inspiration theory, individuals inspired by something often seek to expand the desirable qualities they perceive in one object to others (Thrash et al., 2010). Building on this, it is argued that the state of being inspired during a livestreaming event not only drives the desire to make impulsive purchases but also fosters the intention to engage in cross-buying. Thus, the following hypothesis is proposed:

H5. : Individuals' INSTO state positively influences their CRB.

#### 5.5. Moderating role of OSL

OSL refers to the degree to which individuals engage in novel, nonfunctional, and exploratory behaviours purely for those experiences (Rodríguez-Ardura & Meseguer-Artola, 2019). Previous research has shown that individuals with higher OSL tend to display more exploratory behaviours, such as seeking out new information and being more open to making risky decisions, than those with lower OSL (Steenkamp & Baumgartner, 1992). This is particularly relevant in tourism, where making a spontaneous holiday booking during a livestreaming event can be an exhilarating experience (Alam et al., 2023; Jiang et al., 2024).

OSL theory posits that individuals are intrinsically motivated to accomplish a preferred level of stimulation, which can be fulfilled through external stimuli such as a livestreaming event (Steenkamp & Baumgartner, 1992). Individuals with high OSL are more likely to seek out high activation levels through new stimuli or experiences that satisfy their need for excitement and novelty (Steenkamp & Burgess, 2002). In contrast, those with low OSL levels prefer lower activation levels (Raju, 1980; Richard & Chebat, 2016). Livestreaming events can be powerful external stimuli, particularly for individuals with high OSL. Therefore, an individual's OSL is expected to positively moderate the relationship between their inspiration to act and impulse-buying behaviour. Further, repeated exposure to a stimulus reinforces positive emotions (Berlyne, 1960). In the context of travel decision-making, consider being inspired to book a five-night stay at a beach resort with meals included at an attractive price. This initial inspiration can generate anticipation and excitement, making the traveller more receptive to additional offers such as a guided tour or an airport pickup. In this scenario, inspiration acts as a catalyst, amplifying the positive emotions associated with the stimulation of each new presentation (Avornyo et al., 2019). Thus, it is also expected that OSL will positively moderate the relationship between an individual's inspiration to act and their cross-buying behaviour. Thus, we hypothesise:

**H6a.** : OSL positively moderates the relationship between inspiration (i.e., INSTO) and IMB.

# **H6b.** : OSL positively moderates the relationship between inspiration (i.e., INSTO) and CRB.

The research model includes all these constructs and hypotheses, which are visually represented in Fig. 1.

#### 6. Results and analysis

#### 6.1. Measurement development

Scale measures previously well established and validated from the extant literature were employed. Each survey item was carefully reviewed and adapted to align with the specific context of livestreaming commerce in tourism while preserving the integrity of its original theoretical construct. Items measuring S2I communication were adapted from Jahn and Kunz (2012), while C2I communication items were derived from Blasco-Arcas et al. (2014). The inspiration-related measures INSTO and INSBY were adapted from Böttger et al. (2017), IMB from Goel et al. (2022), CRB from Mukerjee (2020), and OSL from Rodríguez-Ardura and Meseguer-Artola (2019). These adaptations ensured that the items effectively captured the nuances of livestreaming commerce interactions while maintaining their theoretical robustness.



Fig. 1. Framework for assessing the antecedents influencing impulse buying and cross-buying in livestream commerce.

Expert reviews are a widely recognised method in survey design to ensure content validity, where subject-matter specialists evaluate the appropriateness and clarity of survey items (Lynn, 1986). In this study, a panel of three academic experts in digital marketing and livestreaming commerce reviewed the adapted items to assess their alignment with the intended constructs. Their feedback informed refinements to ensure that each item accurately captured the construct it was designed to measure, enhancing the instrument's validity.

Given the study's focus on Chinese consumers, scale items were translated into Mandarin and back into English using the back-translation technique (Khoi & Le, 2024; Li et al., 2021). The process was accomplished by using two groups of translators, with each group consisting of two bilingual translators working independently. The initial translation was reviewed, and discrepancies were resolved to ensure conceptual equivalence with the original English items. The two translator groups achieved a strong Kappa coefficient of 0.77, with p < .0001 (McGorry, 2000).

Pretesting and pilot studies were critical for ensuring the reliability and feasibility of social research instruments (Van Teijlingen & Hundley, 2002). In this study, a pretest involving 25 participants from the target population assessed question clarity, cultural appropriateness, and comprehension. Feedback led to wording, sequencing, and format refinements, improving the questionnaire's alignment with research objectives. Following this, a pilot study with 50 respondents evaluated the reliability and validity of the scales, serving as a smaller version of the main survey. Cronbach's alpha values (all > 0.70) confirmed internal consistency, while exploratory factor analysis verified unidimensionality, ensuring that each scale measured a single construct. These steps strengthened the survey instrument's robustness, laying a solid foundation for the full-scale study.

The main study further validated the survey items using confirmatory factor analysis (CFA). Standardised loadings, composite reliability (CR), and average variance extracted (AVE) met recommended thresholds (Hair et al., 2016), indicating robust construct validity and reliability (see Table 4).

# 6.2. Data collection

The nomological network was tested using an online survey, with data collected from 15 October 2023–30 November 2023. To maintain the integrity and quality of responses and to prevent recency bias, screening questions were implemented to confirm that participants had

(1) engaged in livestreaming commerce and (2) purchased a travel product, that is, booked a holiday or tour, in the previous four weeks. A survey link containing 18 items for six variables, two integrity-check questions, a duration check and sample demographic items were distributed through WeChat (Weixin), a popular social networking site, and SoJump (wjx.cn), a service provider engaged in online questionnaires, examinations, and a voting platform in China (Xiao et al., 2022). Participants were instructed to provide their responses for each item using a scale ranging from strongly disagree/never (1) to strongly agree/always (7). The final sample, consisting of n = 748, was derived after excluding participants who either failed one or both integrity-check items, completed the survey too rapidly, or provided consistent responses throughout the entire survey. Further details can be found in Table 2.

