

Innovative Pathways: Evaluating the Contributions of AI-Blockchain Integration to Sustainable Development Goals

¹Dr Pooja Vyas, ²Dr Shweta Singh, ³Vipin Kumar, ⁴Dr. Mohinder Paul, ⁵Dr. Hawa Singh, ⁶Dr. Jagdeep Singla

¹ Professor, Institute of Management Studies and Research Maharshi Dayanand University, Rohtak, India

²Professor, Department of Management Studies, Bhagat Phool Singh Mahila Vishvavidyalaya, Khanpur Kalan, Sonapat, India

³Assistant Professor, Electrical Engineering University Institute of Engineering and Technology Maharshi Dayanand University, Rohtak, India

⁴Associate Professor, Department of Commerce Central University of Himachal Pradesh, Dharmshala, H. P., India

⁵Assistant Professor, Department of Management, Gurugram University, Gurugram, India

⁶Professor, Department of Management Studies, Bhagat Phool Singh Mahila Vishvavidyalaya, Khanpur Kalan, Sonapat, India

Abstract:

This paper examines the scientific research on Innovation, financial technology (fin-tech), and Blockchain in relation to achieving sustainable development goals, published over the past two decades using the Scopus database. The research aims to uncover prevailing and emerging themes associated with technology and sustainability. This study employs a bibliometric approach to evaluate the progression of scholarly work in the field. It utilizes various techniques such as Bradford's Law, bibliographic coupling, thematic mapping, conceptual structural mapping, and co-word analysis. The results, highlighted through Bradford's Law, reveal that the journal "Sustainability (Switzerland)" ranks first, followed by "Technological Forecasting and Social Change" in second place. Out of seven identified clusters, two major clusters focus on technology (including Artificial Intelligence, Blockchain, Digitalization, and Technological Innovation) and the environment (such as Climate Change, Environmental Policy, Green Innovation, and Sustainable Development Goals). The co-word analysis highlights a gradual integration of digital technologies, like artificial intelligence and Blockchain, into sustainable development initiatives, particularly climate change, environmental policy, and green innovation. The study uses citation data to identify the most influential authors, articles, journals, institutions, and countries based on citation impact. Additionally, it explores existing gaps in the research and proposes potential future research directions.

Keywords: Artificial intelligence, Blockchain, Financial technology, Sustainable development goals, Bibliographic coupling, Co-word analysis.

Introduction

Over the past five decades, academic scholars have shown a renewed interest in Artificial Intelligence (AI). The Dartmouth Research Project defined AI as the challenge of creating a machine that exhibits intelligent behaviour comparable to a human being (McCarthy et al., 2006). Thus, AI can be defined as the capacity of a system to exhibit intelligent behavior by accurately interpreting external information and utilizing this knowledge to achieve specific goals and tasks through adaptable configuration (Kaplan & Haenlein, 2019; Nilsson, 1983). AI is distinct from the Internet of Things (IoT) and Big Data, although they are interconnected. In the same way, AI and machine learning manifest in various forms (Brynjolfsson & McAfee, 2017). However, the goal of AI is to oversee and provide intelligent experiences, services, and goods by sharing information in order to promote teamwork and provide sustainable value over the time (Gretzel et al., 2015). Moreover, various researchers concur that information and communication technology (ICT) overall, and specifically AI, contributing in the accomplishment of the Sustainable Development Goals (SDGs) (Tomašev et al., 2020). Sustainability can be defined as the developmental processes that satisfy the present needs without compromising the capability of upcoming generations (Schoorman et al., 2021). The significance of AI technology is to promote digital sustainability, which could help accomplish the SDGs set out by the United Nations (UN) (Pant & Nishant, 2023).

AI has not just altered the methods of generating and utilizing information for decision-making (Mikalef et al., 2017) but also transformed business approaches (Schneider & Leyer, 2019) which impacts trade and management practices across various sectors that provide progressively competitive and sustainable products or services (Wirtz & Müller, 2019).

