

Effectiveness of Adaptation of Artificial Intelligence on Management Domains in Industries: Bibliometric Analysis

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Abstract

The rapid development of AI has the potential to overturn traditional management strategies by automating procedures, enhancing decision-making abilities, and optimising resource allocation. This review synthesises research on the use of AI to the management disciplines of operations, supply chain, human resources, and marketing. The benefits and drawbacks of utilising AI in various managerial settings are examined throughout the study. Better customer service, less costs, quicker, more reliable decisions, and more efficient workflows are just some of the benefits. Challenges like as data privacy concerns, ethical considerations, integration complexity, and the need for human-machine cooperation are all brought up. In addition, the report highlights the real-world applications of AI across industries like manufacturing, healthcare, finance, retail, and transportation. The study provides insight into the impact that algorithms and methods from the field of artificial intelligence (AI), such as machine learning, NLP, and computer vision, have on management processes and outcomes. This literature review analyses past research to provide a comprehensive understanding of the value of AI adaptation in managerial domains. Organisational readiness, talent acquisition and upskilling, ongoing monitoring and assessment, and other attractive areas for further study are only some of the strategies recommended. The results of this research indicate that firms who apply AI to the managerial domains stand to earn a significant performance and competitive advantage. However, its implementation is fraught with challenges and constraints that should be carefully considered. To fully reap the benefits of AI in management as it continues to advance, firms must acknowledge its promise and seek to address ethical, social, and technical challenges.

Keywords: AI, Management, Application, Business, Industries.

1. Introduction

Management accountants may find that artificial intelligence (AI) greatly improves their efficiency and productivity, allowing them to devote more time to planning and strategy. Management accountants may make use of AI in several ways, one of the most important being the automation of mundane but necessary duties like data entry and analysis. Management accountants can use artificial intelligence to spend less time on mundane tasks

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like data entry and more time evaluating and interpreting the data for actionable insights. As a result, businesses will be able to make more educated decisions and maintain their edge in the marketplace. Artificial intelligence can also be employed in the planning and allocating of resources. To anticipate future trends and patterns, AI algorithms can be taught to assess historical data. By doing so, businesses will be able to make more educated financial decisions based on management accountants' more precise budgets and projections. Fraud and accounting mistakes can both be uncovered with the help of AI. Patterns and irregularities in financial data that may point to fraud or errors can be trained AI systems to spot. This can aid management accountants in spotting problems early and fixing them so that the company doesn't suffer any monetary or reputational losses.

2. Technology and Climate Change:

The use of artificial intelligence (AI) could be crucial in combating the effects of global warming. There are several ways in which AI can be utilised to assist people adapt to and lessen the severity of climate change. Climate monitoring and modelling are two of the most promising applications of AI. The vast volumes of data collected from satellite photography, weather forecasts, and other sources can be analysed by AI to create a more precise picture of the Earth's climatic trends. This can aid scientists in their efforts to foresee climate change's effects and devise countermeasures. Optimising energy consumption and cutting emissions are two other uses for AI. Management accountants will find this information very useful. Artificial intelligence (AI)-driven systems, for instance, can improve the efficiency of wind and solar electricity. This has the potential to lessen the impact on the environment by reducing the demand for fossil fuels. Artificial intelligence can also be used to keep tabs on how much power buildings and factories use, so that improvements can be made when needed. Artificial intelligence can also be applied to the management of natural resources. Satellite images and other data can be analysed by AI to reveal illicit logging and other unsustainable land uses. This can aid in preserving natural resources and easing the burden on ecosystems. Artificial intelligence can also be used to determine and forecast how climate change will affect many geographical areas and industries, including food production, water management, human health, and more. Finding the most at-risk regions in this way can aid in crafting effective adaptation plans.

3. Risks posed by AI:

While AI can improve many aspects of life, there are also risks that should be considered. The potential for AI to be utilised in ways that damage people is a major risk. The deployment of artificial intelligence (AI) powered weapons systems, for instance, could lead to a rise in civilian casualties because of war. Furthermore, people's privacy and civil liberties could be compromised by surveillance systems fuelled by artificial intelligence. Another risk associated with AI is that technology could be used to oppress some groups of people. Artificial intelligence (AI) algorithms are only as objective as the data they are trained on, and if that data is biased, the resulting algorithm will be too. Unfair and discriminatory results may follow, such as individuals being excluded from housing, credit, or employment prospects because of their ethnicity, gender, or other personal qualities. One major worry is that AI may cause humans to lose their jobs as computers and algorithms take over previously human-only duties. This might cause a societal and economic crisis, especially for those working in low-skilled jobs. Furthermore, AI can be used to propagate falsehoods and produce deepfakes, both of which can be employed to sway public opinion and hence, political outcomes. These risks can be reduced with proper planning, rules, and monitoring in place. Leaders in government, academia, and business must collaborate to guarantee that AI is developed and used in a responsible, equitable manner. To make sure the benefits of AI can be realised while keeping the harm to a minimum, it is crucial to engage in research that addresses the dangers and negative repercussions of the technology.

