and the type of data analysis employed. To optimize the results of the qualitative research approach employed, a Netnographic investigation was conducted. Netnography is a qualitative research methodology that entails investigating on the internet through diverse social media platforms and streaming services. The study employed a Netnographic approach to collect data, which involved capturing and recording online interactions and community events related to e-commerce live streaming, as previously noted by (Bhattacharyya & Dash, 2021).

3.1.2. Research Approach

The basis for selecting the research approach is founded on a research focus (Saunders et al., 2009). According to Saunders et al. (2009), one of the primary objectives of any research is to analyze a new topic; however, it is needful to collect data and perform analysis appropriately before reflecting on the data interpretation for research topics with limited literature. In such scenarios, an inductive research approach is necessary, especially for making inferential observations (O'Kane et al., 2019; Goddard & Melville, 2004; Bernard, 2017). Such approaches involve perusing through all available literature information to consolidate a comprehensive insight of the research topic and subsequently categorize and summarize the critical insights of all the data and facts gathered (Williamson, 2016). However, this study's topic is a new context of research that provides an interesting perspective on the developments in e-commerce. Hence, there is limited information about the topic discussed.

3.1.3. Literature Search

The theoretical domain of this study is defined by the research question: what are the problems encountered by "e-commerce livestreaming" influencers and what are the proposed countermeasures to improve the e-commerce livestreaming environment and make it sustainable? In using literature analysis as the method in the pre-research stage to answer these questions, relevant theories and textual materials were also analyzed to provide further clarifications (Knopf, 2006). Since influencer e-commerce live streaming is a new field of study, it has drawn much attention from the academic community about its development, marketing strategies deployed, and problems encountered. Although there is limited literature on e-commerce live streaming to extract much needed information to exhaustively address the study topic, the review process was undertaken by identifying various keywords that were then used for the research, these include: e-commerce; Netnographic; online viewers; influencers, and online community. The development of this research was anchored around these keywords that acted as guidelines for selecting review articles from various databases online that were used to build this study.

3.1.4. Netnographic Research

Netnographic study is a type of qualitative research often deployed to gain in-depth insights of cultural experiences encompassed and reflected within social networks and social media systems (Kozinets, 2019). Netnography is different from other general digital inquiry of social media fields in the sense that it emphasizes on social interactions and online traces as well as specifies certain procedural guidelines that makes it pragmatic (Kozinets, 2019). Specially, this is based on how it is used in social media studies through a cultural lens. With respect to live video streaming in this study, the Netnographic research approach was used as a research methodology to analyze individuals' interactions and behavior on the Internet to derive useful insights. Therefore, Netnographic research as opposed to ethnographic research is more naturalistic and less intrusive: meaning, it allows quick, effective, and efficient access to broader information about individuals' behavior on the Internet (Kozinets, 2019). Netnographic research is used social networks studies because it provides a better platform for understanding of informational exchange in online platforms, generate and spread information, and study users' behavior (Heinonen & Medberg, 2018). Internet marketers are all overlooking for information created on social media by users and other online communities to create content and promote products. Therefore, they use Netnographic research to contextualize data and create cultural and behavioral inferences about online users. In this study, Netnographic research was used to study how e-commerce livestreaming influencers influence individuals' behavior in social networks.

There are many benefits of using Netnographic research approach, especially for business entities thanks to massive availability of free-networked data that can be used generate accurate, secure, and profitable decisions about a brand, product, or marketing strategy (Addeo et al., 2019). Netnographic research method is commonly used in online marketing studies as research tool to drive persistent innovation (Lee & Ko, 2022). Through Netnographic study, a researcher is properly poised to gain an understanding of the motivation of individual influencers and consumers largely by examining g the interaction of online users with the different influencers and KOLs thus offering more insights into the livestreaming phenomena. By trying to know what online users are looking, a researcher can easily predict online users' behavior and intention without directly having to ask them questions. Thus, Netnographic research is a proliferative study technique expected to increasingly improve the pace and diversity of innovation and e-marketing strategies. Marketers are able to use the various available Internet tools used by consumers to gather all needed information and opportunities

about consumers to gain insight into their intention and behaviors and therefore advertise brands that meet customers' specifications, choice, or preferences.

3.2. Method of Data Collection

Two core methods were used to collect primary data for this study: online observation and detailed interviews. The data collection process took place over two months, from March to April 2022.

