Chapter 5
AI-Driven Consumer Behavior and Decision Making

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ABSTRACT

Artificial Intelligence (AI) has transformed consumer behavior and decision-making, impacting purchasing habits, brand relationships, and marketing efforts. This systematic review synthesizes evidence on AI-influenced consumer behavior, analyzing its effects on attitudes, likes, and decision-making. Major areas of study encompass AI-facilitated recommendation systems, personalized engagement marketing, AI in online advertising, and AI-facilitated automation in retail and service sectors. The research presents both the benefits and pitfalls of AI integration, such as better customer experiences, data privacy fears, and information cocoons. AI has revolutionized conventional marketing practices by facilitating hyper-personalization and predictive analyses, engaging customers while incurring ethical issues. Research also highlights the importance of AI in sectors like fashion, entertainment, and business-to-business (B2B) marketing, offering insights into consumer trust and perceptions of privacy.

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INTRODUCTION

The advent of artificial intelligence (AI) represents a monumental shift in the way we understand and engage with consumer behaviour. As technology continues to evolve at a rapid pace, AI has emerged not merely as a supplementary tool in marketing and commerce but as a transformative force fundamentally altering the nature of consumer interactions, preferences, and decisions. With the ability to process, analyse, and interpret vast amounts of behavioural data in real time, AI is enabling businesses to understand consumers with a level of precision and depth previously thought unattainable.

In today's digital economy, every click, search, swipe, and purchase feeds into an expansive network of data. This digital exhaust, when captured and analysed by AI-driven systems, reveals intricate patterns of behaviour—preferences, habits, emotional triggers, and purchasing intentions—that can be leveraged to craft highly personalised experiences. The consumer journey is no longer a linear path but a dynamic, data-driven process shaped by algorithms that learn and adapt continuously. AI technologies can predict future behaviour, segment audiences with remarkable accuracy, and personalise marketing messages at the level of the individual. As a result, the line between consumer choice and algorithmic suggestion is becoming increasingly blurred.

This transformation is situated within the broader context of digital transformation, where the convergence of cloud computing, the Internet of Things (IoT), and mobile connectivity has created an ecosystem in which AI thrives. From voice-activated assistants and chatbot interactions to programmatic advertising and real-time product recommendations, AI is embedded in almost every touchpoint of the consumer experience. It extends across industries—from retail and entertainment to finance, healthcare, and travel—bringing with it both unprecedented opportunities and significant challenges.

One of the core capabilities that AI brings to consumer analytics is machine learning (ML). ML models are designed to identify patterns in large datasets and make predictions or decisions based on those patterns without explicit programming. In the context of consumer behaviour, this means that AI can not only identify who a consumer is and what they have done in the past, but also predict what they are likely to do in the future. For example, predictive algorithms can forecast when a customer is likely to churn, what type of product they might buy next, or even the optimal time to send them a promotional message.

Natural language processing (NLP) is another critical component of the AI toolkit. Through NLP, machines can understand, interpret, and generate human language. This has enabled businesses to analyse customer reviews, social media posts, and call centre transcripts to gauge sentiment, detect dissatisfaction, and un-