# 6.3. Measurement model analysis

SmartPLS 4 was used to examine the measurement model. Initially, the reliability and validity of the constructs were assessed. The minimum value of Cronbach's alpha recorded was 0.799, indicating that the internal consistency criterion was met, as all measurement item loadings were at least 0.7 (Hair et al., 2016). The scores of rho\_A ranged from 0.874 to 0.91, indicating that the constructs had good reliability (Dijkstra & Henseler, 2015). The AVE was used to assess convergent validity, yielding values between 0.699 and 0.771, which exceed the suggested minimum of 0.5. (Fornell & Larcker, 1981; L. Lv, Huang, et al., 2022). The evaluation of discriminant validity involved comparing the correlations among constructs with the square root of the AVE for each construct. All values of the square root of the AVE exceeded any correlation coefficient, indicating strong discriminant validity (Fornell & Larcker, 1981). To evaluate discriminant validity for each construct, the square root of the AVE was compared against the correlations among constructs. The square root of the AVE for each construct exceeded the respective correlations, indicating satisfactory discriminant validity (Hair et al., 2010). Furthermore, the correlations' heterotrait-monotrait ratio (HTMT) was used to estimate discriminant validity. The HTMT ratio values for all constructs fell below the suggested threshold of 0.90 (Hair et al., 2017; Ku & Chen, 2024). It can be confidently asserted that discriminant validity has been established. The findings demonstrate that all correlations fell below 0.90 (see Table 3).

#### Table 2

Respondents' demographic profile.

Respondents' characteristics	Freq.	%	
Gender	Female	382	51.07
	Male	366	48.86
Age	18 – 24	170	22.66
	25 – 34	259	34.63
	35 – 44	155	20.66
	44 – 54	86	11.43
	55–64	54	7.22
	65 and over	26	3.48
Highest education level	Less than a high school diploma	49	6.48
	High school degree or equivalent	115	15.31
	Bachelor's degree	192	25.67
	Master's degree	338	45.19
	Professional degree	50	6.62
	Doctorate or PhD	7	0.87
Current occupation status	Employed full time (40 or more	364	48.60
	hours per week)		
	Employed part-time (up to	114	15.17
	39 hours per week)		
	Casual or Sessional	59	7.82
	Housewife	22	2.87
	Student	105	14.04
	Self-employed	75	10.03
	Retired	12	1.60
Average monthly salary*	Less than \$5000	184	24.60
	\$5000 to \$9,999	125	16.64
	\$10,000 to \$19,999	141	18.78
	\$20,000 to \$29,999	133	17.71
	\$30,000 to \$39,999	94	12.50
	\$40,000 to \$49999	57	7.55
	Over \$50,000	18	2.34
Social media	WeChat	539	71.99
	TikTok	461	61.56
	Sina Weibo	307	41.04
	Kuaishou	325	43.45
	Xiaohongshu	163	21.79
Monthly livestream usage	Once	44	5.82
frequency	2–3	100	13.30
	4–5	301	40.24
	6–7	192	25.60
	8–9	57	7.55
	More than 10	57	7.62

\*Note: The average salary is 1 US dollar, equivalent to approximately 7 RMB (Chinese yuan) (see Wise, 2024).

# Table 3

Discriminant validity - Heterotrait-monotrait ratio (HTMT).

CONSTRUCT	C2I	CRB	IMB	INSBY	INSTO	OSL	S2I
C2I							
CRB	0.738						
IMB	0.768	0.835					
INSBY	0.571	0.723	0.675				
INSTO	0.495	0.855	0.637	0.659			
OSL	0.534	0.803	0.79	0.654	0.861		
S2I	0.884	0.76	0.768	0.622	0.544	0.624	

Note: Diagonal lines rendered in italics face show the square of AVE of each construct. The values of the HTMT ratio for all constructs were less than the recommended threshold of **0.90** (Hair et al., 2017)

#### 6.4. Common method bias (CMB)

This study conducted Harman's single-factor test, analysing all measurement items to evaluate their single-factor loading. Harman's test revealed that no single factor accounted for more than 50 % of the variance, indicating minimal risk of CMB (Podsakoff et al., 2003). Through this analysis, seven factors were identified. Eigenvalues greater than 1 (eigenvalues > 1) account for 65.55 % of the total variance. The first factor reported for 43.49 % of the total variance, and all the remaining factors conveyed less than 10 %. The results indicated that no single construct accounted for more than half of all variances and that

more than one factor emerged.

Furthermore, we used the marker variable technique (Kock, 2015; Weismueller et al., 2020) to calculate and report marker-adjusted loadings (see Table 4). This technique incorporates a theoretically unrelated variable to adjust the loadings and identify any potential biases in the constructs (Kock, 2020). After adjusting for the marker variable, the loadings of the primary constructs - S2I, C2I, inspiration (INSBY and INSTO), IMB, and CRB - remained consistent and significant, with values ranging from 0.824 to 0.852. These results further confirmed the absence of CMB. Variance inflation factors (VIFs) for all constructs were also assessed and found to range between 0.824 and 0.852, well below the recommended threshold of 3.3 (Hair et al., 2016). Additionally, the structural model demonstrated robust reliability and validity, with Cronbach's alpha (> 0.7), CR (> 0.8), and AVE (> 0.7) meeting recommended thresholds (Hair et al., 2016). The Kolmogorov–Smirnov test confirmed the normality of residuals across items (p < 0.001), further supporting the robustness of the data. Procedural remedies during data collection complemented these statistical analyses. These measures included anonymising responses, randomising item order, and varying scale endpoints to minimise response biases. These methodological steps collectively ensured that the findings were reliable, replicable, and free from significant CMB concerns (see Table 4).

Subsequently, the analysing multicollinearity evaluated through VIF revealed that all values were below the threshold of 3.3, confirming no significant multicollinearity issues among predictor variables. Effect size  $(f^2)$  analysis revealed substantial influences among constructs. For example, S2I communication greatly affected IMB  $(f^2 = 0.541)$ , while INSTO demonstrated a large effect on CRB  $(f^2 = 0.486)$ . The effect of C2I communication on INSBY was medium  $(f^2 = 0.209)$ . Together, these findings underscore the structural model's quality, reliability, and predictive power, reinforcing the validity and strength of the study's results. Therefore, common method bias is not considered a significant issue (see Table 4).