Along with AI, the rise of blockchain acts as a prevailing trend in the information technology (IT) sector, which garnered significant interest from professionals, scholars, researchers, and national development authorities (Clohessy & Acton, 2019). Blockchain, in its current usage, “is a tamper-resistant database of transactions consistent across a large number of nodes and is cryptographically secured against retrospective manipulations, and it uses a consensus mechanism to keep the database consistent whenever new transactions need to be validated” (Beck, 2018). Blockchain technology is a decentralized and transactional database technology that enables secure and unalterable transactions, maintaining consistency across a diverse network of participants known as nodes ((Beck et al. 2018). Due to its decentralized and tamper-resistant characteristics, blockchain technology holds the potential to address concerns related to trust, decentralization, and transparency among a wide variety of individuals, organizations, and institutions within society (Kewell et al., 2017). Initially, blockchain research was established and only focused on in relation to the phenomena of cryptocurrencies but now blockchain, extending its scope to incorporate a broader array of possibilities i.e. supply chain management, certification processes, and initiatives related to smart cities (Rossi et al. 2019). Due to this blockchain's connection to sustainable development is now becoming a focal point in research agendas across various disciplinary domains (Lindman et al. 2017).

Blockchain technology has the potential to enable the creation of innovative business, novel operations, products, services, and consumer interactions (Drljevic et al., 2022). According to Rogers (1995), an innovation is “an idea, practice or object that is perceived as new by an individual or other unit of adoption. It is widely acknowledged that Innovation plays a crucial role in an organisations and act as a key source of competitive advantage in an environment characterized by rapid changes (Malhan et al., 2021)(Dess & Pickens, 2000). In order to preserve their market positions, organizations must prioritize the integration of digital innovations like blockchain into their structure, mindset, and operational processes (Bower and Christensen, 1995). With advent of digital technology, organizations need to undergo corresponding changes like: leading to the emergence of novel tasks, coordination methods, and innovative organizational structures (Yoo et al., 2012).Innovation is not only a final result but also a dynamic process. Similar to foundational technologies of earlier periods, blockchain-based business innovation necessitates systemic-level changes to expedite the broader acceptance of blockchain technology.

However, despite the increasing number of research articles on the impact of AI and Blockchain technology on Innovation for achieving SDGs, recent studies have highlighted the need for more thorough investigations. This study combines insights on the historical, current, and future trends of Artificial Intelligence and Blockchain technology. The analysis utilizes bibliometric methods, relying on secondary data obtained from the Scopus database. The article clearly outlines various crucial aspects regarding the integration of AI and Blockchain technology to effectively accomplish SDGs in a novel manner. It covers the current trends and potential areas for future research.

The study's research questions are listed below.

RQ1. What is the prevailing trend in terms of publishing and citation patterns within the field of AI and Blockchain for achieving SDGs innovatively?

RQ2. Which academic journals are known for publishing a significant number of articles on research in AI, Blockchain, Innovation, and SDGs?

RQ3. Which individuals have demonstrated the highest level of prolificacy as authors within the context of this particular subject matter?

RQ4. What are the potential future research trends within the field of AI, Blockchain, Innovation, and SDGs?

To address these questions, the present study utilized a comprehensive literature review and bibliometric analysis.

This paper aims to address various constraints identified in prior studies, to make a valuable contribution to the broader field of AI, Blockchain, Innovation, and SDGs. The study made use of the Scopus database to obtain bibliographic data on the innovative contribution of AI and Blockchain technology in achieving the SDGs. This study demonstrates a greater level of comprehensiveness in comparison to prior research, thereby minimizing the probability of overlooking any noteworthy contributions to the subject matter. The duration of previous research has shown considerable variation, depending on the particular subject being studied and the research objectives being pursued.

Review of Literature:

The rise in production and consumption has led to escalating environmental challenges, prompting the emergence of the concept of sustainable development (Fortunski, 2007). The prevailing focus within the concept of sustainable development is on attaining economic and social advancements without adversely impacting natural resources and the environment (Barin Cruz et al., 2007). In this context, the United Nations has globally advocated for a more sustainable, fair, and inclusive way of living through the release of the 2030 Agenda, encompassing its 17 Sustainable Development Goals (SDGs) (Bonfanti et al., 2022)(Kumar, Najeeb, 2026). The SDGs serve as global directives that mandate collective action from the international community to tackle global challenges. The purpose is to secure a future where individuals can live with dignity, peace, and prosperity, while safeguarding the natural resources and the planet's biodiversity for next generations. These goals encompass three key domains: social development, environmental sustainability, and economic development, with a holistic focus on 5Ps namely: people, planet, peace, prosperity, and collaboration (Chien et al., 2021b; Tan et al., 2021).

