

ANALYSIS OF DIGITAL MARKETING STRATEGIES FOR CROSS BORDER E-COMMERCE OF HAIR DRYER PRODUCTS

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Abstract: With the rapid expansion of global e-commerce, cross-border e-commerce has become an indispensable link between global consumers and brands. Hair dryer, as a popular product in the field of personal care appliances, continues to have high market demand on cross-border e-commerce platforms. However, in the context of increasingly fierce market competition and diversified consumer demands, traditional marketing methods are no longer able to meet the pace of brand development. Therefore, exploring digital marketing strategies, especially the application of AI digital live streaming in cross-border e-commerce, has become a key path for hair dryer brands to enhance market influence, strengthen consumer interaction, and promote sales.

The beginning of this article provides an overview of the current situation, development trends, and market characteristics of the cross-border e-commerce live streaming market, as well as the market features of hair dryer products. Subsequently, an in-depth analysis was conducted on the core principles, characteristics, and unique advantages of AI digital human live streaming technology in cross-border e-commerce marketing, such as 24/7 live streaming, precise personalized recommendations, seamless cross language communication, and deep emotional interaction. These advantages endow AI digital live streaming with enormous potential in cross-border e-commerce marketing. On this basis, this article takes a well-known brand as an example to analyze in detail how the brand uses AI digital human live streaming strategy to achieve marketing breakthroughs on cross-border e-commerce platforms. Through this case, this article reveals the significant effectiveness of AI digital live streaming in enhancing brand awareness, deepening consumer interaction, and promoting product sales. Specifically, AI digital live streaming has significantly enhanced the awareness and consumer satisfaction of hair dryer brands through vivid imagery, customized product recommendations, real-time consumer interaction, and cross-cultural communication. At the same time, this article also points out the challenges that may be encountered in implementing AI digital human live streaming strategies, including technical barriers, cultural differences, and legal and regulatory restrictions. In response to these challenges, this article proposes targeted solutions, such as increasing technological research and development efforts, optimizing live streaming content design, and enhancing cross-cultural communication skills. Based on the latest developments and trends in the cross-border e-commerce market, this article explores in depth how hair dryer brands can continuously optimize their AI digital live streaming strategies.

Keywords: Cross border e-commerce; Digital human; Hair drier; Digital marketing

1 INTRODUCTION

With the continuous deepening of globalization and digitization, cross-border e-commerce has become a new highlight of global economic development. As an important component of the personal care market, hair dryer products are experiencing a dual driving force of demand growth and consumption pattern changes. The rise of cross-border e-commerce platforms has provided unprecedented opportunities for hair dryer products to cross national borders and reach global consumers. However, traditional e-commerce models face challenges in showcasing product features and enhancing user experience, making it difficult to meet the growing demand for personalization and interactivity. In this context, AI digital live streaming, as an emerging e-commerce marketing tool, is gradually becoming the new favorite for cross-border e-commerce sales of hair dryer products [1]. This technology utilizes artificial intelligence and deep learning techniques to create highly realistic and interactive virtual anchors, providing consumers with immersive and personalized product displays and shopping experiences. AI digital live streaming not only breaks through the limitations of traditional e-commerce models, but also demonstrates enormous potential in enhancing consumer shopping experience and promoting global product sales. Therefore, this study has important theoretical and practical significance and is worth further exploration and excavation.

According to statistics from the General Administration of Customs, China's cross-border e-commerce will develop rapidly in 2023, with total exports exceeding 1.8 trillion yuan, an increase of 19.6%. In 2024, China's cross-border e-commerce imports and exports increased by 10.8% year-on-year. Against the backdrop of rapid expansion in the global cross-border e-commerce market, hair dryer brands are facing the challenge of diminishing effectiveness of traditional marketing strategies [2]. With the innovation of artificial intelligence technology, especially the rise of digital AI and human technology, it has brought revolutionary changes to cross-border e-commerce live streaming. Therefore, researching the digital AI live streaming marketing strategy for hair dryers in cross-border e-commerce aims to explore innovative marketing methods and enhance brand competitiveness. Hair dryer brands can reach a wider international consumer base through cross-border e-commerce platforms, achieving sales growth and brand internationalization expansion. Digital AI live streaming, as an emerging marketing method, perfectly meets the demand of cross-border

e-commerce platforms for innovative marketing methods. According to data from iMedia Consulting, the expected size of China's cross-border live streaming e-commerce market is 284.58 billion yuan in 2023, with a year-on-year growth rate of 155%. The market size is expected to reach 828.7 billion yuan by 2025 [3].