3.2.1. Online observation

Online observation is one of the most natural yet challenging aspects of a qualitative method of data collection. It is an interactive research method that can be used to generate data through blogs, social networking sites, and discussion forums (Kozinets, 2019). Online observation serves as a crucial method of data collection in qualitative research, enabling researchers to gain insights into individuals' behaviors, interactions, and experiences in digital environments. The purpose of online observation is multifold, encompassing various objectives that contribute to a comprehensive understanding of human behavior and the social dynamics within online communities. One primary purpose of online observation is to explore and document naturalistic behavior. By observing individuals in their natural online settings, researchers can capture authentic and spontaneous actions, interactions, and conversations. This method allows for the examination of real-time behaviors as they unfold, providing rich and contextual data that may not be readily accessible through other research methods. Online observation helps researchers overcome the limitations of self-reporting and recall biases, as participants engage in their usual online activities without altering their behavior due to the presence of an observer.

Another purpose of online observation is to study social interactions and relationships within online communities. Online platforms and social media have become integral parts of people's lives, facilitating the formation of various digital communities. Researchers can observe how individuals communicate, form connections, collaborate, and engage in social activities within these virtual spaces. The observation of social interactions provides insights into the dynamics of online relationships, the emergence of social norms, the development of social hierarchies, and the influence of group dynamics on individual behavior. Online observation also allows researchers to examine the impact of technology on behavior and experiences. With the advancement of digital technologies, individuals' online experiences

have become increasingly complex and multifaceted. By observing how individuals navigate and interact with digital interfaces, researchers can explore how technology shapes cognitive processes, decision-making, information seeking, and online behaviors. This understanding is essential for designing user-friendly interfaces, optimizing online experiences, and addressing potential ethical concerns or challenges arising from the use of technology.

Additionally, online observation enables the exploration of online communities and subcultures, including their norms, values, and practices. Researchers can immerse themselves in various online spaces, such as forums, social media groups, or virtual worlds, to gain insights into the unique characteristics of these communities. By observing the language, symbols, rituals, and power dynamics within these spaces, researchers can uncover the underlying cultural dynamics and meanings attributed to specific online activities or artifacts. This knowledge contributes to a deeper understanding of how digital environments shape collective identities and cultural expressions.

In this study, online observation was employed to monitor various live streaming events and collect data on the research topic. During the online observation, the researcher always monitored the live streaming activities as well as acted as a quasi-participant during the observation period as he collected data. According to (Koteyko & Hunt, 2016) and (Wang et al., 2021), online observation helps a researcher discover how and why humans behave in way in specific environments. These can be through immersion and engagements to acquire most basic human experience. Wang et al., (2021) add that with online observation, a researcher only needs to institute a relationship with other participants since observational engagement implies engaging in contexts and actions in social settings.

In this study, the researcher watched livestreaming of two live streamers (Li Jiaqi and Wei Ya) in three social media platforms: Taobao, Weibo and Tiktok. The most intuitive part for data observation in these platforms was interactivity and participation. The author also checked Jiaqi Li and Wei Ya's livestreaming homepages after thrice a week mostly on the weekends (Fridays, Saturday, and Sunday for 1-2 hours each of the weekend days.

Table 1: Observation Schedule

Date	Platform	Live streamer	Observation Time (Chinese time zone)	Live Viewers
2022/3/4	Tao Bao	Li Jiaqi	3pm-5pm	8328932
2022/3/5	Tao Bao	Wei Ya	4pm-5:30pm	11426318
2022/3/6	Tao Bao	Li Jiaqi	4:10pm-5:30pm	9896832
2022/3/11	Tao Bao	Wei Ya	5pm-6:25pm	12627401
2022/3/12	Tik Tok	Li Jiaqi	2pm-3:45pm	727938
2022/3/13	Tik Tok	Wei Ya	4pm-6pm	983064
2022/3/18	Weibo	Li Jiaqi	6pm-7pm	6860431
2022/3/19	Weibo	Wei Ya	6pm-7pm	6894873
2022/3/20	Tao Bao	Li Jiaqi	5:30pm-7pm	10387645
2022/3/25	Tao Bao	Wei Ya	5pm-6pm	12937401
2022/3/26	Weibo	Li Jiaqi	5:30pm-6:45pm	7538939
2022/3/27	Weibo	Wei Ya	4:45pm-6:25pm	6549041
2022/4/1	Tik Tok	Li Jiaqi	2:45pm-3:30pm	9860431
2022/4/2	Tao Bao	Wei Ya	2pm-3pm	1230486
2022/4/3	Tao Bao	Li Jiaqi	1pm-2pm	1038732
2022/4/8	Weibo	Wei Ya	2pm-3pm	5028948
2022/4/9	Weibo	Li Jiaqi	7pm-9pm	8763047
2022/4/10	Tao Bao	Wei Ya	6:30-8pm	10739891
2022/4/15	Tik Tok	Li Jiaqi	2pm-3:15pm	7637201
2022/4/16	Tik Tok	Wei Ya	1pm-2pm	4437401

Livestreaming with exhaustive interactions between the influencer and fans and with clear participatory features were considered as important for when collecting data on number of online participants and the peak hours for the interaction between the live streamers and the prospective consumers. Online observation records collected were automatically saved in the researcher's mobile device by taking the livestreaming and influencers' screenshots. The online observed data were as shown in Table 2. Some of the challenges of this method is cultural and language restrictions and this makes participating in this study only viable to Chinese researchers since the livestreaming are done in Chinese language.

