The Impacts of Artificial Intelligence Technologies on Consumer Well-being and Quality of Life: A Current Literature Review

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Abstract

This study examines the impacts of artificial intelligence (AI) technologies on consumer well-being and quality of life in light of recent literature. A comprehensive analysis is provided on how AI applications in sectors such as healthcare, education, finance, retail, transportation, energy, and tourism are transforming consumers' daily lives. The study highlights the welfare-enhancing potential of AI while also addressing challenges such as data privacy, ethical issues, and digital inequality. Finally, suggestions for future research are provided to contribute to a better understanding of the social and economic impacts of AI.

Key Words: artificial intelligence; consumer well-being; quality of life; digital transformation; ethical issues

Introduction

Artificial intelligence (AI) is a technology that has been rapidly developing in recent years and has caused radical changes in many sectors. The effects of AI on consumer well-being and quality of life have been increasingly gaining attention both in academic circles and in industrial applications. This study aims to examine how AI has transformed the daily lives of consumers and the effects of this transformation on well-being and quality of life in light of current literature.

Artificial intelligence (AI) technologies have developed rapidly in recent years and become indispensable to daily life. These technologies have caused radical changes in many sectors such as health, education, finance, transportation, and retail, and have had significant effects on consumer well-being and quality of life (Brynjolfsson & McAfee, 2014). Opportunities such as automation, personalization, and data analysis offered by AI facilitate consumers' decision-making processes and increase their living standards (Davenport & Ronanki, 2018, However, these technologies ethical, security, and privacy issues cannot be ignored (Kaplan & Haenlein, 2019). This study aims to compile the current literature examining the effects of artificial intelligence technologies on consumer well-being and quality of life. In particular, the effects of artificial intelligence on consumer behavior, economic well-being, and social life will be discussed (Shankar & Yadav, 2020). In addition, the positive and negative aspects of these technologies will be discussed and predictions will be made about their potential future effects (Wirtz & Lovelock, 2022). This review aims to be an important resource in understanding the consumer-oriented applications of artificial intelligence technologies and guiding studies to be conducted in this field.

1. Artificial Intelligence and Consumer Behavior

Artificial intelligence has revolutionary potential in understanding and predicting consumer behavior. In particular, personalized marketing strategies enable consumers to be offered products and services that are more suitable for their needs and preferences (Shankar & Yadav, 2021). For example, platforms such as Amazon and Netflix offer personalized experiences to consumers thanks to their AI-based recommendation systems (Gentsch, 2018). This increases consumer satisfaction and also significantly increases sales.

However, the effects of AI on consumer behavior are not only positive. In particular, data privacy and security concerns undermine consumers' trust in these technologies (Russell & Norvig, 2020). In addition, consumers may be presented with incorrect or unfair recommendations due to algorithmic biases (Wirtz & Lovelock, 2022).

2. Artificial Intelligence and Economic Prosperity

Artificial intelligence is a technology that has the potential to increase economic prosperity. Automation and increased efficiency reduce costs for businesses while also increasing productivity (Brynjolfsson & McAfee, 2014). For example, in the manufacturing sector, AI-supported robots optimize production processes by minimizing human errors (Davenport & Ronanki, 2018).

However, the effects of AI on economic welfare are controversial. In particular, job losses caused by automation in the labor market can increase economic inequalities (Kaplan & Haenlein, 2019). In addition, inequalities in access to AI technologies can deepen the welfare gap between developed and developing countries (Shankar & Yadav, 2021).

3. Artificial Intelligence and Health

Artificial intelligence is also creating a significant transformation in the healthcare sector. Especially in diagnosis and treatment processes, AI-supported systems support doctors' decision-making processes and facilitate early diagnosis of diseases (Topol, 2019). For example, machine learning algorithms increase doctors' accuracy in cancer diagnosis (Jiang et al., 2017). Recent studies show that AI is also effective in COVID-19 diagnosis (Shi et al., 2021).

However, there are also ethical and legal issues regarding the use of AI in the healthcare sector. In particular, the privacy and security of patient data are a major concern (Wirtz & Lovelock, 2022).

4. Artificial Intelligence and Education

In the education sector, AI has the potential to personalize learning experiences and optimize educational processes. For example, AI-supported learning platforms offer content tailored to students' individual needs (Luckin et al., 2016). Recent studies show that AI improves student performance in distance education (Holmes et al., 2022).

However, there are also concerns about the use of AI in education, such as the diminished role of teachers and student data privacy (Russell & Norvig, 2020).

5. Artificial Intelligence and Finance

AI-based financial advisors are improving individuals' budget management, and increasing economic well-being (Brynjolfsson & McAfee, 2017). AI has also become an important tool in areas such as fraud detection and risk management (Minh et al., 2022).

6. Artificial Intelligence and Retail

E-commerce platforms increase consumer satisfaction by offering personalized shopping experiences with AI (Rust & Huang, 2021). In addition, the use of AI in inventory management and logistics processes provides faster service to consumers (Wamba et al., 2017). Recent studies show that AI supports sustainable retail practices (Kumar et al., 2022).

7. Artificial Intelligence and Transportation

Autonomous vehicles increase the quality of life by increasing safety and comfort in transportation (Fagnant & Kockelman, 2015). In addition, intelligent transportation systems optimize energy consumption by reducing traffic congestion (Yin et al., 2021).

8. Artificial Intelligence and Energy

AI optimizes energy consumption with smart grids in the energy sector (Zhang et al., 2018). Recent studies show that AI is also effective in the management of renewable energy resources (Wang et al., 2022).

9. Artificial Intelligence and Tourism

AI improves consumer experience by providing personalized travel recommendations in the tourism sector (Buhalis & Sinarta, 2019). Current studies show that AI plays an important role in the recovery of the tourism sector after the pandemic (Gretzel et al., 2021).

Conclusion

Artificial intelligence technologies have both positive and negative effects on consumer well-being and quality of life. These technologies offer significant opportunities in many areas such as understanding consumer behavior, increasing economic well-being, improving healthcare services, and optimizing education processes. However, issues such as ethics, privacy, and inequality should also be taken into account. In the future, more equitable, transparent, and responsible use of AI technologies can further improve consumer well-being and quality of life.

This study has comprehensively examined the effects of AI on consumer well-being and quality of life in light of current literature. Future research should conduct various interdisciplinary studies to better understand the long-term social and economic impacts of AI. Additionally, studies focusing on the ethical and legal dimensions of AI are also an important area of research.

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