

Artificial Intelligence in Healthcare Sector: A Literature Review of the Adoption Challenges

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Abstract

Artificial intelligence (AI) holds a potentially transformational change in the healthcare industry. Opportunities such as improved diagnostic accuracy, personalized treatment, and reduced administrative burden have been broadly discussed in the previous studies. In terms of actual implementation, there is limited research that explains the healthcare decision-makers' cautious-pace approach to scaling AI technology in healthcare organizations. The aim of this study is to review the existing literature to explore the key challenges that justify the slow adoption rate of artificial intelligence in the healthcare sector. The research also aims at providing a thorough understanding of challenges that prevent healthcare organizations from harnessing the benefits of AI. To achieve these goals, a literature review of 324 papers has been conducted to identify the internal and external key challenges and their impacts on the adoption of artificial intelligence in the healthcare sector. The results indicate that expanding the utilization of artificial intelligence technologies in healthcare has encountered several challenges emerging from technological capabilities, regulations and policies, data management, and the ethical landscape surrounding the use of AI. The findings of this study contribute to the body of knowledge by exploring the artificial intelligence adoption challenges.

Keywords

Artificial Intelligence, Machine Learning, Technology Implementation, Adoption Challenges, Healthcare Industry, Health Organization

1. Introduction

The recent decades have witnessed tremendous growth in the capabilities and applications of artificial intelligence (AI). First introduced by McCarthy in the

summer of 1956 (McCarthy et al., 2006), the rapid advancement in computational power, internet connectivity, digitalization, and cumulative knowledge have renewed academic research interest in AI across different industries. For example, in less than one year, the Chat Generative Pre-Trained Transformer (ChatGPT) by Open AI achieved more than 1000 PubMed citations in medical literature (Temsah et al., 2023), presenting the active interaction dynamic between AI innovation progress and academic research. Healthcare is one of many industries that seemingly will experience a dramatic change in the coming years, since, the transformative impact of AI extends beyond healthcare to other industries such as finance (Belanche et al., 2019), education (Chen et al., 2020), transportation (Parveen et al., 2022), and tourism (Knani et al., 2022).

Healthcare leaders in both private and public sectors work to utilize emerging technologies to enhance patient experience, reduce costs, and improve patient outcomes. The Internet of Things (IoT), cloud computing, wearables, and artificial intelligence (AI) are some examples of innovation areas that have the potential to meet the healthcare industry's needs (Amjad et al., 2023). The healthcare leaders' desire to capitalize on the ongoing computerized intelligence revolution is driven by the need of advanced innovation to process and analyze large amounts of digital medical data in an accurate and timely efficient manner (Pacis et al., 2018). The successful implementation of emerging technologies such as AI will change the healthcare service model from traditional approaches to a value-based care approach, where patients' personalized care becomes the priority.

The healthcare industry is a complex industry with different stakeholders, such as patients, doctors, hospital administrators, suppliers, oversight authorities, and pharmaceutical companies. The interactions among these stakeholders generate large amounts of data due to the increasingly digitalized nature of the industry, which can provide growth opportunities in areas such as personalized medicine and drug discovery. Emerging technologies such as AI, IoT, and cloud computing are important to enhance healthcare services and overcome challenges in the medical field (Bublitz et al., 2019; Vaishya et al., 2020). Out of these, AI is expected to play an important role in addressing many challenges in healthcare, including patient access to medical services and medical professionals increasing workload in nonvalue added areas that dilutes their ability to their patients. For instance, during covid 19 pandemic, the healthcare system was in need of decision-making intelligence systems for screening, analyzing, predicting, and tracking virus spread and uncovering patterns of the disease (Vaishya et al., 2020). AI applications such as machine learning (ML), natural language processing (NLP), and computer vision are critical to the future of healthcare. For example, the application of computer vision to radiology image analysis and dermatology screening, the use of natural language processing for mental health, the use of AI-based chatbots in telemedicine, and the use of intelligent assistive technologies for elderly care (Gille et al., 2020).

