# Artificial Intelligence in Business Management: A Bibliometric Study (2015–2025)

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## ABSTRACT

Artificial Intelligence (AI) has become a transformative force in business management, reshaping organizational strategies, decision-making processes, and competitive advantage. This study presents a bibliometric analysis of AI-related research in business management, based on 2,999 documents indexed in Scopus between 2015 and 2025. Using the Bibliometrix R package and its Biblioshiny interface, the analysis maps publication trends, influential authors, institutions, journals, and countries, as well as the conceptual structure of the field. The results reveal a geometric growth in scholarly output, with an annual increase of 47.09%, reflecting the accelerating adoption of AI in organizational contexts. The findings highlight the dominance of journal articles and reviews, strong collaboration patterns with 29.41% international co-authorship, and concentration of publications in a limited number of multidisciplinary and management-focused journals. Citation analysis identifies highly influential works within the field, while keyword co-occurrence analysis reveals clusters around technical methods (machine learning, deep learning, robotics), applications (natural language processing, data mining), and managerial themes (decision-making, organizational performance, digital transformation). This study provides a comprehensive overview of the intellectual landscape of AI in Business Management, identifies emerging themes and research gaps, and offers valuable insights for academics, practitioners, and policymakers seeking to harness AI for organizational transformation and sustainable competitiveness.

**Keywords:** Artificial Intelligence, Business Management, Bibliometric Analysis, Machine Learning, Decision Making

## INTRODUCTION

Artificial Intelligence (AI) has evolved from a technical field focus on algorithms and computational models into a disruptive force in business management, radically changing the organizational strategies, managerial decision-making, and sources of competitive advantage (Jobstreibizer et al., 2025; Venugopala et al., 2024). Applications of AI have spread quickly throughout sectors during the last ten years including marketing, finance, operations and human resource management. The growth is in line with a global trend where companies are depending more on intelligent systems in order to boost their productivity, creativity and sustainability.

The integration of AI into corporate operations has emerged as a top concern for companies to remain competitive in the digital age. It is well acknowledged that the AI driven technologies like machine learning, natural language processing, and predictive analytics may enhance the decision making, maximize resource allocation, and create a new business model (Mariani et al., 2023; Solari et al., 2024; Alsharari., 2024). Although business AI has been studied for more than 20 years. In line with worldwide trends in digital transformation, emerging research cluster highlight a variety of topics, such as AI in supply chain optimization, customer relationship management and strategi planning.

AI in Business Management signifies not merely a technological advancement but a paradigm shift in organizational behavior, governance, and strategic orientation. By incorporating intelligent systems into corporate operations, firms aim to reduce inefficiencies, improve customer satisfaction, and strengthen decision making capabilities. Moreover, the adoption of AI technologies is increasingly linked to broader goals such as sustainability, competitiveness, and institutional innovation, providing organizations with a strategic advantage in an interconnected global economy (Mubarak, 2020; Trocin et al., 2022).

Given the rapid influx of publications on AI in Business Management, bibliometric methods have become essential for systematically mapping the intellectual landscape of this field (Gong et al., 2019; Dwivedi et al., 2021; Shekarian et al., 2022). Bibliometric analysis enables researchers to identify publication trends, influential authors, journals, and institutions, as well as thematic clusters and collaboration patterns. For example, Gong et al. (2019) conducted a bibliometric study of AI applications in organizational contexts, revealing key research hotspots and interdisciplinary connections. Such studies provide valuable insights into the evolution of AI research and its implications for business practice.

The main purpose of this research is to analyze previous and recent trends in AI-related business management studies and to investigate research developments that assist scholars in understanding the trajectory of this field. Specifically, this study addresses the following research questions:

a) What is the current state of AI in Business Management research?

b) Who are the most prolific authors in this field?

c) Who are the most cited authors and publications?

d) Which are the most productive organizations, countries, and journal outlets?

The remainder of this paper is structured as follows: Section 2 presents the research methodology. Section 3 discusses the findings and results of the bibliometric analysis. Finally, Section 4 concludes with implications and guidelines for future research.

## METHODOLOGY

Bibliometric analysis has increasingly been adopted as a robust method for mapping research trends, identifying influential contributors, and visualizing the intellectual structure of a field (Ahmi & Mohamad, 2019). It enables the systematic evaluation of publications by year, author, organization, country, and journal outlet, while also assessing scholarly impact through citation-based indicators such as total citations, citations per year, h-index, and g-index. Furthermore, bibliometric techniques allow for the exploration of conceptual structures via cocitation analysis, co-authorship networks, keyword co-occurrence, and bibliographic coupling.

This study employed the Bibliometrix R package (Aria & Cuccurullo, 2017; Donthu et al., 2021) and its web based interface Biblioshiny to conduct the analysis. Biblioshiny provides an accessible environment for quantitative bibliometric research, offering advanced statistical algorithms, robust numerical routines, and integrated visualization capabilities. Microsoft Excel 2019 was additionally used to compute descriptive statistics (frequencies and percentages) and to generate supplementary charts and graphs.

