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Jeffry Vincent Louis, Noerlina, Dicky Hida Syahchari

Bina Nusantara University, Jakarta, Indonesia

DIGITAL BUSINESS TRANSFORMATION: ANALYSIS OF THE EFFECT ARTIFICIAL INTELLIGENCE IN E-COMMERCE'S PRODUCT RECOMMENDATION

Abstract. The purpose of this study is to determine whether artificial intelligence used in E-Commerce influences product recommendations for users. This study explains how much influence artificial intelligence on product recommendations supplied by E-commerce in terms of consumer behavior in making purchasing decisions. **Research methods.** This research used bibliometric analysis to find the mapping of this topic with articles period 2017 to 2023 from Scopus database. Of the 103 articles were showed by keyword and analyzing the articles according to the relate of the content about 29 articles were finally obtained. **The research result** is Artificial Intelligence has influence for E-commerce, recommendation system, decision support system, customer behaviour's, and customer trust. Product recommendations have an impact on E-Commerce**. Conclusion.** However, from the literature review, founded that there are still a few journals discussing related to considerations to the implementation regarding the use of AI in e-commerce "Consumer behaviour", "Customer Trust", "Purchasing decisions". This study is also useful to generate additional AI-related research in e-commerce and unquestionably for a fresh subject will be covered especially in context of product recommendations on E-commerce.

Keywords: bibliometric; artificial intelligence; customer behavior; product recommendation; E-Commerce; buying decision; digital business.

Introduction

The large number of customers with a variety of behaviors in determining which items to buy becomes the center of attention for a system that can be created so that it can determine how to determine effective marketing. This application will be valuable for organizations and businesses in adapting to digital transformation in today's rapidly changing world and adapting to new technologies [1, 2]. For organizations, the use of AI that can be integrated quickly and has more advantages is a guideline and decision that is always taken because it is very promising. Artificial intelligence is very influential in automated learning in E-Commerce. In This case, which is currently very developed in terms of E-Commerce over the past year. E-Commerce has become a part of everyday life for some people. E-Commerce is always associated with activities in buying and selling products and services on platforms that only use the internet. The application of artificial intelligence here will help E-Commerce in various aspects such as product searching to success in buying goods [3–9].

AI is believed to be the best method to be applied in E-commerce to provide a good experience for customers because it can predict what customers want from data previously taken from customer shopping / customer behavior while accessing E-Commerce. the data obtained will be consumed into the algorithm and processed into information that can be used by e-commerce in order to continue develop a best thins and provide the best goods for customers [4, 10–13].

There have been many studies and research that discuss artificial intelligence in influencing product recommendations [14], the AI can influencing customer behavior in determining the items they want to buy [7]. and use in the world can improve marketing because it can increase sales and can connect from one business to another [2, 15, 16].

This study will study artificial intelligence, which is influential in E-Commerce in this highly developed digital business era, because of the three paragraphs above.

This study will use bibliometric analysis of articles published between 2017 and 2023 (Table 1). This study is useful in determining the level to which artificial intelligence can impact consumer behavior and purchase decisions in E-Commerce causing e-commerce to continue to grow year by year.

Table 1 – **Journal Studies of Artificial Intelligence**

No	Title	Discussion	Ref
1	Future of Business Culture: An Artificial Intelligence-Driven Digital Framework for Organization Decision-Making Process	This study discuss about AI can make a better thing about the decision-making factor	[15]
2	Artificial Intelligence for Digital Business Performance.	This study discuss about the marketing and AI can collaboration for make an application more interesting	[2]
3	Investigating the Influence of Artificial Intelligence on Business Value in the Digital Era of Strategy: A Literature Review.	Organization will be successfully if can adopt with a new technology	[1]
4	Artificial intelligence in E-Commerce: a bibliometric study and literature review	This study utilized Bibliometric to identify the Product Recommendation System-focused AI in E-Commerce	[3]
5	Analysis of e-commerce customers' shopping behavior based on data mining and machine learning	This study discusses about a machine learning analyze behavior of customer shopping	[17]

