Abstract. At present, millennials have become the main luxury consumers. With the development of the digital economy, people's consumption concepts and behaviors are undergoing profound changes. In the digital environment, luxury marketing approaches are facing new challenges and changes. Luxury brands not only need to use digital marketing to tell their brand stories, but also need to form an immersive experience during online marketing. Able to be multisensory, immersive and interactive, virtual reality (VR) technology has become an important innovation in the field of digital marketing. Based on the systematic literature review of digital marketing and marketing of women’s luxuries, this paper analyzes the application of VR technology in the marketing of women’s luxuries.

Keywords: VR Technology; Luxuries; Marketing.

1. Introduction

According to 2021 China Digital Luxury Report, young people have become the mainstay of luxury consumers in China. The post-90s generation are the major driving force of luxury market, accounting for 50% of luxury consumers, with a rising tendency in the future. Luxuries have slowly penetrated into the lives of young people in recent years. As consumers increasingly rely on the online world, it is necessary for new technologies to make consumers resonate with brands.

In the digital age, luxury marketing is increasingly using immersive experiences to convey messages to persuade customers. Take the innovation of virtual reality (VR) for an instance. In 2016, Etihad Airways developed a VR film “Reimagine”. In the short film, with the help of VR technology, the scene design simulates various aviation scenes such as sound and light, movement and passenger communication, bringing viewers a fully immersive journey from New York to Abu Dhabi on the new Airbus A380. Through the virtual flight, Etihad Airways’ unique luxury service is presented. Virtual reality is expected to create a truly immersive experience. In this context, this paper analyzes the application of VR technology in the marketing of women’s luxuries.

2. Literature Review

2.1 The Concept of Luxury

“Luxury” refers to a pleasant but unessential item that is either expensive or difficult to come by (Oxford Dictionary 2012), originating from the Latin word “luxuria”. According to Danziger’s definition, a luxury brand can be defined as an image in the minds of consumers, associated with high price, high quality, aesthetics, uniqueness and other non-functional characteristics. Danziger emphasizes the emotional definition of luxury. The key factor in luxury is the brand’s performance in the realization of emotional fantasy, rather than that of material reality. Therefore, such attributes distinguish luxury brands from non-luxury brands by how well the brand conveys a sense of luxury to consumers.

Heine (2012) defines luxury as a product with more characteristics. Compared with similar products, luxury includes six characteristics defined by consumers: high price, high quality, beautiful look, distinctiveness, excellence and symbolic meaning. Besides, luxury must meet three criteria: being strong in artistic content, being excellent in workmanship, and being international.
2.2 Research on the Marketing of Women’s Luxury

Women’s luxury refers to a women-specific product that brings an elegant and exquisite lifestyle to female consumers with its emphasis on quality and taste, mainly for high-end and mid-to-high-end markets. Its main characteristics are as follows: 1. it has excellent quality; 2. it is for women only; 3. its consumers have strong economic strength; 4. most consumers have a high level of cultural accomplishment and aesthetic appreciation. The marketing of women’s luxury is a series of marketing activities aimed at women’s luxury consumption.

Marketing of women’s luxury differs from traditional marketing activities. Bernard Dubois pointed out that the characteristics of luxury marketing include high price and manufacturing cost, limited distribution channels, marketing on craftsmanship, selective targets of promotional campaigns, and indefinite strategy template for the implementation of advertising. These factors can be realized in luxury if the whole process is created under a niche marketing strategy – the product or brand must be well-known, expensive, and even a little out of reach. Marketing strategies for women’s luxury also require strong and recognizable aesthetic concepts.

2.3 Product’s Scarcity and Consumer’s Purchasing Decisions

Previous marketing research has traditionally regarded resource scarcity as an inherent factor in the quantity of a product or commodity. In addition, present research investigates a new effect of resource scarcity, namely how the perception of resource scarcity leads to consumer’s favorable attitude towards telemarketing offers. Consumer’s response to a range of marketed products may depend on their general sense of scarcity. Research shows that the reminder of scarcity induces a promotion orientation among consumers, thus increasing consumer’s preference for telemarketing offers. It is found that this effect is enhanced as the price range is expanded. These findings yield new theoretical insights into consumer’s response to a range of marketed products.

