Impact of AI virtual Synthetic Smart Anchor on Livestream Shopping in Southeast Asia

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Abstract. This paper examined the role of AI digital anchors in enhancing user experience of news broadcasting. The study analyzed the interaction of AI anchors with the audience in live news programs. The findings showed that the AI virtual anchors are preferred by the media houses because it reduces the cost of operations. The AI anchors have the ability to imitate behaviors and use them to project the audience needs. The designers have also ensured that AI anchors can use the voices human anchors, making them more connected to the viewers. However, the AI are still limited in their applications may increase the cost of production.

Keywords: AI virtual anchors, human anchors, broadcast, and digital anchors.

1 Introduction

The use of artificial intelligence (AI) to generate sales is one of the biggest forces fueling China's fast-growing livestreaming e-commerce industry. During the annual Double 11 shopping in China, multiple brands such as Xiaomi, Huawei, Philips, and Unilever rely on virtual hosts to promote their products and make massive sales (China Daily, 2022). For instance, in June 2020, one of China's top livestreamers known as Li Jiaqi or the "Lipstick King" sold about 15,000 tubes in under five minutes on Taobao (China Daily, 2022). Li's magnificent success showed how livestream shopping can help both small and large organizations to generate quick and massive sales (China Briefing News, 2022). China's livestream shopping industry is not only growing fast but also fueling investments in artificial intelligence (AI) technology to replace human anchors (Wang, 2022). Being cost-efficient and reliable livestreamers explains why many companies consider using smart anchors to replace human influencers to promote their products online. This paper examines the impact of the virtual synthetic smart anchor on livestream shopping in the Southeast Asian market.

According to the estimates by the global accounting firm KPMG in 2019, livestream shopping has grown into an industry worth 433.8 billion yuan (about $66 billion U.S. dollars). Three years

later, China's e-commerce livestream shopping industry is projected to reach 1.2 trillion yuan (US$180 billion) in 2022 with over 660 million viewers across five platforms (China Briefing News, 2022). Alibaba's Taobao Live is the biggest streaming platform in the livestream industry (China Briefing News, 2022). Other key players with significant viewers include *Douyin (TikTok), Kuaishou, JD Live,* and *Baidu* (Wang, 2022). In 2023, livestream shopping is expected to represent about 11.7 percent of the total e-commerce sales in China (China Briefing News, 2022). The industry is also attracting more innovations, including the use of AI synthetic smart anchors, to improve sales (Guo, 2022). Apart from the demand for honesty from the livestreamers, Chinese government regulations have created a friendly environment that promotes both sales and employment.

2 Literature Review

A. The AI virtual Synthetic Smart Anchor

China is witnessing a growing demand for AI news anchors that can mimic human voices, faces, and gestures in ways that viewers may struggle to differentiate between humans and avatars. Several media houses in China have developed AI news anchors for weather reports and emergency news reports (China Briefing News, 2022). In May 2020, for instance, the Chinese state news agency Xinhua added an AI 3D news anchor to its growing lineup of virtual presenters (China Briefing News, 2022). The robot named Xin Xiaowei could mimic human voices and faces to reflect emotions, surprises, and happiness. Xin Xiaowei is also capable of making gestures while reading news just like sign language interpreters would do during live television broadcasts (Van den Berg, 2021). Xinhua is among the growing list of Chinese media houses that are replacing their human anchors with virtual synthetic smart anchors to lower costs, increase accuracy in media reports, and attract technology enthusiasts to their viewership.

B. Application in the China's Livestream Industry

The AI virtual synthetic smart anchors have also emerged as a new force in China's fast-growing livestream shopping industry. During livestream on platforms such as Taobao Live, viewers can see and interact with the cartoon avatars as they promote new products, cheer, dance, and rap to entertain the audience (China Briefing News, 2022). The AI smart anchors are also replacing human anchors who have been hosting livestreaming shows where they introduce products, demonstrate to viewers how they are used, and guide them on how to make purchases (Khan, 2022). Viewers can tune into live sessions and ask AI smart anchors questions and send messages, just like they do with human anchors (Van den Berg, 2021). The host (AI smart anchors) will see the comments and respond to them in real-time (China Briefing News, 2022). This makes it look like a virtual-reality type of experience where buyers talk directly to the retailer before making purchases (Xiao & Duan, 2021). Once the viewers are satisfied with the information and want to buy the product, they can click on the embedded links and proceed to checkout.