Effect of Artificial Intelligence on SDG

Artificial intelligence and digital technologies, often identified as part of the Fourth Industrial Revolution, are causing significant disruptions across diverse economic sectors. These include precision agriculture in farming, autonomous vehicles in mining, robotics in manufacturing, e-commerce in retail, e-payments and trading strategies in finance, social networks in media, diagnostics and telemedicine in healthcare, online learning in education, e-governance and e-voting in public administration, and advancements in science and technology. The integration of digital technologies can enhance productivity, decrease production costs, mitigate emissions, broaden access, lower resource intensity in production processes, improve market matching, facilitate the use of big data, and make public services more accessible (Messner, 2015). Additionally, these technologies can contribute to increased resource efficiency, support the circular economy, enable zero-carbon energy systems, aid in monitoring and safeguarding ecosystems, and play crucial roles in advancing the Sustainable Development Goals (SDGs) (WBJU, 2019; Dharmapala, 2014).

Effect of Blockchain Technology on SDG

Numerous sectors and industries have shown a great deal of interest in blockchain technology nowadays. It was introduced in 2008 with the introduction of Bitcoin, a digital currency or cryptocurrency developed by Satoshi Nakamoto ((Shen and Pena-Mora, 2018). It is anticipated that blockchain is poised to become the next major technological breakthrough, holding substantial potential for Innovation and enhancement across multiple sectors and industries such as banking, healthcare, manufacturing, and more (Adoni et al., 2019). Blockchain uses distributed ledger technology (DLT) among users in a network, with decisions being made based on the agreement of a worldwide peer network. The digital ledger is encrypted into a data structure known as "blocks" and then linked to the preceding block, creating a connected chain (Wong et al., 2022)(Pankaj et al., 2023). Furthermore, based on control mechanisms, three types of blockchains can be distinguished: public, private, and federated. In public blockchain, individuals have complete freedom to join the network and engage in business operations. A private or permissioned blockchain is a decentralized network where data is shared among a specific group of individuals or organizations. This type of blockchain is limited to authorized entities that can participate in the system. On the other hand, a federated or consortium blockchain is a partially private blockchain that lacks a single owning organization.

Innovation and Sustainable development

The advancement of economic and employment opportunities hinges significantly on Innovation, representing a crucial element for fostering sustainable improvements in the overall global standard of living (Kumar et al., 2024; Pankaj et al., 2023). Organization employing innovative technologies establish fresh markets and value networks that influenced existing markets, businesses, products, and partnerships (Ab et al. 2017). However, it is not solely about harnessing Innovation; companies also adopt effective and flexible business replicas to ensure long-term profitability. This is crucial for achieving corporate longevity and the financial viability necessary to sustain business endeavors that contribute to a future built on sustainability (Denoncourt, 2020). Moreover, the introduction of innovative technological solutions in the market motivates enterprises to engage in investments, either through new projects or enhancement of the existing assets results in lower energy consumption, reduced reliance on natural resources, and numerous other advantages that support environmental conservation and human well-being (Szopik-Depczyńska et al., 2020). As a result, we can say that Innovation paves the way for creating the future essential to achieve sustainable development.