In the wave of globalization and digital transformation, the research on AI digital live streaming for cross-border e-commerce of hair dryer products has shown unprecedented importance. Firstly, the research and practice of AI digital live streaming for hair dryer products in cross-border e-commerce is not only an innovation in marketing models, but also a reflection of technological progress. It has promoted the continuous development and improvement of cutting-edge technologies such as deep learning, natural language processing, and computer vision, providing strong support for the intelligent transformation of the cross-border e-commerce industry. At the same time, this study also provides a reference example for other industries, promoting the upgrading and transformation of the entire e-commerce industry, and has high reference value. Secondly, the research on cross-border e-commerce AI digital live streaming of hair dryer products not only focuses on current market performance and operational effectiveness, but also on future development trends and strategic directions [4-8]. Through in-depth analysis of key factors such as consumer behavior, market demand, and technological changes, it is possible to predict and seize future market opportunities and challenges, provide strong support for strategic planning and decision-making of enterprises, and promote their long-term development, see Figure 1 and 2.

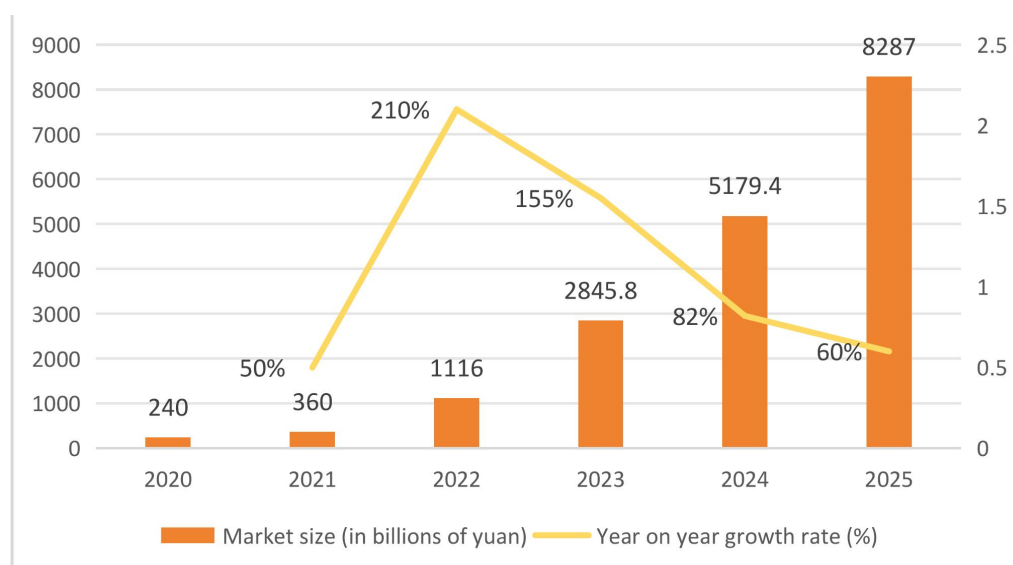


Figure 1: Scale and Forecast of China's Cross border live Ecommerce Market from 2020 to 2025
Data source: iMedia Data Center