Venice, J. A., (2022), Latest Intelligent Intervals study blends current IT and smart robotics. Researchers utilize robots with sensors and equipment on other planets, in space, or as astronaut assistants. Space robots must be able to move, operate, and intelligently explore without frequent human contact or heavy reliance on human operators. You must understand the chaotic or unfamiliar situation in which individuals find themselves. To respond meaningfully and consistently in such a setting, perception-based reasoning is needed. Thus, robot intelligence or autonomy is crucial to space exploration via robotics and automated space technologies. Sathiswaran, A., Uthamaputhran, L. (2023), A powerful worldwide business approach combining AI, Effectuation Theory, and Cross-Border Opportunities. The fast growth of AI technology has opened new prospects in business and other industries. Effectuation Theory emphasizes adapting to what's available and creating new possibilities via trial and error, offering a different perspective on entrepreneurs' decision-making. Global entrepreneurs may increase opportunity identification and exploitation by combining AI with Effectuation Theory. AI-powered technologies like natural language processing, machine learning, and data analytics let entrepreneurs analyze enormous amounts of data, spot patterns, and decide on market entry tactics and business models. This paper summarizes the key elements of this successful worldwide business strategy. The article examines how AI might enhance the effective logic's four stages—finding a bearable loss, choosing a decent partner, providing a useful contribution, and taking advantage of a fortuitous break. It also examines how AI might reduce international business risks to speed up and enhance foreign business opportunity detection.

4. Objectives:

- To understand the importance and application of AI in the management domains like Human Resource Management, Marketing Management, Finance.
- Analysis the Artificial Intelligence and its impact on the Management domain i.e., Human Resource Management, Marketing Management, Finance and entrepreneurship.

5. Literature Review

Liu, 2022, The purpose of this study, which makes use of social exchange and signal theory, is to examine the role that direct supervisors' transformational leadership plays in mediating the relationship between developmental HR practises and employees' career self-management and OCB. Methods: Information was collected from 571 workers at various companies in southwest China. To examine the hypotheses, we employed several statistical techniques, including a hierarchical regression and a bootstrapping analysis using Hayes' PROCESS in SPSS 23. We utilised AMOS V22 for model fitness. The findings indicate that employees' career self-management and organisational citizenship behaviour (OCB) benefit from developmental HR practises, with the transformational leadership of their direct supervisor mediating some of this effect. Perceived organisational support is also predicted to moderate the indirect association between supervisory transformational leadership, developmental HR practises, and occupational competence. This study concludes that organisations should pay greater attention to employees' perceptions of organisational support, particularly in the context of transformational direct supervisors executing developmental human resource management practises. Meanwhile, this research broadens the applicability of developmental HR practises beyond the realm of leadership and career management.

Holzinger, 2022, The remarkable triumphs of AI, and in particular the workhorse of AI, statistical machine learning (ML), have been the primary fuel for the current worldwide initiatives towards the digital transformation in nearly all areas of our everyday life. Intelligent analysis, modelling, and management of agricultural and forest ecosystems, as well as the use and protection of soils, play vital roles in protecting our planet for future

generations and will become irreplaceable in the coming years. All links in the agricultural and forestry value chain need to be addressed by technical solutions. Cyber-physical systems are bolstering the digital transformation process thanks to developments in ML, the availability of massive data, and rising computer power. Algorithms nowadays can do better than humans at some activities. The difficulty lies in using multimodal information fusion to explain to an expert how and why a specific conclusion was reached from a variety of data sources (sensor data, pictures, *omics). However, ML models are sensitive to input and can be easily influenced by outside factors. With more and more applications of AI in fields that directly affect people's lives (agricultural, forestry, climate, health, etc.), there is a growing demand for trustworthy AI that possesses two key characteristics: explain ability and resilience. Leveraging expert knowledge is one way to strengthen AI. No AI, for instance, can replace the need for a human farmer or forester to provide their knowledge and expertise to the AI development process. Therefore, human-centered artificial intelligence (HCAI) combines "artificial intelligence" and "natural intelligence" to boost, enhance, and complement human performance rather than replace it. This article identifies three critical frontier research topics necessary for the practical success of HCAI in agriculture and forestry: (1) intelligent information fusion; (2) robots and embodied intelligence; and (3) augmentation, explanation, and verification for trusted decision support. This objective also necessitates a three-generation (G) adaptive, human-centered design strategy. G1: Enabling quickly implementable applications by making use of already-available technologies. G2: In-progress technology with a medium-term upgrade. G3: State-of-the-art and beyond in terms of adaptability and evolutionary development.