The dataset was retrieved from Scopus, one of the largest abstract and citation databases of peer-reviewed literature worldwide (Mongeon & Paul-Hus, 2016; Baas et al., 2020; Perez-Gilbe, 2024; Ma'arof et al., 2024). The search was conducted on 9 February 2026, restricted to publications between 2015 and 2025. Figure 1 illustrates the search and screening process, showing that 2,999 records were identified and included without exclusions, forming the dataset for bibliometric analysis.

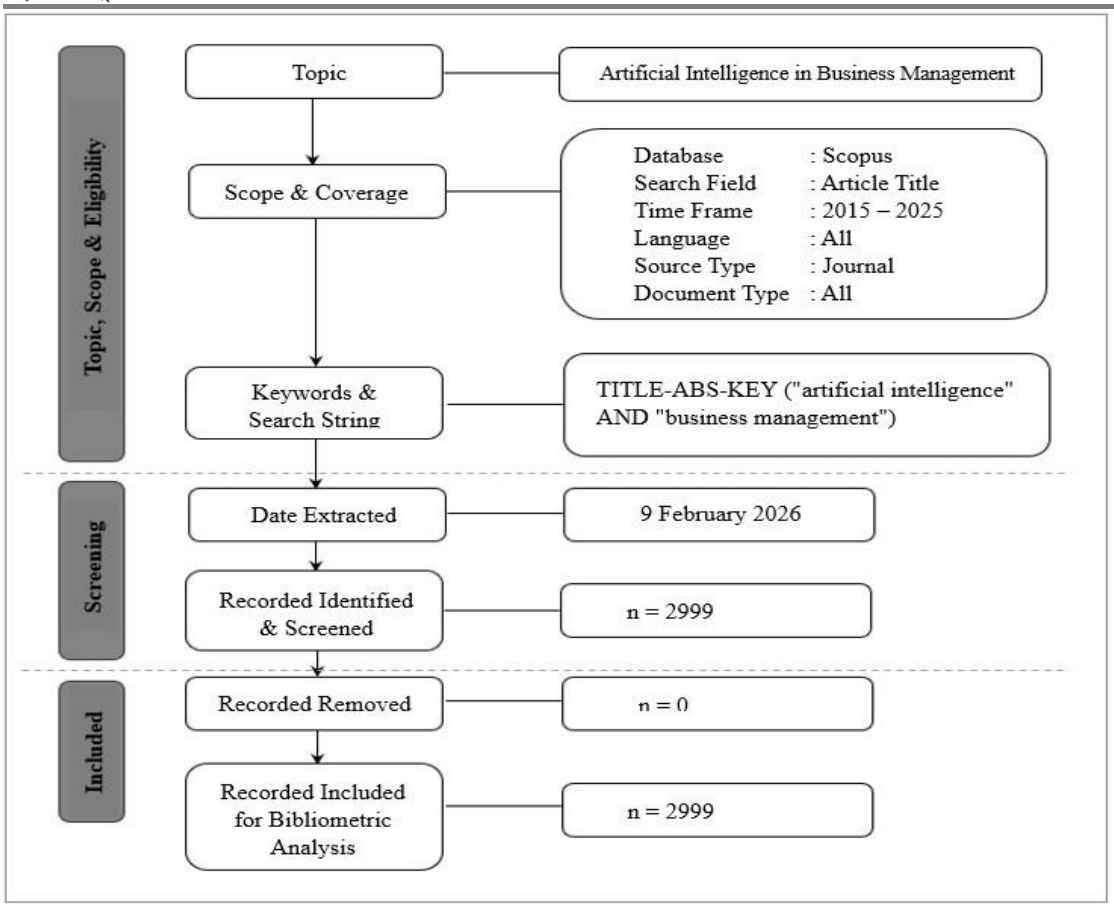


**Figure 1: Flowchart of the search strategy**

## RESULTS AND DISCUSSION

The bibliometric analysis was conducted on 2,999 documents retrieved from Scopus dealing with Artificial

Intelligence in Business Management. The dataset spans the period 2015–2025 and includes publications from 1,373 sources (journals, books, and other outlets). The annual growth rate of publications is 47.09%, reflecting the rapid expansion of AI-related research in business contexts. On average, each document has 31.08 citations, with a total of 24,160 references recorded across the dataset.

**Main Documents in Scopus dealing with of AI in Business Management.**

Table 1 presents the key bibliometric features of the dataset. The majority of documents are journal articles (2,522; 84.1%), followed by reviews (349; 11.6%). Other types include conference papers (44), editorials (26), notes (13), errata (12), retracted papers (23), and a small number of letters, data papers, and short surveys.

This distribution highlights the dominance of peer-reviewed journal articles in shaping the field, while the notable presence of reviews indicates growing efforts to synthesize and consolidate knowledge. The dataset also reveals strong collaboration patterns, with an average of 3.56 co-authors per document and nearly one-third (29.41%) of publications involving international co-authorship. These findings underscore the global and interdisciplinary nature of AI research in business management.

The dataset includes 8,965 authors, with 441 single-authored documents. The average number of co-authors per document is 3.56, suggesting a strong tendency toward collaborative research. International collaboration accounts for 29.41% of publications, highlighting the global nature of AI research in business management. This reflects the interdisciplinary and cross-border relevance of AI applications in organizational contexts.