2.4 Relevant Research on Consumer Shopping Experience

![Diagram of Consumer Shopping Experience](image1)

Figure 1. Consumers are more willing to make efforts to obtain experiential purchase[10]

Consumers spend most of their income on two types of purchase: experiential purchase and physical one. Wilson Bastos (2020) experimentally confirmed that consumers are more willing to make efforts to obtain experiential purchase than the physical one. Once consumers meet their basic needs, they will find more pleasure in experiential purchase than in material purchase. As the
consumption upgrades at this stage, the purely functional attribute of consumption is gradually diminishing while its entertainment attribute and emotional attribute are gradually strengthening. In this upgrade, enthusiasm for in-depth experience and pursuit of high-quality life become new features of consumers.

The shopping experience of online marketing is also a research hotspot in recent years. It is worth noting that emojis in online communication have received great attention as a marketing tool. Despite the popularity of emojis, how their use affects people’s perceptions of the sender has not been systematically investigated in consumer behavior research. Xueni Li (2019) found that customers consider service employees who use emojis to be warmer and more competent than those who do not. Yi Zhao (2014) studied the false comments on online sales of products and consumer experience. In the paper <Modeling Consumer Learning from Online Product Reviews>, Authors believe that fake reviews increase consumer uncertainty. The effects of more positive reviews and more numerous reviews on consumer choice are smaller on online retailing platforms that have fake product reviews.

2.5 The Impact of Digital Marketing on Consumer’s Purchasing Decisions

2.5.1 “Search Goods” vs “Experience Goods” in Digital Marketing

In his research on digital marketing, Nelson (1970, 1974) introduced the distinction between “search goods” and “experience goods”. [11] For a search good, like a camera or computer, you can learn most of what people need to know by searching the available information. In contrast, for an experience good, like soda or sofa, consumers may prefer (or need) to experience the product directly to determine its quality. The distinction between “search goods” and “experience goods” has had a major impact on the fields of economics and marketing, and Nelson’s work (1970, 1974) has been cited over 7000 times. [12] [13]

2.5.2 Product Agnosia in Digital Marketing

Consumer’s choices are often based on the relative visual appeal of competitive products. Both common marketing practices and extant literature suggest that more visual impressions help consumers distinguish products. However, research has shown that the opposite may also happen.

In the 1980s, Professor John Sweller, a famous psychologist, proposed the cognitive load theory (CLT) based on the limitations of working memory. Such a theory is a theory of educational psychology based on the cognitive structure of the human brain and is mainly used to explain the learning effects of different instructional designs. It involves the sum of the load of various human cognitive activities attached to working memory [14]. Seeing more images of competitive products cannot highlight differences but cause perceptual confusion and information overload, thus reducing product uniqueness and attractiveness and increasing the uncertainty in choice. Experiments have shown that “product agnosia” is driven by a shift of perceptual focus level in visual information processing [15]. Therefore, the intuition of “showing more is better” is often incorrect, and marketer’s instinct to emphasize the difference by providing more visual impressions can backfire. Under the online shopping environment, the complexity of shopping information presentation has a negative impact on consumers' purchase intention, that is, websites with higher complexity will reduce consumers' purchase intention. [16]

2.6 The Impact of Brand Positioning on Consumer’s Purchasing Decisions

Rocky Peng Chen (2017) proposed that when a brand exhibits human-like characteristics, socially excluded consumers are more motivated to develop a relationship with it. Compared with non-excluded consumers, socially excluded consumers show greater preference for personalized brands. [17]

In consumer marketing, the core of each brand strategy is to establish brand uniqueness. Every brand must be clearly positioned, and then convey value through its product service, price, delivery and communication. However, it is different for the positioning of luxury that is good at creating a
“preference”. The brand projects “this is me” without relying on slogans or using positioning to promote.

Research by Puzakova (2018) added a new insight that consumers are pursuing different goals than others when buying unique brands. The source of this unique motivation is the desire to show a person’s unique identity through signals, indicating that personification of a unique brand reduces its attractiveness in unique issues. This conclusion has important managerial significance, as a decline in a brand’s ability to endow consumers with uniqueness may lower company profits.[18]

3. The Application of VR Technology in the Marketing of Women’s Luxury

3.1 VR Technology Innovates Experiential Marketing Approaches

Experiential marketing brings good emotions and sensations to consumers, effectively improving the image and influence of the brand. It has attracted the attention of academia and the industry, especially that of luxury brands. Research has shown that in consumer’s purchasing decisions, observational learning (OL) and word-of-mouth learning (WOML) are two main types of social learning15, which can affect online consumers’ decisions. A consumer’s decision-making process is not limited to consumption decisions; it can be regarded as a problem-solving process that includes three stages: search, evaluation, and purchase. When consumers buy high-engagement products, WOML has a greater impact on their decision-making process than OL does. When they buy low-engagement products, OL has a greater impact on their decision-making process than WOML does.