One of the concerns raised against the use of AI smart anchors is that they are rapidly replacing social media influencers as livestreaming hosts (China Briefing News, 2022). In recent years, Chinese online retailers and other international brands have been hiring social media influencers with a large fan base to promote their products via livestreaming. According to Van den Berg

(2021), social media influencers and their teams have been earning millions in commissions for every product they sell during livestreaming sessions. Popular livestreamers such as Jiaqi Li and Viya have been generating millions of dollars in sales commissions, product endorsements, and sponsorships (China Briefing News, 2022). However, the AI smart anchors are taking over from most of the social media influencers as the new hosts during livestreaming sessions (Guo, 2022). The small profit margins that are left after giving huge discounts to the customer during live shows are encouraging many companies to use smart anchors because they are a cost-efficient and reasonable alternative to hiring real people.

In 2020, there were about 1.23 million professional livestreamers on popular platforms such as Taobao Live and JD Live (China Briefing News, 2022). However, this was a 250,000-decline compared to 2019 when there were more than 1.49 million professional livestreamers on various e-commerce platforms (China Briefing News, 2022). The current statistics also indicate that more companies would choose AI smart anchors over human beings because of their efficiency and cost reduction (Qi, 2021). Some critics also argue that the use of AI smart anchors does not give consumers the human experience that they get from conventional social media influencers (Xie, 2021). For instance, beauty products such as lipsticks may have a higher demand for human presence because most women would like to see how the product looks on the lips of the presenter. A good example is the case of Li Jiaqi who demonstrates how the products look by applying them in real-time, helping consumers to purchase what they know based on the live experience.

3 Methodology

A systematic review was conducted in this research to examine the impact of AI virtual Synthetic Smart Anchor on livestream shopping in Southeast Asia. Data was obtained from various past sources, including news organizations such as Xinhua Agency that has significant experience in using the virtual AI smart anchors. The following results were obtained.

4 Results and Discussion

A. Impact on Livestream Shopping

The biggest impact of the AI synthetic smart anchors on livestream shopping has been the significant growth in revenue between 2019 and 2022 (China Briefing News, 2022). For instance, the estimates by the global accounting firm KPMG showed that China's livestream sector was valued at 433 billion yuan ($66 billion US dollars). However, in 2022, the numbers rose dramatically to at least 1.2 trillion yuan (US$180 billion) in the first three quarters (China Briefing News, 2022). The total revenue for China's livestream sector is expected to reach 4.9 trillion yuan (US$720 billion) in 2023, representing about 11.7 of the total e-commerce sales in the country (China Briefing News, 2022). The AI smart anchors have partly contributed to this tremendous growth by attracting and retaining a strong viewer base.

Apart from the revenue growth, AI-driven sales are also attracting more viewers to the livestreaming platforms. In 2019, there were about 309 million active users on popular livestreaming platforms such as Taobao, Douyin (TikTok), Baidu, JD.com, and Kuaishou

(China Briefing News, 2022). In 2022, there were more than 660 million viewers on popular livestreaming platforms. Alibaba's Taobao and Tmall had over 550 million active users while JD Live and other platforms had more than 292 million users (China Briefing News, 2022). According to Yin & Qiu (2021), the immersive and entertaining features of livestreaming explains why the viewership is growing by significant numbers. Most online consumers are tired of scrolling through web pages in search of their favorite products (Cunningham et al., 2019). Livestreaming makes shopping easier by enabling buyers to interact with the presenters, learn more about the products, get live reviews, and proceed to make purchases (Van den Berg, 2021). Livestreaming also comes with entertainment where cartoon avatars cheer or rap to entertain the audience as they introduce new products.