To address concerns about nonresponse bias, we conducted a  $\text{Chi}^2$  and *t*-test to detect nonresponse bias by comparing characteristics of early (first 50 %) and late (last 50 %) respondents across key constructs such as S2I, C2I, inspiration (INSBY and INSTO), IMB, and CRB. The results confirmed that there were no significant differences between the groups (p > 0.05) (Armstrong & Overton, 1977), suggesting a minimal risk of nonresponse bias and supporting the representativeness of the sample.

# 6.5. Structural model analysis

The bias-corrected and accelerated method estimated the structural model by focusing on the standardised path coefficients, t-values, and confidence intervals (CIs). The path coefficients' significance was assessed through bootstrapping analysis (Hair et al., 2014). The results from 5000 complete bootstraps (i.e. bootstrapping) yield a t-value for evaluation, with t-values exceeding 1.96 considered significant at a 95 % confidence level (Hair et al., 2016). The path coefficients for the hypotheses were determined through a two-tailed test bootstrapping procedure, utilising 1000 iterations and 5000 subsamples (Hair et al., 2016). As indicated in Table 5, the direct relationships between communication between the S2I and communication between the C2I towards IMB and CRB were positive and significant (p < 0.001): H1a: S2I  $\rightarrow$  IMB ( $\beta$  =.582; p < 0.001; t = 14.06); H1b: S2I  $\rightarrow$  CRB ( $\beta$  =.318; p < 0.001; t = 6.30); H2a: C2I  $\rightarrow$  IMB ( $\beta = .170; p < 0.001; t = 3.74);$ and H2b: C2I  $\rightarrow$  CRB ( $\beta$  =.287; p < 0.001; t = 5.95). Therefore, the relationship between interactions (S2I and C2I) and both shopping behaviours (IMB and CRB) in the model are supported. The relationships between TWCs (S2I and C2I) and INSBY were positive and significant: H1c: S2I  $\rightarrow$  INSBY ( $\beta$  =.358; p < 0.001; t = 7.05); and H2c: C2I  $\rightarrow$  INSBY ( $\beta$  =.209; *p* < 0.001; *t* = 3.83). The relationships (inspiration) between INSBY and INSTO were also positive and significant: H3: INSBY  $\rightarrow$ INSTO ( $\beta$  =.532; *p* < 0.001; *t* = 17.42). As shown, the relationship

#### Table 4

Results of standardized item loadings, Cronbach's alphas, CRs, and AVEs.

Dimension*	Item ID	Through a Livestreaming event for tourism purposes	Loadings	t- Values	α	CR	AVE	VIF	p- Values	Kolmogorov- Smirnov test	Marker- Adjusted Loadings
Steamer to Individual (S2I)	S2I1 S2I2	I can interact with the streamer. I can communicate with the streamer	0.854 0.846	0.803	0.884	0.717	64.274 57.167	1.785 1.762	0.000 0.000	< 0.001 * ** < 0.001 * **	0.843 0.83
(0=1)	S2I3	I exchange and share opinions with the streamer.	0.841				63.412	1.651	0.000	< 0.001 * **	0.825
Community to Individual	C2I1	I can interact with the online community.	0.846	0.784	0.874	0.699	58.185	1.701	0.000	< 0.001 * **	0.838
(C2I)	C2I2	I can communicate with the online community.	0.832				52.701	1.581	0.000	< 0.001 * **	0.821
	C2I3	I can exchange and share opinions with the online community.	0.829				55.94	1.638	0.000	< 0.001 * **	0.812
Inspiration-By	INSBY1	My imagination was stimulated.	0.843	0.799	0.882	0.714	55.834	1.750	0.000	< 0.00 * **	0.835
(INSBY)	INSBY2	I was intrigued by a new idea.	0.865				70.24	1.854	0.000	< 0.001 * **	0.854
	INSBY3	I unexpectedly and spontaneously got new ideas.	0.825				55.455	1.590	0.000	< 0.001 * **	0.811
Inspiration-To	INSTO1	I was inspired to buy.	0.833	0.817	0.892	0.733	57.445	1.655	0.000	< 0.001 * **	0.827
(INSTO)	INSTO2	I felt a desire to purchase.	0.877				82.257	2.029	0.000	< 0.001 * **	0.87
	INSTO3	I was motivated to buy.	0.857				54.688	1.881	0.000	< 0.001 * **	0.842
Impulse Buying (IMB)	IMB1	I would purchase the offer spontaneously.	0.794	0.792	0.878	0.707	34.4	1.546	0.000	< 0.001 * **	0.785
	IMB2	I would buy the offer impulsively.	0.881				93	1.93	0.000	< 0.001 * **	0.867
	IMB3	I would purchase the product, which I had not planned to do.	0.844				54.715	1.702	0.000	< 0.001 * **	0.83
Cross-Buying (CRB)	CRB1	I would purchase an additional product from the same brand.	0.878	0.851	0.91	0.771	83.394	2.068	0.000	< 0.001 * **	0.864
()	CRB2	I would buy another product from the same brand.	0.884				83.963	2.222	0.000	< 0.001 * **	0.875
	CRB3	I would purchase other products from the same brand	0.872				68.603	2.001	0.000	< 0.001 * **	0.86
Optimum stimulation level (OSL)	OSL1	I like to try new and different things rather than continue doing the same old things.	0.835	0.804	0.884	0.718	53.967	1.671	0.000	< 0.001 * **	0.824
	OSL2	I like change, variety, and travel, even if it involves some danger.	0.861				56.131	1.910	0.000	< 0.001 * **	0.852
	OSL3	I prefer an unpredictable way of life, full of excitement, to a routine one.	0.847				61.36	1.695	0.000	< 0.001 * **	0.836

Note: The source of adoption of each dimension is in the Measurement Development section.

#### Table 5

Summary of assessment of the Model (H1 - H5) in Study.