End of table 1

No	Title	Discussion	Ref
6	E-Commerce Customer Churn Prediction Scheme Based on Customer Behaviour Using Machine Learning	This study discusses about analysis and doing research data that already get it	[16]
7	Artificial intelligence-based approaches for product recommendation in e-commerce	This research studies a system that can automate the product section so that customers can choose the best items	[4]
8	Research on multi-product artificial intelligence recommendation	This research using questionnaire for find the variable affecting customer	[11]
9	A tale of two recommender systems: The moderating role of consumer expertise on artificial intelligence based product recommendations	This study discusses about relationship between computer science and marketing	[10]
10	Influence of Artificial Intelligence Recommendation on Consumers' Purchase Intention Under the Information Cocoon Effect	This study investigates about many factors can affect customer in many ways from purchase and satisfaction	[12]
11	Impact of artificial intelligence on impulse buying behavior of Indian shoppers in fashion retail outlets	This study discusses about the technologies AI can impulses of customer behavior	[18]
12	Artificial intelligence model for analyzing the buying patterns of customers	This study discusses the changing patterns that occur when systems use AI in factors such as purchases made by customers	[6]
13	Customer models for artificial intelligence-based decision support in fashion online retail supply chains	This learning discusses not only improving the customer model but more so benefiting stakeholders	[19]
14	Fashion recommendation systems, models and methods: A review	This paper takes a deeper into the product recommendations offered by AI in E-Commerce and the techniques in filtering the appropriate	[13]
15	Studying the contribution of machine learning and artificial intelligence in the interface design of E-commerce site	On the things, AI that aims to increase sales and make a good impression on customers is also used by UI optimization in e-commerce	[5]
16	E-Commerce Data Analysis Based on Big Data and Artificial Intelligence	Artificial intelligence affects a wide range of e-commerce platforms in terms of customer interest	[20]
17	Artificial Intelligence-Based Human–Computer Interaction Technology Applied in Consumer Behavior Analysis and Experiential Education	Artificial intelligence will research related to consumer behavior and analyze the psychology carried out by customers when obtaining goods/services	[21]
18	Structured Learning to Applied Consumer Goods Recommended	In this study, they improved the AI by adding structured learning	[22]
19	Role of Artificial Intelligence in Online Shopping and its Impact on Consumer purchasing behaviour and Decision	E-Commerce is growing rapidly, and Digital Business E-Commerce has begun to combine with the application of AI in it	[7]
20	Influence of Consumer Decisions by Recommendan system in fashion e-commerce website	Customer data is taken to process into a better formula when they continue their search	[23]
21	Augmenting e-commerce product recommendations by analyzing customer personality	This study analyzes the personality types of customers in their daily e-commerce interactions	[14]
22	Use of artificial intelligence system to predict consumers' behaviors	This paper using SEM and SPSS for analysis the data	[24]
23	Application Research of Computer Artificial Intelligence Technology in Electronic Commerce Information Retrieval System	This paper will discuss about the data from searched word customer in the end	[25]
24	The Moderating Effect of Artificial Intelligence Phobia on the Relationship between Trust and Product Promotion Effectiveness: An Exploratory Study.	This research discusses about relationship between customer on trust and effective promotion in product	[26]
25	A Systematic Literature Review of the Impact of Artificial Intelligence on Customer Experience	This research will studying the data from customer and product in E-Commerce	[27]
26	Artificial Intelligence based Recommendation System for Analyzing Social Bussiness Reviews	This research discusses about how to make a recommendation product become efficient	[9]
27	Factors Affecting the Use of Online Recommendation Systems in E-Commerce in Croatia	This journal conducted research using the Unified Theory of Adoption and Use of Technology (UTAUT) technique for doing the research	[28]
28	An Improved Machine Learning Based Customer Churn Prediction for Insight and Recommendation in E-commerce	This study uses forecasting techniques to improve in predicting customers with more accuracy	[29]
29	15 Utilizing AI technologies to enhance commerce business operations	This study discusses the implementation AI in E-Commerce can make a improve for the e-commerce operations for getting better	[30]

Method

Bibliometric analysis is the methodology employed in this study. This study is supported by the Publish and Perish For collect data. After the collect data, the data will be inputted to the article link to Mendeley Reference Manager for connected in Microsoft Word. And the last visualizing the data using VOSViewer application.