Livestream shopping has been a significant success for small and medium enterprises. According to Van den Berg (2021), a Chinese celebrity by the name of Dayi Zhang, who owns a shop on Taobao, generated about 2.7 million euros in sales in just 2 hours of livestreaming. Other small businesses such as Talk Shop Live, with a user base of 2 million, had more than seven times increase in sales during COVID-19 lockdowns (China Briefing News, 2022). Another small business by the name of Network has witnessed a more than 400 percent increase in sales through livestreaming. A jeweler who also has a shop on Taobao sold a gold-colored vacuum sealer worth $120,000 in less than 10 minutes (Van den Berg, 2021). Another organization by the name Comment sold has witnessed an increase in sales from 360 million yuan to about 1 billion yuan through Livestream shopping. The various success stories associated with Livestream shopping explain why its popularity among retailers is growing so fast.

According to Van den Berg (2021), Taobao has a 32% conversion rate which explains why it is more popular than other streaming platforms. During the Double 11 or Singles Day festival, Taobao may have more than 3 billion views on various livestreams combined (Van den Berg, 2021). More than 90% of the sales generated from its high conversion rate come from livestreaming platforms (Yin & Qiu, 2021). The above figures indicate why most retailers would prefer Taobao to other platforms such as TikTok. However, this does not mean that other platforms are not generating massive sales (Adam et al., 2021). JD Live is also an emerging giant with a more than 15 percent conversion rate. The company has also installed various chatbots on its livestreaming platforms to provide real-time responses to various questions raised by viewers (Si, 2021). The chatbots also collect essential data that enables retailers to accurately predict consumer behaviors.

Regarding the product categories, women's fashion is the most popular on the platform followed by cosmetics. According to research conducted by McKinsey, apparel and fashion account for about 35.6 percent of sales made on livestreams (China Briefing News, 2022). Women's fashion is the leading product category followed by male fashion. Cosmetics and beauty are also popular on the livestreaming platform, though they account for about 7.6 percent of the sales (China Briefing News, 2022). Fresh foods also gained significant popularity on livestreaming platforms due to Covid-19 lockdowns. Since people were not allowed to visit supermarkets, livestreaming became the chosen platform for buying fresh foods and having them delivered within the day or just hours (Xiao & Duan, 2021). The government also supported e-commerce because of its impact in lowering the transmission of the virus across populations (Van den Berg, 2021). The following table illustrates the product category on the livestreaming platforms and their popularity.

B. Impact on Consumer Buying Behavior

Compared to conventional online shopping, livestreaming has shown a significant influence on consumer buying behavior. The use of AI and augmented reality is changing online shopping in ways that many retailers did not predict (Yin & Qiu, 2021). For instance, L'Oréal found that the use of AI and augmented reality increased its sales on various livestreaming platforms by more than 200 percent (China Briefing News, 2022). The use of AI smart anchors has shown significant capacity in learning and predicting consumer behaviors in real time (Adam et al., 2021). For instance, the AI smart anchors can tell how consumers would react when the price, discount, or new features of a product are mentioned (Van den Berg, 2021). For instance, the AI smart anchors may use the reactions in cheering or dancing to show how a 20 percent reduction in price would make customers feel. The AI smart anchors may also use phrases such as "OMG" to show their surprise over huge discounts offered on the livestreaming platforms. The positive reactions assist customers to see the real value in the discounted prices before using the available links to make purchases.

Apart from machine learning, the AI smart anchors combine various processes used by consumers to make purchase decisions. For instance, smart anchors combine problem recognition, information search, and alternative evaluation to help consumers reach appropriate decisions quickly (China Briefing News, 2022). Providing virtual try-on services enables consumers to determine how a new product such as lipstick would transform their looks (Van den Berg, 2021). The virtual try-on service also assists in selling items such as clothes and shoes which consumers may want to try first before buying. The virtual experience also gives consumers the impression of speaking directly to the retailer and getting the answers they need before purchasing a product (Cunningham et al., 2019). The AI smart anchors also study the market to identify price and quality differences among retailers before giving accurate recommendations to the customers (Cunningham et al., 2019). By combining various processes such as problem recognition, information search, and alternatives evaluation, the AI smart anchors drive consumers to quicker and more efficient decisions.