The dataset contains 9,213 Keywords Plus and 8,388 author keywords, providing a rich basis for conceptual mapping. Frequent keywords include artificial intelligence, machine learning, business management, decision making, and data mining. Co-occurrence analysis reveals clusters around technical methods (e.g., deep

learning, neural networks), applications (e.g., natural language processing, robotics), and managerial themes (e.g., decision support, organizational performance).

Table 1: Main information on metadata collection of AI in Business Management based on Scopus database

| Description | Results |
|---|---|
| MAIN INFORMATION ABOUT DATA | |
| Timespan | 2015:2025 |
| Sources (Journals, Books, etc) | 1373 |
| Documents | 2999 |
| Annual Growth Rate % | 47.09 |
| Document Average Age | 3.09 |
| Average citations per doc | 31.08 |
| References | 24160 |
| DOCUMENT CONTENTS | |
| Keywords Plus (ID) | 9213 |
| Author's Keywords (DE) | 8388 |
| AUTHORS | |
| Authors | 8965 |
| Authors of single-authored docs | 441 |
| AUTHORS COLLABORATION | |
| Single-authored docs | 469 |
| Co-Authors per Doc | 3.56 |
| International co-authorships % | 29.41 |
| DOCUMENT TYPES | |
| article | 2522 |
| conference paper | 44 |
| data paper | 1 |
| editorial | 26 |
| erratum | 12 |
| letter | 1 |
| note | 13 |
| retracted | 23 |
| review | 349 |
| short survey | 8 |

**Key Sources on Annual Scientific Production**

Figure 2 presents the trend in the scientific production of articles on Artificial Intelligence in Business Management in the Scopus database between 2015 and 2025. Between 2015 and 2018, publication output remained modest, rising from 20 to 71 articles. A significant surge began in 2019, with output more than doubling to 129 articles, followed by sustained growth through 2025.

From 2020 onwards, the expansion became more pronounced, with 160 articles in 2020 and 241 in 2021. The upward trajectory continued with 325 publications in 2022 and 403 in 2023, before accelerating sharply in 2024 with 628 documents. The peak was reached in 2025, with 948 publications, marking the highest output in the timespan analyzed.

This geometric growth trend, with an annual rate of 47.09%, indicates that AI in Business Management has transitioned from an exploratory phase to a consolidated research domain. The sharp rise after 2020 corresponds to global digital transformation initiatives and the widespread adoption of AI technologies in organizational decision-making, strategic planning, and operational efficiency. As shown in Figure 2, the steep upward trajectory underscores the growing scholarly and practical relevance of AI in business contexts.

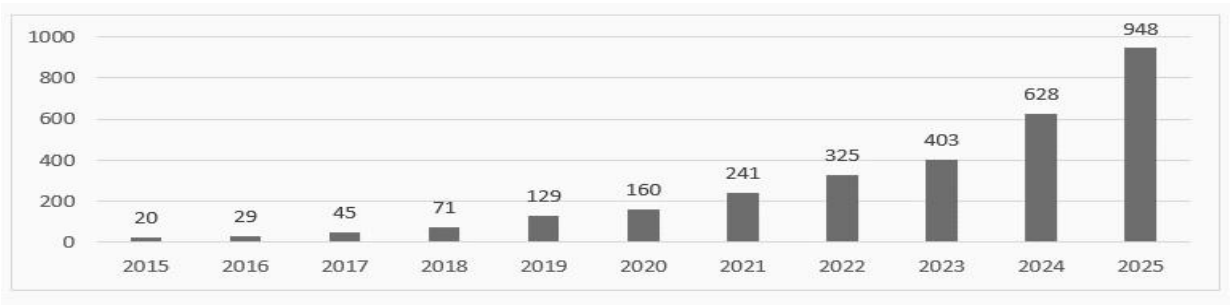


Figure 2 : Annual scientific production

Figure 3 presents the distribution of the top journals publishing articles on Artificial Intelligence in Business Management in the Scopus database. Sustainability (Switzerland) leads with 91 publications, making it the most active journal in this field. This is followed by Cogent Business and Management with 42 articles and Applied Sciences (Switzerland) with 36 articles.

Several other journals contributed moderately to the field, including the International Journal of Advanced Computer Science and Applications, Electronics (Switzerland), and the Journal of Cleaner Production, each with 19 publications. Additional outlets such as the Journal of Business Research (15 articles), Strategic Direction (14 articles), and the International Journal of Management Education, IEEE Engineering Management Review, and Industrial Marketing Management (13 articles each) also feature prominently. Specialized journals such as Expert Systems with Applications and Computational Intelligence and Neuroscience contributed 12 documents each.

This distribution highlights that while AI in Business Management is a rapidly expanding area of research, publications are concentrated in a relatively small number of multidisciplinary and management-focused journals. The prominence of Sustainability (Switzerland) underscores the growing intersection between AI and sustainability themes, while journals such as Cogent Business and Management and Applied Sciences reflect both managerial and technical perspectives.