The initial stage must obtain the needed material. That material collection will make use of an additional tool named Publish or Perish. The paper received contains terms from Scopus-indexed articles published between 2017 and 2023. The keywords used are "Artificial Intelligence", "Product Recommendations", and "E-Commerce" in searching for the desired material

The steps on this research are: (1) Finding and Preparing the data and application, (2) filtering the data, (3) making visualization based on the data and (4) analyse the data result. From the first step, this result shows 103 papers according to the keywords, and the next step results is 29 articles from filtering the articles related to the content of the article. To visualize the data into the shape of a network utilizing a helper tool called the VOSviewer.

Result and Discussion

Several Considerations of Impact AI in E-Commerce. Some considerations that must be considered when wanting to analyze the implementation of AI on E-Commerce product recommendations are the first is the trust that must be obtained by customers when they want to use E-Commerce.

The second is about customer behavior when getting product recommendations provided by artificial intelligence in E-Commerce. The study of the relationship between psychological activity characteristics and behavioral rules during product purchase and use is an important component of consumer behavior. because artificial intelligence will analyze and adjust goods/services in e-commerce to able adjust to customer needs or give the recommended products. In other words, artificial intelligence will help customers choose and in the final decision for buy recommended products [7, 18, 19, 21, 24, 28, 29].

And Last is about buying decision, applying the implementation of this artificial intelligence aims to make E-Commerce can grow and marketing in E-Commerce can run smoothly until the customer finishes the transaction. E-Commerce also got the data from consumers who have previously shopped, Customers also frequently make repeat purchases based on previous orders [29].

These three factors need to be taken into consideration so that when AI is used to e-commerce it can run well, make a e-commerce better in operations and can be in accordance with the target of businesspeople who want to apply artificial intelligence to increase sales and facilitate customers in buying and selling goods [3, 8, 17, 25, 30].

Condition Artificial Intelligence Techonologies Research in E-Commerce on Product Recommendation. In Table 2, after searching for publications related to the implementation of artificial intelligence in world with a distance from 2017–2023, namely getting several articles as many as 103. of the many articles obtained have a citation of 517 using the Scopus index. with an average citation generated per year of 86.17 and an average citation in each article of 5.02.

Table 2 – **Result publication on Artificial Intelligence Technologies Research in E-Commerce on Product Recommendations**

Publication Years	2017–2023
Citation Years	6 (2017–2023)
Papers	103
Citations	517
Cites/year	86.17
Cites/paper	5.02
Author/paper	0.95
h-index	11
g-index	18
hI, norm	11
hI, annual	1.83
hA-index	8

Co-occurrence analysis is very useful for analyzing the research for find the keyword analysis pattern and the author, but it does not always to use among the author [31].

The research here will use co-occurrence analysis to be able to retrieve data related to the use of a keyword used by authors in articles published on the Scopus index with the help of an application called VOSviewer.

This application will pull data from files that have been generated through the Mendeley Reference Manager application with the .RIS format. This file contains a journal that has been filled with details of the title, abstract and keywords. image retrieval in the VOSviewer application will be divided into 2 images, namely Net-work Visualization and Overlay Visualization.

The conditions that take in converting data into network images in VOSviewer are looking for journals with the keywords "Artificial Intelligence", "E-Commerce" and "Product Recommendations". From these journals that got is have 103 papers (Table 2) and take the minimum number of keywords appearing, which is about 2 times and get 32 keywords. from these results are divided into 8 clusters:

a) cluster 1 has 7 items (In image 1 display with a red color): Artificial Intelligence, Customer Model, Decision Support System, Fashion, Human-computer interaction, online shopping, recommender system;

b) cluster 2 has 6 items (Fig. 1 display with a green color): Analytics, con-tent-based, machine learning, recommendation system, recommendations, trust;

c) cluster 3 has 5 items (Fig. 1 display with a blue color): Artificial intelli-gence (AI), computer vision, deep learning, personalization, size recommendation;

d) cluster 4 has 4 items (Fig. 1 display with a yellow color): E-commerce, Natural language processing, Recommendation, Sentiment Analysis;

e) cluster 5 has 4 items (Fig. 1 display with a purple color): Collaborative filtering, content-based filtering, recommendation system, semantic web;

f) cluster 6 has 3 items (Fig. 1 display with a cyan color): Big data, classifier, reviews;

g) cluster 7 has 2 items (Fig. 1 display with an orange color): matrix factorization, recommender system;

h) cluster 8 has 1 item (Fig. 1 display with a brown color): user experience.