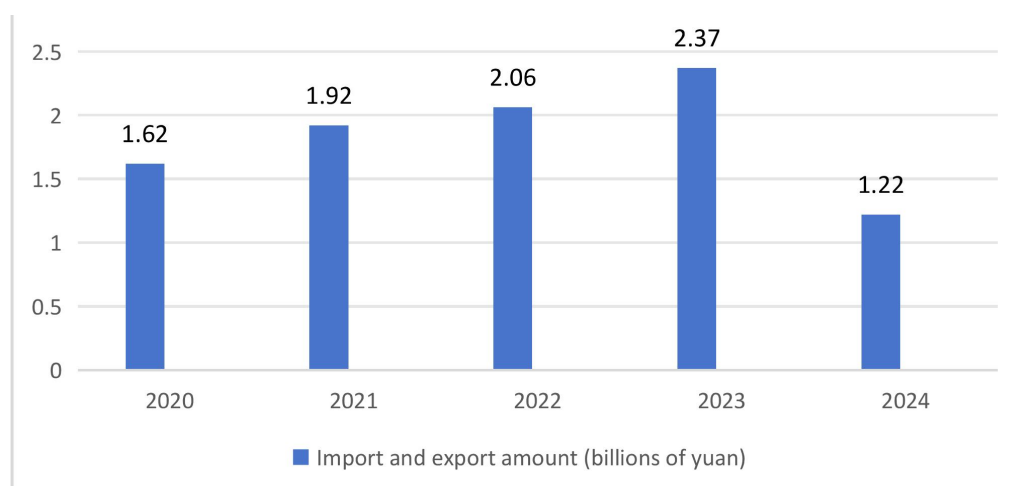


Figure 2: Statistics of Import and Export Amount of Cross border E-commerce in China from 2020 to 2024
Data source: Compiled by China Customs and China Academy of Commerce Industry Research

1.1 Current Situation of Digital Live Streaming

In China, the market size of AI digital humans continues to expand, indicating that live streaming e-commerce with digital humans is gradually becoming an important force in the field of live streaming e-commerce. This means that digital human technology is undergoing significant growth and transformation, and digital human virtual anchors are now widely used in various scenarios such as e-commerce live streaming, news reporting, exhibition explanations, etc.

The domestic research status of this article mainly focuses on the strategies of digital marketing and the challenges of AI digital live streaming [9].

1.1.1 The strategy of digital marketing

Using digital humans for live streaming activities, presenting realistic appearances, actions, and expressions through high-quality modeling and rendering technology, bringing consumers an immersive shopping experience. For example, on Double Eleven in 2021, the virtual person "ViVi Zihan" livestreamed sales, and the anchor "VIVI Zihan" had 300000 online viewers for the first live broadcast. This live broadcast was the first cooperation between JD International and the leading XR live streaming company Qile Infinite. The entire live broadcast was conducted by the virtual IP anchor "VIVI Zihan" in real-time interaction with the audience in the virtual live room. This innovative marketing approach quickly attracted widespread attention and love from users, and received positive market feedback. Given the success of this initial attempt, JD.com further expanded the application scale of digital live streaming during the subsequent "618" shopping festival. Shanjian Intelligent CEO Huapei used his clone digital person as the "spokesperson" to systematically introduce the 8 major functional highlights and series of the latest cross-border digital person live streaming product Boca Live, including AI digital person anchors and intelligent live interaction, greatly improving live streaming revenue. It is understood that in the internal stage of the system, many cross-border e-commerce sellers have achieved significant results by using digital human live streaming. A user in Nantong, Jiangsu did not have a live streaming team before, but after using BocaLive's AI digital human live streaming function to sell children's clothing on the Shopee platform, they achieved an order growth of over 2000 orders in just one month [10]. Another cross-border e-commerce practitioner in Changsha is a pioneer in exploring Southeast Asian digital live streaming in China. He excels in combining emerging market opportunities with new technologies. He set a single GMV record of up to 300 million Indonesian rupiahs by selling household daily necessities to the Indonesian market on the TikTok platform. These successful cases also fully demonstrate the enormous potential and broad application prospects of digital human technology in modern marketing. At the same time, with the support of AI big model technology, real-time interaction, data analysis, and precise marketing can be achieved, which can reduce core advantages such as human resources, 24/7 live streaming, and achieve multilingual live streaming, greatly improving the efficiency and quality of live streaming.

1.1.2 The challenges of ai digital human live streaming

Liu Xingliang, president of DCCI Internet Research Institute, believes that at present, AI digital human still lack the human touch and affinity and the trust they bring to consumers, which may affect consumers' purchase decisions. Digital live streaming may also involve false advertising, infringement of portrait rights, legal and ethical issues, and require strengthened industry supervision. Through analysis, although there are some shortcomings in digital live streaming, these shortcomings can be gradually overcome by strengthening technology research and development, optimizing algorithm models, improving interactive effects, enhancing creativity and adaptability, and responding to regulatory and legal risks, promoting the healthy development of the digital live streaming industry, see Figure 3.

