

Research on the Integrated Marketing Strategy of VR Education Products Based on the New 4R Concept

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Abstract: Virtual reality (VR) educational products have the advantages of real-time interaction, avoiding experimental risks, breaking the time and space constraints, and enhancing learning experience, and are gradually widely used in education, teaching and training. From the perspective of customer demand, based on the new 4R theory of consumer oriented digital marketing, this paper puts forward suggestions for improvement from four aspects: consumer digital portrait and identification, digital coverage and arrival, the basis for establishing sustainable relationships, and realizing transactions and returns, with a view to providing effective support for the marketing management of VR education enterprises.

Keywords: new 4R concept; VR education products; Digital era; Integrated marketing strategy

1. Introduction

In recent years, with the rapid development of science and technology, the demand for virtual reality (VR) technology is growing. VR technology is a virtual space technology that uses computers to create an environment that simulates human sensory organs, uses a variety of sensor devices to immerse users in it, and realizes direct interaction between users and the virtual environment through gestures, senses, etc. . VR education product is an important application of virtual reality technology in the field of education . The combination of the two brings huge market opportunities. Ai Media Consulting predicts that by 2030, China's VR education enterprise application market will reach 49.043 billion yuan . The Ministry of Industry and Information Technology and other departments jointly released the 5G Application "Sailing" Action Plan (2021-2023), which requires accelerating the research and development of 5G teaching terminal equipment and AR/VR teaching digital content. However, the market development of VR education products in China has not met expectations. In the digital era, enterprises need to implement marketing management based on new concepts. Based on this, under the guidance of the new 4R concept, this paper accurately identifies the user needs of VR education products, improves the value of the products from multiple perspectives, strengthens information transmission and communication, and establishes a sustainable relationship with customers to promote their sound development.

2. Analysis of the Marketing Situation of VR Education Products

As a new technology category, VR technology has three important characteristics: immersion, interaction and imagination . VR education products create a controllable, realistic, and multi perception integrated learning environment by building a virtual learning environment and virtual experimental base, break through the bottleneck of traditional teaching methods in which the educated party cannot participate and interact , greatly arouse the psychological identity of learners, find learning fun, and greatly improve the retention rate of the educated's learning content, Its interactive design also improves teaching efficiency. China has nearly 300 million students in primary and secondary schools. With broad market prospects and strong market demand, many enterprises have entered VR education products, and have strengthened their investment in talent training, software research and development. However, there are still some problems in the marketing strategies of these enterprises and institutions.

2.1 VR education product hardware technology is not mature

At present, VR education products mainly include two types: split machine and all-in-one machine. Among them, the split machine is the main one, which has the advantage of strong interaction, but relies on mobile phones, computers and other devices, resulting in a large volume of the entire VR device, reducing the user experience. The all-in-one machine has good portability, allowing people to enjoy VR experience anytime and anywhere. However, due to the immature technology, excessive pursuit of the delicate shape of the device will lead to the loss of product functions. In addition, due to the high development cost of enterprises in the market introduction period, the product price is expensive and the cost performance ratio is low, which affects the development prospects of VR products in the education market to a certain extent.

2.2 Lack of high-quality VR education content

The content of high-quality VR education products needs compound talents who understand computer technology and are familiar with the curriculum. Due to the shortage of professional talents, the feasible way is to jointly develop VR enterprises and schools or accept the customization of schools. However, due to the high cost of product customization, even though the investment in joint development is generally high, most schools cannot afford it, which makes the existing VR education products derail the content required by school

teachers, the teaching knowledge required by students, and can not be effectively integrated into the discipline education system. In terms of content quality, traditional teaching content has not been widely used in VR virtual teaching, and the interactivity of VR technology has not been effectively reflected in teaching content and form.