Based on Fig. 1, from the previous research show the importance of artificial intelligence to support e-commerce as the recommendation systems related to big data, analytics, human computer interaction, deep learning, machine learning, and computer vision, with content-based approach.

In Fig. 2, the image shows the keywords used in various journals from 2017 - 2023 with the darkest blue color in 2017 to yellow color in 2023.

Some keywords that mostly appear are E-Commerce, Machine Learning, Artificial Intelligence, Recommendation System, Collaborative Filtering and then keywords that are rarely used, such as trust, analysis, review, big data, classification, and user experience.

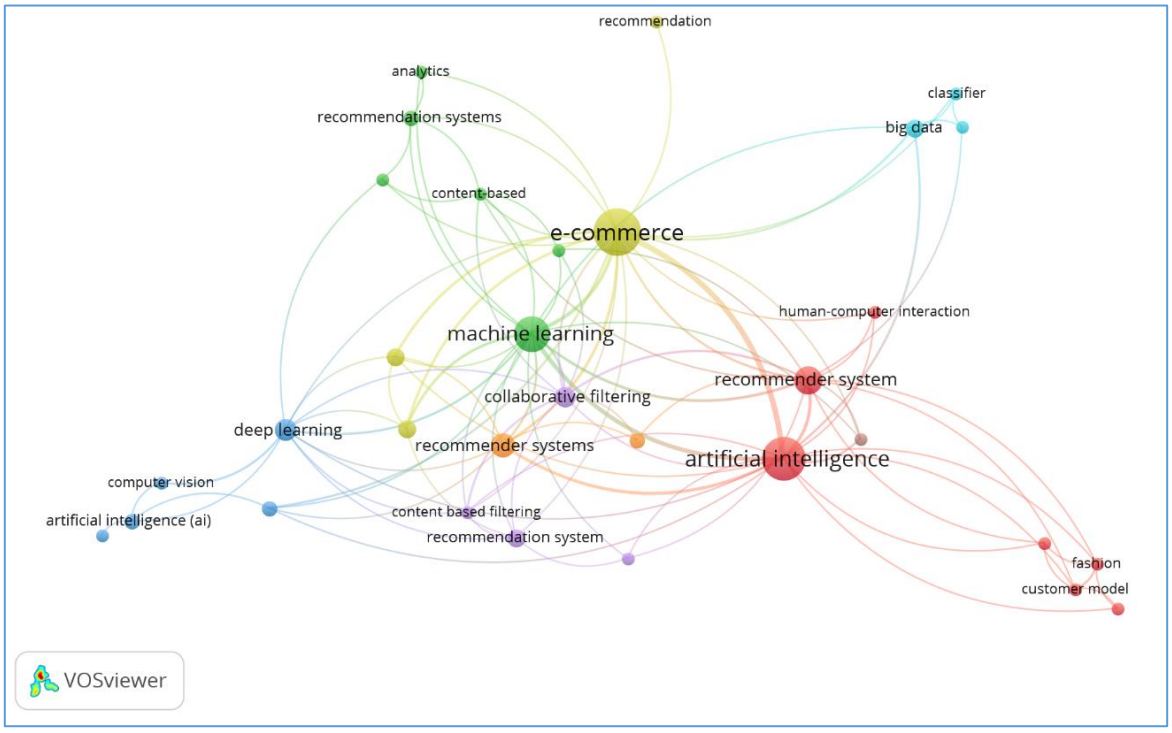

Fig. 1. Network Visualization of Condition Artificial Intelligence Technologies Research in E-Commerce on Product Recommendations

