Artificial Intelligence-Driven Green Marketing Strategies for a Circular Economy

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Abstract

This chapter explores the transformative role of artificial intelligence (AI) in revolutionizing green marketing strategies to support the circular economy. It highlights how AI enhances resource efficiency and promotes sustainable consumer behaviors through predictive modeling that anticipates preferences, enabling targeted eco-friendly campaigns. The chapter outlines key AI technologies and illustrates their role in optimizing marketing efforts and resource management to reduce waste and energy consumption. This chapter employs a qualitative approach, incorporating case studies, interviews, and document analysis. The study focuses on businesses, particularly start-ups, to examine how AI enhances resource efficiency and fosters sustainable practices. A purposive sample of 15–20 businesses in Harare, Zimbabwe, that actively use AI in green marketing was selected. Data triangulation from interviews, case studies, and document reviews ensures the credibility and trustworthiness of the findings. The findings reveal three major themes. First, AI technologies, such as predictive analytics and machine learning, were found to significantly optimize resource efficiency by reducing waste across industries. Second, AI-powered tools improved targeted consumer engagement, allowing businesses to create personalized marketing campaigns that resonate with eco-conscious customers. Third, barriers to AI adoption, including high costs, limited access to quality data, and a lack of technical expertise were noted as significant challenges faced by start-up businesses.