Artificial Intelligence and Blockchain Technology and Innovation

The evolution of innovations within organizations has garnered escalating scholarly interest in recent decades, driven by the rapid realization of how firms can use digital technology to augment their innovation capabilities and overall performance (Musiolik et al., 2020). Business innovation occurs when an organization integrates novel processes, services, or products that bring favorable transformations in environment of the business (Morkunas et al., 2019). Business innovation is the term used to describe the moment when an organization introduces new processes, services, or products with the aim of instigating positive changes in their business (Wang et al., 2022). The Innovation entails building completely new processes from the ground up or improving already-existing ones ((Hu et al., 2018)(Yadav et al., 2024). In the present era, technologies such as Blockchain and artificial intelligence (AI) have the potential to revolutionize existing processes, create Innovation and reshape the entire business (Nguyen, Liu, Chu & Weng, 2018). Blockchain advancements have the capability to significantly transform business, eliminating intermediaries, streamlining processes, enhancing overall security, and improving data management (Arjun & Suprabha, 2020). On the other hand, Artificial intelligence, by automating routine tasks and processes, has the potential to save time and reduce costs in the workplace. This, in turn, enhances productivity and efficiency, enabling quicker decision-making based on cognitive technology outcomes. Furthermore, artificial intelligence empowers businesses to provide a more personalized experience for their clients. AI's efficiency in analyzing large datasets allows it to quickly identify patterns, such as past purchases, preferences, credit ratings, and other related trends (Wang et al., 2022).

Innovation and Sustainability

In the present socio-economic environment, businesses encounter significant challenges, compelling them to explore improved and innovative approaches to maintain competitiveness, boost profits, and enhance overall performance (Maier et al., 2023). Innovation has always been essential to a company's long-term success. Over time, organizations that have effectively embraced Innovation have usually experienced growth, increased profits, and gained entry to new markets (Bessant, 2016). Continuous Innovation is now a crucial element in gaining a competitive edge (Chesbrough, 2013). Innovation is widely recognized as a fundamental mechanism for tackling issues related to sustainable development (Boons 2013; Silvestre 2015). Sustainability-oriented Innovation encompasses deliberate adjustments to an organization's principles, values, products, processes, or practices, with the specific aim of generating and achieving not only economic returns but also social and environmental value (Adams et al., 2016). Islam et al. (2018) discovered a significant and positive correlation between Innovation and sustainability, reinforcing the argument that companies must engage in Innovation, create new products, revamp existing ones, and invest in research and development for enduring success. Another substitute for generating knowledge is to enhance improvement and Innovation is the practice of benchmarking (Lazaretti et al., 2018). Historically regarded as a approach aiding in the evaluation of practices and performance against others, benchmarking also aids in obtaining both explicit and implicit external knowledge. When effectively incorporated

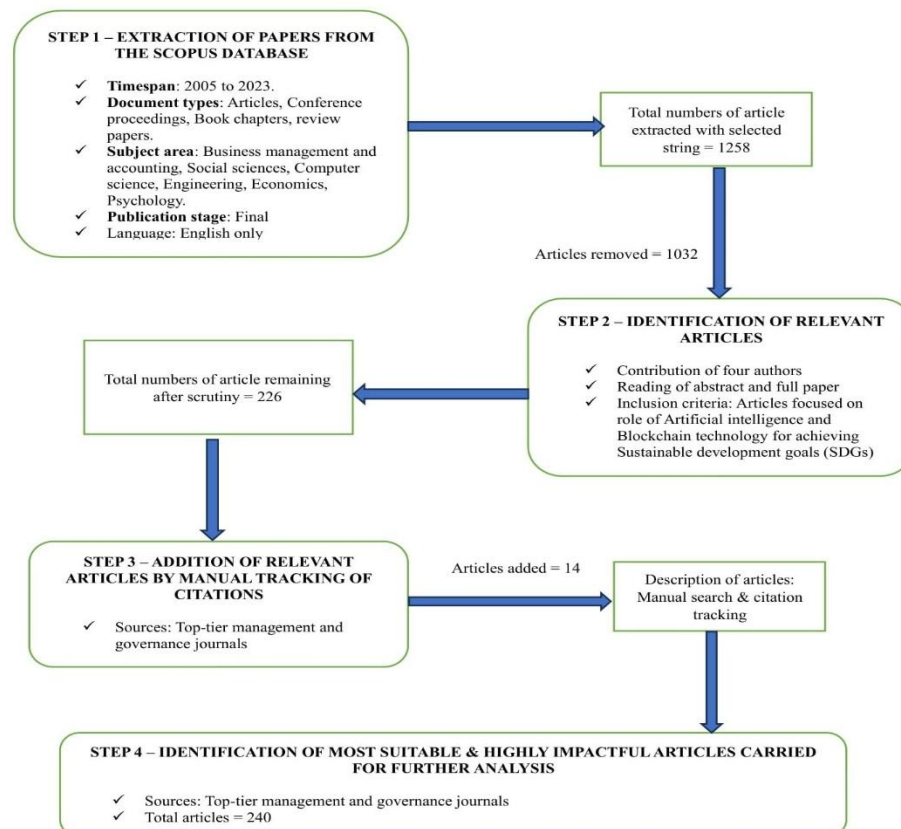
with the internal knowledge of the company, benchmarking generates new perspectives that can stimulate Innovation (Massa and Testa, 2004).

