

A Decade of Artificial Intelligence in E-Commerce Research: A Bibliometric Study

Fairuz Iqbal Maulana

Computer Science Department, School of Computer Science,
Bina Nusantara University
Jakarta 11480, Indonesia
fairuz.maulana@binus.edu

Donna Carollina

Visual Communication Design Department, School of Design
Bina Nusantara University
Jakarta 11480, Indonesia
donna.carollina@binus.edu

Raden Aditya Kristamtomo Putra

Entrepreneurship Department, BINUS Business School Undergraduate Program
Bina Nusantara University
Jakarta 11480, Indonesia
aditya.putra@binus.edu

Andi Pramono

Interior Design Department, School of Design,
Bina Nusantara University
Jakarta, Indonesia 11480
andi.pramono@binus.ac.id

Abstract

The purpose of this study is to consolidate studies on artificial intelligence (AI) in e-commerce. Using bibliometric mapping, this study attempts to comprehensively analyze research trends in Artificial Intelligence in E-Commerce and future research prospects in the area. We visualized Artificial Intelligence in E-Commerce research published in the previous 10 years, from 2012 to 2021, using bibliometric analytic methodologies. For our analysis, 646 publications from Scopus were chosen. This study pulls data from the Scopus database, analyzes it using the Scopus online analysis function, then visualizes it using Vosviewer. The process is divided into five stages: keyword selection, first search results, search result refining, initial compilation, and data analysis. According to our major line of study, papers published by Chinese scholars have the most publications, with a total of 209 scientific publications. The field of study "Computer Science" has the most documents, with N=497 (42.3%). The number of publications increased from 2012 to the greatest in 2021, with 163 papers. The analyzed data reveals patterns and trends in worldwide Scopus-indexed articles. The analyzed data reveals patterns and trends in worldwide Scopus-indexed articles. This study suggests integrating three research topics: AIUT (Artificial Intelligence, User, and Technique). This provides scholars with suggestions for the next steps in this study field. It offers practitioners with an organized collection of knowledge on how AI might help them with their e-commerce endeavors.

Keywords

Scientometric, bibliometric, artificial intelligence, e-commerce, research trend, mapping

Biographies

Fairuz Iqbal Maulana Fairuz Iqbal Maulana, S.T., M.Eng., M.T. is a lecturer at the College of Computer Science, Bina Nusantara University, Indonesia. He earned two Master's degrees, the first in the field of Interdisciplinary Program of Information System, Pukyong National University (PKNU), Busan - South Korea, and the second in the School of Electrical Engineering and Informatics (STEI), Bandung Institute of Technology (ITB), Indonesia with specializes in Multimedia and Games. His research fields are Game programming, Computer Vision, Facial Recognition, Augmented Reality, Virtual Reality for education, Internet of Things. He is the head of the Digital Technopreneur Laboratory in Malang campus. He can be contacted by email: fairuz.maulana@binus.edu

Donna Carrollina are researchers and teaching staff of the Department Visual Communication Design (Malang City Campus), Indonesia. He obtained his bachelor's degree from the Indonesian School of Visual Arts and Design in 2013; and Masters in 2017 from the Indonesian Institute of the Arts Yogyakarta, Indonesia.

Raden Aditya Kristantomo Putra is a researcher and teaching staff of the Department of Entrepreneurship, Undergraduate Program at the BINUS Business School, Bina Nusantara University, Malang Campus, Malang, Indonesia. Obtained a bachelor's degree from the Bandung Institute of Science Technology, Indonesia; and Master from Padjadjaran University, Indonesia; and a doctorate degree from the Indonesian Education University, Indonesia.

Andi Pramono is a researcher and faculty member of Bina Nusantara University, Computer Science Department, Indonesia.