New way to travel: Travel Live Streaming

Új utakon: utazás élő közvetítésben

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Recent research highlights the vulnerability of tourism to external factors, such as rampant viruses, a volatile world situation, and an environment threatened by human activity. The emergence of Travel Live Streaming (TLS) not only offers a new way to spend time in people's daily lives, but it also seems to offer a new way to alleviate problems. Academic interest in this industry is growing, although literature on this topic is currently limited, and does not offer meaningful advice to those involved in TLS. The purpose of this study is to evaluate Chinese viewers' opinions and attitudes regarding live tourism, and, based on the results to offer guidance for sponsors and live streamers from other nations who already use or plan to use TLS. The study employed a questionnaire, and correlation analysis was used for the assessment of the results. Further, semi-structured interviews were conducted to gain deeper insight into the topic. The study proved the relationship between the Real-time interaction experience and viewers' impressions of the product/service in TLS, as well as the relationship between the quality of the TLS and viewers' decisions. Viewers shared their own attitudes towards the over-promotion of product/service in TLS during the interviews.

A legújabb kutatások rámutatnak a turizmus külső tényezőknek való kitettségére, beleértve veszélyes vírusokat és a bizonytalan gazdasági és társadalmi helyzetet. A Travel Live Streaming (TLS), az utazás élő közvetítése, új szabadidő eltöltési lehetőséget kínál az embereknek, továbbá a fenntarthatósági problémák enyhítésének új módját is kínálja. A TLS iránti tudományos érdeklődés növekszik, a témában született szakirodalom azonban csak korlátozottan áll rendelkezésre. A tanulmány célja feltárni a kínai nézők TLS-ről alkotott véleményét, valamint az eredmények alapján útmutatást adni más nemzetek szponzorai és streamelői számára, akik már használják vagy tervezik a TLS használatát. A tanulmány egyrészt kérdőív segítségével tárja fel a kínai válaszadók véleményét, másrészt félig strukturált interjúk révén nyújt mélyebb betekintést a TLS témájába. Az eredmények kimutatták a valós idejű interakciós élmény és a nézőknek a TLS alapján a termékről, illetve szolgáltatásról alkotott benyomásai közötti kapcsolatot, valamint a TLS minősége és a nézők döntései közötti kapcsolatot. Az interjúk rávilágítottak a TLS-ről alkotott véleményekre, különös tekintettel a terméknek, illetve szolgáltatásnak a valóságot eltúlzó reklámozásával kapcsolatos attitűdökre.

1. Introduction

There is a rising trend of publications targeting live-streaming-related publications since 2019 (LIN et al. 2022). DENG et al. (2019) conducted a study on the conceptualization of TLS and provided a reference for the direction of TLS for future research. ZHANG et al. (2021) explained the relationship between live streaming and willingness to travel in terms of social presence: destination image, interaction and production, which affects people's trust and indirectly influences their travel. LIU et al. (2022) conducted a study on the motivation of Chinese users to participate in TLS.

Current research on TLS has focused on its conceptualization, live streaming, and viewers' willingness to travel, and viewing motivations. There is a lack of practical advice and direction for those who are and will be involved in TLS. Overall, academic research on TLS and its relevance to sustainable development is limited, which has implications for the future development and application of TLS.

Based on the review and reflection of the above research, the weaknesses in this area need to be

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enhanced and addressed. This study will expand from a *small perspective* to a *big picture*. Through a survey of Chinese viewers, it will be possible to find out what a TLS should look like in the eyes of the audience.

It is hoped that TLS will receive more attention and promotion within the tourism industry in different countries, therefore that more people will see its value and potential for future development. It will provide more possibilities for the future development of TLS in different countries. It is expected that this study will provide some reference and help for those who are preparing to approach TLS.

This research is designed to stand in the audience's points of view, to understand and analysis their perceptions and demands, and to provide practical information to streamers and sponsors. The study focuses on the following research questions:

- Q1: Do viewers care if the product/service promoted is consistent with the facts when they making an online purchase in a TLS?
- Q2: Do Real-time interaction have the relationship with viewer's impressions of the product/service?
- Q3: Does quality of TLS have the relationship with viewers' decision making?