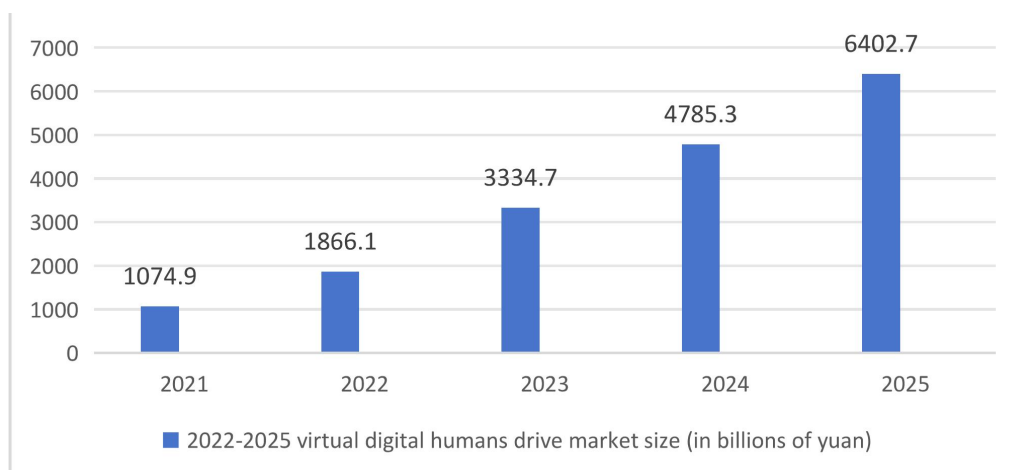


Figure 3: The Scale of China's Virtual Digital Human Market
Data sources: iMedia Data Center, Zhongtai Securities Research Institute

2 ANALYSIS OF DIGITAL MARKETING ENVIRONMENT FOR HAIR BLOWERS

2.1 PEST Analysis

2.1.1 Policy analysis

As one of the core markets for cross-border e-commerce, the North American market is full of potential. The size of the US e-commerce market is expected to continue to grow, providing huge market opportunities for Chinese sellers. The North American market has high requirements for product quality, after-sales service, and localized services, and cross-border hair dryer brands need to focus on improving these aspects. The youthful population structure and strong growth in consumer demand in Southeast Asia have made it an important growth engine for cross-border e-commerce. The e-commerce markets in countries such as Indonesia, Malaysia, and Vietnam are rapidly developing, and

cross-border hair dryer brands can develop targeted marketing strategies by gaining a deep understanding of local market demand and consumer behavior [11-15]. The cross-border e-commerce hair dryer market faces broad international market demand, and combining digital live streaming marketing can attract more overseas consumers and expand the overseas market.

The Chinese government has introduced a series of policy measures to support the development of cross-border e-commerce, such as reducing import tariffs, optimizing cross-border e-commerce tax policies, and strengthening logistics infrastructure construction. These policies provide a favorable development environment for enterprises, reduce operating costs, and enhance their competitiveness. The Chinese government encourages the development of the "cross-border e-commerce+industrial belt" model and supports more traditional industry clusters to go global. This provides an opportunity for the small home appliance industry such as hair dryers to expand overseas markets through cross-border e-commerce platforms, see Figure 4.