2.3 Traditional product promotion methods

Most of the existing VR education product enterprises have the same marketing model. The common practice is to bring VR devices into the campus, so that students can experience different teaching experiences from VR technology. However, from the effect point of view, this free promotion is not applicable to high-end VR products. It not only increases the operating costs of enterprises, but also fails to accurately identify target users. Another problem is that many potential customers cannot accurately understand the nature of VR education products and how to use them for work. How to make VR technology and its products accepted by the public is a problem that needs to be solved urgently.

2.4 Inadequate brand awareness of enterprises

Since the introduction of VR products to the market, the VR helmets, VR head displays and large VR seats on the market are diverse and complex, and consumers are overwhelmed. When it comes to VR products, consumers often can only think of cheap VR glasses and VR boxes. Some VR education product enterprises, when promoting their classroom products, emphasize that their R&D content is more than their brand promotion. Because users are not familiar with the brand of VR education products, the weakening of brand awareness makes users not choose VR education products of a certain brand, which leads to a decline in user loyalty and may eventually lose competitiveness in the VR education market.

3. The connotation of the new 4R marketing concept

The classic 4P marketing mix strategy is the product of mass production. With the increasingly fierce market competition and the highlighting of customers' differentiated needs, a consumer oriented 4C theory has emerged. In order to better establish effective contact with customers, Schultz put forward the 4R theory, namely relevance, reaction, relationship and reward. However, in the digital era, the product value provided by enterprises has changed to be jointly created by enterprises and consumers. The price change is dynamic, situational and even free. The multi-channel integration has become the key for enterprises to occupy the market. Based on this, according to the digital background, Teller Consulting Institute proposed that enterprises should identify user profiles, reach consumers with new means, establish continuous customer relationships, and realize transactions and returns. In order to distinguish Schultz's 4R theory, it is called the "new 4R" concept. The implementation steps and key points of the new 4R marketing concept are as follows:

Step 1: Recognize, that is, consumer digital portrait and recognition. In the pre digital era, it is very difficult to do quantitative research on the overall consumer. We can only infer the overall demand through qualitative research on the behavior of samples. The biggest advantage of digitalization is that enterprises can easily track the online behavior of target users by using technologies such as cookie tracking, SDK tracking, and user payment data tracking, so as to make quantitative research on them, classify and label customers, and form digital images.

Step 2: Reach, that is, digital coverage and consumer touch. With the arrival of the digital era, the way in which enterprises convey information to consumers has also changed a lot. On the basis of identifying user portraits, enterprises need to focus on digital coverage and arrival of consumers. With the development of artificial intelligence and cloud computing, enterprises can use big data technology to implement precision marketing, so that data, technology and customers form a circular integration relationship.

Step 3: Relationship, that is, establishing a continuous relationship with customers. Through the construction of communities and the implementation of social relationship management, enterprises can have deep contact with customers in a disintermediated environment, so that customer enterprises can carry out extensive interaction, and ultimately convert potential users into customer assets to ensure the effectiveness of marketing.

Step 4: Return, that is, the enterprise gets the reward and return. Only by making profits can an enterprise achieve sustainable development and continuously create value for customers, which is the foundation of enterprise management. Therefore, through comprehensive understanding of users, accurate transmission of information, and establishment of interactive communities, customers' assets can be finally realized.

4. VR Education Product Marketing Strategy Design under the Guidance of the New 4R Concept

In view of the problems existing in the marketing of VR education products, in the digital era, enterprises can learn from the new 4R marketing concept, take the initiative to understand the needs of consumers, convey their own information to target users, and establish long-term and stable trading relationships with customers to finally obtain profits and returns.

4.1 Identify users and their needs

In the digital era, VR education product enterprises should be based on the perspective of customers, and can take the initiative

to understand and insight into the real needs of consumers through focus interviews, network research, cookie tracking or big data classification. Establish and improve consumer information collection technology, sort out and classify the collected customer information, and timely maintain and update the consumer database. At the same time, it records all the data that affect students' learning, so as to facilitate future multi-dimensional analysis using the data in the system, carry out corresponding inspection on students' learning, propose solutions, and constantly develop and improve VR products based on this information, so as to improve consumers' satisfaction.