2. Theoretical background

Technological advancements and tourism development have been inescapably connected (POON 1993). From the point of view of customers, tourism information technology allows consumers to book and purchase tourism products and services, make evaluations, provide recommendations and express opinions, and enjoy online tourism counsel (HRUSCHKA–MAZANEC 1990, BUHALIS–LAW 2008, AYEH 2015). From the perspective of businesses and destination managers, tourism IT becomes a new tool for their management and marketing, and it can also help collaboration within and between organizations (HAYS et al. 2013, YUAN et al. 2018).

Scholars have also investigated the relationship between tourism information technology and sustainable development, which is shown below in chronological order. LIBURD (2005) offers some perspectives and ideas on the integration of sustainable tourism and mobile information technology in a research project, including equity, scale, and implementation. In 2015, European Commission experts identified priorities to address upcoming tourism challenges, including the promotion of sustainable and high-quality tourism, with information and communication technology (ICT) and innovation emerging as key words in European tourism policy (IUNIUS et al. 2015). GÖSSLING (2017) mentions in a study that unfortunately only a small number of researchers have focused on the interrelationship between IT and sustainability. Tourism IT has been an increasingly popular research area in the tourism industry, according to YUAN et al. (2018), although the great majority of studies have concentrated on travelers as the focus of study, while ignoring organizations.

In the midst of technical innovations, online communication and relationship building have become our goals, and ICT is developing new methods for visitors to participate via social media (GÖSSLING 2021). Social media research began in 2008, and social media has drawn greater numbers of people to seek information, exchange experiences, and interact with others (LITVIN et al. 2008). Gradually, scholars have begun to focus on the relationship between tourism and social media. HVASS and MUNAR (2012) suggest strategies for the use of social media by airlines, while LEUNG et al. (2013), in a study of the literature on social media and hospitality, conclude the strategic importance of social media for tourism competitiveness. According to YUAN et al. (2018), the second half of the 2000s witnessed a shift in how individuals searched for information, and with the growth of mobile devices and social media, relevant research have begun to focus on the application and influence of these emergent technologies.

Reference group (i.e., family and friends/relatives) will strongly affect the individual, and the two will interact and spread information (HSU et al. 2006). TLS can meet this requirement. Firstly, live streaming is a unique ICT phenomenon as a medium for recording video and audio in real time for viewing by people in faraway places (THORBURN 2014, DENG et al. 2019). In the field of tourism, live streaming is gaining attention from social media influencer (SMIs), travel bloggers, travel agents and tourism destinations, seeing the business opportunities and value of live streaming, TLS was born and gradually came to the forefront of people's minds and lives (DENG et al. 2021). TLS enables multiple types of interactions between streamers and viewers, including video, images and text (HU et al. 2017, DENG et al. 2021).

TLS plays an important and popular role in destination promotion, inspiring others to visit destinations through authentic stories, sharing of experiences, and a high level of interaction with creators and other participants, this allows

potential visitors to *see before they buy* (DENG et al. 2022). These social media resources are becoming increasingly essential in the online travel sector, serving as a source of information for travelers (DENG et al. 2021, XIANG–GRETZEL 2010).

3. Methodology

When we reviewed the relevant literature, it was obvious to find that when academics study content related to live streaming, there are a lot of cases about Asia, especially China. Therefore, China was selected as a case study for the research. The following hypotheses were formulated for the research:

H1: When people purchased online in TLS, they care whether the tourism product/service promoted is consistent with the facts.

H2: There is a relationship between Real-time interaction and viewer's impressions of the tourism product/service.

H3: There is a relationship between the quality of TLS and the viewer's decision making.

Semi-structured interviews were conducted amongst Chinese people who had experience of online purchasing in TLS. Furthermore, a questionnaire was also designed for the Chinese community, which was distributed online through the Chinese questionnaire platform: Questionnaire Star.