AI-driven sales are giving livestreaming platforms a higher conversion rate than conventional online shopping. According to Adam et al. (2021), consumers have grown tired of scrolling through web pages as they try to make comparisons on quality and price differences before selecting a product. The AI-driven livestreams make comparison easier because the smart anchors have sufficient data about the market and can share it with the customers during livestreams (China Briefing News, 2022). The information enables customers to determine the value they would get by purchasing one product instead of another (Cunningham et al., 2019). Machine learning also enables AI smart anchors to determine the level of price sensitivity of a product (Van den Berg, 2021). For instance, if a product's price is less sensitive among consumers, the focus should be placed on other features such as durability to drive sales. This prevents mistakes made by sales representatives who sometimes focus on the price when consumers want to know more about the quality.

The immersive and entertainment features have also become attractive to online consumers. According to Xie (2021), China's livestreaming platforms are not just about sales but also entertainment. There are often short breaks taken by the anchors to allow for relevant entertainment (Cunningham et al., 2019). However, entertainment is often part of sales and marketing because they are designed to show how particular products are used by consumers

(China Briefing News, 2022). Products under the apparel and fashion category often rely on live demonstrations to drive sales (Zhou et al., 2020). Entertainment also elevates the spirits of buyers by breaking the dullness of the internet. Positive emotions also generate strong enthusiasm and a general drive to make purchases.

Van den Berg (2021) argues that the e-commerce platform is so crowded that it may take several years before a product becomes visible. AI-driven Livestream makes a product visible by introducing it to potential buyers (Adam et al., 2021). Livestreams assist small and medium enterprises that are not so visible on conventional platforms to reach potential buyers in the market (China Briefing News, 2022). The AI smart anchors provide new information about emerging products that consumers may need to supplement their needs (China Briefing News, 2022). For instance, those who are purchasing beauty products such as lipstick may have several recommendations from the same company to suit various needs. Product visibility enables consumers to make meaningful evaluations before making purchases (Zhou et al., 2020). The AI enables accurate evaluations by recommending similar products that consumers may want to check before making purchase decisions.

Timely information and high dissemination efficiency explain why AI synthesis anchors have become more popular in driving consumer decisions. According to Van den Berg (2021), most consumers who visit livestreaming platforms often come for a new experience. During mega sale seasons such as Double 11, consumers often visit the livestreaming platforms for the latest news on products such as huge discounts, new exciting products, and other purchasing trends (China Briefing News, 2022). The AI synthesis anchors rely on data mining to determine the type of information needed by the consumers (Sun et al., 2022). The AI smart anchors have shown significant efficiency in delivering timely and accurate information needed by consumers to support decisions (Yu et al., 2022). The AI smart anchors can also achieve zero error during broadcasting, enhancing trust among the consumers. The timely and efficient broadcasting is suitable for dealing with new information and driving strong enthusiasm and trust among consumers.

Besides, consumers are going digital and expecting more from companies. The era of making assumptions about consumer behavior is getting thinner over time and may become obsolete in the next five years. AI-driven sales are becoming the new normal because they provide accurate data that enables accurate targeting and sales conversion (Van den Berg, 2021). China is showing the world how AI synthesis anchors can help companies to generate significant sales through the livestreaming of products (China Briefing News, 2022). Many organizations are also leveraging the business intelligence gains that AI can offer (Adam et al., 2021). For instance, organizations such as Philips, L'Oréal, and Unilever are using AI-driven sales to generate more revenue on livestreaming platforms (Yin & Qiu, 2021). The AI synthesis anchors provide a significant opportunity for organizations to give new experiences to their customers while growing their profit margins.

