## **ABSTRACT**

The growth of technology in the digital era has driven rapid advancements in the E-commerce sector in Indonesia, with users reaching over 196.47 million in 2023. One of the key technological innovations utilized by E-commerce platforms like Tokopedia is Artificial Intelligence (AI), which plays a crucial role in understanding consumer behavior and enhancing customer experiences. This study aims to analyze the impact of AI implementation in E-commerce on repurchase intention at Tokopedia, focusing on aspects such as consumer engagement on social media, conversion rate optimization, and satisfying consumer experience.

This research employs a quantitative method, Involves the distribution of questionnaires to Tokopedia users in Bandung City with a total of 385 respondents. The data collected were analyzed using the SEM-PLS method to examine the relationships between the studied variables. The results indicate that AI positively influences consumer engagement and conversion rate optimization. Furthermore, these factors contribute to the improvement of satisfying consumer experience, which ultimately has a positive impact on repurchase intention among Tokopedia users. Additionally, consumer habits are proven to moderate the relationship between satisfying consumer experience and repurchase intention.

This study offers practical implications for E-commerce companies in optimizing the use of AI to enhance customer loyalty and competitiveness in the market. It is recommended that Tokopedia continues to develop AI technology and more personalized marketing strategies, as well as improve the quality of social media interactions to maximize customer satisfaction and encourage repurchase intentions.

**Keyword**: Artificial Intelligence, E-commerce, Repurchase Intention, Consumer Behavior, Tokopedia.