4. Results

4.1. RESULTS OF THE SEMI-STRUCTURED INTERVIEWS

Five Chinese persons were involved in the semi-structured interviews, conducted in November, 2022. All five of the Chinese respondents had previous experience buying online in TLS.

The first question explored the types of tourism product items purchased during the TLS, which included air tickets, hotels, tickets of tourist attractions, and local specialties. Among the respondents who chose "other" options, they mentioned souvenirs, cultural and creative products.

Respondents' top motivations for purchasing in unknown TLS were branding, selling by internet celebrity, and recommendations from people. Additionally, several respondents selected both real-time comments from other viewers and product endorsers.

All respondents agreed that it was necessary for streamers to promote their product/service in response to the third question. This is due to the fact that through promoting, especially for new product/service, they can better comprehend the product or service. In addition to emphasizing the value of promotion, two respondents said that whether or not they would purchase a product/service depended on who the promoter was.

Every respondents believed that the travel product/service they had purchased was not significantly different from the actual one. When assessing their attitudes, three respondents believed that over-promotion was unacceptable. They believed that streamers or sponsors should be truthful in their promotions, that what they promote should be genuine and believable, that it should not confuse consumers, and that it could harm the reputation of their brands. When asked why they chose not to accept it, one of the respondents said it was because of the cost. In the meanwhile, two other respondents contributed a different viewpoint to the investigation of this matter since they thought over-promotion was acceptable. Given that the goal of product/service marketing is to better advertise it, these two respondents were ready for the possibility of over-promotion in TLS, so long as it is not false propaganda.

Each respondents agreed that one of the most important aspects of online purchasing in TLS is the promotion of the product/service. Furthermore, they were focused on factors like cost, quality, after-sales support, insurance, logistics, physical presentation, visual and clear comprehension, efficiency, and individual purchasing intentions.
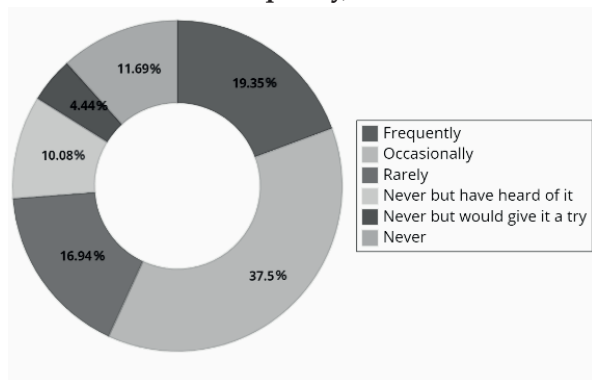
4.2. RESULTS OF THE QUESTIONNAIRE

The questionnaire was distributed using the Questionnaire Star platform between 28 October and 10 November 2022. It was completed by 248 people, however, only 183 were full responses that could be included in the correlation analysis.

The proportion of men and women who participated in this questionnaire was relatively balanced, with 50.4% of men and 49.6% of women. The largest number of respondents were in the 18-25 age group, followed by those in the 56 and above age group.

73.79% of people have already watched TLS, and of those who had not watched TLS, 10.8% had never seen it before but had heard of it, 4.44% had never seen it before but were willing to try it, and 11.69% chose "NO", they had neither heard of TLS and had no inclination to try it *(Figure 1)*.

Figure 1

Proportion of respondents' TLS viewing frequency, %

Legend:
- Frequently
- Occasionally
- Rarely
- Never but have heard of it
- Never but would give it a try
- Never

11.69%
19.35%
4.44%
10.08%
16.94%
37.5%

Source: own editing

4.2.1. Results of correlation analysis

H2: There is a relationship between Real-time interaction and viewer's impressions of the tourism product/service.

The dependent variable in H2 is Impression of the tourism product/service, while Real-time interaction as the independent variable I contains the following three sub-independent variable: Real-time interacting with streamer, Real-time interacting with other viewer, The generation of emotions when participating/watching real-time interaction. Pearson correlation coefficient was used to analyze the correlation between the above three independent variables and the dependent variable.