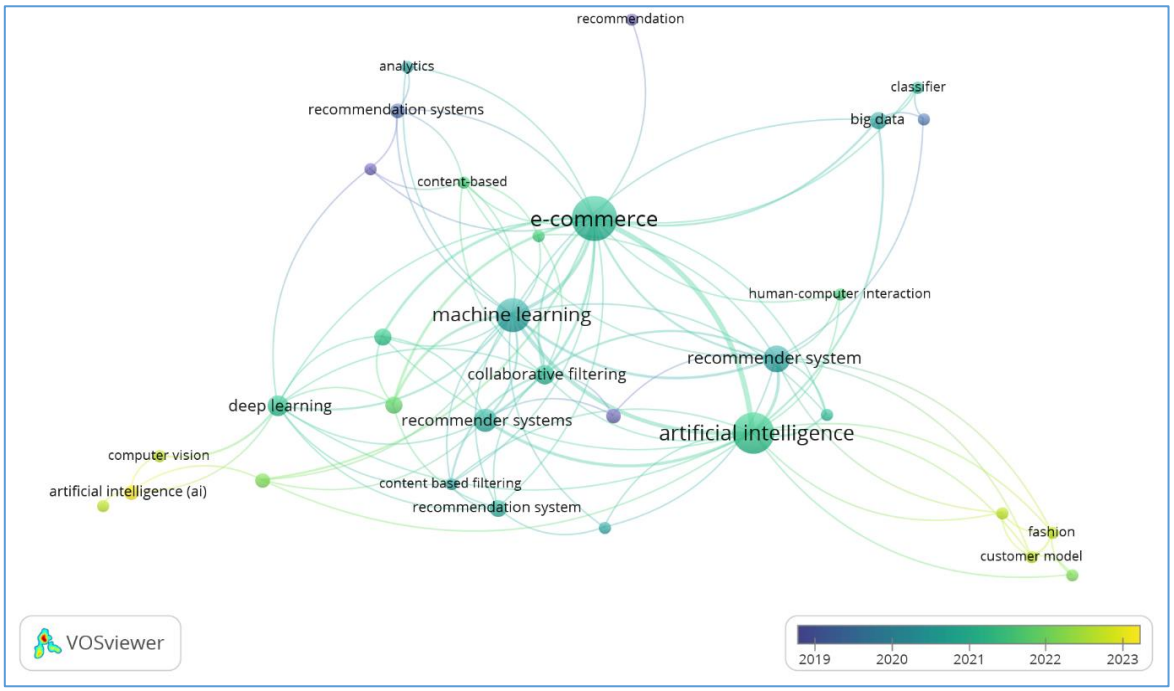

Fig. 2. Overlay Visualization of Condition Artificial Intelligence Technologies Research in E-Commerce on Product Recommendations

Conclusion

Information about how AI affects product recommendations in e-commerce is provided by this study. The result is Artificial Intelligence is has a influence for E-commerce, recommendation system, decision support system, customer behaviour's, and customer trust. Product recommendations have an impact on E-Commerce because they are used in artificial intelligence / machine learning. However, when doing this research, founded that there are still a few journals discussing related to considerations to the implementation of AI in e-commerce about the "Consumer behaviour", "Customer Trust", "Purchasing decisions".

In the further study, the influence of AI on e-commerce can be more specific or delimit the term, and also support the current research for analyse the influence AI on E-Commerce.

