Sephora Retail Analysis Based on SWOT Analysis

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Abstract. Artificial intelligence offers applications in a variety of professions, especially in the beauty industry. Sephora used a lot of innovations like virtual try-on and personalized recommendations. This paper suggests a SWOT analysis to prove Sephora's AI adaptation's strengths, weaknesses, opportunities, and threats. Its aim is to assess how AI's enhancement can improve Sephora's retail strategies. In the case study methodology, the paper analyzes Sephora's AI applications and data is drawn from corporate reports, industry publications, and technology assessments. This paper finds that AI significantly improves consumers' experience and satisfaction through personalization and increases operational efficiency. Nevertheless, there are some issues, such as data privacy concerns and the expensive costs of AI need to be improved and also the analysis reveals potential growth of emerging technologies and strategic partners. Results reveal that although Sephora has advantages, Sephora requires more innovations in AI techniques. As a result, the study recommends further research into consumers' acceptance of AI and comparative analysis with competitors' technology adoption.

Keywords: Artificial Intelligence, Retail Technology, SWOT Analysis, Beauty Industry

1. Introduction

Artificial intelligence (AI) and machine learning are increasingly being used in the retail sector to improve customer experience and operational efficiency.. Studies show that 73% of companies use AI to increase customer satisfaction, while 72% reported fewer complaints [1]. However, although more and more consumers utilize AI, 38% consumers consider AI difficult to use, and 53% consumers are uncomfortable with facial recognition [2].

This paper analyzes Sephora's retail strategy using the SWOT model to address how to utilize AI (e.g., chatbots, virtual try-ons) to address challenges. The research method includes reviewing Sephora's case studies and industry reports on AI in retail. The study is important because it is able to help businesses understand how they can balance technology and customer needs. Therefore, it can provide a framework for future research on AI-driven retail strategies.

2. The AI application background and implementation of Sephora

Sephora is a transnational enterprise that produces personal care products and cosmetics. In the San Francisco Dogpatch district, it has a specialized research institute to innovate and it is also advanced in technological innovation. The institution specializes in developing its technology that includes

augmented reality(AR), artificial intelligence(AI) and RFLD technique to revolutionize the beauty retail experience [3].

The company's main AI implementation is the Sephora Virtual Artist, the AR-powered mobile application that enables customers to virtually try thousands of cosmetics on the face that including lipsticks, eyeshadows, and false lashes and so forth. Then, the innovative tool is available both in-app and in select physical stores, which is a significant advancement in beauty retail technology for people to use. The Virtual Artist platform also has a lot of AI-driven functions, such as Color Match, which enables retailers to analyze and upload photographs to recommend personalized cosmetics to individuals [4].

As a result, when the Sephore utilizes the integration of AI technologies, that not only able to improve the experience of customers, but also promote the efficiency of operation. The Virtual Artist tool revolutionizes cosmetics, enabling it to recommend personalized things to people like Color Match, mirroring successful AI implementations seen in other retail sectors like Nike's fitness coaching [5]. These innovations enable to reduction of purchase power while increasing engagement and loyalty. On the technical side, the business uses the AI-driven solutions, including chatbots and smart inventory systems and so forth, that can provide service for customers and optimize the stock management, so reducing costs while improving service quality. Therefore, when these advancements enter the industry, the business trends show an increase of 10% satisfaction, and also these changes are relevant to consumers' comfort for facial recognition technologies [6]. Sephora's ability to balance an approach for AI adoption and provide valuable insights for retail innovation.

3. The application of the artificial intelligence in Sephora: SWOT analysis

The SWOT analysis was invented by Albert Humohrey at Stanford Research Institute in 1960. The SWOT model enables analysis the Sephora's AI implementation by examining in strengths, weaknesses, opportunities and threats that four ways.

3.1. The strength analysis

First of all, Sephora is the technological leader in the field of cosmetics since Sephora has a partner, ModiFace, that can help Sephora to have a competitive advantage in AI-powered beauty technology. The AI technique is not only based on an automatic grading system, but also is free from human intervention [6]. Research suggests that an AI grading system has similar accuracy to human experts in facial analysis [6]. Therefore, the Sephora in China had the ability to make enough profits and reported their revenue has been 10.88 billion yuan, so the business has enough resources for them to develop innovations and it has powerful competitive ability in the future [7].