The essence of experiential marketing is to use diversified marketing approaches to bring consumers a variety of different sensory experiences. For luxury clothing companies, it is necessary to create and innovate consumers’ sensory experience based on products and services, so that consumers can generate a sense of value identity and consumption willingness towards the brand. Experiential marketing needs to penetrate the whole process of contact with consumers, in which business processes should be built closely around customer experience, themed, continuous and specialized planning should be carried out, and experiential marketing approaches should be actively innovated. The high added value of luxury clothing is largely reflected in its cultural value. The integration of brand culture with consumers’ interests and personal cultural cognition can stimulate their emotions and emotional experience, and even change their cognition of clothing. It requires luxury clothing companies to focus on analyzing the cultural connotation and values in clothing consumption, improve the cultural connotation of clothing marketing approaches, and enable consumers to experience the brand culture.

VR technology will significantly improve the user experience, especially in helping consumers achieve visualization online. In fact, consumers are already expecting luxury brands to use VR. It is suggested that consumers’ avatars be provided on e-commerce platforms to help them better understand how well clothes fit. If consumers can view goods in 3D on their own virtual models, and design clothes and accessories to create a complete look, they will gain a mimetic feeling of offline shopping experience. This feeling leads to higher sales potential, as consumers can see how they look when wearing a certain piece of clothing, making it more attractive.

During the 2021 Autumn/Winter Fashion Week, which was suspended due to the epidemic, many fashion brands replaced fashion shows with short videos. Different from the rest, Demna, creative director of Balenciaga, reached a cooperation with the game “Fortress Night” under EpicGames to reproduce the texture and quality of the real fashions in the game. Seasonal ready-to-wear and models are finely scanned and captured in 3D, and become excellent fashion modeling with step-by-step optimization. Meanwhile, Unreal Engine is adopted to achieve uninterrupted real-time rendering, so as to “project” reality to the VR world that can be controlled personally, just like a mirror. The application of this technology solves another prerequisite for luxury marketing, namely the authenticity of fashion and that of the aesthetic impact of luxury. Be it in the real world or in the digital world, people pay for the identity of owning a scarce product.
3.2 The Application of VR Technology Facilitates Luxury Marketing on Platforms

Luxury has a unique position in the minds of consumers because service and experience are very important factors. In the past, this unique experience was reflected in store location, in-store decoration and service, customized service, inviting guests to special events, and after-sales maintenance. Therefore, luxury brands were always resistant to e-commerce platforms. Completely online, it was impossible for consumers to have a strong understanding of the brand through services and personal experience.

However, since 2020, Cartier, Gucci, Prada, Balenciaga, Armani, Saint Laurent and other brands have successively launched on Tmall Luxury Pavilion. According to the official information, there are currently more than 200 luxury brands on the platform, and the annual sales growth rate has exceeded 130%.

In 2021, digitalization is one of the key words in the luxury industry. Under the influence of the epidemic, the luxury industry has been hit hard. According to statistics, the epidemic will cause the loss of more than 20 billion US dollars in brand value among the world’s 50 leading luxury companies. As physical stores are shut down or sold, online sales have become a “life-saving straw” for luxury brands. According to the public statement of Kering Group, although physical stores were severely hit during the epidemic, the first half of 2020 saw an increase of 47.2% in online sales.

Entering 2021, to further open up the Chinese market, digitalization is still the strategy adopted by luxury brands, but the current digitalization is different from the previous one. At present, the application of VR technology makes digitalization more comprehensive and in-depth.

When quality, information and convenience are no longer scarce, what we lack is personalized content and experience. Personalized experience means that brands offer personalized goods and customized recommendations based on the needs of specific consumers. Under the Internet environment flooded with information, consumers change their needs rapidly. They expect that their needs and habits can be matched and understood, and they are provided with personalized products and experience. Modern consumers won’t differentiate shopping on a brand’s e-commerce website from that in a physical store. What they want is a coherent experience no matter where they come into contact with the brand. Consumers expect a seamless experience across channels.
For luxury brands, be it online or in-store, consumers want not only products, but also a lifestyle and experience they pursue. In 2021, Tmall Luxury Pavilion launched the VR hotel visiting function. One can search for Tmall Luxury Pavilion through Taobao App and click on Yunshe City to find the VR hotel page. Through VR, one can visit high-end Marriott hotels online, such as St. Regis, Ritz-Carlton, and EDITION. On the hotel page of Tmall Luxury Pavilion, one can find a 180-degree sea view room package with popular bubble baths at Shanhaiitian Hotel (Sanya), an accommodation package with duty-free discounts at EDITION Hotel (Sanya), a parent-child vacation package with photo-shooting tour of the island at Sheraton Haikou Hotel, etc. Quilts from W Hotel, towels from JW Marriott Hotel, and aromatherapy kits from EDITION Hotel are also available online.[19]