6. AI in Human Resource:

Most contemporary HR professionals make use of AI for a wide range of tasks and purposes, including but not limited to employee records management, payroll processing, hiring, and onboarding, and evaluation and feedback. Artificial intelligence (AI) could automate a variety of human resources (HR) operations, including recruitment, termination, and the dissemination of information about benefits packages and compensation levels. However, there may be downsides to applying AI in HR, such as the technologies' inherent limitations and hackability. In the human resources field, AI has led to a revolution thanks to the application of machine learning and algorithms to increase productivity, reduce bias, and enhance decision making. However, some companies have been slow to completely adopt AI because of worries about its current limitations and security issues. This article will discuss the current state of AI in HR, as well as its potential future developments. AI uses consistent computer technologies and pre-programmed algorithms to produce instantaneous judgements. There will be ripple effects of AI in the HR sector. When a company's Human Resources department combines its human touch with the savvy of technology, it benefits both job hopefuls and workers. Using AI in HR will also help get the word out about the significance of speed and efficiency. The Role of AI in HR: The Human Resources department is responsible for the time-consuming processes of recruiting and training new employees. Many tasks in human resources can be simplified with the help of artificial intelligence. Finding and Keeping the Best Employees: The Human Resources division plays a vital role in the expansion of the business by seeking out and hiring qualified candidates. The use of AI in the HR field may be most noticeable in talent acquisition. Tasks like candidate screening, database maintenance, interview scheduling, and question answering are all made easier with the help of AI. Reduced hiring efforts allow HR to focus on value-added activities such as talent acquisition, personnel administration, and awareness campaigns. Human resources will be able to use AI to locate a candidate who is nearly ideal for the organisation. Therefore, the screening procedure is simple, quick, and beneficial. The most promising leads are identified and pursued with the help of chatbots. These smart chatbots handle the hiring process and assign new employees to jobs that best fit their skills. The algorithm will choose the most competent and deserving candidate for the job. This means that we will only be in touch with the most promising

candidates for an interview. Orientation of New Workers: New hires will receive initial orientation on their first day through a centralised system powered by artificial intelligence. Everything a new employee needs to know about the organisation, their position, and the individuals they will be working with will be stored in a mobile app or in structured data on their PCs. "Onboarding" has become the modern term for this procedure. The onboarding procedure is crucial to enhancing the HR team's capacity to recall information and perform efficiently. Successful onboarding increases the likelihood that an employee will continue with the organisation. Human resources departments can breathe easier knowing that all questions from new hires will be answered by AI. Human resources departments may be able to create procedures and rules tailored to each worker and their specific duties with the help of AI. Important contact information is managed by artificial intelligence (AI), which also verifies legal documents and performs other critical tasks. Employers can save money on employee training by using AI development services that enable workers to educate themselves on issues like job responsibilities and needs. They might use it to stay abreast of technological and software advancements in their field. Based on the employee's papers and tests, the AI will automatically understand their needs and give appropriate training. The workers will be provided with career advice that is tailored to their unique roles. Human resources (HR) departments may be able to use AI in their software to evaluate data and identify employees who may need more training. Workers' output, IQ, and education will all improve thanks to this clever strategy. To help employees, learn on their own and complete tasks in a way that meets the goals of the company, managers may choose to provide training in a particular piece of software or style of education. Enhancements to the Workplace Because of the highly automated and customer-focused environment that surrounds personalised engagement, employees have high hopes for a positive and beneficial working experience. Employees in today's modern workplace want to use consumer technology to better engage in and benefit from their work. AI has the potential to be effectively integrated into all facets of the employee lifecycle, from the hiring and onboarding processes to the continuous provision of HR services and the promotion of existing employees. Human resources departments may now more accurately evaluate employee engagement and work satisfaction with the help of personalised feedback questionnaires and employee reward schemes. Leadership: AI will aid those in the training and development industry by streamlining their work and allowing them to focus on personal growth. By asking questions to members of the team, the AI may figure out where a leader is struggling and equip them with the tools they need to succeed. Second, the dashboard can be used as a springboard for introspection and the cultivation of leadership skills considering evolving company requirements. The Use of AI to Boost Human Resources: AI requires the same cautious application as any other cutting-edge technology. CuteHR lays out some of the things to think about when introducing AI to HR. For AI to be effective, it requires constant access to high-quality data in real time. Beginning with precise data collection and a well-defined, output-focused end goal are both essential. The AI ecosystem is one-of-a-kind in the realm of information technology. The process of actualization calls for the development of specific competencies. When gathering, cleaning, and curating information, the HR division must pay meticulous attention to detail. It is essential to identify and grasp the learnings that will be generated. Therefore, instruction and training on how to recognise useful patterns for analysis and application are needed. The algorithms and logics put into artificial intelligence (AI) can produce accurate and impartial results. Keep in mind that AI can only do what it is told to do; it cannot curate judgements on its own, and it is the responsibility of the business to ensure the quality of the data it uses. Human Resource Management Challenges with AI Although AI will undoubtedly have a positive effect on human resource management in the future, HR practitioners should be prepared for potential difficulties because of this trend. Human resource managers are particularly concerned about the accessibility and security of AI. Because of safety and privacy concerns, most individuals are hesitant to use AI initiatives at work. Oracle found that a third of their employees would rather talk to a real person than a computer any day. Human resource experts need to be ready to handle these