Hypothesis	Path	Path coefficients	STDEV	t-values	p-values	Bias	Confider [2.5 %	nce intervals %, 97.5 %]	VIF	Path Status	Outcome
H1a	$S2I \rightarrow IMB$	0.582 * **	0.041	14.06	0.000	-0.001	0.498	0.663	2.142	Positive and significant	Supported
H1b	$S2I \rightarrow CRB$	0.318 * **	0.05	6.30	0.000	0.002	0.213	0.413	2.142	Positive and significant	Supported
H1c	$S2I \rightarrow INSBY$	0.358 * **	0.051	7.05	0.000	0.000	0.255	0.455	2.017	Positive and significant	Supported
H2a	$C2I \rightarrow IMB$	0.170 * **	0.046	3.74	0.000	0.001	0.076	0.256	2.054	Positive and significant	Supported
H2b	$C2I \rightarrow CRB$	0.287 * **	0.048	5.95	0.000	-0.001	0.196	0.384	2.054	Positive and significant	Supported
H2c	$\text{C2I} \rightarrow \text{INSBY}$	0.209 * **	0.054	3.83	0.000	0.001	0.103	0.316	2.017	Positive and significant	Supported
H3	$\textbf{INSBY} \rightarrow \textbf{INSTO}$	0.532 * **	0.031	17.42	0.000	0.001	0.47	0.591	1.000	Positive and significant	Supported
H4	$\textbf{INSTO} \rightarrow \textbf{IMB}$	0.213 * **	0.032	6.61	0.000	0.000	0.152	0.277	1.260	Positive and significant	Supported
H5	$INSTO \rightarrow CRB$	0.486 * **	0.034	14.44	0.000	0.000	0.419	0.551	1.260	Positive and significant	Supported

Note: \*Path significant at the 0.050 level. \* \*Path significant at the 0.001 level. \* \*\*Path significant at the 0.000 level.

between INSTO and both shopping behaviours is also significant and supported: H4: INSTO  $\rightarrow$  IMB ( $\beta = .213$ ; p < 0.001; t = 6.61) and H5: INSTO  $\rightarrow$  CRB ( $\beta = .486$ ; p < 0.001; t = 14.44). As illustrated in Fig. 2, the moderation role of OSL in the system relationship between inspiration and shopping behaviours was supported (see also Table 5).

The significant path coefficients from the structural model provide robust evidence for the role of S2I communication in influencing both IMB and CRB behaviours. Specifically, the path coefficient for S2I  $\rightarrow$  IMB ( $\beta = 0.582, p < 0.001$ ) demonstrates a strong positive effect, indicating that direct engagement with streamers significantly triggers spontaneous purchase decisions. Similarly, S2I  $\rightarrow$  CRB ( $\beta = 0.318, p < 0.001$ ) underscores its role in encouraging purchases across product categories. These findings align with the principles of sociomateriality (Leonardi, 2012; Orlikowski, 2007), highlighting how sociotechnical interactions in livestreaming environments shape consumer behaviour.

The model's results support the mediating role of inspiration. The path coefficient for INSBY  $\rightarrow$  INSTO ( $\beta = 0.532$ , p < 0.001) demonstrates a strong relationship, reinforcing the assertion of inspiration theory that psychological states play a pivotal role in motivating consumer actions (Thrash & Elliot, 2004). Furthermore, INSTO  $\rightarrow$  CRB ( $\beta = 0.486$ , p < 0.001) and INSTO  $\rightarrow$  IMB ( $\beta = 0.213$ , p < 0.001) provide direct evidence for the impact of inspiration-driven motivation on



**Fig. 2. Results of the Structural Model** Note: \*Path is significant at the 0.050 level; \* \*Path is significant at the 0.001 level; \* \*\*Path is significant at the 0.000 level. As shown, direct and indirect relationships are positive and significant. Following the post hoc analysis, the relationships between OSL x INSTO  $\rightarrow$  IMB (\*\*\*p < 0.001) and OSL x INSTO  $\rightarrow$  CRB (\*p < 0.05) were tested and presented as significant at different levels. Please find more information in the discussion.

shopping behaviours.

Finally, the moderating influence of OSL is substantiated by its significant effects on both impulse buying and cross-buying, emphasising individual differences in responses to livestreaming commerce. These relationships are discussed in the conclusion to articulate how they collectively support the study's contributions towards understanding consumer behaviour in livestreaming commerce.

#### 6.6. Robustness check

The *p*-values obtained from the one-sample Kolmogorov–Smirnov test for all measurement items were below 0.05, suggesting that the data do not conform to a normal distribution (Loh, 2024). Accordingly, research suggests that PLS-SEM is a suitable approach (Hair et al., 2019a, 2019b). Several fit indicators were obtained for the model, including a standardised root mean square residual (SRMR) of 0.050, an RMS theta of 0.110, and a normed fit index (NFI) of 0.908. The values indicate that the model's fit was deemed appropriate based on widely accepted criteria (SRMR 0.900; RMS Theta < 0.120) (Lu & Chen, 2021).

The quality and robustness of the structural model were rigorously evaluated using multiple indicators. Fit indices from the PLS-SEM approach confirmed an excellent model fit (Table 6). The SRMR value of 0.050 fell well below the recommended threshold of 0.08 (Hair et al., 2019a, 2019b). The NFI of 0.908 exceeded the benchmark of 0.90, reflecting a well-fitting model. Additionally, the RMS theta value of 0.110 was under the acceptable threshold of 0.12, further supporting the adequacy of the model (Henseler, 2017). The predictive relevance of the model was assessed using Stone–Geisser's Q<sup>2</sup> predictive values, derived through cross-validated redundancy (Table 7). The results indicated large predictive relevance for IMB (Q<sup>2</sup> = 0.557) and CRB (Q<sup>2</sup> = 0.403), and medium predictive relevance for INSBY (Q<sup>2</sup> = 0.272) and INSTO (Q<sup>2</sup> = 0.174), highlighting the model's ability to forecast key outcomes effectively. The measurement model was evaluated for reliability,

Table	6
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Metric	Value	Threshold	Interpretation
SRMR	0.050	$< 0.08 \\> 0.90 \\< 0.120$	Excellent fit
NFI	0.908		Good fit
RMS Theta	0.110		Acceptable fit