3. Research Methodology

We performed a systematic literature review (SLR) in this study. The process followed by SLR is reproducible, scientific in nature, and open and clear (Tranfield et al., 2003). When compared to conventional narrative evaluations, a systematic literature review (SLR) offers the following benefits: i) The evaluation procedure and results are of higher quality (Danese et al., 2018); ii) Discrimination and errors are minimized (Dada, 2018); iii) the methodology is more valid because the procedures applied during the review can be replicated (Wang et al., 2018); iv) SLR offers an overview of the literature in a particular field of study and synthesizes data (Witell et al., 2016); and v) subsequently provides an outline that combines current knowledge for both academics and practitioners (Nofal et al., 2017).

We conducted a comprehensive study in two phases: the first phase involved identifying, studying, and comprehending important documents, while the second phase involved conducting a bibliometric analysis of the identified relevant research articles. The initial procedure entails (1) retrieving research articles from the Scopus databases, (2) identifying and examining the most pertinent articles, and (3) including relevant articles through manual monitoring of citations. (4) Selection of the most appropriate and influential articles conducted for subsequent Bibliometric analysis. Figure 1 provides a comprehensive explanation of the process for identifying, gathering, and analyzing the research articles within the integrated field.

Figure 1: Layout for the articles incorporated in the study



Source: Authors' development.

We initiated the procedure by performing a selection of databases. The designation of the Scopus database as the award recipient concludes the selection process, according to Fink, (2019). In order to ensure that no important and relevant sources for the research were missed, we performed a manual search on Google Scholar and ResearchGate to retrieve articles. This was achieved through the surveillance of references to other relevant articles in prestigious and reputable academic journals (Rashman et al., 2009). The journals were chosen based on their relevance to the topics explored, specifically the inclusion of AI and Blockchain technology in Innovation to

achieve Sustainable Development Goals. Consequently, reputable journals that specialize in receiving submissions related to artificial intelligence, sustainable development, and technological advancements were referenced. These include "Sustainability", "Technological Forecasting and Social Change", "Journal of Cleaner Production", and "Technology in Society". To compile a comprehensive collection of studies on AI and Blockchain, we conducted research spanning a broad timeframe, from 2005 (as documented in the Scopus database) to 2023 (as indicated in Table 1). Furthermore, to ascertain pertinent contributions, we initiated a search query as (((("SDG*" OR "Sustainable development*") AND ("Innovation") AND ("artificial intelligence" OR "AI" OR "Blockchain")))).

The identification and selection of appropriate articles relied mainly on the terms included in the search string. This approach ensured that interesting contributions related to the studied topic were not excluded. Additionally, it aimed to emphasize the potential relationships among the outcomes gathered through the search string. This decision enabled us to compile comprehensive research on the contribution of AI and Blockchain in attaining the Sustainable Development Goals (SDGs), while also considering their influence on Innovation. AI and Blockchain are consistently mentioned in our search queries as they form the central focus of our research. We analyze their relationship with Innovation to achieve the Sustainable Development Goals and contribute to the global agenda. During the second phase, we carefully examined the abstracts of scrutinized articles using thorough content analysis to identify the most relevant ones. Specifically, we emphasized the alignment of each article with the integration of AI and Blockchain for Innovation to accomplish the Sustainable Development Goals (SDGs). The content analysis facilitated the organization of the data systematically. Consequently, each author conducted an individual analysis of the relationship between each document and the investigated issues. Subsequently, they compared their respective findings. In addition, we utilized Google Scholar and ResearchGate to access articles published between 2005 and 2023. Consequently, we ensured that prior studies had pursued similar objectives to our own research.

