

The Application of VR Technology in Experiential Marketing

-- Taking Automotive Brand Marketing as an Example

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Abstract: VR marketing, as a new technology-oriented marketing technique developed after native advertising and digital marketing, has brought new changes to the marketing field. Compared with the conventional marketing field, VR marketing is a new field that is both challenging and promising, with much more complex scopes and fields. In the era of experiential economy, the imagination, immersion, and interactivity brought by VR technology have promoted the further development of "experiential marketing". In this paper, we discussed the application of VR technology in experiential marketing by taking the marketing of automotive brands as an example.

Keywords: VR, experiential marketing, automotive brand, marketing strategy.

1. Introduction

American futurist Alvin Toffler proposed in his book "Future Shock" that the service economy would eventually move towards an experience economy. The prevalence of the digital economy and e-commerce have influenced the reliance of physical sales on such experience services.[1] Each economic era corresponds to a specific marketing model, and the marketing model transforms over time. Experiential marketing is experiencing such a development trend, in tandem with the experience economy. In recent years, the theoretical system of experiential marketing and brand communication has matured with a wide range of practical uses. However, with the application of emerging technologies, the imagination, immersion, and interactivity of VR technology provide a new form of expression and an updated understanding of the idea of an "experience", which enables experiential marketing and brand communication to have more dimensional development space in the modern era. In addition to increasing cognition and creating interest through physical reproduction, VR technology also has the potential to generate emotional resonance among consumers, which is

essential for automotive brand marketing whose core goal is to create a brand identity.

2. Overview of VR technology

2.1. Concept and Characteristics of VR Technology

Virtual Reality(VR) is an interactive technology that simulates the real world through - 3D images and sounds generated by computers. It can provide immersive visual and auditory effects that give people a sense of being transported to a completely different world. The development of VR technology began in the 1960s. With the continuous upgrading of hardware equipment and the improvement in software algorithms, the scope of its application has become more and more extensive. At present, VR technology has been utilized in games, education, medical care, entertainment, etc.[2]

American scholar Burdea and French scholar Coiffet summarized three important features of VR, namely Imagination, Immersion and Interactivity, also referred to as 3I. The meanings are interpreted as follows:

Table 1. Characteristics of VR technology[3]

	Characteristic	Interpretation
1	Imagination	Imagination refers to the fact that the environment in which a person lives is virtual and is imagined by the person. Meanwhile, this imagination reflects the designer's thoughts, on the basis of which a common goal can be realized.
2	Immersion	Immersion is something that allows users to feel completely involved in the experience. Immersion comes from the multi-sensory nature of the virtual world, covering visual perception, auditory perception, force perception, tactile perception, motion perception, taste perception, olfactory perception and so on.
3	Interactivity	Interactivity generally refers to the user's manipulation level of objects within the simulated environment and the natural level of feedback from the environment. Special hardware design in the VR system, such as data gloves and force feedback devices are the main equipment to generate interactivity.

2.2. Applications of VR Technology

According to data analyzed by market research firm Precedence Research, the global AR and VR headsets market

size is estimated to be \$6.78 billion in 2022 and is expected to reach approximately \$142.5 billion by 2032. During the forecast period of 2023 to 2032, the CAGR growth rate is

35.6%. North America is expected to occupy the largest market share in the global AR and VR headsets market.[4]



Figure 1. Global AR and VR headsets market size (Data Source: Precedence Research)

Within the automotive industry, VR technology has been applied by a large number of companies. The earliest application could be traced back to the 1990s when BMW utilized virtual reality technology to develop its cars. Since 2000, Ford has also begun to research the use of VR technology in the automotive design process. It was the first brand to set up a VR lab to achieve this goal which was named Fords Im-mersive Vehicle Environment (FiVE) Lab[5]. 2016

saw an explosion in the use of VR technology in the automotive industry. At that time, Toyota, Audi, Beijing Hyundai, Lexus, Geely and other car companies were all using VR technology in car styling design, automotive research and development simulation, car marketing, etc. With the gradual penetration of VR technology into the entire automotive industry chain, the automotive industry has been undergoing revolutionary changes.