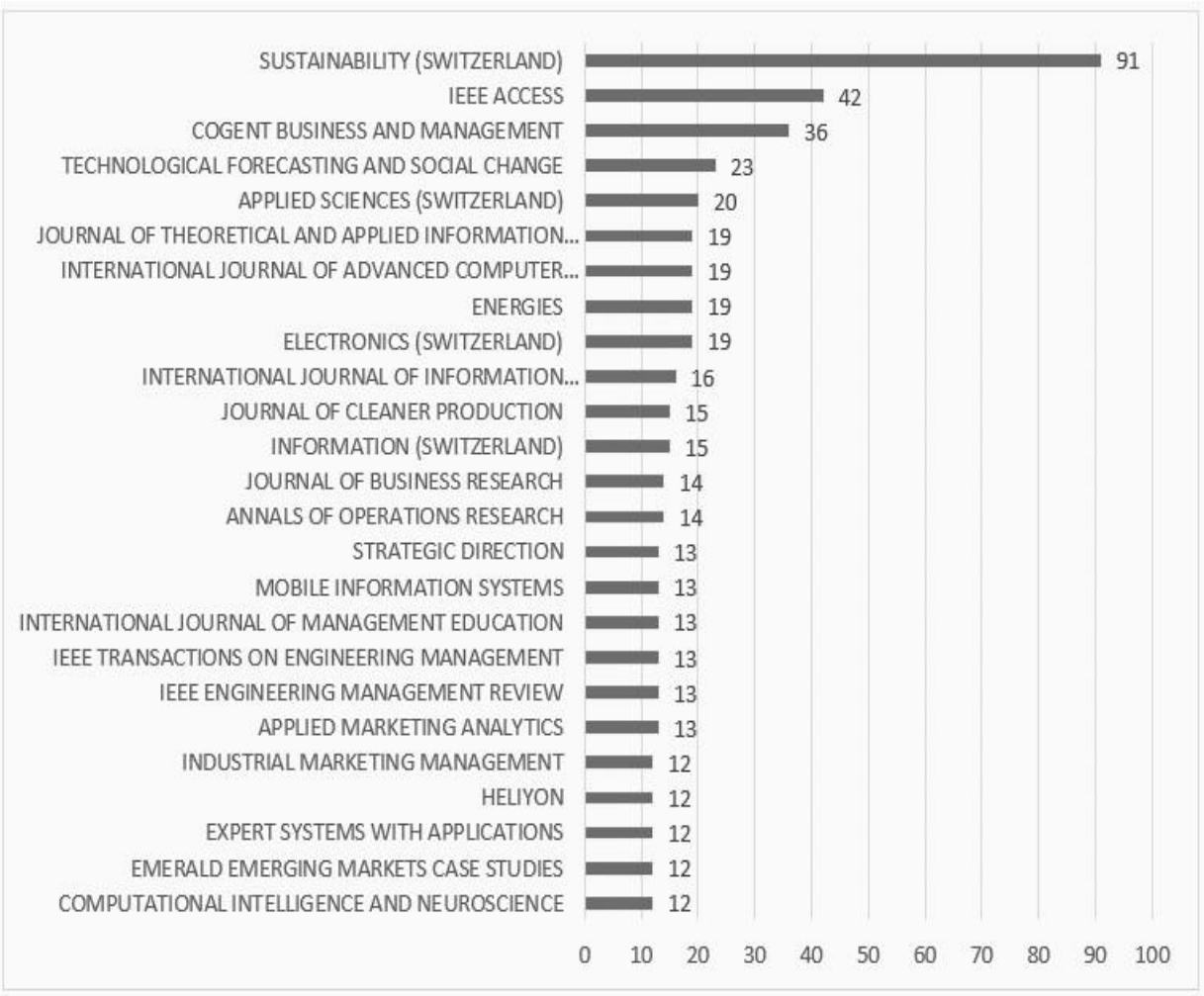


**Figure 3: Top 20 sources of publications on AI in Business Management research**

**Source Growth Dynamics**

Table 2 shows the source growth dynamics for articles on Artificial Intelligence in Business Management published in the Scopus database between 2015 and 2025. Five journals with the most substantial growth were selected, namely: Sustainability (Switzerland), IEEE Access, Cogent Business and Management, Technological Forecasting and Social Change, and Applied Sciences (Switzerland). Together, these journals published a total of 612 articles, representing 20.4% of the overall dataset (2,999 documents).