Figure 3. VR hotel visit

3.3 The Application of VR Technology Integrates Online and Offline Channels, and Offline Marketing Scenarios Accelerate the Online Migration

For luxury brands, the next major innovation to enhance consumer experience is virtual or augmented reality. Interestingly, VR already lives up to the standard of luxury imagery with its rich visual effects. Although VR has become attractive, luxury brands still need to develop their mainstream applications. Young consumers and online marketing scenarios have become inevitable trends. However, it is a big challenge for luxury brands to maintain the consistent “blood” of luxury online, so that consumers can still feel the brand’s emphasis on refinement, quality and details, and experience the full sense of ceremony and dignity. Luxury consumers focus on the psychological enjoyment and spiritual satisfaction brought by brand culture. Simple pictures, video introductions, or live broadcasts will not only fail to fully display the unique aesthetic and scarcity of luxury brands, resulting in impulsive consumption, but also cause irreversible damage to the long-term high-end image of the brand.

Matro in Suzhou has made a new attempt to upgrade consumers’ experience with VR. As a leading luxury retail company in Suzhou, Matro has attracted a large number of international first-line brands such as Louis Vuitton, Saint Laurent, Armani, Burberry and Gucci. In response to the current market trend, it urgently hopes to use digital means to stimulate Generation Z’s desire to buy, create an immersive shopping experience online, and realize a closed-loop marketing. In this context, its “Boundless Shopping” jointly created by Realsee came into being.
Stepping into “Boundless Shopping”, consumers can stroll in the virtual shopping scene created by digital space, browse the stores of major luxury brands, and intuitively feel the brand concept conveyed by the language of space. This new interaction greatly satisfies women’s pursuit of fashion and experience. In the face of favorite products, consumers can also click on the graphic labels for further information, and then purchase with one click. At the same time, Matro has also embedded the video calling function into the VR scene so that consumers can communicate online one-on-one with shop assistants anytime and anywhere, further enhancing their impression of brands and products, and speeding up their purchasing decisions.

With the official launch of “Boundless Shopping”, Matro has achieved a comprehensive transformation and upgrading in terms of people, goods, and market. With consumers as the core, VR has realized one-stop access to marketing for customers, purchase conversion, membership system and other links, providing a model for the digital transformation and long-term development of retail industry.

At the level of “people”, based on the interaction of consumers in the VR scene, brands can accumulate their behavior and consumption preferences in real time, and effectively carry out the statistics and analysis of the number of visits, visit duration, visit trends and conversion effects of consumers in the virtual shopping space, so as to deepen their understanding of users. At the level of “goods”, Realsee creates a unique “digital business card” for products, which not only presents a shocking and realistic visual interaction effect for consumers, but also accumulates valuable digital assets for businesses and brands. At the level of “market”, through online remodeling of marketing and service scenarios, consumers’ behavior trajectories can be accumulated, so as to determine which
products are more popular with consumers, adjust marketing strategies and display layouts, achieve seamless linkage with offline scenarios, and continuously optimize consumers’ purchasing experience.

4. Conclusion

Modern female consumers have promoted the vigorous development of the whole consumer goods market, and female consumption has increasingly become an important driving force for stimulating domestic demand and promoting economic development [20]. From the traditional retail store to the e-commerce platform, the trading information of luxury goods has undergone a 3D-2D transformation [21]. After these contents are compressed, the transmission cost is lower and the speed is faster, which makes retail break the time and geographical restrictions. However, 2D information can't better improve consumers' purchasing experience, and e-commerce platforms are urgently looking for a suitable path to solve the experience problems. Based on the continuous development and application of technology, the future development of e-commerce is bound to focus on 3D. With the application of VR technology in the marketing field, the information of goods will return to 3D from 2D. Consumers will not only stay in browsing information, but also increase more interactions. In this process, the immersion brought by VR technology will increase purchase intention and sales [22].

As an exploratory experiment, the application of VR technology to optimizing luxury marketing can help improve consumers’ shopping experience and establish unique brand value. If technology and products are properly combined, VR technology will have great potential in the future. Therefore, luxury brands should invest more in research to find useful applications for VR across all channels. In the near future, a huge challenge for luxury brands is to enhance the consumer experience through digital means. Luxury brands need to invest more time, talents and funds, attempt to develop new technological applications, and fully integrate offline and online channels, so as to create an all-round shopping experience.

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