Table 7		
Predictive	re	leva

Predictive relevance results.								
Variable	Q <sup>2</sup> predict	RMSE	MAE	R <sup>2</sup>				
Cross-Buying (CRB)	0.403	0.777	0.566	0.603				
Impulse Buying (IMB)	0.557	0.669	0.494	0.598				
Inspired-By (INSBY)	0.272	0.857	0.64	0.277				
Inspired-To (INSTO)	0.174	0.913	0.701	0.283				

convergent validity, and discriminant validity. All constructs surpassed the recommended CR threshold of 0.7, with values ranging from 0.874 to 0.910, confirming internal consistency (Hair et al., 2021). Similarly, the AVE values, which ranged from 0.699 to 0.771, exceeded the minimum threshold of 0.5, demonstrating acceptable convergent validity (Fornell & Larcker, 1981). Discriminant validity was also established, as all HTMT values (maximum 0.884) were below the recommended threshold of 0.90 (Henseler et al., 2017)

#### 6.7. Effect size analysis and model path evaluation

As illustrated in Fig. 2 and seen in the results of the structural model presented in Table 5, the results support all of the hypotheses. The effect sizes  $(f^2)$  for the model paths were calculated to indicate the strength of the relationships and to rank the importance of the examined factors. As shown in Table 5, S2I greatly affects IMB ( $\beta = .541$ ) and INSBY ( $\beta = .358$ ). However, C2I and INSTO greatly affect CRB ( $\beta$  =.233 and  $\beta$  =.486) (Hair et al., 2019a, 2019b; Loh, 2024). The indicators pertaining to predictive relevance were also calculated, as presented in Table 7. The PLS predictive procedure facilitates the evaluation of the model's predictive relevance (Sharma et al., 2021; Shmueli et al., 2019). The Q<sup>2</sup> predict values exceeding zero, and the RMSE and mean absolute error (MAE) of the PLS-SEM predictions are lower than those of the linear model (LM) benchmark across all indicators of adoption intention and technology use (refer to Table7). An in-depth examination indicates that the prediction errors exhibit an approximately normal distribution, as demonstrated by the (absolute) skewness and kurtosis values falling within the range of -2 to + 2 (see also Jalo & Pirkkalainen, 2024; Liu, Li, et al., 2022). In this study, the computation of Stone–Geisser's  $Q^2$  was conducted using cross-validated redundancy, which is recommended for assessing predictive relevance. Table 7 outlines paths for INSBY (Q<sup>2</sup>

=.272) and INSTO (Q<sup>2</sup> =.174), which indicate medium predictive relevance ( $0.15 \le Q^2 < 0.35$ ), while IMB (Q<sup>2</sup> =.557) and CRB (Q<sup>2</sup> =.403) suggest large predictive relevance (Q<sup>2</sup>  $\ge 0.35$ ). Therefore, with a Q<sup>2</sup> value of 0.174, the model shows a moderate ability to predict the relevant outcome, falling squarely into the 'medium' category according to established thresholds (Barnes, 2021; Hair et al., 2019a, 2019b).

Moreover, Table 8 outlines a post hoc mediation analysis in which the mediation effects within the structural framework are assessed. We analysed the path coefficients  $\beta$ , *t*-values, bias-corrected confidence intervals, *p*-values, and *f*<sup>2</sup> to evaluate the direct and indirect effects of S2I and C2I on IMB and CRB. The results in Table 8 show that an analysis was performed, and the entire confidence interval was above 0, indicating a positive effect. This indicates, further, that the effect is likely to be positive and statistically significant with the most indirect effects. For instance, in livestreaming, INSBY serves as predictor variable, IMB and CRB as the outcome variables, and INSTO as the mediator variable. The indirect effect of INSBY on IMB in livestreaming commerce was found to be statistically significant (effect = 0.164, *p* < 0.001, 95 % CI) [0.116, 0.219], bootstrap = 5000). Furthermore, the indirect effect of INSBY on CRB in livestreaming commerce was found to be statistically significant (effect = 0.276, *p* < 0.001, 95 % CI) [0.226, 0.328], bootstrap = 5000).

Hair et al. (2021) define moderation as a scenario where the relationship between two constructs varies, contingent on the values of a third variable, known as the moderator variable. The moderator variable, or construct, influences the strength or direction of the relationship between two constructs within a model. Despite the researcher hypothesising moderating relationships a priori, limited research has examined consumer heterogeneity and moderating variables in livestreaming commerce frameworks, which have been identified as a priority research issue in digital marketing strategy and tourism (e.g., Li et al., 2021; Zhang et al., 2024). In this regard, following the studies in livestreaming commerce (e.g., Bawack et al., 2023; Yan et al., 2023),

this research using PLS-SEM compares the explained variance in the models both including and excluding the interaction effects to determine the size of the moderation effects. The moderation effects of OSL were tested on the relationships between inspiration (INSTO) and shopping behaviours (IMB and CRB). The interaction terms (OSL  $\times$  INSTO) were statistically significant for IMB and CRB. These results indicate that OSL amplifies the impact of inspiration on shopping behaviours, suggesting that individuals with higher OSL are more responsive to the motivational triggers present in livestreaming commerce in the tourism context. We consider the direct effect of OSL between INSTO and IMB (H6a) and CRB (H6b). As presented in Table 9, H6a (OSL  $\times$  INSTO  $\rightarrow$ IMB) is positive and significant ( $\beta = .156$ ; p < 0.001; t = 4.04), and H6b (OSL × INSTO  $\rightarrow$  CRB) is positive and significant ( $\beta$  =.085; p < 0.05; t = 2.88). Additionally, OSL shows a positive and significant relationship between INSTO and IMB (\*\*\*p < 0.001) and between INSTO and CRB (\*p < 0.05). Therefore, H6a and H6b are supported (see Table 9).

The positive moderation effect of OSL on impulse buying suggests that high-OSL individuals who seek novelty and stimulation are more likely to make unplanned purchases when inspired during livestreaming events. The dynamic nature of livestreaming content, coupled with interactive elements such as real-time engagement and limited-time promotions, creates an environment conducive to spontaneous decision-making for this group.