Table 2: Source dynamics

| Year | SUSTAINABILITY (SWITZERLAND) | IEEE ACCESS | COGENT BUSINESS AND MANAGEMENT | TECHNOLOGICAL FORECASTING AND SOCIAL CHANGE | APPLIED SCIENCES (SWITZERLAND) | Total |
|---|---|---|---|---|---|---|
| 2015 | 0 | 0 | 0 | 0 | 0 | |
| 2016 | 0 | 0 | 0 | 1 | 0 | |
| 2017 | 0 | 1 | 0 | 1 | 0 | |
| 2018 | 5 | 2 | 0 | 1 | 0 | |
| 2019 | 9 | 3 | 1 | 1 | 0 | |
| 2020 | 11 | 6 | 1 | 1 | 1 | |
| 2021 | 25 | 9 | 2 | 5 | 3 | |
| 2022 | 32 | 14 | 2 | 7 | 7 | |
| 2023 | 48 | 19 | 4 | 14 | 11 | |
| 2024 | 68 | 30 | 19 | 19 | 17 | |
| 2025 | 91 | 42 | 36 | 23 | 20 | |
| TOTAL | 289 | 126 | 65 | 73 | 59 | 612 |
| % | 47.22 | 20.59 | 10.62 | 11.93 | 9.64 | 100 |

Among these publications, Sustainability (Switzerland) demonstrated the most significant growth, with 289 articles (47.22%), making it the dominant outlet in this field. This was followed by IEEE Access with 126 articles (20.59%), and Technological Forecasting and Social Change with 73 articles (11.93%). Meanwhile, Cogent Business and Management contributed 65 articles (10.62%), and Applied Sciences (Switzerland) accounted for 59 articles (9.64%).

The growth trajectory of these journals reflects the increasing interdisciplinary interest in AI applications for business management. Sustainability (Switzerland), in particular, highlights the strong connection between AI and sustainability themes, while IEEE Access and Applied Sciences emphasize the technical and applied dimensions of AI research. On the other hand, Cogent Business and Management and Technological Forecasting and Social Change illustrate the managerial and strategic perspectives of AI adoption in organizational contexts.

**Top 20 Most Contributing Authors**

Table 3 presents the top 20 most productive authors publishing on Artificial Intelligence in Business Management in the Scopus database. According to the dataset, Kumar A leads the ranking with 21 articles, followed closely by Li J and Wang Y, each with 20 publications. Other highly productive contributors include Liu Y and Wang J with 18 articles each, and Wang S with 16 publications.

Several authors share similar levels of productivity, such as Chen Y, Yang Y, and Gupta S, each contributing 14 documents. Meanwhile, Li Y and Zhang H produced 13 articles each, while Dwivedi YK and Kumar S both authored 12 publications. Other notable contributors include Chen J, Rana NP, Zhang X, and Zhang Y, each with 11 articles. Finally, Chowdhury S, Li S, and Liu X round out the list with 10 publications each.

This distribution highlights the significant role of a small group of prolific authors in shaping the research landscape of AI in Business Management. Many of these scholars are affiliated with institutions in Asia, particularly China and India, reflecting the strong regional emphasis on AI research. The presence of internationally recognized authors such as Dwivedi YK and Rana NP also demonstrates the global and interdisciplinary nature of the field.

Table 3: The top 20 most contributing authors

| Rank | Author | Articles |
|---|---|---|
| 1 | KUMAR A | 21 |
| 2 | LI J | 20 |
| 3 | WANG Y | 20 |
| 4 | LIU Y | 18 |
| 5 | WANG J | 18 |
| 6 | WANG S | 16 |
| 7 | CHEN Y | 14 |
| 8 | YANG Y | 14 |
| 9 | GUPTA S | 13 |
| 10 | LI Y | 13 |
| 11 | ZHANG H | 13 |
| 12 | DWIVEDI YK | 12 |
| 13 | KUMAR S | 12 |
| 14 | CHEN J | 11 |
| 15 | RANA NP | 11 |
| 16 | ZHANG X | 11 |
| 17 | ZHANG Y | 11 |
| 18 | CHOWDHURY S | 10 |
| 19 | LI S | 10 |
| 20 | LIU X | 10 |

**Top 10 Most Performing Organizations**

Table 4 presents the top 10 institutions contributing to research on Artificial Intelligence in Business Management in the Scopus database. The School of Management leads with 37 publications, followed by TBS Business School (23) and ISCTE – Instituto Universitário de Lisboa (22). The Hong Kong Polytechnic University and the Indian Institute of Technology Delhi each contributed around 19–20 publications, while the University of Johannesburg (18), Sapienza Università di Roma (17), Aston Business School (16), and King Abdulaziz University (16) also feature prominently. The "Not Reported" category, with 19 documents, reflects incomplete affiliation data in Scopus records.

These rankings suggest that institutional visibility in bibliometric analyses is often driven by the productivity of a few prolific scholars. For example, the School of Management and IIT Delhi appear prominently due to their association with highly active authors identified in Table 3. This concentration underscores the role of individual researchers in shaping institutional impact within the field of AI in Business Management. Table 4: The top 10 most performing organizations

| Rank | Affiliation | Articles |
|---|---|---|
| 1 | SCHOOL OF MANAGEMENT | 37 |
| 2 | TBS BUSINESS SCHOOL | 23 |
| 3 | ISCTE – INSTITUTO UNIVERSITÁRIO DE LISBOA | 22 |
| 4 | THE HONG KONG POLYTECHNIC UNIVERSITY | 20 |
| 5 | INDIAN INSTITUTE OF TECHNOLOGY DELHI | 19 |
| 6 | NOTREPORTED | 19 |
| 7 | UNIVERSITY OF JOHANNESBURG | 18 |
| 8 | SAPIENZA UNIVERSITÀ DI ROMA | 17 |
| 9 | ASTON BUSINESS SCHOOL | 16 |
| 10 | KING ABDULAZIZ UNIVERSITY | 16 |