challenges as well, which includes staying abreast of cutting-edge HR technology and practises. Employees usually assume that their employers will ask for their consent before using any kind of technology to collect data about them, and that they will take reasonable measures to protect any sensitive information they provide. Human resources managers, however, must take a leap of faith because businesses are worried about the safety of their data. Another obstacle that must be conquered is AI maintenance. Artificial intelligence (AI) maintenance is labour-intensive since it requires constant monitoring, analysis, and updates. Due to decreased data availability, complete integration of HR technology has become more challenging with the shift to SAAS (Software as a Service). Thoti, K. K. (2024), The research examines workers' aspirations to adopt disruptive technologies in the sector. Consumer, retail, hospitality, education and training, financial services, health, infrastructure, government, and airports use digital technology. The research investigated whether workers would embrace innovation and creative improvements. To determine behavioral intention factors and their relationships to perceived utility, attitude, ease of use, enabling circumstances, and technological optimism. A standardized questionnaire was utilized to gather data from 335 relevant research participants. Surveys were disseminated using Google Forms, and data were gathered and examined monthly. The study highlights the importance of perceived usefulness, attitude, perceived ease of use, facilitating conditions, and technology optimism in Kuala Lumpur and Putrajaya, Malaysia, on disruptive technology behavior. The study adds to Industry 4.0 expertise by offering actual data and practical consequences for firms using disruptive technologies in operations management.

7. AI in Finance:

One definition of finance is "the study and management of financial resources," which includes both investments and currency. Lending, borrowing, saving, budgeting, forecasting, investing, and assets and liabilities are all topics that fall under the umbrella term "money management," which is used in the field of finance. Purchasing assets and raw materials, paying employees and suppliers, and budgeting future corporate investments are all examples of financial tasks that finance handles for firms. Enterprise resource planning (ERP) is a type of business software used to manage a company's finances, purchases, projects, and other activities. ERP oversees a wide variety of back-office processes, such as finances, purchases, accounts payable, inventory control, risk management, analytics, and enterprise performance management (EPM). Many IT departments have avoided using ERP systems because of the potential for lengthy, expensive, and time-consuming installations that may necessitate substantial hardware or infrastructure investments. Businesses are rethinking enterprise resource planning (ERP) considering the rise of cloud computing and SaaS installations. Businesses can reduce their IT costs, stay abreast of the latest developments in the industry, and increase their return on investment by migrating ERP to the cloud. Anand, J (2023), Automation and sensor technologies now offer continuous crop vitality, moisture, and environmental monitoring, enabling informed decision-making. Networking technologies, particularly the Internet of Things, have revolutionized smart farming.

Data entry, collecting, verification, consolidation, and reporting are all examples of traditionally labour-intensive financial procedures. The financial department often suffers from high costs, lengthy processes, and little flexibility because of all the physical work involved. Many monetary procedures are also consistent and well-defined, making them prime candidates for AI-based automation. ERP software made it possible for businesses to streamline and standardise their accounting procedures. Rule-based automation, which was common in the past, allowed for a set of actions to be taken in response to a single transaction or set of inputs. Although these systems automate financial procedures, they are labour intensive to maintain, slow to update, and lack the flexibility of today's AI-based

automation. Artificial intelligence (AI) can handle more complex scenarios, such as the full automation of dull, manual procedures, than rule-based automation.

Accuracy in all the financial procedures will increase as the automate more of them. Invoice input is an example of a high-volume, low-skill task that can cause human fatigue, burnout, and mistakes. However, computers are free from such constraints. They can also handle far more transactions in the same amount of time. The result is improved data quality and additional resources for the finance department to put that data to good use.

Uses of Artificial Intelligence in the Financial Sector

Here are three examples of how AI is being used in modern businesses. To begin, businesses are harnessing AI to automate previously manual tasks like accounts payable by providing smart classification and smart identification. To detect fraud, reconcile accounts, and accelerate approvals, ERP systems with built-in AI technology can now scan real invoices, recognise the relevant information, such as supplier name, goods purchased, and associated cost, and insert it into their ERP systems automatically.