The moderation effect of OSL on CRB, though smaller, is significant and highlights that high-OSL individuals are also more inclined to purchase additional, complementary products when inspired. This behaviour aligns with their tendency to explore and experiment with new consumption experiences, leveraging the variety and interactivity offered by livestreaming platforms.

The moderation effects of OSL on IMB and CRB behaviours were further elaborated to underscore their significance in this study. Specifically, OSL plays a crucial role in shaping individuals' responses to

Table	8
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Mediation hypothesis t	testing results	significance	analysis of	direct and	indirect effects.

		-	-								
Path	Direct effect	t- value	p- value	Indirect effect (S2I $\rightarrow$ INSBY $\rightarrow$ IMB)	T- value	p- value	LCL 2.5 %	UCL 97.5 %	Total effect	Status	Outcome
$S2I \rightarrow IMB$	0.622	20.58	0	0.116	5.44	0	0.076	0.161	0.739	Positive and Significant	Supported
				$(S2I \rightarrow INSTO \rightarrow IMB)$							
$S2I \rightarrow IMB$	0.638	21.74	0	0.1	5.58	0	0.07	0.137	0.739	Positive and Significant	Supported
				$(S2I \rightarrow INSBY \rightarrow CBB)$						U	
$S2I \rightarrow CRB$	0.605	19.7	0	0.186	7.89	0	0.144	0.234	0.605	Positive and Significant	Supported
				$(S2I \rightarrow INSTO \rightarrow CRB)$						U	
$S2I \rightarrow CRB$	0.379	10.85	0	0.225	9.83	0	0.184	0.273	0.603	Positive and Significant	Supported
				$(C2I \rightarrow INSBY \rightarrow IMB)$						U	
$\text{C2I} \rightarrow \text{IMB}$	0.461	11.48	0	0.154	6.58	0	0.109	0.201	0.615	Positive and Significant	Supported
				(C2I $\rightarrow$ INSTO $\rightarrow$ IMB)						0	
$\text{C2I} \rightarrow \text{IMB}$	0.49	13.32	0	0.125	6.74	0	0.091	0.167	0.615	Positive and Significant	Supported
				$(C2I \rightarrow INSBY \rightarrow CRB)$						0	
$\text{C2I} \rightarrow \text{CRB}$	0.405	9.94	0	0.181	7.8	0	0.141	0.23	0.587	Positive and Significant	Supported
				$(C2I \rightarrow INSTO \rightarrow CRB)$							
$\text{C2I} \rightarrow \text{CRB}$	0.376	11.06	0	0.21	9.14	0	0.167	0.256	0.587	Positive and Significant	Supported
				$(INSBY \rightarrow INSBY \rightarrow$						-	
				IMB)							
$INSBY \rightarrow IMB$	0.382	7.93	0	0.164	6.02	0	0.116	0.219	0.546	Positive and Significant	Supported
				(INSBY $\rightarrow$ INSTO $\rightarrow$							
				CRB)							
$INSBY \rightarrow CRB$	0.304	7.7	0	0.276	10.44	0	0.226	0.328	0.58	Positive and Significant	Supported

Note: PLS-SEM values are SmartPLS4-based with weighting scheme = path, iteration = 1000, complete bootstrapping with 5000 subsamples, test type = two-tailed, significance level = .05, and estimated using the latent variable scores of the constructs.

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Moderation effect hypothesis testing (Full results).

Hypothesis	Path	Path coefficients	STDEV	t-values	p-values	Confidence intervals [2.5 %, 97.5 %]		VIF	Path Status	Outcome
H6a	$\begin{array}{l} OSL \; x \; INSTO \rightarrow IMB \\ OSL \; x \; INSTO \rightarrow CRB \end{array}$	0.156 * **	0.038	4.05	0.000	0.076	0.230	1.526	Positive and significant	Supported
H6b		0.085 *	0.029	2.88	0.004	0.026	0.141	1.526	Positive and significant	Supported

Note: \*Path significant at the 0.050 level. \* \*Path significant at the 0.001 level. \* \*\*Path significant at the 0.000 level

livestreaming events by amplifying or dampening the influence of psychological triggers like inspiration. High-OSL consumers seeking heightened sensory and experiential stimulation are more likely to act impulsively or explore cross-category purchases when inspired during livestreaming sessions. In contrast, low-OSL consumers may exhibit more cautious and calculated shopping behaviours. This nuanced understanding highlights the importance of tailoring livestreaming strategies to align with individual stimulation preferences, thereby maximising consumer engagement and purchasing outcomes. These insights provide a deeper interpretation of the moderating role of OSL, reinforcing its centrality to the study's theoretical and practical contributions.

# 7. Discussion

These studies conceptualise livestreaming commerce within the context of tourism consumption. The research examines communication and engagement, specifically S2I and C2I, and illustrates how these interactions inspire travellers – moving them from an 'inspired by' to an 'inspired to' state. This progression significantly influences travellers' intentions to impulse buy and cross-buy. The results support the role of inspiration in livestreaming commerce system relationships and confirm that the value of livestreaming is cocreated by multiple stakeholders. Additionally, Study Two tested and confirmed the moderating role of OSL in the relationship between INSTO, IMB, and CRB. In addition, using multigroup analysis to investigate potential heterogeneity in demographic and behavioural variables (favourite social media platforms, frequency of livestream shopping), the results show no significant difference in the path model between multigroups in a livestreaming commerce setting.

This study advances the understanding of livestreaming in tourism by exploring the intricate relationships between two-way communication (S2I and C2I), consumer inspiration (INSBY and INSTO), and purchase behaviours (IMB and CRB). The findings corroborate prior literature and extend theoretical and practical insights into the mechanisms driving consumer engagement and decision-making in livestreaming contexts. Below, we situate these results within the broader literature, particularly concerning tourism, to highlight their relevance and contributions.