**AI in Business Management Highly Cited Papers**

The distribution of the most cited papers in the Scopus database is presented in Table 5. According to the dataset, the paper published by Dwivedi Y. K. in 2021 in the International Journal of Information Management has the highest total citations (3,232), followed closely by another paper by Dwivedi Y. K. in 2023 in the same journal with 3,113 citations. Wolfert S. in 2017, published in Agricultural Systems, is ranked third with 2,355 citations, while Warner K. S. R. in 2019, in Long Range Planning, occupies the fourth position with 2,212 citations. A second paper by Dwivedi Y. K. in 2021, also in the International Journal of Information Management, is ranked fifth with 1,534 citations.

Other notable contributions include Raisch S. in 2021 (Academy of Management Review) with 1,303 citations, Wang Y. in 2019 (IEEE Transactions on Smart Grid) with 1,104 citations, and Klerkx L. in 2019 (NJAS Wageningen Journal of Life Sciences) with 1,041 citations. Ahmad T. in 2021 (Journal of Cleaner Production) is ranked ninth with 963 citations, while Di Vaio A. in 2020 (Journal of Business Research) completes the list with 896 citations.

Overall, Table 5 shows that these highly cited papers have been referenced between 896 and 3,232 times, indicating their substantial influence in shaping the discourse on AI in Business Management. It is therefore evident that the authors represented in this list are among the most influential contributors to the field, with Dwivedi Y. K. emerging as a particularly dominant figure.

Table 5: The top 10 most globally cited papers in the AI in Business Management

| Rank | Author and Journal | Total Citations | TC per Year |
|---|---|---|---|
| 1 | DWIVEDI YK, 2021, INT J INF MANAGE-a | 3232 | 538.67 |
| 2 | DWIVEDI YK, 2023, INT J INF MANAGE | 3113 | 778.25 |
| 3 | WOLFERT S, 2017, AGRIC SYST | 2355 | 235.50 |
| 4 | WARNER KSR, 2019, LONG RANGE PLANN | 2212 | 276.50 |
| 5 | DWIVEDI YK, 2021, INT J INF MANAGE | 1534 | 255.67 |
| 6 | RAISCH S, 2021, ACAD MANAGE REV | 1303 | 217.17 |
| 7 | WANG Y, 2019, IEEE TRANS SMART GRID | 1104 | 138.00 |
| 8 | KLERKX L, 2019, NJAS WAGENINGEN J LIFE SCI | 1041 | 130.13 |
| 9 | AHMAD T, 2021, J CLEAN PROD | 963 | 160.50 |
| 10 | DI VAIO A, 2020, J BUS RES | 896 | 128.00 |

**AI in Business Management Top 10 Scientific Productions and Highly Cited Country**

Table 6 illustrates the scientific output on Artificial Intelligence in Business Management by country as published in the Scopus database. China is clearly in the lead, with a total of 1,033 documents, followed by India in second place with 893 publications. The United States ranks third with 736 documents, while the United Kingdom occupies the fourth position with 452 publications.

Among European countries, Italy contributed 286 documents, and Germany produced 253 publications, placing them in fifth and sixth positions respectively. Ukraine follows with 215 documents, while Spain contributed 203 publications. In the Asia-Pacific region, Australia ranks ninth with 194 documents, and France completes the top ten list with 149 publications.

This distribution highlights the dominance of Asian countries, particularly China and India, in driving research output on AI in Business Management. The strong presence of the United States and the United Kingdom reflects their established role in both technological innovation and management research. Meanwhile, contributions from European countries such as Italy, Germany, Spain, and France demonstrate the growing interest in AI applications across diverse business contexts. The inclusion of Ukraine and Australia further emphasizes the global spread of AI-related scholarship.

Table 6: Country Scientific Production

| Rank | Country | Freq |
|---|---|---|
| 1 | CHINA | 1033 |
| 2 | INDIA | 893 |
| 3 | USA | 736 |
| 4 | UK | 452 |
| 5 | ITALY | 286 |
| 6 | GERMANY | 253 |
| 7 | UKRAINE | 215 |
| 8 | SPAIN | 203 |
| 9 | AUSTRALIA | 194 |
| 10 | FRANCE | 149 |

**Table 7 illustrates the citation performance of the top 10 countries publishing on Artificial Intelligence in Business Management in the Scopus database. The United Kingdom leads with a total of 14,582 citations, averaging 137.6 citations per article, which highlights the strong global influence of UK-based research in this field. China ranks second with 7,902 citations, though its average per article is lower (20.5 citations), reflecting high productivity but comparatively modest citation impact.**

Italy follows in third place with 6,391 citations and an average of 56.6 citations per article, while India and the United States are nearly tied with 5,433 and 5,420 citations, respectively. The United States, however, shows a slightly higher average (28.4 citations per article) compared to India (23.8 citations per article).