Second, by using an automated financial closing process, businesses may redirect staff efforts from data collecting, aggregation, and reporting to decision making. Scenario modelling and objective forecasting are the foundations of accurate prediction. Oracle uses its own technologies to complete its books in just 10 days, which is nearly half the time it takes compared to other companies in the S&P 500. Our finance team now has more time to plan rather than merely report on previous events.

Businesses are implementing AI-guided digital assistants to facilitate knowledge discovery and remote productivity. To speed up the reimbursement process, finance departments can use digital assistants to do things like alert teams when spending are out of line or submit expense reports automatically. Today's digital assistants understand their surroundings, can hold natural conversations, and can be used on a wide variety of devices. There is no need for staff members to learn specialised query syntax or transaction IDs. Instead, they can use simple, everyday language to communicate with the ERP system.

8. AI in Marketing

The term "AI marketing" encompasses the many applications of artificial intelligence that can improve promotional campaigns. It consists primarily of the applications that mine client information for the purpose of creating and sending highly personalised communications at optimal times. Also included are chatbots that learn from user interactions and artificial intelligence that can develop blog post outline templates. Marketers can save a tonne of time with AI marketing because they don't have to manually analyse data and create tailored ads. It improves the odds that customers will encounter their preferred content, which may thrill or terrify them, depending on their mood.

The positive effects of using AI in advertising- To be frank, there is a significant risk that the competition will leave the dust use AI into the digital marketing activities. With the help of artificial intelligence (AI), procedures are far more efficient and effective than they have ever been before. The time it takes for AI to gather user data and apply it to the discovery of insights is drastically reduced when compared to the time it would take a human. That way, the team can devote more time to strategic planning for future campaigns, such as figuring out how to make the most of AI in such plans. improves the personas The personas should be a major part of the marketing efforts because they should mirror the actual customers.

Mishra, B. R., (2023), The COVID-19 epidemic has boosted ICT adoption in India's elementary, secondary, and higher education sectors. This paper investigates assistant professors' creative learning and education's digital change. The research employs Google Forms to poll 210 college professors using convenience sampling to ensure gender,

educational level, and experience representation. Educational levels significantly affect respondents' judgments of Digital Transformation, Service Quality, and Digital Competence. Post hoc testing clarifies educational and experience disparities. Digital revolution shapes higher education attitudes and experiences, according to the report. This study illuminates the dynamic relationship between educational levels, experiences, and digital transformation elements in digital education.

Many experts believe that artificial intelligence (AI) will have a profound impact on marketing and other corporate functions. According to research conducted by McKinsey, this area of company will see the greatest financial benefit alongside sales. Highly improbable that there are people currently working in marketing who aren't employing some type of artificial intelligence. This is because we use so many tools that incorporate AI functions that we no longer give them a second thought. In today's commercial world, "AI" refers to the capability provided by many of the most popular social media and search engine advertising solutions, email marketing platforms, e-commerce systems, and content production tools. Just so we're clear, this isn't the kind of "general" artificial intelligence (AI) that can mimic human thought and language and perform every work imaginable. Artificial intelligence (AI) in the context of modern business (and marketing in particular) refers to programmes that help us do a single task better and better as they are exposed to more data, such as figuring out where to place ads for maximum efficiency or how to personalise an email to increase the likelihood of a response. Despite their being a plethora of tools available and the fact that most marketers are becoming more and more accustomed to using them on a regular basis, I've found that most of the time, this process is handled on an ad hoc basis. There is still a widespread absence of a unified, strategy-driven approach to project implementation across many marketing departments. Many organisations also fall behind the curve when it comes to building AI-friendly, data-first cultures, as well as the necessary capabilities and upskilling of their workforces.

9. Bibliometric Analysis:

Table 1: According to the data collected from the Scopus, using the PRISM model the total data was collected was 2012 articles related from 2018–2023-time frame. The software used for the data collection and analysis are VOS viewer and Bibilomagika.

Author's Name	TP	NCP	TC	C/P	C/CP	h-index	g-index	Citation sums within h-core	Citable Year	Pub. Year Start	m-index
Fadhil, Ahmed (57191505029)	2	2	85	42.50	42.50	2	0	85	7	2017	0.286
Gabrielli, Silvia (8883252000)	2	2	85	42.50	42.50	2	0	85	7	2017	0.286
O'Brien, Nicole (57189866836)	1	0	0	0.00	0.00	0	1	0	3	2021	0.000
Mihalcea, Rada (8619220500)	1	1	14	14.00	14.00	1	0	14	4	2020	0.250
Kim, Minsub (57271878800)	1	1	14	14.00	14.00	1	0	14	3	2021	0.333
Singanamala, Hareesh (55975547300)	1	1	6	6.00	6.00	1	0	6	6	2018	0.167