REFERENCES

1. Perifanis, N.-A. and Kitsios, F. (2023), "Investigating the Influence of Artificial Intelligence on Business Value in the Digital Era of Strategy: A Literature Review," *Information*, vol. 14, no. 2, p. 85, doi: https://doi.org/10.3390/info14020085
2. Meepung, T. and Kannikar, P. (2022), "Artificial Intelligence for Digital Business Performance", *International ECTI Northern Section Conference on Electrical, Electronics, Computer and Telecommunications Engineering (ECTI-NCON)*, IEEE, pp. 242–246, doi: https://doi.org/10.1109/ECTIDAMTNCON53731.2022.9720418
3. Bawack, R. E., Wamba, S. F., Carillo, K. D. A. and Akter, S. (2022), "Artificial intelligence in E-Commerce: a bibliometric study and literature review", *Electronic Markets*, vol. 32, no. 1, pp. 297–338, doi: https://doi.org/10.1007/s12525-022-00537-z
4. Samal, S., Kar, K., Taunk, S. and Patra, J. P. (2022), "Artificial intelligence-based approaches for product recommendation in e-commerce", in *Empirical Research for Futuristic E-Commerce Systems: Foundations and Applications*, pp. 53–70, doi: https://doi.org/10.4018/978-1-6684-4969-1.ch003
5. Patil, M. and Rao, M. (2019), "Studying the contribution of machine learning and artificial intelligence in the interface design of E-commerce site", *Smart Innovation, Systems and Technologies*, vol. 105, pp. 197–206, doi: https://doi.org/10.1007/978-981-13-1927-3_20
6. Sakib, S. M. N. (2023), "Artificial Intelligence Model for Analyzing the Buying Patterns of Customers", pp. 37–55, doi: https://doi.org/10.4018/978-1-6684-7105-0.ch003
7. Jangra, G. and Jangra, M.(2022), "Role of Artificial Intelligence in Online Shopping and its Impact on Consumer purchasing behaviour and Decision", *2022 2nd International Conference on Computer Science, Engineering and Applications, ICCSEA 2022*, IEEE, pp. 1–7, doi: https://doi.org/10.1109/ICCSEA54677.2022.9936374
8. Li, L. (2023), "Analysis of e-commerce customers' shopping behavior based on data mining and machine learning", *Soft comput*, doi: https://doi.org/10.1007/s00500-023-08903-5
9. Alanazi, A. and Alseid, M. (2021), "Artificial Intelligence based Recommendation System for Analyzing Social Business Reviews", *International Journal of Advanced Computer Science and Applications*, vol. 12, no. 6, pp. 122–132, doi: https://doi.org/10.14569/IJACSA.2021.0120614
10. Chinchanachokchai, S., Thontirawong, P. and Chinchanachokchai, P. (2021), "A tale of two recommender systems: The moderating role of consumer expertise on artificial intelligence-based product recommendations", *Journal of Retailing and Consumer Services*, vol. 61, p. 102528, doi: https://doi.org/10.1016/j.jretconser.2021.102528.
11. Tang, K., Huang, T., He, Z. and Huang, C. (2021), "Research on multi-product artificial intelligence recommendation", *2021 IEEE International Conference on Computer Science, Electronic Information Engineering and Intelligent Control Technology (CEI)*, IEEE, pp. 1–5. doi: https://doi.org/10.1109/CEI52496.2021.9574471
12. Liang, S., Alimu, N., Si, H., Li, H. and Mi, C. (2023), "Influence of Artificial Intelligence Recommendation on Consumers' Purchase Intention Under the Information Cocoon Effec", *HCI in Business, Government and Organizations*, pp. 249–259, doi: https://doi.org/10.1007/978-3-031-35969-9_17
13. Chakraborty, S., Hoque, M. S., Jeem, N. R., Biswas, M. C., Bardhan, D. and Lobaton, E. (2021), "Fashion recommendation systems, models and methods: A review," *Informatics*, vol. 8, no. 3, p. 49, doi: https://doi.org/10.3390/informatics8030049.
14. Marwade, A., Kumar, N., Mundada, S. and Aghav, J. (2017), "Augmenting e-commerce product recommendations by analyzing customer personality", in *2017 9th International Conference on Computational Intelligence and Communication Networks (CICN)*, IEEE, pp. 174–180, doi: https://doi.org/10.1109/CICN.2017.8319380.
15. Rajagopal, N. K., Qureshi, N. I., Durga, S., Asis, E. H. R., Soto, R. M. H., Gupta, S. K. and Deepak, S. (2022), "Future of Business Culture: An Artificial Intelligence-Driven Digital Framework for Organization Decision-Making Process", *Complexity*, vol. 2022, pp. 1–14, doi: https://doi.org/10.1155/2022/7796507
16. Nagaraj, P., Muneeswaran, V., Dharanidharan, A., Aakash, M., Balananthanan, K. and Rajkumar, C. (2023), "E-Commerce Customer Churn Prediction Scheme Based on Customer Behaviour Using Machine Learning", *2023 International Conference on Computer Communication and Informatics (ICCCI)*, IEEE, pp. 1–6. doi: https://doi.org/10.1109/ICCCI56745.2023.10128498
17. Li, L. (2023), "Analysis of e-commerce customers' shopping behavior based on data mining and machine learning," *Soft comput*, doi: https://doi.org/10.1007/s00500-023-08903-5
18. Jain, S. and Gandhi, A. V. (2021), "Impact of artificial intelligence on impulse buying behaviour of Indian shoppers in fashion retail outlets", *Int. Journal of Innovation Science*, vol. 13, no. 2, pp. 193–204, doi: https://doi.org/10.1108/IJIS-10-2020-0181
19. Pereira, A. M., Moura, J. A.B., Costa, E. De B., Vieira, T., Landim, A. R.D.B., Bazaki, E. and Wanick V. (2022), "Customer models for artificial intelligence-based decision support in fashion online retail supply chains", *Decis Support Syst*, vol. 158, 113795, doi: https://doi.org/10.1016/j.dss.2022.113795
20. Li, L. (2019), "E-Commerce Data Analysis Based on Big Data and Artificial Intelligence", *Proceedings - 2nd International Conference on Computer Network, Electronic and Automation, ICCNEA 2019*, IEEE, pp. 133–138. doi: https://doi.org/10.1109/ICCNEA.2019.00034
21. Li, Y., Zhong, Z., Zhang, F. and Zhao, X. (2022), "Artificial Intelligence-Based Human–Computer Interaction Technology Applied in Consumer Behavior Analysis and Experiential Education", *Front Psychol*, vol. 13, doi: https://doi.org/10.3389/fpsyg.2022.784311