Other countries with notable citation performance include Australia (4,020 citations, averaging 59.1 per article), the Netherlands (3,854 citations, but the highest average of 240.9 citations per article), France (3,583

citations, averaging 87.4 per article), Finland (2,545 citations, averaging 115.7 per article), and Germany (2,057 citations, averaging 24.2 per article).

This distribution confirms that Europe, Asia, and America dominate the literature, with the United Kingdom and the Netherlands standing out for their exceptionally high citation averages, indicating strong global recognition and influence. Meanwhile, China and India demonstrate high productivity, contributing large volumes of research, though with lower average citation impact compared to European counterparts. Table 7: Top 10 most cited countries

| Rank | Country | Total Citations | Average Article Citations |
|---|---|---|---|
| 1 | UNITED KINGDOM | 14582 | 137.60 |
| 2 | CHINA | 7902 | 20.50 |
| 3 | ITALY | 6391 | 56.60 |
| 4 | INDIA | 5433 | 23.80 |
| 5 | USA | 5420 | 28.40 |
| 6 | AUSTRALIA | 4020 | 59.10 |
| 7 | NETHERLANDS | 3854 | 240.90 |
| 8 | FRANCE | 3583 | 87.40 |
| 9 | FINLAND | 2545 | 115.70 |
| 10 | GERMANY | 2057 | 24.20 |

**Word Cloud and Frequent Words Related to GSC**

Table 8 highlights the most common terms used by authors in their publications on Artificial Intelligence in Business Management within the Scopus database. The most frequent keyword is “artificial intelligence”, appearing 1,746 times, which confirms its central role as the dominant theme of the field. The second most common term is “machine learning” with 346 occurrences, followed by “decision making” with 297 occurrences, reflecting the strong emphasis on AI techniques and their application in managerial decision processes.

Table 8: Most frequent words used in the AI in Business Management research

| Rank | Terms | Frequency |
|---|---|---|
| 1 | artificial intelligence | 1746 |
| 2 | machine learning | 346 |
| 3 | decision making | 297 |
| 4 | information management | 237 |
| 5 | decision support systems | 179 |
| 6 | digital transformation | 173 |
| 7 | big data | 170 |
| 8 | human | 166 |
| 9 | supply chain management | 166 |
| 10 | artificial intelligence (ai) | 142 |

Other frequently used terms include “information management” (237 occurrences), “decision support systems” (179 occurrences), and “digital transformation” (173 occurrences). These highlight the integration of AI into organizational systems and the broader context of digitalization. Additionally, “big data” (170 occurrences) and “human” (166 occurrences) illustrate the dual focus on data-driven technologies and human-centered AI applications. Interestingly, “supply chain management” also appears with 166 occurrences, showing the

relevance of AI in operational and logistics contexts. Finally, the term "artificial intelligence (AI)" appears separately with 142 occurrences, reflecting variations in keyword usage across publications.

This distribution demonstrates that AI research in business management is not only centered on core technologies such as machine learning and big data but also strongly connected to managerial applications like decision making, digital transformation, and supply chain optimization. The frequent appearance of human-related terms further suggests growing attention to ethical, social, and organizational dimensions of AI adoption


**Figure 4: Word cloud related to AI in Business Management research**

**Conceptual Structures and Co-occurrence Networks**

Figure 5 shows the co-occurrence network reveals four major thematic clusters: (1) machine learning and deep learning methods, (2) data-driven applications such as NLP and data mining, (3) robotics and computer vision, and (4) symbolic AI approaches. Artificial intelligence serves as the central hub connecting these diverse research streams.

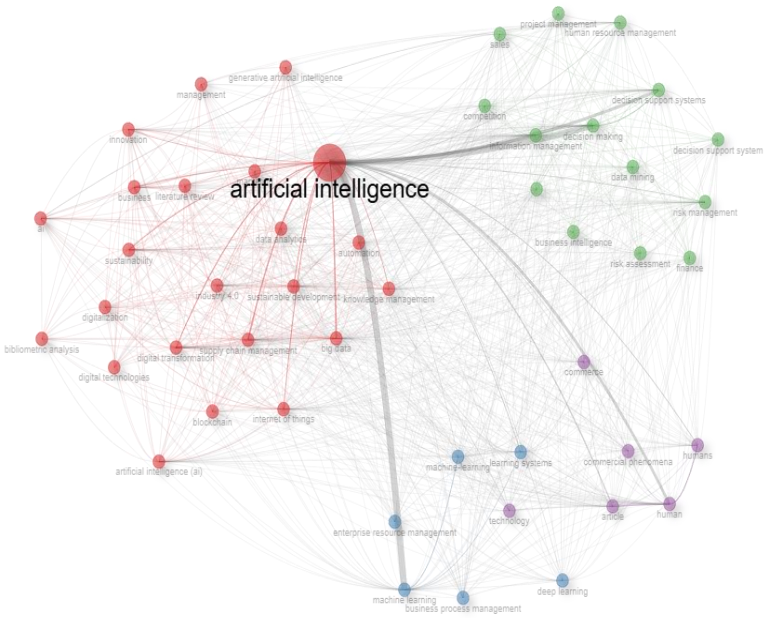


**Figure 5. Visual representation of keyword co-occurrence clusters 4. CONCLUSION**

In conclusion, this bibliometric study provides a clear and comprehensive overview of the research landscape on Artificial Intelligence in Business Management between 2015 and 2025. The analysis of 2,999 Scopus indexed documents reveals a striking annual growth rate of 47.09%, confirming that this is a rapidly expanding and dynamic field. The findings show that journal articles dominate the literature, with Sustainability

(Switzerland), IEEE Access, and Cogent Business and Management emerging as leading publication outlets. A relatively small group of prolific authors and institutions drive much of the output, with strong contributions from Asia particularly China and India, while the United Kingdom and the Netherlands stand out for their high citation impact.

