## Chapter 10

## Exploring Factors Affecting Consumers' Intention Towards AI-enabled Robotic Waiter Restaurant Services in Guinea: A Conceptual Framework

Moussa Barry and Ahasanul Haque

International Islamic University Malaysia, Malaysia

## Abstract

Due to the progress of industrialization and the emergence of the information age, intelligent robots are becoming increasingly crucial in several fields, such as intelligent manufacturing, intelligent transportation systems, the Internet of Things (IoT), medical health, and intelligent services. This study introduces an affordable IoT waiter robot specifically developed to improve customer satisfaction and increase operational efficiency in the hospitality industry, which is experiencing a rising need for robotic service providers. Despite these advantages, adoption rates of robotic waiter restaurant service in Guinea are low compared to other developing countries, indicating potential dissatisfaction, lack of awareness, or lack of financial resources. Thus, a research framework is proposed to identify factors affecting consumers' intention towards AI-enabled robotic waiter restaurant services in Guinea. To the best of the researcher's knowledge, this chapter is the first to examine factors affecting consumers' intention towards AI-enabled robotic waiter restaurant services in the context of Guinea, a developing country in West Africa. Therefore, the study will benefit academicians, marketers, robotic service providers, and all stakeholders.

Keywords: Artificial intelligence; robotic waiter; restaurant services; behavioural intention; TAM; TPB; Guinea

Web 3.0 Unleashed: Transforming Experiences with AR, AI, and Immersive Technologies, 175–196

Copyright © 2025 by Moussa Barry and Ahasanul Haque Published under exclusive licence by Emerald Publishing Limited doi:10.1108/978-1-83708-724-220251010