Secondly, Sephora has over 150 million users that Sephora through member utilize the virtual try-ons function to collect facial data and incentivized surveys, creating valuable training datasets for AI refinement, so Sephora is able to automatically collect members' facial data and also create mighty facial data collections.

Thirdly, when Sephora applies the Virtual Artist tool, the lipstick trial rates increase by 30%. Also, the academic research suggests that interactive technologies positively influence customer satisfaction and purchase intention, which is consumers' positive feeling from a service due to investigation of digital signage that is used for many purposes like advertising, community information and image enhancement [8]. It is great for Sephora to increase its consumers' satisfaction and profits in the future.

3.2. The weakness analysis

When Sephora uses the AI, that may face a lot of inevitable technical risks, for instance, Google's frequent outages and Sephora's 2022 app crash; these incidents represent operational vulnerabilities of an AI-dependent system. That not only damages consumers ' trust but also reduces opportunities to sell products. Therefore, it warns people not totally rely on the emerging technique when beauty retail innovates novel products.

What's more, AR mirrors and AI development always need to create a lot of financial burdens, due to existing persistent accuracy limitations in virtual try-on that consumers continue complaining about realism gaps, such as shape not suitable for their face, mismatched colour and so forth. In the developing process, Sephora needs to use high revenue to employ technique elites and spend their money on innovating technology, so the cost for the company is high.

In addition, when residents are using the virtual try-on technique, based on CDPR compliance, Sephora requires paying attention to legal and resource compliance to maintain regulatory compliance [9]. Missteps in the data storage or other problems are able to trigger penalties and reputation harm for Sephora, when the privacy law becomes more and more rigorous. As a result, Sephora may face danger when it uses consumers' facial data analysis.

3.3. The opportunities analysis

Firstly, the smartphone and other devices' penetration in emerging markets can create new opportunities for Sephora in the novelty smartphone market [10]. When using of app of the Sephora app, Sephora could develop more features such as more supportable languages, more cosmetics try-on and so on. Therefore, Sephora is not only able to increase the application when people are using smartphones, but also can design some special apps that can help people in their daily lives.

Secondly, when AI tools have been generated that include ChatGPT, Deepseek and so on, these enable to provide potential enhancements for the business to reduce costs. For instance, AI-driven chatbots can handle 80% of routine customer inquiries, cutting labor expenses, while automated inventory forecasting minimizes overstocking waste. It is beneficial for Sephora to expand its business and the program writing can be directly omitted by AI tools.

Thirdly, Sephora can build a lot of relationships with other social media platforms such as TikTok, YouTube, Instagram and so on. The short-form video and influencer make a virtual try-on that could virally increase the engagement and consumers will purchase more products to increase the sales rate. And also if Sephora has a cooperation with social media platforms, Sephora not only can get fame on the website, but also can sell more quantities of its products to get more profits.

Last but not least, based on the EU AI Act's standardized framework, regulations enable to accelerate the adoption of AI, so Sephora will benefit and reduce the compliance risk, which is a critical advantage for global beauty retail expansion.

3.4. The threat analysis

Due to many cosmetics companies and retailers like Zara, many other fashion retailers have been using similar AR techniques and shopping features, including voice shopping, that they are use to attract consumers to purchase their products [9]. Sephora's advantage has been eroded. The percentage of 67 beauty retailers now using virtual try-on that forcing Sephora to compete with other beauty retailers and giving it stress to improve its own cosmetics try-on.

What's more, differentiations between the same type of products become more and more challenging because more and more businesses also utilize AR try-on and it has become the standard of e-commercial platforms. Although AI-powered recommendations now face saturation, the algorithms generate identical product suggestions on a variety of platforms.

4. Conclusion

This paper is about Sephora's retail strategy analysis by the SWOT model. Sephora uses AI technologies to provide great shopping experiences for consumers, such as virtual try-on. personalized recommendations, AI-driven consumer service and so forth. In the analysis, this paper presents Sephora's strengths, weaknesses, opportunities, and threats. These analyses suggest that AI has been extremely improve Sephora's consumers' experience satisfaction and efficiency of operation and service. Nevertheless, there are a lot of challenges for Sephore that need to be addressed, such as data privacy regulations, technical reliability and so on. Therefore, although AR and AI are more and more commonplace in retail, Sephora needs to continue to improve and innovate in the future. In future research, people should explore how to increase the satisfaction and experience of customers by enhancing the techniques of AI and AR. Sephora's case focuses on how AI can improve in retail strategies, but success depends on balancing innovations and risk management.

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