The last and fourth stage relies on the individual efforts of each author. They conducted a thorough analysis of each article to identify the specific aspects relevant to the research questions. After eliminating inconsequential articles and duplicates, the authors thoroughly analyzed their findings and organized the different sections of the systematic literature review (SLR). The ultimate compilation of review articles consisted of 240 articles that specifically address the intersection of AI and Blockchain technology in the context of Innovation for the purpose of achieving Sustainable Development Goals (SDGs).

4. Results

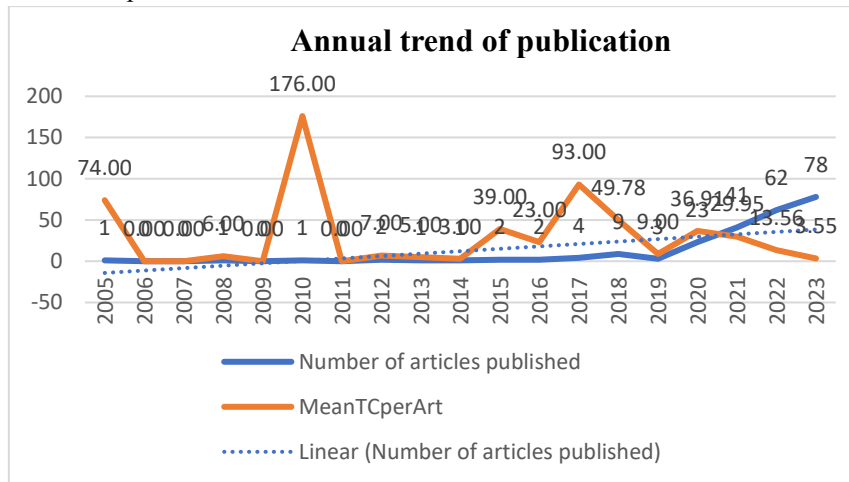
This research involved a comprehensive analysis of relevant academic sources to gain knowledge, followed by a meticulous evaluation of the collected data. An extensive scientific inquiry was undertaken to examine the advancements achieved in the domains of AI, Blockchain, Innovation, and SDGs research from 2005 to 2023. The assessment utilized various pertinent indicators, including the annual publication trend with citation patterns, the countries with the highest productivity, the productivity of authors, the most cited research articles, the prevailing motor and emergent themes, and the inter-country collaboration for publication. The chosen articles underwent bibliometric analysis, which involved employing statistical and graphical methods to summarize the research findings and emphasize the spatio-temporal elements that comprise the results. Bibliometric analysis enables the open and reliable conduct of a systematic literature review (SLR) Aria & Cuccurullo, (2017), resulting in more dependable outcomes in systematically gathering scientific information on a particular subject while avoiding the risk of overlooking previous documents.

4.1 Annual scientific production

In order to explore Research Question 1, we analyze the progression of scholarly articles related to AI, Blockchain, Innovation, and SDGs. The examination is conducted on a yearly basis within the designated timeframe, as illustrated in Figure 2. The purpose of this study is to conduct an in-depth analysis of scholarly articles that have been published pertaining to artificial intelligence (AI), blockchain technology, Innovation, and sustainable development goals (SDGs) over the course of Nineteen years. As can be seen in Figure 2, the progression of research articles publication on this topic was relatively slow during the first few years, particularly between the years 2005 and 2019. There has been a notable and substantial increase in the number of articles that have been

published over the course of the past four years, which span from 2005 to 2023. Table 1 clearly demonstrates that they have reached an impressive count of 204 articles.

Figure 2: Annual scientific production of research articles



Source: Authors' development using Biblioshiny in conjunction with R-Studio.