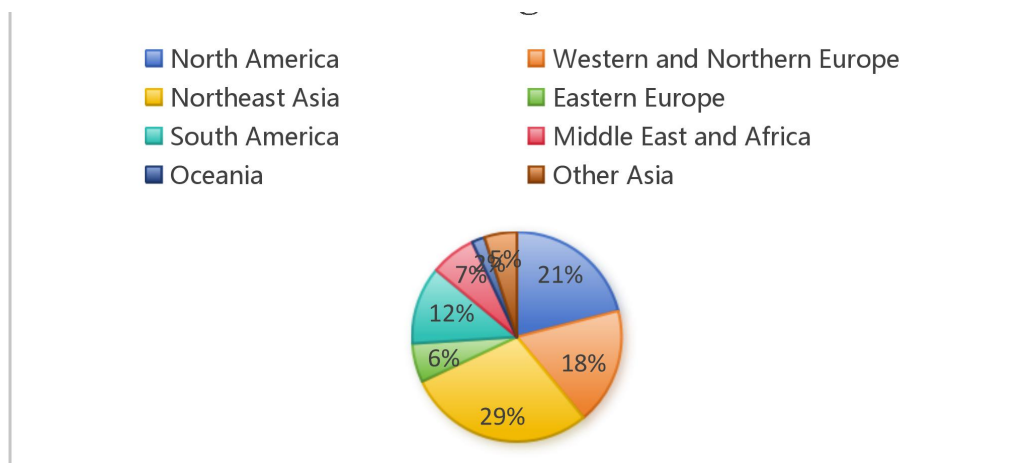


Figure 4: The Contribution Rate of Each Regional Market to the Global Market

Data source: China Industry Research Network

2.1.2 Economic analysis

At present, the global economy presents a complex and ever-changing economic situation, but overall world economic growth tends to stabilize, which provides broad development space for the cross-border e-commerce hair dryer market. With the rise of trade protectionism and the increase of international trade frictions, cross-border e-commerce is facing certain challenges. However, the signing of free trade agreements such as the Regional Comprehensive Economic Partnership (RCEP) also provides new opportunities for the development of cross-border e-commerce, and with the development of third-party payments and cross-border logistics, convenient logistics and payment services have been provided for the cross-border e-commerce hair dryer market [16].

2.1.3 Social analysis

The rapid development of domestic e-commerce platforms and live streaming sales has brought new opportunities to the hair dryer market. Digital live streaming, as an emerging live streaming sales model, has attracted a large number of consumers and become a new trend in the field of cross-border e-commerce. The country has also issued a series of policies and regulations on the production and sales of small household appliances, providing good guarantees for the development of the industry. In foreign countries, digital live streaming can break down time zone and language barriers, achieve global live sales and personalized recommendations, attract more overseas consumers to pay attention and purchase hair dryers [17].

With the advent of the digital age, consumers are more inclined to purchase products through online channels, especially cross-border e-commerce platforms. The cultural differences between different countries and regions pose challenges to cross-border digital live streaming marketing. Sellers need to have a deep understanding of the cultural customs and consumption habits of the target market, and develop marketing strategies that are in line with the local market.

2.1.4 Technical analysis

The continuous development and improvement of digital live streaming technology provide technical support for cross-border hair dryer digital live streaming marketing. By utilizing technologies such as deep learning and natural language processing, highly realistic virtual anchor images can be created, enabling 24/7 live streaming and personalized recommendations.

The optimization and upgrading of live streaming technology have improved the viewing experience and interactive effect of cross-border hair dryer digital person live streaming marketing. High definition picture quality, smooth playback and other live streaming technology elements are crucial for attracting consumers and improving conversion rates.

The application of big data analysis technology in cross-border hair dryer digital live streaming marketing is becoming increasingly widespread. By collecting and analyzing user data, enterprises can more accurately understand consumer needs and market dynamics, and develop targeted marketing strategies and product plans.

2.2 SWOT Analysis of Digital Marketing for Hair Dryers

2.2.1 Advantages

Digital live streaming can break down language barriers and achieve multi country and multi language live streaming. Through real-time translation function, consumers around the world can communicate in their own language. At the same time, digital human can live stream 24 hours a day without interruption, breaking the time difference restrictions of different countries and providing consumers with better shopping services. Digital human can also interact with buyers through bullet comments, messages, and other means to answer questions about products and improve the shopping experience.

Compared with traditional live streaming, digital live streaming does not require high salaries, subsidies, and other expenses, greatly reducing the cost of enterprises. As the virtual image of enterprises, digital human can interact with each other in a more professional and friendly way, enhancing brand trust.

2.2.2 Disadvantages

Digital human anchors lack the affinity of real people, making it difficult to establish emotional connections with consumers. For some buyers who require emotional resonance and emotional value, digital live streaming may not be effective. Building AI digital human anchors requires high research and development costs and strong technical support, which increases costs and technical difficulties. Digital influencers may also introduce hair dryers in a way that is not truthful and comprehensive enough, leading to a loss of consumers.

2.2.3 Opportunities

Under the wave of globalization, the cross-border e-commerce market has ushered in a new opportunity for vigorous development. The innovative sales method of digital live streaming has opened the door to the world for cross-border e-commerce enterprises, especially in regions with strong demand for personal care products such as hair dryers, which has been greatly assisted.

Technological innovation and integration, as well as the continuous advancement of cutting-edge technologies such as artificial intelligence and big data, enable digital live streaming to more accurately identify consumer needs, optimize the entire supply chain process, reduce costs, and improve efficiency. Moreover, it can seamlessly integrate with other marketing methods to build a flexible and diverse marketing network, making marketing more three-dimensional and comprehensive.