Related literature provides valuable contributions to the body of knowledge by examining the emerging technologies selection, adoption, and operational challenges at organizational and individual levels. Several studies have explored different aspects of AI adoption and implementation in the healthcare industry. For example, [Ali et al. \(2023\)](#) conducted a systemic review on the integration of AI in health systems and the role of unique individual needs within the system in adoption decisions. The study highlighted how health professionals' acceptance of AI models as a black box is a challenging considering the level of responsibility in healthcare decision making, and the need for learning how worker and AI can coexist in a rapidly evolving healthcare workplace. Another study by [Peterson et al. \(2022\)](#) discussed the adoption frameworks and models that could facilitate the AI adoption process. Their study highlighted the lack of informed investigation on understanding the AI acceptance level among patients, health workers, and policymakers. Moreover, the ethical challenges, such as accountability, privacy, and transparency, were examined by [Secinaro et al. \(2021\)](#) in their structural review of the role of AI in healthcare. The adoption of AI in healthcare organizations has established a new avenue for research exploration, bringing several opportunities and challenges for industry and academia alike.

Considering the importance of understanding the implications and the role of emerging technology in the future advancement of healthcare, the main goal of this study is to fill the gap in the literature by providing a comprehensive understanding of the challenges that hinder the potential of AI in healthcare. The research question that drives this study is designed to explore these challenges' role in the slow adoption of AI in healthcare.

2. Background and Related Work

There is growing literature on the role of artificial intelligence (AI) in healthcare ([Dlamini et al., 2020](#); [Fouad et al., 2020](#); [Lee et al., 2021](#); [Mehta et al., 2019](#)). AI's promising impact on healthcare has captured researcher's attention across different disciplines ([Davenport & Kalakota, 2019](#)). The attention the topic has received from the academic community reflects the importance of leveraging technological advancement to improve healthcare services. However, the literature shows a diversity in themes and focused areas, mainly driven by the desire to understand the feasibility and the impact of AI in healthcare ([El-Sherif et al., 2022](#)). Existing literature has many studies that investigate the impact of AI on medical practices. For instance, [Kaur et al. \(2020\)](#) discusses the role of AI predictive models in diagnosis and disease prevention and outlines different AI techniques and algorithms on this front. Another study used a three-year case study to investigate the influence of AI on dental assistants' work and dental monitoring workflow in orthodontic clinics ([Surovková et al., 2023](#)). However, despite the benefits and opportunities that can be realized by integrating AI into health systems, several challenges, such as trust, data privacy, technical difficulties, regulation policies, AI explainability, and ethical considerations, highly in-

fluence the adoption rate in health organizations (Pirtle et al., 2019).

3. Artificial Intelligence (AI)

Artificial intelligence (AI) is a long-standing research field. It was founded 67 years ago by McCarthy at the Dartmouth conference in 1956 (McCarthy et al., 2006). Since then, the AI field has experienced an accelerated pace of advancement in research and application by researchers, practitioners, and developers. Remarkably, AI as a technology lacks a universally accepted definition (Stone et al., 2022). The repaid changes and curiosity about the field's future direction get more attention than definitions. Nevertheless, some researchers use what AI researchers do to define AI in the operational context. For example, according to Graham et al. (2020) AI can refer to the field under the umbrella of computer sciences that develops systems to accomplish tasks that typically require human intelligence, such as making decisions. AI has different subfields and techniques based on the task requirement. Some of the primary subfields of AI include:

- Computer vision: Identify and interpret visual data such as objects, places, and people.
- Natural language processing (NLP): Identify and understand human language text or speech for automated conversation or sentiment analysis.
- Robotics: Design and build physical robots for autonomous operations, such as drones, driverless cars, and surgical robots.

However, as shown in **Figure 1**, AI models fundamentally developed based on the concept of input-outputs. Different AI techniques, such as machine learning (ML), deep learning (DL), and Generative pre-training transformer (GPT) (Vaswani et al., 2017), learn to perform tasks based on learning experience from historical data (data training). The learning procedures and task specifications distinguished these techniques from each other. For example, supervised learning that has a degree of human intervention in data perpetration is different from reinforcement learning that uses experience-driven sequential decision-making (Stone et al., 2022). Currently, AI systems can accomplish various critical tasks in a fast and highly accurate manner (Lee et al., 2021).