Table 2: Observation materials general information

Materials (screenshots)	Number	How to construct
From streaming	38	Featured by interactivities
From Weibo	14	Featured by activities

The data shown in the table above documents the number of the materials in the form of screenshots that were taken from weibo and streaming platforms such as TikTok and Taobao. From the table the streaming platforms had the highest proportion of visitors as well as more interactivity between the ecommerce influencers and their support base. On the contrary weibo users were comparatively low and the materials collected for the study were ranked by featured activities. This implies that Weibo had low levels of real-time interaction between prospective consumers and the opinion leaders, hosts, or influencers. The materials collected are further discussed in detail in the sections below.

3.2.2. Detailed interviews

Detailed interview is a standard method social scientists use to understand their world by "interviewing the society" (Voutsina, 2018). Morris (2015) in his study noted that a detailed interview needs to be free-flowing, simple, flexible, and should provide several leeway for an interviewee to dig "deeper" into the questions being asked. In this study, semi-structured detailed interviews were conducted. Twelve (12) online users took part in the interview and the interview was carried out for a period of two (2) months. To achieve this, fifteen (15) interview questions. The themes in the interview questions were introduction, users' attachment to live streamers, level of interaction, feelings, and participation means (see appendix). The primary goal of this interview was to provoke participants (users) to give more detailed and comprehensive responses. Interviewees were communicated to via WeChat and the period for each interview was 30-45 minutes. Note, all COVID-19 health and safety protocols were observed. Every interview was separately after once the participant's consent was obtained and immediately all the interview records were sorted into manuscripts. The Interviews provided in-depth insights on the factors that gravitated online users towards certain influencers and the influence of the influencers/KOL on the purchasing motive of the consumers.

The interviews conducted in this study contributed significantly to the overall purpose and objectives of the research. By interviewing online users who actively engage with live streamers, the study aimed to gain in-depth insights into the factors that attract users to specific

influencers and the influence these influencers have on consumers' purchasing decisions. The interviews provided valuable information and perspectives directly from the customers, allowing for a comprehensive understanding of their experiences, motivations, and behaviors within the context of livestreaming. For instance, the interviews were designed as semi-structured detailed interviews, which provided a balance between allowing participants to freely express their thoughts and experiences while also guiding the conversation around specific themes related to the research objectives. The use of open-ended questions and a flexible interview format, as recommended by Morris (2015), ensured that participants had the opportunity to delve deeper into their responses and provide comprehensive insights.

By conducting interviews over a period of two months, the study allowed for a longitudinal exploration of participants' experiences and evolving perspectives. This extended duration of engagement facilitated a deeper understanding of users' attachment to live streamers, their levels of interaction, emotional connections, and the various means through which they participate in livestreaming activities. The comprehensive range of interview questions, encompassing themes such as introduction, attachment, interaction, feelings, and participation means, ensured that multiple aspects of the users' engagement with live streamers were explored. The interviews also offered a personalized and nuanced understanding of participants' perspectives, allowing for the exploration of individual motivations, preferences, and decision-making processes. By directly engaging with users, the research captured their subjective experiences, perceptions, and insights, providing a rich and detailed understanding of the factors that influence their engagement with live streamers and subsequent purchasing motives.

Furthermore, the interviews provided an opportunity for participants to reflect on their experiences and articulate their thoughts and feelings. This process not only facilitated a deeper exploration of their engagement with live streamers but also empowered them to contribute to the research by sharing their unique perspectives and stories. The inclusion of participants' voices and narratives enriched the findings of the study and added a human element to the analysis.

3.3. Case Study Selection

Case study analysis is to take a specific individual as the malefactor, through the collection of data and other means, to summarize the development history and self-characteristics of the malefactor, to form a more in-depth and comprehensive understanding (Denzin & Lincoln,

2011). In this paper, we select Li Jiaqi and Weiya, who are representative figures in the field of live goods, as the malefactor, and analyze the live goods they are engaged in, to summarize the communication characteristics of Li Jiaqi and Weiya's live goods. Li Jiaqi and Weiya are two major merchants of live broadcast who have great contribution and influence in the live broadcast e-commerce industry in China.