4.2 Most prolific journals of AI, Blockchain, Innovation, and SDGs.

Regarding the journals that have published a greater number of articles on the specific topic RQ2, it is worth mentioning that the journal "Sustainability (Switzerland)" has emerged as the most prominent, with a total of 45 articles. Next in line is the scholarly publication "Technological Forecasting and Social Change", which has released 15 articles, and the journal "Journal of Cleaner Production", which has contributed 12 articles to the discussion on this topic. It is logical to state that the top three prestigious journals in the field of artificial intelligence (AI), blockchain technology, Innovation, and sustainable development goals (SDGs) strongly focus on the topic incorporated for the study, as indicated in Table 2. The journal "Technology in Society" has made a notable contribution by presenting seven research articles on AI, Blockchain, Innovation, and SDGs. Similarly, the journal "IEEE Access" has published a total of 5 research articles, while the journal "Proceeding of the Institution of Civil Engineers: Smart Infrastructure and Construction" has published a total of 4 research articles in the same field. In addition, the academic journals "Business Strategy and the Environment", "Energies", "Environmental Science and Pollution Research", and "Sustainable Cities and Society" have each published three research articles related to this field of study.

Table 1: Decade-wise scientific production of research articles

	First decade	Second decade	Consolidated
Timespan	2005-2014	2015-2023	2005-2023
Sources	7	126	132
Total documents	16	224	240
Authors	21	782	803
Annual growth rate	0%	58%	27.38%
Authors of single-author doc	1	32	33
International Co-Authorship	43%	37%	36.80%
Author's keywords (DE)	39	960	991
Average citations per doc	39.71	18.60	19.24

Source: Authors' development using Biblioshiny in conjunction with R-Studio.

Table 2: Leading top-10 journals published articles on AI, Blockchain, Innovation, and SDGs.

S.No	Name of the Journals	Paper published	Country	Scopus CiteScore	Coverage from	Publisher
1	Sustainability (Switzerland)	45	Switzerland	5.8	2009	MDPI
2	Technological Forecasting and Social Change	15	United States	17.2	1970	Elsevier
3	Journal of Cleaner Production	12	United Kingdom	18.5	1993	Elsevier
4	Technology in Society	7	United States	11.2	1979	Elsevier
5	IEEE Access	5	United States	9	2013	IEEE
6	Proceeding of the Institution of Civil Engineers: Smart Infrastructure and Construction	4	United Kingdom	2.1	2017	ICE Publishing Ltd.
7	Business Strategy and the Environment	3	United Kingdom	17.8	1992	Wiley-Blackwell
8	Energies	3	Switzerland	5.5	2008	MDPI
9	Environmental Science and Pollution Research	3	Germany	7.9	1994	Springer Nature
10	Sustainable Cities and Society	3	Netherlands	18.4	2011	Elsevier

Source: Authors' development using Biblioshiny in conjunction with R-Studio.

4.3 Most prolific authors in the field of AI, Blockchain, Innovation, and SDGs.

To gain a thorough understanding of this specific research area and answer Research Question 3, we also examined the authors who have published the most research on this topic. Over the course of the 19-year investigation, a grand total of 803 authors have made contributions to the existing body of literature regarding the subjects of AI, blockchain, Innovation, and SDGs. Table 3 presents a list of the top ten authors who have shown the greatest productivity in the fields of AI, blockchain, Innovation, and SDGs, as measured by Scopus indexing. Productivity is quantified by the quantity of papers published by individual authors. Furthermore, the table presents the overall count of citations acquired by these authors, along with their respective affiliations. According to the analysis, Yu Chen has made the most significant contribution in research papers, having authored 4 articles and received 23 citations. "Assunta Di Vaio", "Haifeng Li", and "Lijun Zhang" have authored three research articles each, which

have garnered 384, 109, and 74 citations, respectively. Similarly, "Ahmet Faruk Aysan", "Fouad Bergigui", "Aleksei V. Bogoviz", and "Borrmann Andre" each made a contribution of 2 articles, which received 15, 44, 23, and 43 citations respectively.