Figure 2. Ford Immersive Vehicle Environment (FiVE)

3. Experiential Marketing Theory

3.1. Background of Experiential Marketing

The concept of experience economy was first proposed by B. Joseph Pine II and James H. Gilmore, the two co-founders

of Strategic Horizons LLP in the United States[6]. They divided the evolution of economic value into four stages, namely product, commodity, service, and experience, which correspond to the four different models of economic operation as shown in Table 2.

Table 2. The four models of economic operation

Economic model	Time of emergence	Supply side (producers)	Demand side (consumers)
Agricultural economy	Establishment of agricultural society	Mainly focusing on production of raw materials often in short supply	Mainly focusing on meeting basic needs and self-sufficiency
Industrial economy	Industrial revolution	Mainly focusing on manufacturing goods. Supply exceeds demand, leading to fierce competition in the market.	Having choices, focusing on efficiency and good value for money
Service economy	1970s	Providing added value for customers based on manufacturing goods with the pursuit of differentiation	Being service oriented without only considering the goods themselves
Experience Economy	Early 21st century	Further enhancing services with products becoming tolls	Pursuing emotions and experiences, willing to interact with the product and leave memories.

(Literature source: Organized according to “Welcome to the Experience Economy” by Pine and Gilmore[7])

As can be seen in Table 2, every economic upgrading was driven by changes on the supply side that resulted in significant changes on the demand side. In fact, there are many "unmet needs" for consumers themselves. Meanwhile, due to fierce competition in a market economy, producers must outperform their competitors to survive and thrive, so they must find those "unmet needs" and try their best to provide more value to consumers.

From product to service, then from service to experience, manufacturers and producers are expanding the scope of their products, while consumers are becoming more and more discerning, which is a shared trend for almost all industries. Therefore, if companies don't want to be eliminated from the market, embracing the experience economy is a necessity.

3.2. Principles of Experiential Marketing

Against the backdrop of the comprehensive arrival of the

experience economy, the marketing concept for enterprises has also undergone profound changes. For example, the marketing concept of "Experiential Marketing" has come into being.

"Experience" refers to the consumer directly observing or participating in a certain event. No matter whether the event is real or virtual, the consumer is induced to generate reflections in the sensory, emotional, thinking, and physical aspects, and obtain a period of memory. The experiences discussed here are usually not spontaneous but induced. It could be summarized as a simple "stimulus-feedback" model, in which the various marketing means of the company are the source of the stimulus, and the consumer's feedback generates the experience.

Table 3. Differences between experiential marketing and traditional marketing

	Traditional marketing	Experiential Marketing
Theoretical basis	Customers are rational buyers	Customers are governed by both rationality and emotion
Focus	Focus on the functions of the product	Focus on customer's experience
Marketing Foothold	Unique product selling points	Not limited to the product itself
Value Creator	Producers	Producers and consumers

(Literature Source: Organized according to "Experiential Marketing" by Schmitt[8])

4. Applications of VR Technology in Experiential Marketing for Automotive Brands

4.1. Advantages of VR Application in Experiential Marketing for Automotive Brands

With the arrival of the era of the experience economy and the upgrading of VR technology, a whole new marketing method - VR virtual experience marketing is rapidly maturing.

On the one hand, as the resolution and clarity of VR lenses reach a high level, experiences can be broadcast to consumers in a completely realistic 3D environment. Compared with 2D flat displays for current products, consumers could experience the physical characteristics of the product in a more intuitive, comprehensive way. VR's imagination, interactivity and immersion could create an all-around auditory and sensory environment for the user. Moreover, studies have shown that people's memories of the VR experience would be an all-around and persistent memory, lasting for a longer time and being more profound than memories in traditional marketing. Therefore, VR-based experiential marketing has the potential to improve the effectiveness of marketing.

On the other hand, VR technology means that companies have greater autonomy in executing their experiential marketing strategies. Firstly, it is unconstrained spatially and temporally. Consumers are constrained by time and space in the real world and are unlikely to experience all attributes of a product one by one. For example, when consumers are going to purchase a car, it is difficult for them to experience the car's condition if the car is driven at high speed. However, in the virtual environment, companies could allow consumers to carry out various experiences anytime and anywhere. Secondly, the environment could be well manipulated. The

enterprise could be more flexible to create a variety of situations in the virtual environment in accordance with their own needs, without limitations on the cost, site and other uncontrollable factors. Companies could further adjust, control and evaluate the experience generated by the consumer in a better way.

