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EXPLORING THE USE OF IOT AND AUGMENTED REALITY FOR ENHANCING CUSTOMER EXPERIENCE IN RETAIL STORES

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Анотація

У цій роботі досліджується використання технологій Інтернету речей і доповненої реальності (AR), обговорюються їхні потенційні переваги для покращення взаємодії з клієнтами в магазинах роздрібної торгівлі, а також визначаються проблеми, з якими можна зіткнутися. У роботі підкреслюється потенціал Інтернету речей і AR для революції в роздрібній торгівлі. галузі та пропонує сфери майбутніх досліджень і розробок.

Ключові слова: Інтернет речей, IoT, доповнена реальність, AR, роздрібні магазини.

Abstract

This work explores the use of IoT and augmented reality (AR) technologies, discussing their potential benefits for enhancing customer experience in retail stores, and acknowledges the challenges that may be encountered. The work emphasizes the potential of IoT and AR to revolutionize the retail industry and suggests areas for future research and development.

Keywords: Internet of Things, IoT, augmented reality, AR, retail stores.

Introduction

Brick-and-mortar retail stores are facing competitive pressures to attract and retain customers in the face of online shopping's success. To stay competitive, retailers must find creative solutions to enhance the customer experience within their stores. This paper explores how technologies such as Internet of Things (IoT) and augmented reality (AR) can be utilized to offer a unique in-store experience.

Results

This study employed a qualitative research methodology to investigate how the incorporation of Internet of Things (IoT) and Augmented Reality (AR) can enhance the customer experience in retail stores. Secondary sources like academic journals, industry reports, and case studies were used to gather comprehensive information about the current role of IoT and AR in the retail industry, and to draw insights relevant to the study from the gathered data [1].

IoT offers retailers important insights into their customers' shopping habits and preferences. Retailers can utilize this data to enhance product placement and develop effective marketing strategies. Additionally, tracking the time spent by customers in various areas of the store allows retailers to identify the most popular sections and make improvements accordingly. AR, on the other hand, enhances the overall shopping experience for customers by offering an immersive and interactive environment. For example, using AR to create virtual fitting rooms and presenting product information in a more engaging way can improve customer satisfaction and retention [2].

According to a study focused on deploying IoT and AR technologies to enhance the customer experience in retail stores, several major retailers have already started using these technologies to great effect. For example, IKEA has launched an AR app that allows customers to visualize how furniture would look in their homes before purchasing, and Amazon has introduced a concept store called Amazon Go, which uses IoT and AR to create a seamless shopping experience with no checkout lines [3, 4].

Adidas is another example of a retailer that has successfully implemented IoT and AR in its stores. The company has introduced interactive touchscreens and RFID-enabled product displays that allow customers to easily browse and learn more about products. Additionally, Adidas has incorporated IoT sensors into their products to track performance and offer personalized recommendations to customers. These initiatives have helped to enhance the customer experience and drive sales for the company.

However, the integration of IoT and AR is not without challenges when applied in retail stores. One challenge is the high cost of implementation which retailers need to consider before deployment for a good return on investment. Staff training is also necessary to properly implement these new technologies, which takes time and requires additional resources. Furthermore, there is the matter of customer acceptance, as some customers may not be comfortable in using these new technologies leading to less satisfactory shopping experiences.

Conclusions

In conclusion, the use of IoT and AR has the potential to provide several benefits for enhancing customer experience in retail stores. The use of IoT can provide retailers with more data about customer preferences, which can be used to improve product offerings and personalized marketing. The use of AR can enhance the shopping experience by providing customers with a more immersive and interactive experience. However, retailers must carefully consider the cost and training required before deciding to adopt these technologies. Overall, the results of this study suggest that the use of IoT and AR has the potential to transform the retail industry and provide a more engaging and personalized shopping experience for customers.

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