

Linking technology readiness and customer engagement: an AI-enabled voice assistants investigation

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Abstract

Purpose – This paper aims to establish and empirically investigate a research model examining the effect of four dimensions of the technology readiness index – optimism, innovativeness, discomfort and insecurity – on customer engagement that further influences purchase intention in the context of online shopping through artificial intelligence voice assistants (AI VAs).

Design/methodology/approach – Data were collected in India from 429 customers in a self-administered online survey. Data analysis uses the structural equation modelling technique.

Findings – Technology readiness dimensions, e.g. optimism, innovativeness, discomfort and insecurity, are critical factors driving customer engagement. Customer engagement further results in purchase intention in online shopping through AI VAs.

Research limitations/implications – This study adds to the literature by understanding how customers' technology readiness levels drive engagement and purchase intention. However, this study includes customer engagement as a unidimensional construct. Further research can consist of customer engagement as a multidimensional construct.

Practical implications – The findings offer guidelines for e-retailers to enhance customer engagement that matches their personality traits, thereby strengthening their purchase intention through AI VAs.

Originality/value – The research contributes to the literature by empirically investigating a research model, revealing optimism, innovativeness, discomfort and insecurity as crucial parameters for customer engagement and purchase intention.

Keywords Voice assistants, Artificial intelligence, Technology readiness, Customer engagement, Purchase intention, India

Paper type Research paper

1. Introduction

The COVID-19 pandemic has led to the faster digitization of businesses. Amidst COVID-19, e-retailing is growing as individuals escape face-to-face interactions (Kazancoglu and Demir, 2021; Qasem, 2021). In India, e-retailing is expected to grow at a compound annual growth rate of more than 35%, reaching US\$25.75bn in 2020 (Khare *et al.*, 2023). By 2025, e-retailing in India is projected to cater to 300–350 million shoppers and is expected to reach US\$100–120bn (IBEF, 2021; Kautish *et al.*, 2023a). Artificial intelligence (AI) is transforming the way in which retail stores operate (Pillai *et al.*, 2020). According to Grewal *et al.* (2017), AI will be vital to driving the future growth of retailing. As per IBM's (2017) report, 91% of retail employees endorse that AI is disruptive in retail settings, and 45% of buyers prefer AI-based online shopping (Kautish and Sharma, 2018). The use of AI in retail is expected to reach US\$8bn by 2024 (Bhutani and Wadhvani, 2019). In the process of making online shopping more accessible for consumers (Hoy, 2018; Kautish *et al.*, 2023b), retailers have started using voice assistants (VAs) (Kasilingam, 2020; McLean *et al.*, 2021), including India (Chopra, 2019). VAs is a type of voice-enabled AI (Poushneh, 2021). Voice

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