Keyword frequency and co-occurrence mapping highlight the dual focus of the technical foundations field such as machine learning, deep learning, and data mining, alongside managerial applications including decision making, digital transformation, and supply chain management. Emerging clusters around human centered AI, ethics, and governance suggest that the field is beginning to address broader organizational and societal concerns.

Overall, the study confirms that AI in Business Management is not only a rapidly growing area of scholarship but also one that is increasingly interdisciplinary and globally relevant. Future research should aim to bridge technical innovation with managerial practice and ethical considerations, ensuring that AI adoption in business contexts is both effective and responsible. This will allow scholars and practitioners to fully harness AI's transformative potential while addressing challenges related to trust, sustainability, and organizational change.

## REFERENCES

1. Ahmi, A., & Mohamad, R. (2019). Bibliometric analysis of global scientific literature on web accessibility. International Journal of Recent Technology and Engineering, 7(6), 250–258.
2. Aria, M., & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis. Journal of Informetrics, 11(4), 959–975. https://doi.org/10.1016/j.joi.2017.08.007
3. Alsharari, N. M. (2024). Artificial intelligence and business management: A systematic literature review. Cogent Business & Management, 11(1), 2432550. https://doi.org/10.1080/23311975.2024.2432550
4. Baas, J., Schotten, M., Plume, A., Côté, G., & Karimi, R. (2020). Scopus as a curated, high-quality bibliometric data source for academic research in quantitative science studies. Quantitative Science Studies, 1(1), 377–386. https://doi.org/10.1162/qss_a_00019
5. Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. Journal of Business Research, 133, 285–296. https://doi.org/10.1016/j.jbusres.2021.04.070
6. Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., … & Williams, M. D. (2021). Artificial intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. International Journal of Information Management, 57, 101994. https://doi.org/10.1016/j.ijinfomgt.2019.101994
7. Gong, R., Xue, J., Zhao, L., Zolotova, O., Ji, X., & Xu, Y. (2019). A bibliometric analysis of green supply chain management based on the Web of Science (WOS) platform. Sustainability, 11(12), 345. https://doi.org/10.3390/su1112345
8. Jobstreibizer, J., Beliaeva, T., Ferasso, M., Kraus, S., & Kallmuenzer, A. (2025). The impact of artificial intelligence on business models: A bibliometric-systematic literature review. Management Decision, 63(13), 372–396. https://doi.org/10.1108/MD-07-2024-1234
9. Ma'arof, R. A., Harahap, A. Z. M. K., Rashid, U. K., Nasuredin, J., & Kadar, F. L. (2025). A bibliometric analysis on green human resource management using Scopus database. International Journal of Research and Innovation in Social Science (IJRISS), 9(6), 2246–2257. https://doi.org/10.47772/IJRISS.2025.906000172
10. Mariani, M., Borghi, M., & Cappa, F. (2023). Industry 4.0 technologies and artificial intelligence in business: A systematic literature review. Technological Forecasting and Social Change, 190, 122345. https://doi.org/10.1016/j.techfore.2023.122345
11. Mongeon, P., & Paul-Hus, A. (2016). The journal coverage of Web of Science and Scopus: A comparative analysis. Scientometrics, 106(1), 213–228. https://doi.org/10.1007/s11192-015-1765-5
12. Mubarak, A., & Rahman, I. (2020). A comparative analysis of carbon emissions from transportation and logistics of the consumer goods industry in Southeast Asia. International Journal of Technology, 11(2), 333–341.
13. Shekarian, E., Ijadi, B., Zare, A., & Majava, J. (2022). Sustainable supply chain management: A comprehensive systematic review of industrial practices. Sustainability, 14(13), 7892.

https://doi.org/10.3390/su14137892

14. Solari, F., Lysova, N., Romagnoli, G., Montanari, R., & Bottani, E. (2024). Insights from 20 years (2004– 2023) of supply chain disruption research: Trends and future directions based on a bibliometric analysis. Sustainability, 16(17), 7530. https://doi.org/10.3390/su16177530
15. Trocin, C., Mikalef, P., & Krogstie, J. (2022). The next wave of digital transformation: Artificial intelligence in the workplace. Business Horizons, 65(6), 729–739. https://doi.org/10.1016/j.bushor.2022.07.001
16. Venugopala, M., Madhavana, V., Prasad, R., & Raman, R. (2024). Transformative role of AI in human resource management: Recruitment, retention, and performance. Human Resource Management Review, 34(2), 100987. https://doi.org/10.1016/j.hrmr.2024.100987