C. Live Commerce vs. Social Commerce

Whether going Livestream or sticking to conventional online shopping, it is difficult to ignore the emerging force that Livestream shopping has brought to the e-commerce industry in Southeast Asia (Wei et al., 2022). China is emerging as the leading force in the use of AI-driven sales to uplift small and medium organizations, grow profit margins for bigger organizations, and gain the trust of their consumers (Arenal et al., 2020). Livestream e-commerce has gained

significant popularity because it significantly enhances shopping experiences and attracts new customers (Van den Berg, 2021). For instance, in 2019, platforms such as Alibaba's Taobao had about 309 million viewers, but the number increased to more than 660 million in 2022 (China Briefing News, 2022). Even platforms such as JD Live with fewer viewers had more than 290 million viewers in 2022 (China Briefing News, 2022). The huge platform explains why e-commerce is shifting from conventional online shopping to Livestream shopping platforms.

Live commerce is also getting popular due to the huge discounts they offer to customers during livestreams. According to Zhang et al. (2021), livestream platforms often promote products that are directly provided by the factories. For instance, most of the lipsticks or apparel sold during livestreams are directly obtained from factories, making them cheaper than the products sold on social or conventional commerce (Zhang et al., 2021). The huge discounts are among the primary reasons behind millions of viewers flocking the livestreaming platforms during mega shopping seasons such as Double 11 which occurs on November 11 (China Daily, 2022). The discounts make livestreaming platforms more popular than regular online stores. Electronic products such as television, washers and dryers, refrigerators, and microwave ovens often cost about 20 to 30 percent less on the livestream platforms than they are on the regular platforms (Van den Berg, 2021). Consumers also prefer direct conversations with the AI synthetic anchors to understand details about a product before making purchases.

D. AI Experience during COVID-19

The livestream e-commerce experience during Covid-19 is one of the forces behind the significant rise of the industry. As COVID-19 lockdowns imposed by the government kept millions of buyers at home, livestreaming became the only platform where consumers could interact with retailers before making sales (Van den Berg, 2021). Virtual and augmented reality provided an impression of customers talking to actual retailers before making purchases (Zhang et al., 2021). Consumers could log into their livestreaming platforms such as Taobao anytime and find ongoing livestreams where they can purchase a wide variety of products ranging from beauty and cosmetics to fresh foods (China Briefing News, 2022). The lockdowns also fueled the need for virtual hosts because some of the government restrictions made it nearly impossible for people to leave their homes, especially if they were exposed to the virus at some point (Guo, 2022). Chinese media companies such as Xinhua began testing most of their AI synthetic smart anchors in 2020 during the Covid-19 lockdowns (Zhang et al., 2021). The AI synthetic smart anchors became more suitable for livestreaming platforms because their services could be used all day long without worrying about sickness, compensation, fatigue, or errors.

Table 1: Live stream products and popularity

Livestream Product Categories	Popularity Rates (Percentages)
Apparel and fashions	35.6
Cosmetic and beauty	7.6
Food products	7.4
Electronics	4.6
Furnishing and home commodities	3.6
Automobiles	0.2

Table 1 shows that the product categories such as fashion and apparels, cosmetics, food, electronic items, home furnishing and automobile are popular among the buys because of the anchors. So, any organization or brand, who like to increase their sales and market pitching, they can use Apparel and fashions with AI Anchors. Because 35% of popularity is great number in live streaming category. So AI anchors can work tirelessly and repeat the same dialogs or responses to every single customer.so the team has to validate the data accordingly.

5 Conclusion

The use of artificial intelligence (AI) synthetic smart anchors to generate sales is one of the biggest forces fueling China's fast-growing livestreaming e-commerce industry. The industry has grown in leaps since 2020 when Covid-19 lockdowns imposed by the government kept millions of buyers at home. The industry which was worth 433.8 billion yuan in 2019 is projected to reach 1.2 trillion yuan (US$180 billion) by the end of 2022 with over 660 million viewers across five livestreaming platforms, including Taobao, Douyin (TikTok), Kuaishou, JD Live, and Baidu. Record sales made on livestream shopping have made them very popular among retailers on various e-commerce platforms. AI-driven livestream shopping is also changing consumer behavior by giving significantly enhanced shopping experience, unbeatable discounts, and augmented reality type of experience. The AI synthetic smart anchors are also preferred because they are low cost, highly efficient, and standardized for learning and analyzing data from consumers.

Acknowledgement

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