2.2.4 Threats

During the live streaming process, there may be legal issues related to intellectual property and consumer rights protection. If digital live streaming malfunctions and does not comply with laws and regulations, it may face legal action and fines. Digital humans rely on computer and network technology, which poses risks of network latency and technical failures, leading to screen freezing, live streaming interruptions, etc., affecting consumers' viewing experience and potentially triggering consumer complaints. In addition, digital live streaming still faces challenges in content innovation. How to generate interesting and creative content to attract viewers and maintain their interest is an important issue.

3 ANALYSIS OF THE CURRENT SITUATION OF DIGITAL MARKETING OF HAIR BLOWERS

3.1 Current Marketing Situation of Hair Dryers

3.1.1 Overview of the hair dryer market

In recent years, with the booming development of the global e-commerce market and the increasing demand for personal care appliances from consumers, the cross-border e-commerce hair dryer market has experienced significant growth. Especially in China, as one of the world's largest markets for hair dryer production and consumption, the size of its hair dryer market continues to expand and shows a stable growth trend. On cross-border e-commerce platforms, hair dryers, as an important category of personal care appliances, have seen their sales and revenue increase year by year. Hair dryers have matured in most global markets, creating a retail market worth billions of dollars, see Figure 5.

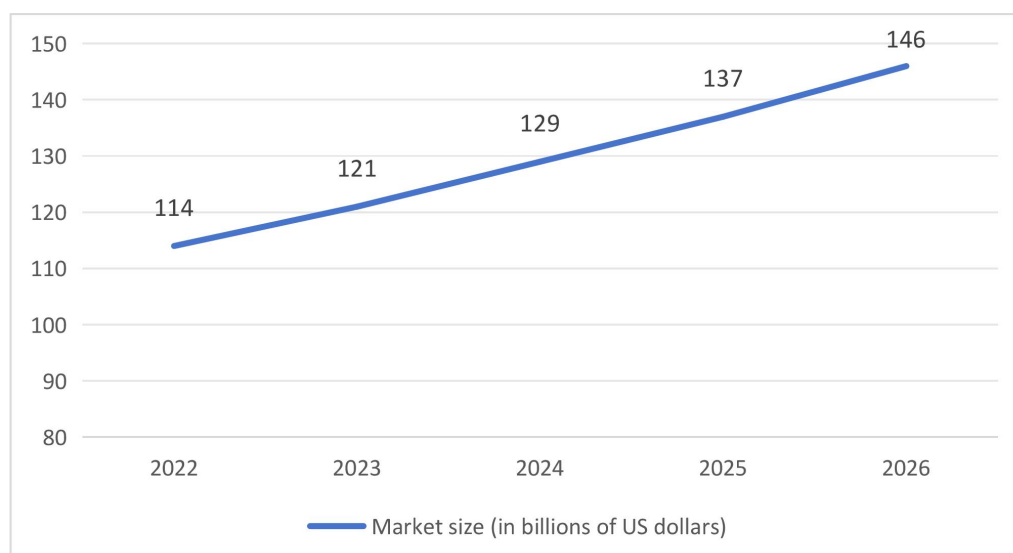


Figure 5: Global Hair Care Appliance Market Size
Data source: China Industry Research Network

3.1.2 Digital marketing status of hair dryers

With the continuous development and improvement of artificial intelligence technology, the technical threshold for digital human live streaming is getting lower and the generation effect is also getting better. The application of digital live streaming in cross-border e-commerce is becoming increasingly widespread and has become an emerging marketing method. Hair dryer brands are using digital human for cross-border live streaming to promote and sell their products. Cross border digital influencers can use multiple languages to automatically learn product language in the live broadcast room, quickly respond to questions raised by users on the public screen, and achieve one-on-one intelligent responses. This highly interactive and efficient live streaming method has attracted a large number of overseas consumers' attention and purchases.

4 PROBLEMS IN DIGITAL MARKETING OF HAIR BLOWERS

4.1 High Technical Threshold and Cost

The digital marketing of hair dryers and live streaming of digital humans require high investment in technology and manpower costs for the development of digital human technology. Currently, there are still some technical limitations in digital human technology, and the high technical costs may exceed the marketing budget, which is difficult for small and medium-sized enterprises to afford.

4.2 According to Safety

Digital marketing requires the collection and processing of a large amount of consumer information and data. Once this information and data are leaked or illegally obtained, it will pose a great threat to consumer privacy. Hair dryer brands need to strengthen data encryption technology to ensure consumer privacy and security.