Table 1 shows that the Pearson correlation coefficient is 0.868, indicating a substantial correlation between them with a significance level of 0.000. We can draw the conclusion from the data that there is a significant favorable relationship between Impression of the tourism product/service and Generation of emotions when participating/watching Real-time interaction.

H3: There is a relationship between the quality of TLS and the viewer's decision making.

The dependent variable in H3 is Quality of TLS, while the viewer's decision making as the independent variable, I contain the following five sub-independent variable: Performance styles, Interactive experience, Creativity Content, Marketing and promotion, Streamer's Personalities and attitudes.

Table 1

Correlation between Real-time interaction and Impression of the tourism product/service

		The Real-time interaction will influence my impression of the product/service.	*Average of Real-time interaction*
The Real-time interaction will influence my impression of the product/service.	*Pearson Correlation* *Sig. (2-tailed)* *N*	*1* *183*	*.868*** *.000* *183*
Total average of Real-time interaction	*Pearson Correlation* *Sig. (2-tailed)* *N*	*.868*** *.000* *183*	*1* *183*

** Correlation is significant at the 0.01 level (2-tailed).

Source: results from SPSS operation

Table 2

Correlation between Quality of TLS and Decision-making

		Quality of TLS will influence my decision making.	*Average of Quality of TLS.*
Quality of TLS will influence my decision making	*Pearson Correlation* *Sig. (2-tailed)* *N*	*1* *183*	*.841*** *.000* *183*
Average of Quality of TLS.	*Pearson Correlation* *Sig. (2-tailed)* *N*	*.841*** *.000* *183*	*1* *183*

** Correlation is significant at the 0.01 level (2-tailed).

Source: results from SPSS operation

The same sequence of testing is used as for H2. First, we will analyze the correlation of each of the five independent variables with the dependent variable by the calculated Pearson correlation coefficients. Finally, we will then use the mean of their Pearson correlation coefficients to analyze the correlation with the dependent variable, which will accomplish the purpose of proving the hypothesis.

The connection between them is strong since the Pearson correlation coefficient in *Table 2* is 0.841 and its significance level is 0.000, therefore data indicate a significant positive relationship between decision-making and TLS quality.

4.2.2. Results of Open-ended questions

The questionnaire contained open-ended questions to assess the reasons for watching TLS, barriers preventing respondents from watching and to allow further comments on the topic.

Responses indicated that enjoying travel is the primary motivation why viewers watch TLS, further frequently mentioned respondents include Learn customs, Curious, Hobby, Attractive, Price, Scenery, and Intuitive.

Respondents indicated *Do not have time* as the most common barrier, followed Streamers, Self-cultivation, Contents, Professional level, however, some did not perceive any barriers.

Comments on TLS included phrases like Self-cultivation, Network stability, Explanation, Diversification, Quality of content, Streaming Equipment and Details.

4.3. HYPOTHESES TESTING

The outcomes of Hypothesis 1's validation cannot be proven. First and foremost, based on the replies to the questions, we can only draw the conclusion that every respondent believed that the promotion of the tourism product/service was crucial and that this was one of the key considerations for them when they made an online purchase in TLS; they concurred that this was not common and that there was not much of a difference between the promotion and the real tourism product/service in their purchasing experience; most respondents viewed over-promotion as unacceptable. The findings do not support the hypothesis that viewers in the TLS are concerned in buying product/service that are consistent with the promotion.

Based on the study's findings, Hypotheses 2 and Hypotheses 3 were confirmed since they both had positive, high correlation results from the SPSS analysis.

5. Discussion and conclusion

TLS presently offers a range of online purchases, providing consumers additional alternatives. Getting more people to watch the live stream and using them as potential customers should be one of the objectives of every live streamer and sponsor.

If a viewer has never seen a live stream previously, they will remember their initial impressions of the brand, pay attention to product/service Endorser and Referrer, listen to other people's perspectives and pay attention to other viewers' behaviors and attitudes in the real-time online comments. These elements will have an impact on whether viewers decide to make their first purchase of the products/service that the streamers and sponsor is promoting on TLS. The aforementioned is often based on people's previous experiences with and impressions of the product/service.