The findings emphasise the pivotal role of S2I communication in influencing impulse and cross-buying behaviours, which is consistent with sociomateriality theory. This theory stresses the dynamic interaction between technological tools and human agency (Leonardi, 2012; Orlikowski, 2007). In tourism, streamers serve as sociotechnical mediators, personalising the travel experience by showcasing destinations, experiences, and services. This fosters trust and interaction, directly influencing purchasing decisions related to travel products, such as tours, accommodations, or excursions. These findings extend prior research that identified trust and authenticity as critical drivers of online purchasing behaviour in the tourism industry (Guo et al., 2021; Wu & Huang, 2023), demonstrating that real-time engagement in livestreaming tourism contexts enhances individuals' susceptibility to impulsive and cross-category purchases. The real-time, interactive nature of livestreaming commerce amplifies these effects, positioning streamers as influential figures who can rapidly shape consumer behaviour within the tourism sector.

Similarly, C2I communication enhances consumer engagement by

leveraging social validation and peer influence, key factors in the tourism decision-making process. This finding aligns with the cocreation literature (Blasco-Arcas et al., 2014), which emphasises how shared experiences and community feedback bolster trust, especially when it comes to choosing travel destinations or services (Li et al., 2024). The community's collective role in inspiring purchases highlights how livestreaming platforms combine social interaction with tourism commerce, reflecting a hybrid sociotechnical ecosystem. This ecosystem amplifies consumer behaviours by incorporating elements of social proof, such as the positive experiences of fellow travellers, which motivates individuals to engage in travel-related purchases influenced by the behaviours and opinions of others in the community.

The mediation effects of inspiration – both INSBY and INSTO – are particularly relevant in the tourism context, and supported by inspiration theory, which links motivational triggers to actionable outcomes (Thrash & Elliot, 2004). In the livestreaming tourism environment, inspiration bridges sociotechnical interactions and purchasing decisions, providing a deeper understanding of how emotional and cognitive states drive consumer behaviour. This contribution enriches the tourism literature by explaining how livestreaming platforms evoke spontaneous inspiration, motivating individuals to take action, such as booking a trip or purchasing travel-related products. This extends prior research on digital shopping environments (Rodríguez-Ardura & Meseguer-Artola, 2019), highlighting that inspiration is not merely an abstract concept but a tangible force in the tourism sector that facilitates consumer action in highly interactive, digital contexts.

Moreover, the moderating role of OSL emphasises individual differences in responses to livestreaming stimuli, an important consideration in the tourism industry. Individuals with a high OSL are more likely to engage in impulsive or cross-buying behaviours when exposed to exciting, novel travel experiences during livestreams. This finding aligns with behavioural studies emphasising the interplay between individual traits and environmental stimuli (Rodríguez-Ardura & Meseguer-Artola, 2019). It underscores the importance of personalising the travel-related consumer experience, where livestreaming platforms can adjust content to cater to different OSL profiles, thus fostering engagement and maximising purchase opportunities, such as booking tours, activities, or accommodations.

When contextualised within the existing literature on tourism, these findings provide a comprehensive view of how livestreaming commerce integrates technological, social, and psychological elements to influence consumer behaviours. This study fills critical gaps in the tourism literature by advancing theoretical frameworks and empirically demonstrating robust relationships. It offers actionable insights for marketers and platform developers in the travel industry. Future research could build on this foundation by exploring cross-cultural differences, longitudinal effects, and the incorporation of additional constructs, further enriching the discourse on livestreaming commerce and its transformative potential in tourism.

# 7.1. Theoretical contributions

This study advances theoretical frameworks in livestreaming commerce by integrating sociomateriality theory, inspiration theory, and the concept of OSL. The research contributes to the literature in key ways.

First, this study introduces a novel theoretical framework by combining sociomateriality and inspiration theory to explain how

interactive communication and engagement on livestreaming platforms influence impulsive and cross-buying behaviours in tourism. The focus shifts from examining the static characteristics of streamers to exploring the dynamic interactions between streamers, communities, and viewers. In tourism, where inspiration significantly drives decisions, this study deepens our understanding of how these interactions spark inspiration and drive purchasing behaviours. The integration of these two theories offers a more comprehensive view of the processes that lead to impulsive and cross-category purchases, particularly in the context of travelrelated products and services.

Second, the study builds on Böttger et al.'s (2017) work by advancing our understanding of how livestreaming can cultivate inspiration and engagement in the tourism sector – a less explored context. While Böttger et al. (2017) suggest that individual variables influence the experience of inspiration, they do not delve into these differences. This study extends their work by incorporating Zuckerman's (1979) theory of OSL, demonstrating that viewers with a higher OSL, characterised by a preference for novelty and excitement, are more likely to be inspired by livestream content. This inspiration, in turn, drives greater emotional engagement and leads to both impulsive purchasing decisions and cross-buying behaviours. By integrating OSL, this study offers a more nuanced understanding of how individual differences influence the impact of livestreaming content in the tourism industry, enriching the theoretical perspective on inspiration.

Third, in response to calls from Lin et al. (2022) for deeper integration of behavioural and social science theories to understand social interactions in livestreaming ecosystems, this study adopts a sociomateriality framework (Orlikowski, 2007) to explore the interplay between technology, social contexts, and user behaviour. This approach shifts the focus from individual behaviours to a system-level perspective, providing insights into how the material aspects of livestreaming platforms – such as real-time chat, visual stimuli, and community tools – actively shape inspiration and engagement. In the tourism sector, the platforms' materiality plays a crucial role in shaping user experiences, positioning technology as an active participant in influencing behaviours. This challenges traditional views of technology as a passive medium and emphasises its role as a coproducer of inspiration and purchase decisions.

Our study illustrates how the sociomaterial aspects of livestreaming platforms facilitate real-time interactions that inspire immediate travelrelated purchases. By adopting both qualitative and quantitative research methods, the study captures the complexity of livestreaming in tourism and validates these insights across a broader sample. This integrated approach enhances our understanding of how sociomaterial elements within livestreaming environments contribute to shaping emotional responses and consumer behaviour in the tourism sector, offering valuable theoretical and practical insights for the future development of livestreaming commerce in tourism.