22. Chen, Y.-C., Yang, C.-C., Chen, Y.-H., Montella, S., Chang, C.-H., Chen, P.-L., Yang, P.-C. and Ku, T. (2017), "Structured Learning Applied to Consumer Goods Recommended", *2017 Conference on Technologies and Applications of Artificial Intelligence (TAAI)*, IEEE, pp. 88–91, doi: https://doi.org/10.1109/TAAI.2017.50
23. Sruthi, K. and Prabhu, S. (2022), "Influence of Consumer Decisions by Recommendar system in fashion e-commerce website", *2022 Int. Conf. on Decision Aid Sciences and Appl.*, IEEE, pp. 421–424. doi: https://doi.org/10.1109/DASA54658.2022.9765312
24. Adwan, A. Al and Aladwan, R. (2022), "Use of artificial intelligence system to predict consumers' behaviors", *International Journal of Data and Network Science*, vol. 6, no. 4, pp. 1223–1232, doi: https://doi.org/10.5267/j.ijdns.2022.6.011
25. Feng, L. (2022), "Application Research of Computer Artificial Intelligence Technology in Electronic Commerce Information Retrieval System", *2022 IEEE 2nd International Conference on Electronic Technology, Communication and Information, ICETCI 2022*, IEEE, pp. 1374–1377, doi: https://doi.org/10.1109/ICETCI55101.2022.9832320
26. Wang, C.-Y., Song, Y., Wu, C.-Y. and Yang, P.-T. (2020), "The Moderating Effect of Artificial Intelligence Phobia on the Relationship between Trust and Product Promotion Effectiveness", *Proceedings of the 2020 11th International Conference on E-Education, E-Business, E-Management, and E-Learning*, ACM, pp. 356–359, doi: https://doi.org/10.1145/3377571.3377594
27. Sikandar, M. A., Munari, P. K. and Arli, M. (2022), "A Systematic Literature Review of the Impact of Artificial Intelligence on Customer Experience", *Machine Learning for Business Analytics*, New York: Productivity Press, pp. 117–127, doi: https://doi.org/10.4324/9781003206316-10
28. Ćebek, V., Antolović, S. and Kramarić, C. (2023), "Factors Affecting the Use of Online Recommendation Systems in E-Commerce in Croatia", *46th MIPRO ICT and Electronics Convention*, pp. 87–91, doi: https://doi.org/10.23919/MIPRO57284.2023.10159726
29. Jahan, I. and Sanam, T. F. (2022), "An Improved Machine Learning Based Customer Churn Prediction for Insight and Recommendation in E-commerce", *2022 25th International Conference on Computer and Information Technology (ICCIT)*, IEEE, pp. 1–6. doi: https://doi.org/10.1109/ICCIT57492.2022.10054771
30. Rajeshwari, S., Praveenadevi, D., Revathy, S. and Sreekala, S. P. (2023), "15 Utilizing AI technologies to enhance e-commerce business operations", *Toward Artificial General Intelligence*, De Gruyter, 2023, pp. 309–330, doi: https://doi.org/10.1515/9783111323749-015
31. Muppidi, S. and Reddy, K. T. (2020), "Co-occurrence analysis of scientific documents in citation networks", *International Journal of Knowledge-based and Intelligent Engineering Systems*, vol. 24, no. 1, pp. 19–25, doi: https://doi.org/10.3233/KES-200025