4.2. Scenarios of VR Applications in Experiential Marketing for Automotive Brands

4.2.1. Applications of VR Technology in Automotive Advertising

Experiential marketing emphasizes the participation and interaction of consumers. Due to its depth of communication that is incomparable to other marketing means, it has been widely welcomed by business owners in recent years. However, at the same time, experiential marketing also has shortcomings when it comes to the process of advertising propagation. The spread of experiential marketing is often indirect. After consumers obtain the corresponding experience, instead of spreading the experience itself directly, they could merely share their experience with their social partners through indirect ways, such as oral communication and online reposting. This is because the experience could be reproduced once it is removed from the context in which it was constructed. However, the introduction of VR technology is beginning to change the situation as virtual experiential marketing could allow consumers to share their experience directly and further make the experience go viral. With the popularization of personal VR devices, one could imagine how a novel and unique marketing video would be widely reposted. Here, the consumer is not sharing a product or a message, but an exciting experience. In the future, companies will place greater emphasis on the content of the virtual experience when advertising their products, which will be

immersive and engage a wider range of consumers. From this point of view, virtual experiential marketing combines both the characteristics of experiential marketing that emphasizes emotion and network marketing featuring viral spreading, which is a new direction for future marketing development.

4.2.2. Applications of VR Technology in Automotive Sales Channels

Under traditional marketing, customers with the intention to purchase would rely on automotive offline sales stores, network platforms, and auto exhibitions when they are choosing and buying automotive products. Due to time and space limitations, customers could not get a comprehensive understanding of the automotive products in the channels above. Meanwhile, with the help of VR technology, such limitations could be broken to a certain extent. For example, in 2015, Audi made use of a device named the Oculus Rift. It could take advantage of contextualization and immersion in VR. With the use of this equipment, customers could simulate the real feeling of sitting in a car. Furthermore, the customer could browse all Audi car models and set various personalized settings, such as interior leather, colour, decoration, and in-vehicle infotainment. Audi, in partnership with Oculus, launched an off-line PC-based virtual reality car selection service, while Toyota, who also collaborated with Oculus, promoted the virtual reality driving simulator named "TeenDrive 365"[10]. With more and more manufacturers applying VR technology in their marketing services, consumers will have greater access to information when looking to purchase a car.



Figure 3. Audi VR Driving—Enter Sandbox

4.2.3. Applications of VR Technology in Automotive Test Drive

In the traditional automotive marketing service process, the test drive of the car is usually affected by factors such as time, location, weather, crowd, etc. The application of VR would solve these issues in a plausible way. By simply wearing VR equipment, consumers could understand the internal structure of the car at any time and anywhere, and quickly switch the exterior style and model, obtaining a comprehensive understanding and experience of the car.

The virtual test drive developed by Volvo in cooperation with Microsoft HoloLens would allow consumers to experience the feeling of driving Volvo's latest car on the road in a 4S store and test the car's performance under different environments such as rainy days, mountainous roads, and

curves, etc. With the implementation of virtual driving, consumers will be rid of the various issues that come with the traditional test drive, allowing them to choose different road conditions freely so as to conduct virtual test drives and experience car driving in different environments. Companies could also recommend specific test drive road conditions for the characteristics of the car, highlighting the selling points of the car. For example, snow road conditions could be recommended for a four-wheel-drive model while off-road conditions could be recommended for an off-road model. In this way, consumers would gain a deeper understanding of the automotive experience and the marketing effectiveness would be enhanced.

5. Conclusion

Currently, customer groups are becoming increasingly young and diversified. Against such a backdrop, making full use of experiential marketing has become an important step in the development of effective marketing, which has allowed customers to have a comprehensive experience, and to improve customers' satisfaction with the consumer experience. VR technology could enable "experiential marketing" with a whole new form of expression and new imagination. Thanks to the applications of VR technology in experiential marketing for automotive brands, marketing is no longer constrained by time and space limitations. The selling of automotive products could be presented in a "realistic" way in virtual scenarios. In summary, VR technology is building a new interface between the brand and consumers. VR could not only allow consumers to experience the functions and details of the product in a more intuitive, comprehensive way but also enable enterprises to break down the barriers of time and space to restore and reshape realistic scenarios so as to provide consumers with an immersive, impactful brand experience.

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