3.4. Ethical Considerations

In the past, live-streaming e-commerce videos have without consent generated ethical concerns with both traditional and e-commerce industries, such as sports, online marketing, gaming, and other online content industries due to infringement of intellectual property (IP) rights, such as trade secrets, ticket sales, trademarks, patents rights, and copyrights (Faklaris et al., 2016). In the recent times, the first sector to make such infringement claims was the sport leagues' professionals, indicating livestreaming videos' potential disruption of target revenue generation (Faklaris et al., 2016). According to Faklaris (2016), in sport leagues, the main generator of revenue is sales of tickets of live television rights. However, since individuals are increasingly capable of accessing live videos and can live stream as opposed to receiving such information from cable television and broadcast networks, revenue generation from these networks have been highly threatened (Edelman, 2015). A typical example is the case of Floyd Mayweather vs. Manny Pacquiao boxing match of 2015 where over 10,000 people watched the match on a single Periscope stream rather than buying ticket for broadcast (Faklaris et al., 2016). Hence, ethical considerations are important aspects in any undertaking and this research is no exception. The livestreaming e-commerce information gathered must be distributed, held with utmost confidentiality, and anonymous to maintain a high level of trustworthiness (Heinonen & Medberg, 2018).

Trustworthiness of this research was measured and analyzed based on four components: dependability, credibility, conformability, and transferability. According to Lincoln & Guba (1986), a study's credibility can be ensured by prolonging engagement observing how the influencers under study throughout the livestreaming session influence their followers' purchasing decisions. The credibility can also be achieved through persistent observation of the content delivered by the selected livestreaming influencer either hourly, daily, weekly, or even monthly over a given duration through various online platforms to gain more insightful understanding of the impact of influencers on their followers/customers' purchasing behavior or brand engagement. According to Janis (2022) dependability on the other hand is achieved

by not tampering with research content and it includes providing detailed research description with clear research objectives, theories and models employed methods of data collection and data analysis. In this research, a high level of dependability was ensured by providing detailed study's description including the Netnography research used. Conformability can be achieved in research using various triangulation methods.

The study was backed with empirical data collected using Netnography to check conformability. Conformability as argued by Patton (1990) is a general approach of ensuring a research's objectivity. In qualitative method, conformability is achieved by providing sources where the information is extracted to appreciate the author's work, avoid plagiarism, and bias (Seale, 1999). The transferability of this research was carried out by the researcher and assisted by two technology technicians to minimize workload. One technician monitored the KOL livestreaming influencer and collected the data; second technician monitored the content created during livestreaming to collect the data. The data was then authenticated and entered for analysis and interpretation. Transferability is one of the challenging approaches to replicate or generalize in more than one industry when conducting a Netnography research. Thus, just slight modifications need to transfer hence research uniqueness can be ensured.

3.5. Reliability and Validity

The research attained reliability and validity through several methods. First, the researcher carefully selected the participants. The researcher wanted to make sure that the participants were representative of the population that was being studied. The researcher also used a clear and consistent interview protocol. This helped to ensure that all the participants were asked the same questions in the same way. The researcher also carefully transcribed the interviews. The transcription should be accurate and complete. The researcher also coded the data carefully. This helped to identify patterns and themes in the data.

Finally, the researcher conducted a member check. This is a process of asking the participants to review the transcripts and coding. This helped to ensure that the researcher had accurately captured the participants' experiences. By following these steps, the researcher was able to produce high-quality qualitative research that is reliable and valid.

4. Results and Empirical Analysis

4.1 Online Observation Findings

The participants observed online during live stream events gave various reasons why and how live stream retailing impacted them. Figure 4 shows key findings that were document on sticky notes and kept on a Miro board. A Miro board is a whiteboard platform that a team can use to brainstorm and even go beyond to undertake various tasks that require social interactions. Based on the information on the Miro board, most users indicated that live streaming is the most beneficial business model for e-commerce advertising or marketing strategy. Most online users also showed that any business that use a live stream retailing embraces innovation and is more likely to be popular. They added that not only does embracing live stream retailing save on space but also very beneficial to small and medium-enterprises (SMEs) and family-owned business. This perspective mirrors the fact that seeing things from varying perspective is extremely insightful and this creates a positive outlook on live stream retailing.

Figure 4: A screenshot from online observation illustrating why and how livestream retailing is useful (Merritt & Zhao, 2022).

In a view to target the correct areas, users discussed who should use e-commerce live streaming and who benefits. Their views provided in-depth insights into how e-commerce live streaming platforms for marketing should be developed, the target audience, the sort of features it should include, and requirements.