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ВІДОМОСТІ ПРО АВТОРІВ / ABOUT THE AUTHORS

Джеффрі Вінсент Луїс – студент, факультет інформаційних систем, Школа інформаційних систем, Університет Біна Нусантара, Джакарта, Індонезія;
Jeffry Vincent Louis – Student, Information System Department, School of Information Systems, Bina Nusantara University (BINUS), Jakarta, Indonesia;
e-mail: jeffry.louis@binus.ac.id; ORCID ID: https://orcid.org/0009-0005-6206-4506.

Ноерліна – дослідник, факультет інформаційних систем, Школа інформаційних систем, Університет Біна Нусантара, Джакарта, Індонезія;
Noerlina – Researcher, Information System Department, School of Information Systems, Bina Nusantara University (BINUS), Jakarta, Indonesia;
e-mail: nurlina@binus.edu; ORCID ID: https://orcid.org/0000-0003-3822-2701;
Scopus ID: https://www.scopus.com/authid/detail.uri?authorId=56623165900.

Дікі Хіда Сяхчарі – викладач кафедри менеджменту програми бакалаврату школи BINUS, Університет Біна Нусантара, Джакарта, Індонезія;
Dicky Hida Syahchari – Lecturer, Management Department, BINUS School Undergraduate Program, Bina Nusantara University (BINUS), Jakarta, Indonesia;
e-mail: dicky.syahchari@binus.ac.id; ORCID ID: https://orcid.org/0000-0001-9072-3955;
Scopus ID: https://www.scopus.com/authid/detail.uri?authorId=57211264596.

Цифрова трансформація бізнесу: аналіз впливу штучного інтелекту у рекомендаціях продукту електронної комерції

Джеффрі Вінсент Луїс, Ноерліна, Дікі Хіда Сяхчарі

Анотація. Мета цього дослідження полягає в тому, щоб визначити, чи впливає штучний інтелект, який використовується в електронній комерції, на рекомендації щодо продукту для користувачів. Це дослідження пояснює, наскільки сильно штучний інтелект впливає на рекомендації щодо продуктів, які надає електронна комерція, з точки зору поведінки споживачів під час прийняття рішень про покупку. **Методи дослідження.** У цьому дослідженні використовувався бібліометричний аналіз, щоб знайти зіставлення цієї теми зі статтями за період 2017–2023 років із бази даних Scopus. Зі 103 статей, які були показані за ключовими словами та аналізом статей відповідно до змісту, було остаточно отримано 29 статей. **Результатом дослідження** є те, що штучний інтелект впливає на електронну комерцію, систему рекомендацій, систему підтримки прийняття рішень, поведінку клієнтів і довіру клієнтів. Рекомендації щодо продуктів впливають на електронну комерцію**. Висновок.** Однак, з огляду літератури виявлено, що все ще є кілька журналів, які обговорюють міркування щодо впровадження щодо використання ШІ в електронній комерції «Поведінка споживачів», «Довіра клієнтів», «Рішення про купівлю». Це дослідження також корисно для проведення додаткових досліджень, пов'язаних зі штучним інтелектом, в електронній комерції, і, безсумнівно, для нової теми буде розглянуто особливо в контексті рекомендацій щодо продуктів для електронної комерції.

Ключові слова: бібліометричний; штучний інтелект; поведінка клієнтів; рекомендація товару; електронна комерція; рішення про купівлю; цифровий бізнес.