In addition, in view of the lack of VR education product functions, enterprises should integrate resources, and the technical team should also carry out in-depth collaborative innovation and cooperation with professional teachers, normal universities, etc., invite teachers to participate in the writing of VR education product content scripts. The teacher team can provide different scenarios required in different subjects in the classroom for enterprise technicians, constantly optimize product design, and improve the content and functions of VR education products, Make the VR products designed real and effective, and stimulate students' enthusiasm for learning.

4.2 Digital coverage and arrival (Reach)

Arrival is a process in which enterprises pass information to customers. With the advent of the digital era, the privacy of individuals has become increasingly transparent, and everyone is impacted by massive amounts of information every day. How to mine customer needs from these massive amounts of information has become a key point that VR education product enterprises must pay attention to. Coverage and arrival can be classified from both perceptual and rational perspectives.

From the emotional point of view, it is to perceive the customer's mind and make the product known and recognized by the customer. The enterprise conveys information to customers, so that target users can understand the basic information of VR education products, and make people remember the enterprise's products by using short advertising slogans. When customers want to buy VR education products, they first think of their own brand, such as the "no gifts for the Spring Festival, no gifts for gift giving, no gifts for gift giving" of NPI. At that time, people would think of the brand of NPI as long as they give gifts. To reach the user's mind, it is also necessary to improve the user's satisfaction with the enterprise's products, and increase the added value of products on the premise that the quality and function of products are recognized by users.

From a rational perspective, enterprises should broaden the promotion channels so that more users can understand and recognize VR education products. In the digital era, every action of users on the Internet will be followed by the next action. It is often a moment to buy and give up, so we must integrate our products into the scenario where users generate demand. The best situation is to complete the transaction at the moment when users arrive at the payment page to improve the conversion rate. The new 4R marketing theory can adopt the following promotion methods: a. active push. VR education product enterprises actively launch push, cover customer purchase scenarios through official websites, social media, offline marketing, digital advertising and other channels, and directly push information to schools or students' parents to establish relationships. b. Actively displayed, virtual reality education product companies optimize and improve the corresponding tools or content to influence customers' views or decision-making methods in the process of generating corresponding needs and seeking corresponding information. For example, SEO, social media marketing, application marketing. c. Trust agency. VR education enterprises can find popular stars to cooperate with, and indirectly affect the views and decisions of target customers by influencing consumer idols. d. For asset swap type, VR enterprises actively cooperate with external institutions to tap potential users of external institutions.

For VR education enterprises that have not been established for a long time, the urgent problem to be solved is how to create and retain customers and establish a long-term stable trading relationship with customers. Different from the traditional customer relationship management (CRM), CRM in the digital era is difficult to leave the support of information technology, especially when the user base is relatively large, user information survey, mobile phone, registration, update, classification, marketing, etc. need to be completed with the help of information technology. This is a requirement for enterprises. VR education enterprises must always pay attention to the dynamic changes of customers and adjust their marketing strategies on this basis.

With the progress of the times and technology, the enterprise must be transformed into a composite enterprise integrating media, entertainment, service and connectivity. B2B and B2C companies need to continuously produce their own professional content. The enterprise brand should be personalized and integrated into the entire customer use process around product use and related services. Enterprises can contact customers, help customers connect information and other resources, make products more responsive to users' needs, improve users' satisfaction with products, and establish an ecosystem.

5. Conclusion and prospect

The new 4R marketing concept provides new ideas and strategic models for product marketing in the digital environment. For VR education product enterprises, under the guidance of the new 4R concept, enterprises should change their ideas, insight and listen to consumers' needs in an all-round way, develop marketing activities based on consumers' behavior structure, control the product information display platform with the help of the Internet, implement scenario marketing in combination with physical stores, and establish a long-term and stable relationship with consumers, Better create value for consumers and bring huge investment returns to enterprises.

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