Based on the peculiarities of tourism e-commerce live streaming, the smart choice of Endorsers and Referrers helps in building a brand, raising awareness and dissemination, it might also support in expanding income. It is crucial to carefully consider their influence on the streaming while selecting the correct persons, to ensure they can effectively convey the concept and qualities of the product or service, and their personal style and performance can captivate the audience. The most fundamental element is also if they are popular with the general public.

The research demonstrates that viewers believe it is important for streamers to promote their product/service and that this is one of the most significant factors when they shop online in TLS, which helps in their understanding of tourism product/service, particularly if they have never used them before. In addition to promotion, streamers and sponsors should think about whether the price draws viewers, if the quality is guaranteed and the logistics are convenient, if the after-sales service is prompt and the after-sales system is complete, and if the product/service offers insurance for consumers to protect their rights when selling online. To make viewers want to buy and turn them into customers, the presentation of tourism product/service must be clear and realistic in order to meet viewers' demands.

According to the majority of viewers who responded to the over-promotion question, this type of promotion is unacceptable and that it is unfair of sponsors and steamers to do this in comparison to the viewers' own contributions. However, respondents think that the product/service they purchase are not very different from

those that are promoted on TLS, and therefore over-promotion is not common.

There are more viewers who have seen TLS than not, and most viewers are occasional viewers. Steamers and sponsors should focus on attracting more viewers, and sponsors should consider how they can meet the needs of people who have never watched TLS but have heard of TLS and are willing to give it a try. Since lack of information is one of the reasons why people are hesitant to try TLS, we can use promotional techniques to draw people in and encourage them to do so.

Live streaming offers real-time interaction, which can bring viewers, sponsors, and live streamers closer together. When we are on streaming, we cannot see the viewers across the screen, therefore the invisible hand helps us in understanding and addressing them. The interaction reflects the viewers' feelings, opinions, and questions. Additionally, we need to be aware of how to use real-time interaction for positive. Real-time interaction helps in adjusting and motivating viewer emotions and the atmosphere in the live streaming room, as was mentioned in the study of the results of the interview. It helps draw viewers' attention and keep them in our TLS room in the quick-paced, content-heavy world of live streaming.

The quality of TLS and the decisions that the viewer makes are strongly correlated. Different stakeholders participate in live tourism for a variety of reasons, including information dissemination, exhibiting culture, selling products and services, attracting more visitors or customers, discovering personal value. The ways in which the performance is delivered and the interactive experience it offers, the depth of the content presented, the marketing and promotion efforts, as well as the personality and attitude of the steamers, all have an impact on the TLS's quality and have a direct impact on the viewer's choice.

Enjoying travel is the most important reason why viewers choose TLS. Moreover, TLS saves viewers time since they do not have to spend any time hunting for the information they need, it has already been selected and prepared for them. Additionally, viewers have the chance to ask questions during the live streaming, allowing for the customization of the content.

TLS requires a solid foundation: a reliable network, quality live streaming equipment, and enough viewing facilities can help to a certain extent assure seamless watching. Furthermore, the self-cultivation and professionalism of the streamers should be improved, or regulated, which involves the future training and evaluation of the streamers in the industry. The content of the live broadcast must also be authentic, original, and true; they must not contain overly dramatic descriptions or propaganda. Any of the aforementioned issues might lead to low quality TLS, which reduces the experience and loses the audience's interest.

6. Limitations and future research

The interview section of this research is where the majority of its flaws are concentrated. As each respondent's consumption ability and financial situation is different, the factors they care about are also different.

Future research on the viewer's individual situations, conditions, and purchasing ability online would be valuable. Future research related to TLS and sustainability should be based on improving people's understanding of the concept of sustainability and the promotion of sustainable development. Due to the constantly evolving technology, further research could focus on specific aspects such as changes of audience attitudes and perceptions of TLS, changes in the stakeholders involved in TLS, and whether TLS will drive the emergence of other new industries.

The current study demonstrates the role of TLS in sustainable development. One of the outcomes of the new technological era, TLS has characteristics that meet the requirements for sustainability, however it frequently takes a while before something new is accepted.

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