Chapter 2
Examining Customer Behavior Towards the Use of Contextual Commerce Powered by Artificial Intelligence

Ree Chan Ho
Taylor's University, Malaysia

Nelvin XeChung Leow
Taylor's University, Malaysia

ABSTRACT

The integration of artificial intelligence into electronic commerce has revolutionized consumer behavior due to its capability in supporting cutting-edge features for conducting business online. It pertains to contextual commerce that facilitates customers to connect and buy goods wherever they are. This study aimed to examine the influence of artificial intelligence applications on the operations of contextual commerce. The conceptual framework was based on the UTAUT theory. The sample was the users of contextual commerce who were familiar with its usage. An online questionnaire was used to collect the data, and variance-based structured equation modeling was applied for data analysis. The four technological acceptance constructs derived from UTAUT were tested and confirmed as antecedents for contextual commerce. Furthermore, the inclusion of brand anthropomorphism as the antecedent was also supported. The empirical findings of the study explain the consumer attitude toward the significant use of artificial intelligence in contextual commerce.

INTRODUCTION

The advancement of artificial intelligence is influencing us in many aspects of our life (Javaid et al., 2022). The business world jumped on this bandwagon effect to gain its benefits (Enholm et al., 2022; Loureiro et al., 2021; Sestino & De Mauro, 2022). What makes it effective is its use by businesses in

DOI: 10.4018/978-1-6684-7105-0.ch002

achieving business performance. The advancement of AI keeps growing with the development of neural networks, machine learning, and deep learning (Kraus et al., 2020; Naim, 2022; Shaikh et al., 2022). The direct impact of artificial intelligence usage on business performance (Wamba-Taguimdje et al., 2020). The current literature has an abundance of studies relating the use of artificial intelligence with business operations (Di Vaio et al., 2020; Lee et al., 2019; Rana et al., 2022). Electronic commerce was no exception with the integration of artificial intelligence into its operations. Many of them are integrated with tools engineered by advanced use of predictive data analytics in different industries. For example, hospitality (Mariani, 2019), supply chain management (Gunasekaran et al., 2017), and fashion retailing (Shi et al., 2020).

Electronic commerce is becoming the main platform of business transactions in the post-Corvid era(Li et al., 2021). One of the new waves is contextual commerce (González et al., 2021). Contextual commerce refers to customers who would make purchases while conducting non-shopping activities, such as jogging, and watching drama. In another word, it means buying in context. While it is still a new concept to many, it has been progressing to be the new online initiative for many firms that are tapping on its potential to reach out the ever-demanding customers. It is about a new online experience for consumers moving away from merely buying goods. This suits the trend of on-demand-oriented customers who choose products they need and purchase instantly and without any hassle while they are working on their other tasks. With the increasing use of AI, consumers are enjoying many useful functionalities embedded in online shopping apps. such as electronic product fulfillment (Zhang et al., 2021), smart tourism (Samara et al., 2020), and e-chatbot (Moriuchi et al., 2021).

The implementation of contextual commerce has been highly supported by online retailers. It brings about the innovative idea of engaging the customers more deeply. Similarly, consumers are expected to enjoy the "on-the-move" features in providing more convenience to their shopping experience (Ho, 2022). However, there is little coverage of the literature on the new and innovative features of electronic commerce. The current literature on electronic commerce is highly devoted to customer acceptance, consumer needs, and functionalities (Rosário & Raimundo, 2021). With contextual commerce, many features are controlled by systems intelligence and automation (Khrais, 2020). The shopping journey is highly driven by artificial intelligence. Therefore, the acceptance of the consumers in this avenue is lacking and warrants further exploration.

The rollout of this new electronic commerce initiative depends heavily on technology. Hence, the application of the unified theory of acceptance and use of technology (UTAUT) as the theoretical framework is relevant. Furthermore, UTAUT is proven to have predictive inference in many online shopping applications, such as e-payment (Soomro, 2019), social commerce (Sarker et al., 2020), and mobile commerce (Marinković et al., 2020). In order to fully paint the picture of contextual commerce, anthropomorphism is proposed as the variable to provide the explanatory power for the artificial intelligence influence. Anthropomorphism represents the need for human-like artificial components (Epley et al., 2007). It could serve as the antecedent for the adoption of the consumer toward the likelihood to use contextual commerce explained by UTAUT variables. The consumer acceptance of contextual commerce is highly related to anthropomorphism features. The inclusion of the many related online shopping functions is driven by automated and complex procedures handled by artificial intelligence (Chen et al., 2021). Hence, the requirement of anthropomorphism in validating the use of contextual commerce is expected to enhance the consumer's shopping experience.

The main objective of this study was to investigate the features of artificial intelligence and its influence on the usage of contextual commerce by consumers. It aimed to uncover the AI-related precursor