

# Impact of AI & VR on transforming Footwear Retail Footprints

By Dr. Ashok Sahai

The footwear retail industry is changing rapidly with the introduction of Artificial Intelligence (AI) and Virtual Reality (VR). These technologies are helping brands improve the way they design shoes, connect with customers, sell products, and manage their stores. Whether shopping online or in physical stores, customers are now enjoying a more interactive and convenient shopping experience. Overall, AI and VR are playing a major role in reshaping footwear retailing.

One of the biggest problems in online footwear shopping is not being able to try shoes before buying them. AI and VR solve this issue by allowing customers to virtually try on shoes using their smartphones or VR devices.

With AR/VR try-on features, shoppers can see how the shoes look on their own feet in real time. This makes shopping more fun and reduces confusion while choosing footwear.

Higher sales: When customers feel more confident about their purchase, they are more likely to buy. Fewer returns: Better size and fit visualization reduces wrong purchases and return costs.

AI helps brands understand customer preferences by studying their browsing history, foot size, and past purchases. Based on this data, customers receive personalized shoe recommendations that match their style and needs. This makes shopping easier and more satisfying. AI-powered chatbots and virtual assistants also help customers by answering questions, suggesting



products, and assisting during checkout, providing quick support at any time.

AI helps retailers predict which shoes will be in demand by analyzing trends, seasons, and regional preferences. This prevents overstocking and shortages, helping stores save money and reduce waste.

AI and machine learning make supply chains faster and more efficient. From predicting demand to managing stock delivery, these technologies help retailers respond quickly to market changes.

AI allows footwear brands to run more effective marketing campaigns by targeting the right customers with personalized advertisements. This further increases customer interest and improves sales.

VR and AR also make marketing more exciting through virtual product launches and immersive brand experiences. These interactive activities create a stronger emotional connection between the brand and the customer, increasing loyalty.

Many footwear brands are now combining digital tools with physical stores to improve the shopping experience. Smart mirrors and AR displays in stores help customers see how shoes look without trying them on physically.

VR stores allow customers to explore products in a virtual environment from anywhere in the world. This creates a seamless shopping experience across mobile apps, websites, and physical stores.

As AI and VR continue to improve, they will play an even bigger role in footwear retailing by:

- Creating more interactive and engaging brand experiences
- Supporting phygital retail, which combines online and offline shopping



- Improving sustainability by reducing returns and managing inventory better



Retailers who adopt these technologies successfully will have a strong advantage in the future. AI and VR are changing the way footwear is bought and sold. From virtual try-ons and personalized shopping to better inventory management and creative marketing, these technologies are making footwear retail smarter and more customer-friendly. As more people become comfortable with digital tools, the use of AI and VR will continue to grow, leading to greater efficiency, customer satisfaction, and business success.



**Dr. Ashok Sahai**  
Sr. Faculty  
School of Footwear  
FDDI Kolkata

Dr. Ashok Sahai holds a B.Sc., M.B.A., DFD, M.Phil., Ph.D, Product and Brand Management from IIM Rohtak. He brings with him rich and diverse experience across leading organizations such as Mirza International Ltd., Crew BOS Products Pvt. Ltd., Creative Home Fashions, and Apollo International Ltd., where he was closely associated with product development, branding, and market-driven strategies.

He joined FDDI in 2009 and currently serving as Sr. Faculty in FDP Department at FDDI, Kolkata. With over 24 years of cumulative experience spanning both industry and academia, Dr. Sahai has made significant contributions to footwear education and research. He has published nine research papers in reputed national and international journals focusing on the Indian footwear market and industry dynamics, and has also been associated with international consultancy projects, further reinforcing his global perspective and industry relevance.