Nguyen, Phan-Anh-Huy (57193827237)	1	1	1	1.00	1.00	1	1	1	3	2021	0.333
Hara, Hideki (49561190200)	1	1	8	8.00	8.00	1	0	8	6	2018	0.167
Kang, Inho (57271596100)	1	1	14	14.00	14.00	1	0	14	3	2021	0.333
Kurachi, Yoichi (56602470400)	1	1	8	8.00	8.00	1	0	8	6	2018	0.167
Muller, Michael (7404688942)	1	1	1	1.00	1.00	1	1	1	4	2020	0.250
Narukawa, Shinji (57203343384)	1	1	8	8.00	8.00	1	0	8	6	2018	0.167
Huang, Jia-Hong (57209693285)	1	1	9	9.00	9.00	1	0	9	3	2021	0.333
Kovalluri, Sai Sreewathsa (57202748605)	1	1	6	6.00	6.00	1	0	6	6	2018	0.167
Lin, Chi-Jen (57193812263)	1	1	18	18.00	18.00	1	0	18	3	2021	0.333
Nirala, Krishna Kumar (57396361900)	1	1	11	11.00	11.00	1	0	11	2	2022	0.500
Prabaharan, P. (55418308000)	1	1	6	6.00	6.00	1	0	6	6	2018	0.167
Chen, Ying (57845613700)	1	0	0	0.00	0.00	0	1	0	3	2021	0.000
In, Sookyo (57271735100)	1	1	14	14.00	14.00	1	0	14	3	2021	0.333

The citation analysis was based on Citation Metrics Generation: The app can generate a variety of citation metrics for the overall dataset such as Publication Years, Total Publications (TP), Number of Contributing Authors (NCA), Number of Cited Publications (NCP), Total Citations (TC), Citations per Paper (C/P), Citations per Cited Paper (C/CP), Citations per Author (C/A), Authors per Paper (A/P), Citations per Year (C/Y), Citable Year, h-index, g-index and m-index and Citation Sum within h-Core.

Table 2: Highly Productive Authors in the filed of AI in Management:

Topmost Productive Authors		
Author Name	TP	%
Cairns, R.D.	7	6.60%
Bartelmus, P.	4	3.77%
Markandya, A.	4	3.77%
Aronsson, T.	2	1.89%

Astawa, I.P.	2	1.89%
El Serafy, S.	2	1.89%
Gray, R.	2	1.89%
Huang, H.S.	2	1.89%
Hunt, A.	2	1.89%
Kim, J.T.	2	1.89%
Löfgren, K.G.	2	1.89%
Tamborra, M.	2	1.89%
Thornton, D.B.	2	1.89%
Todorovic, M.S.	2	1.89%
Tu, J.C.	2	1.89%
ADIYADNYA, M.S.P.	1	0.94%
Aaheim, H.A.	1	0.94%
Al-Dhaimesh, O.H.	1	0.94%
Al-Shmam, M.A.	1	0.94%

Table 3: High Total Publication (TP) with Authors:

Author's Name	TP
Wongsim, Manirath (36563094900)	6
Rushinek, Avi (7003573012)	5
Rushinek, Sara F. (7004287012)	5
Gao, Jing (55702655700)	4
Choe, Jong-Min (7201515400)	3
Grabski, Severin V. (6603443269)	3
Worrell, James L. (23490880600)	2
Peters, James (7404189725)	2
Chalos, Peter (6507381658)	2
Kaplan, David (55574122349)	2
Al-Dabbagh, Balsam (54082823300)	2
Krishnan, Ramayya (7402451300)	2
Wang, Juan (57200017782)	2
Gordon, Lawrence A. (24543028100)	2
He, Quanxiu (36801504700)	2
Hunton, James E. (7004658591)	2
Ouksel, Aris M. (35588673800)	2
Chen, Guangying (56169319400)	2

Table 4: Authors with affiliation, country, year, EID, Count and cites of articles publish:

Author's Full Name	Affiliation	Country	Year	EID	Count	Cites
Afrizon, Afrizon	Universitas of Bung Hatta	Indonesia	2019	2-s2.0-85108610536	1	1
Bakri, Bakri	State Islamic Institute of Sultan Amai	Indonesia	2019	2-s2.0-85083158012	1	5
Bandi, Bandi	Universitas Sebelas Maret	Indonesia	2018	2-s2.0-85049998316	1	11
Bandi, Bandi	Universitas Sebelas Maret Surakarta	Indonesia	2019	2-s2.0-85064569569	1	2
Budiyanto, Budiyanto	State Islamic University of Syarif Hidayatullah	Indonesia	2009	2-s2.0-77954618878	1	1
Endraria, Endraria	Universitas Padjadjaran	Indonesia	2016	2-s2.0-84963594905	1	0
Endraria, Endraria	University of Muhammadiyah Tangerang	Indonesia	2020	2-s2.0-85085382952	1	0
Endraria, Endraria	University of Muhammadiyah Tangerang	Indonesia	2020	2-s2.0-85086839330	1	0
Erlina, Erlina	Universitas Sumatera Utara	Indonesia	2021	2-s2.0-85119490618	1	0
Erlina, Erlina	Universitas Sumatera Utara	Indonesia	2022	2-s2.0-85140020758	1	3
Fernando, Fernando	Bina Nusantara University	Indonesia	2019	2-s2.0-85073496595	1	0
Fuad F., Fuad F.	Universitas Diponegoro	Indonesia	2018	2-s2.0-85049149998	1	3
Hariyati, Hariyati	Universitas Negeri Surabaya	Indonesia	2019	2-s2.0-85068069983	1	27

Table 5: Articles contribute according to the subject area:

Subject Area	TP	%
Economics, Econometrics and Finance	53	50.00%
Environmental Science	38	35.85%
Business, Management and Accounting	32	30.19%
Social Sciences	26	24.53%
Energy	15	14.15%
Decision Sciences	12	11.32%
Engineering	11	10.38%
Agricultural and Biological Sciences	9	8.49%
Computer Science	8	7.55%
Earth and Planetary Sciences	5	4.72%

Arts and Humanities	3	2.83%
Mathematics	3	2.83%
Chemical Engineering	1	0.94%
Chemistry	1	0.94%
Multidisciplinary	1	0.94%
Pharmacology, Toxicology and Pharmaceutics	1	0.94%
Physics and Astronomy	1	0.94%
Psychology	1	0.94%

Table 6: Type of document type with total publication:

Document Type	TP	%
Article	65	61.32%
Conference Paper	19	17.92%
Book Chapter	9	8.49%
Book	4	3.77%
Review	4	3.77%
Editorial	3	2.83%
Erratum	1	0.94%
Note	1	0.94%

Table 7: Source Type of the documents:

Source Type	TP	%
Journal	74	69.81%
Conference Proceeding	15	14.15%
Book	12	11.32%
Book Series	4	3.77%
Trade Journal	1	0.94%

Table 8: Highly cited Documents:

No.	Author(s)	Title	Source Title	TC	C/Y
1	Teplova T.; Sokolova T.; Kissa D. (2023)	Revealing stock liquidity determinants by means of explainable AI: The role of ESG before and during the COVID-19 pandemic	Resources Policy	0	0.00
2	Sjodin D.; Parida V.; Kohtamäki M. (2023)	Artificial intelligence enabling circular business model innovation in digital servitization: Conceptualizing dynamic capabilities, AI capacities, business models and effects	Technological Forecasting and Social Change	0	0.00
3	Gbadegesin O.A. (2023)	Leveraging Artificial Intelligence (AI) in Strengthening the Legal Framework for Regulation of Wildlife and Forest Crimes in Nigeria	Environmental Policy and Law	0	0.00

4	Nain I.; Rajan S. (2023)	Algorithms for better decision-making: a qualitative study exploring the landscape of robo-advisors in India	Managerial Finance	0	0.00
5	Birnbaum D.; Somers M. (2023)	Past as prologue: Taylorism, the new scientific management and managing human capital	International Journal of Organizational Analysis	1	1.00
6	Oviedo-Trespalacios O.; Peden A.E.; Cole-Hunter T.; Costantini A.; Haghani M.; Rod J.E.; Kelly S.; Torkamaan H.; Tariq A.; David Albert Newton J.; Gallagher T.; Steinert S.; Filtness A.J.; Reniers G. (2023)	The risks of using ChatGPT to obtain common safety-related information and advice	Safety Science	8	8.00
7	Jiang P.; Zhang L.; You S.; Fan Y.V.; Tan R.R.; Klemeš J.J.; You F. (2023)	Blockchain technology applications in waste management: Overview, challenges and opportunities	Journal of Cleaner Production	5	5.00
8	Jagusch K.; Gerds P.; Knitter L.; Sender J.; Flügge W. (2023)	AI-supported Information Management in One-off Production.; [KI-gestütztes Informationsmanagement in der Unikatfertigung]	ZWF Zeitschrift fuer Wirtschaftlichen Fabrikbetrieb	0	0.00
9	He G.; Liu P.; Zheng X.; Zheng L.; Hewlin P.F.; Yuan L. (2023)	Being proactive in the age of AI: exploring the effectiveness of leaders' AI symbolization in stimulating employee job crafting	Management Decision	2	2.00
10	Sakka A.; Kourjeh M.; Kraiem I.B. (2023)	An IT projects' conceptual model to facilitate upstream decision-making: project management method selection	International Transactions in Operational Research	1	1.00
11	Velasquez-Camacho L.; Etxegarai M.; de-Miguel S. (2023)	Implementing Deep Learning algorithms for urban tree detection and geolocation with high-resolution aerial, satellite, and ground-level images	Computers, Environment and Urban Systems	0	0.00
12	Barracosa B.; Felício J.; Carvalho A.; Moreira L.M.; Mendes F.; Verde S.C.; Pinto-Varela T. (2023)	Decision support tool to define the optimal pool testing strategy for SARS-CoV-2	Decision Support Systems	0	0.00
13	Koc K.; Ekmekcioğlu Ö.; Gurgun A.P. (2023)	Prediction of construction accident outcomes based on an imbalanced dataset	Engineering, Construction and	13	13.00