4.3 User Experience Satisfaction

Although digital humans have the characteristics of vivid imagery and strong customizability, compared to real people, digital humans still lack the ability to feel real and communicate emotions, making it difficult to provide good emotional value. Therefore, some consumers have limited acceptance of digital humans.

4.4 High Market Competition

With the popularization of digital human marketing, more and more brands and sellers are adopting this live streaming method for promotion, which may lead to intensified market competition and the emergence of homogenization, weakening the advantages of digital human marketing.

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5 OPTIMIZATION STRATEGIES FOR CROSS BORDER E-COMMERCE DIGITAL MARKETING OF HAIR BLOWERS

5.1. Optimization of Digital Human Live Streaming Strategy

Choose cross-border e-commerce platforms that support digital human technology for live streaming, such as Amazon Live, TikTok Shop, etc. Based on the market and brand of hair dryers, as well as the aesthetic preferences of consumers, customize a personalized anchor image to enhance brand recognition. Digital human anchors should have sufficient professional knowledge to provide detailed information on the performance, functions, and price of hair dryers.

It is also necessary to demonstrate the actual usage effect of the hair dryer. The product can be visually presented through 3D display and other methods, and interactive activities such as lucky draws and lucky bag lucky draws can be designed to retain customers and increase their willingness to purchase [18].

5.2 Optimization of Digital Marketing Strategy

Utilize big data to analyze audience behavior data, including viewing duration, interaction frequency, conversion rate, etc., and adjust live streaming strategies in real-time. Based on user profiles and purchasing preferences, carry out precise marketing push, such as targeted advertising, personalized recommendations, etc.

Regularly update live streaming content to avoid homogenization, such as inviting industry experts for live streaming explanations, hosting themed live streaming events, etc. Plan special live broadcasts based on hot topics and holiday events, such as "Hair Care Festival" and "Hair Dryer Purchase Guide".

Utilize various channels such as social media and short video platforms to preheat and promote digital live streaming, attracting more potential audiences. Collaborate with KOLs or internet celebrities for live streaming linkage to expand brand influence and audience base.

Optimize the settings and interactive elements of the live broadcast room to ensure that viewers can smoothly watch and participate in the live broadcast. Provide high-quality after-sales service and shopping experience, such as quick response to consumer inquiries, convenient return and exchange processes, etc.

5.3 Technical Support and Innovation

Continuously optimizing the image and motion techniques of digital human anchors to enhance realism and interactivity. Introduce more intelligent language synthesis and speech recognition technologies to enhance the language expression ability of digital human anchors.

In addition, explore the application of technologies such as virtual reality (VR) and augmented reality (AR) in live streaming, such as virtual hair dryers and immersive shopping experiences. Utilizing artificial intelligence algorithms for personalized recommendations and intelligent customer service to enhance user experience and conversion rates.

6 CONCLUSION

This article explores in depth the strategies and effects of utilizing digital live streaming as an innovative marketing tool in the hair dryer industry in the context of the digital age. Through systematic case studies, theoretical analysis, and data analysis, this study concludes that the digital live streaming marketing strategy for hair dryers has significant academic value and practical significance in enhancing brand influence, enhancing user interaction experience, promoting product sales, and expanding market scope.

Specifically, digital live streaming provides a new display platform for hair dryer products with its unique virtual image and highly realistic interactive approach. Through precise target market positioning and personalized content planning, digital live streaming can effectively attract the attention of target consumers, enhance brand awareness and reputation. At the same time, the real-time interaction and personalized recommendations of digital human anchors enhance users' sense of participation and experience, promoting the conversion of product sales. In addition, the implementation of digital live streaming marketing strategies for hair dryers also requires comprehensive consideration of multidimensional factors such as user experience, technology platforms, and data optimization. By deeply mining user data, accurately grasping consumer needs, continuously optimizing live streaming content and marketing strategies, and achieving maximum marketing effectiveness.

The implementation of this strategy will help hair dryer companies break through the limitations of traditional marketing models, expand market space, and enhance competitiveness. In the future, with the continuous development of digital technology and the expansion of application scenarios, the digital live streaming marketing strategy for hair dryers will show broader application prospects and practical value, injecting new vitality into the sustainable and healthy development of the hair dryer industry.

COMPETING INTERESTS

The authors have no relevant financial or non-financial interests to disclose.

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