#### 7.2. Practical implications

This study offers fresh, actionable insights for tourism professionals, positioning livestreaming as a powerful tool for driving consumer engagement and conversion. First, this new research highlights the critical role of interactivity between live streamers and viewers, which can significantly enhance personal connection and engagement. This interactive approach is particularly valuable in the tourism industry, where creating immersive, tailored experiences can profoundly shape potential travellers' perceptions. Tourism marketers can leverage these dynamics to craft more compelling and interactive livestream commerce experiences, ultimately making the travel offering more tangible and relatable. Activities may include livestreamers on location (rather than in the studio), connecting with viewers and local communities, businesses and attractions.

To capitalise on or optimise this, marketing practitioners in tourism should invest in training and supporting hosts or livestreamers to deliver

engaging and more authentic content. In this notion, livestreamers who are skilled in storytelling as well as capable of communication can offer humanised real-time sessions, fostering empathy and trust to build connections with viewers. Additionally, sharing travel experiences such as hotel tours or destination walkthroughs in real time can make the content more dynamic and relatable. Platforms can also enhance S2I interactions by integrating interactive features like live Q&A sessions, polls, and personalised recommendations, encouraging real-time engagement and strengthening the connection between viewers and the content. Marketers can also enhance viewer engagement by creating visually stunning and emotionally appealing livestreams that showcase unique travel experiences, such as luxury stays or adventure activities, to inspire desire and imagination. Adding limited-time offers during livestreams can boost urgency and drive immediate action while tailoring content to niche audience segments ensures that the messaging resonates effectively, promoting purchase behaviours. Tourism marketers can also facilitate community participation through live chatrooms and comment sections during livestreams, allowing users to share experiences and validate purchasing decisions. Gamification elements, like group discounts, can further enhance social interaction and encourage cross-buying behaviours.

Second, this study emphasises the importance of cocreating content to boost purchase intent. By encouraging user-generated content, such as personal travel stories, reviews, or creative videos, tourism brands can foster a sense of community and shared experience. This can be achieved for travel through tourist stories (story-telling), testimonials, or real-time case studies of memorable trips that can deepen emotional connections, making travel products feel more relevant to individual lifestyles. Third, this study underscores the value of recruiting expert moderators for live chats during streaming sessions. Skilled moderators can manage the flow of conversation, answer questions in real time, and maintain a positive, respectful atmosphere, ensuring a seamless experience. A well-managed chat environment fosters a sense of inclusion and community, making viewers more likely to engage, stay longer, and eventually convert to paying consumers. These strategies provide tourism marketers and platform developers with a practical framework for optimising livestreaming. By enhancing S2I interactions, creating inspiring content, and tailoring engagement strategies, businesses can drive immediate purchases and foster consumer loyalty, underscoring the study's relevance to the evolving landscape of livestreaming in the tourism sector. By integrating these strategies, tourism operators can significantly elevate the effectiveness of livestreaming as a marketing tool, leading to higher engagement and conversion rates.

# 7.3. Limitations and future research

In light of the findings presented in this study, several limitations merit attention and suggest potential future research directions. First, this study primarily focuses on the interactions between streamers, viewers, and the broader online community within the tourism context. While this multistakeholder approach offers valuable insights, it does not account for the complex relationships between other key stakeholders, such as tourism operators, platforms, and third-party service providers. Future research should explore the role of these additional stakeholders to provide a more comprehensive understanding of the cocreation of value in livestreaming commerce. Second, while our research applies OSL theory to examine individual differences in impulsive and cross-buying behaviours, the generalisability of the findings may be limited by cultural or regional factors. Livestreaming platforms and behaviours can vary significantly across global markets, such as in Western and Asian contexts. Future studies could examine how cultural variations influence the effect of OSL on travellers' behaviour, thereby extending the applicability of our findings to more diverse settings. Third, our research adopts a sequential mixed-methods approach, combining qualitative in-depth interviews with quantitative surveys. While this methodology offers a robust exploration of the topic,

future studies could benefit from employing longitudinal or experimental designs to capture the dynamic nature of livestreaming interactions and their long-term impact on consumer behaviours and tourism marketing strategies. Third, this study is based on data from the Asia–Pacific region, but cultural differences in livestream usage and consumer behaviour may affect the generalisability of findings. This limitation may give rise to potential future cross-cultural studies. Finally, while our study offers initial insights into the use of sociomateriality in examining livestreaming, future research could delve deeper into how digital materiality – such as platform algorithms and technological affordances – shapes the behaviour of both streamers and viewers over time. Examining how these technological factors evolve and influence marketing outcomes in real time could provide further theoretical and practical advancements for the tourism sector.

#### 8. Conclusion

This study explores the interplay of two-way communications (S2I and C2I), inspiration (INSBY and INSTO), and shopping behaviours (IMB and CRB) in livestreaming commerce. Using a mixed-methods approach grounded in sociomateriality and inspiration theories, it highlights how real-time interactions foster engagement, inspire impulse and crosscategory purchases, and are moderated by individual differences such as OSL. While livestreaming enhances the perception of inspiration, external factors-including macroeconomic conditions, promotional events, platform algorithms, and sociocultural norms-also influence purchasing behaviours. The study extends sociomateriality theory to digital tourism, adapts the inspiration framework to online travel shopping, and identifies cross-buying as a key outcome of engagement. It acknowledges limitations such as its geographic focus and reliance on self-reported data but offers valuable insights for tourism marketers on optimizing communication and crafting inspiring content. Future research should explore cross-cultural and longitudinal perspectives to isolate livestreaming-specific effects. Ultimately, this study underscores the transformative role of livestreaming platforms in shaping digital tourism commerce. By deepening the understanding of psychological mechanisms in this context, it provides both theoretical contributions and practical guidance for businesses looking to leverage livestreaming as a powerful tool for engagement and sales.

#### CRediT authorship contribution statement

Azad Moghddam Hamed: Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Software, Project administration, Methodology, Formal analysis, Data curation, Conceptualization. Mortimer Gary: Writing – review & editing, Writing – original draft, Supervision, Methodology, Conceptualization. Ahmadi Hormoz: Writing – review & editing, Writing – original draft, Resources, Investigation. Sharif Nia Hamid: Resources, Data curation.

#### **Declaration of Competing Interest**

The authors did not receive any funding to support the research reported in this paper. We have no conflicting interests which would compromise the validity of this research.

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