10. Conclusion

Insights into the changing environment of technology integration may be gained from bibliometric analyses of the efficacy of AI adaption in management domains across sectors. Looking at a variety of academic articles, it's clear that AI is playing a major role in changing management methods, encouraging innovation, and making industries more efficient overall. The conclusion reached from the extensive literature research highlights the notable progress achieved in the implementation of AI in managerial domains. Businesses are capitalising on AI's capabilities to simplify operations, improve decision-making, and gain a competitive advantage in the global market because they see AI's revolutionary potential. A dynamic environment is emerging where data-driven insights and intelligent automation are key to organisational success, thanks to the growing synergy between AI technology and management methods. The bibliometric study also shows that contributions from several disciplines, including engineering, computer science, business, economics, and computer science, contribute to the interdisciplinary character of AI applications in management. A varied array of viewpoints on the difficulties and potential benefits of AI deployment have been woven into the complex tapestry of research that has resulted from this multidisciplinary effort. The research highlights several limitations and gaps in the available literature, despite the substantial gains. There is a clear need for more research on topics including ethical concerns, social effect, and the need of strong regulatory systems. To guarantee the appropriate and sustainable integration of AI technologies in management practices, it is crucial that academics, practitioners, and legislators address these problems as AI evolves further. The bibliometric study concludes that AI will play an increasingly significant role in creating the future of industrial management. Ongoing conversations and future improvements in the discipline are built upon the accumulated knowledge acquired via research endeavours. To overcome hurdles, maximise advantages, and build a responsible and ethical AI-driven management environment, companies must continue to adapt and exploit the promise of AI. This can only be achieved via a collaborative and multidisciplinary approach. This study sheds light on the present situation of artificial intelligence (AI) in management and provides useful information for directing future studies and business strategies.

11. Future of AI in Management

The use of AI to management in the future has the potential to drastically alter how businesses are run and choices are made. In the future, artificial intelligence technology will likely play a crucial role in many areas of administration. Some major features that will define the future of AI in management are as follows: Improved judgement is on the horizon as AI systems improve their ability to process massive volumes of data and distil useful findings. Effectiveness and efficiency will be increased as managers use AI algorithms to make decisions based on data in record time. Using AI's predictive analytics, business leaders will have a better idea of what the future holds. AI systems can recognise patterns, foresee market shifts, and offer invaluable insights for strategic planning and resource allocation by employing machine learning and predictive modelling approaches. Optimisation and automation: Artificial intelligence-driven automation will streamline mundane administrative activities. Managers will be able to devote more time to more strategic endeavours because of this. Algorithms powered by artificial intelligence (AI) will further optimise processes by constantly analysing data and making instantaneous modifications to maximise productivity and minimise waste. Organisations will be able to give clients more tailor-made experiences with the help of AI. Artificial intelligence algorithms can increase customer satisfaction and loyalty by analysing client data and preferences to offer personalised products or services, enhance customer service interactions via chatbots or virtual assistants, and distribute hyper-specific marketing campaigns. The future of artificial intelligence in management will centre on human and machine cooperation. Managers will use AI technologies to their advantage, but they will

still rely heavily on human judgement, creativity, and empathy in their daily work. The decision-making and problem-solving processes will improve because of this cooperation. AI that is both ethical and responsible is becoming increasingly important as AI is implemented at increasingly higher levels of management. Organisations will have to deal with issues of discrimination, privacy, openness, and responsibility. To guarantee the equitable and ethical application of AI technology in management, we will create responsible AI frameworks and rules. Artificial intelligence systems will learn and adapt to new circumstances in the commercial world over time. In the future, AI will be able to learn from its experiences, enhance its performance over time, and generate novel insights that can fuel innovation and competition thanks to reinforcement learning and adaptive algorithms. In general, the future of artificial intelligence in management will involve more automation, data-driven decisions, customised user experiences, and human-machine collaboration. To ensure the responsible and efficient use of AI technologies in managerial domains, businesses must consider not just the promise of AI but also its ethical, social, and legal ramifications.

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