Table 3: Most prolific authors

S.No.	Authors	Current affiliation	NP	TC
1	Yu Chen	School of Business Administration, Shanghai Lixin University of Accounting and Finance, Shanghai, 201620, China	4	23
2	Assunta Di Vaio	Department of Law, University of Naples "Parthenope", 80132 Naples, Italy	3	384
3	Haifeng Li	School of Design and Art, Changsha University of Science & Technology, Changsha 410114, Hunan, China	3	109
4	Lijun Zhang	School of Management, Hebei Geo University, Shijiazhuang, Hebei 050031, China	3	74
5	Yuru Zhang	School of Finance and Economics, Jiangsu University, Zhenjiang, Jiangsu, China	3	94
6	Ahmet Faruk Aysan	Hamad bin Khalifa University, Economics	2	15
7	Fouad Bergigui	SDI Global Consult	2	44
8	Andrew Boginsky	RUDN University	2	56
9	Aleksei V. Bogoviz	Independent Researcher, Moscow, Russia	2	23
10	Borrmann Andre		2	43

Source: Authors' development using Biblioshiny in conjunction with R-Studio.

5. Discussion and Conclusion

5.1. Discussion

The research reveals a growing number of academic articles that examine the influence of AI and Blockchain technology on the achievement of Sustainable Development Goals (SDGs) in the field of business and management. After examining publications from 2005 to 2023, it was observed that the rate of publication growth significantly decreased over the entire period. There was a significant increase in the number of publications starting in 2020. Three eminent researchers, namely "Yu Chen", "Assunta Di Vaio", and "Haifeng Li", seem to hold a prominent position in the field of scholarly inquiry. Regarding the mentioned journals, it is unsurprising that the majority of the publications have been distributed through reputable journals focused on technology. The "Sustainability (Switzerland)" journal is particularly noteworthy and holds a prominent position among business publications. It is followed by the "Technological Forecasting and Social Change" journal.

Consequently, the study has successfully addressed the four research questions:

RQ1. What is the prevailing trend in terms of publishing and citation patterns within the field of AI and Blockchain for achieving SDGs innovatively?

RQ2. Which academic journals are known for publishing a significant number of articles on research in AI, Blockchain, Innovation, and SDGs?

RQ3. Which individuals have demonstrated the highest level of prolificacy as authors within the context of this particular subject matter?

RQ4. What are the potential future research trends within the field of AI, Blockchain, Innovation, and SDGs?

The findings revealed in this study surpass the boundaries of the current body of literature pertaining to the contribution of AI and Blockchain technology to achieve the SDGs innovatively.

5.2. Conclusion

This paper provides an extensive examination of the applications of AI and Blockchain technology in promoting Innovation towards the achievement of Sustainable Development Goals (SDGs). The field of research on AI and Blockchain is still in its early stages. The findings suggest that the literature primarily addressed specific facets of sustainable development related to AI and Blockchain. However, there are still numerous gaps in our understanding of the fundamental connections between these concepts. The guidelines established for companies by the UN 2030 Agenda, which address the connection between human health and the health of natural systems, have not received sufficient attention. In order to attain elevated sustainability benchmarks, enhancing the technical-scientific caliber of the production systems is imperative. In recent decades, advancements in technology and Innovation have significantly enhanced our quality of life. Technological advancement and Innovation will play a central role in the shift towards a sustainable future. AI and Blockchain technologies have the potential to generate inventive solutions, enhance efficiency, lower production expenses and emissions, reduce resource consumption in production processes, enhance market alignment, and facilitate the utilization of big data for improved accessibility of public services. AI and Blockchain technologies have the potential to generate inventive solutions, enhance efficiency, lower production expenses and emissions, reduce resource consumption in production processes, enhance market alignment, and facilitate the utilization of big data for improved accessibility of public services. This study's findings will motivate business academics to recognize the significance of AI-enriched data that are currently overlooked and inspire them to delve deeper into this research domain, thereby enhancing their expertise. This study aims to enhance understanding of how companies can utilize Knowledge Management Systems (KMS) to effectively implement Artificial Intelligence (AI) and Blockchain technology. The ultimate goal is to achieve the Sustainable Development Goals (SDGs) and address market challenges. Hence, it is imperative for scholars, professionals, and institutions to collaborate in order to achieve sustainability. This can be accomplished by conducting further research on the phenomenon and establishing a network of public-private partnerships to proactively address and handle the significant societal transformations associated with the digital revolution.

Conflict of Interest Statement:

The authors affirm that they do not possess any recognized conflicting financial interests or personal relationships that could have potentially influenced the findings presented in this paper.

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