Several hospitals and healthcare organizations explore the usability of AI applications in their daily operations. These applications range from data analytics for health outcomes to diagnosis assisting tools to automated clinical workflow. For example, the radiology department at Mayo Clinic collaborates with tech companies to develop AI algorithms for enhancing medical imaging techniques (Wen et al., 2019). Doctors and healthcare leaders from Duke University Hospital and Hartford Healthcare work with doctoral students from the Massachusetts Institute of Technology to develop AI tools to help in diagnosis, admission, and administrative routine tasks (Kellogg et al., 2022). However, the application of AI tools in healthcare extends to cover more complex tasks such as drug discovery, genomics, surgery assistance, and mental health. Further examples of use cases are presented in **Table 1**.

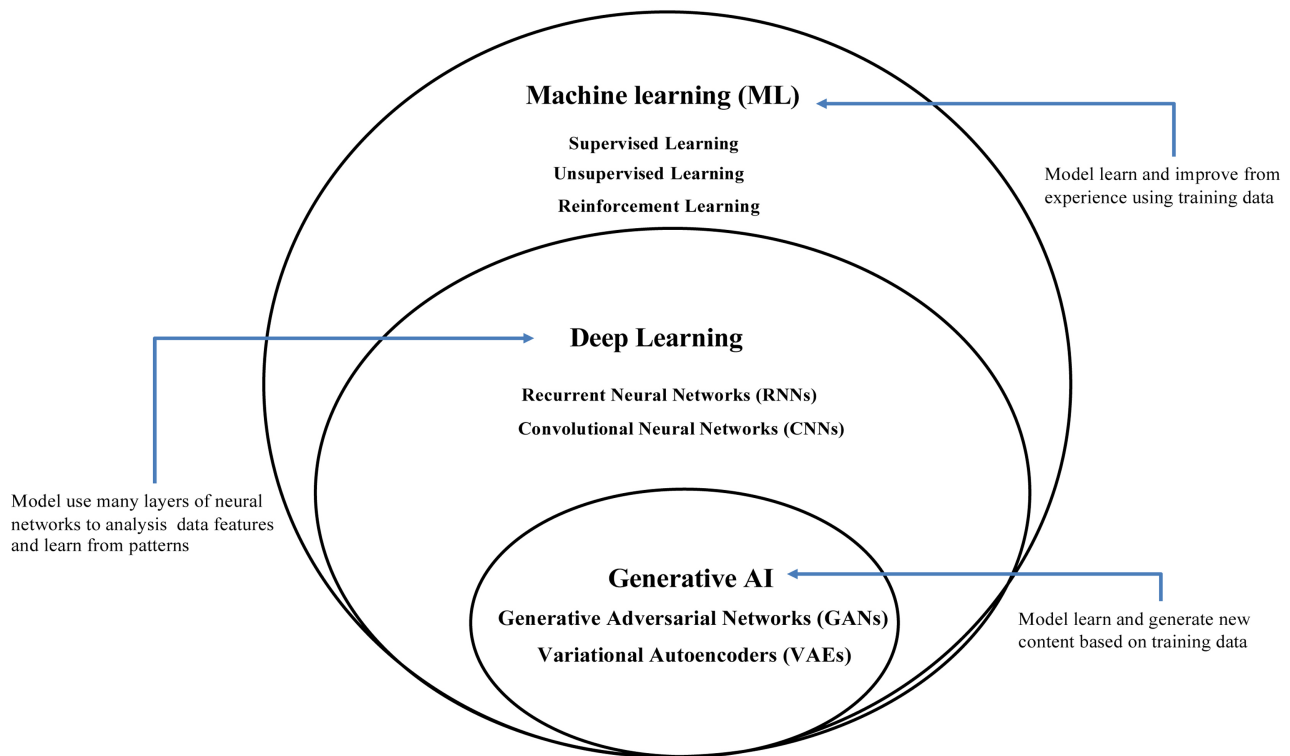


Figure 1. Main subfields of artificial intelligence systems.

Table 1. Examples of artificial intelligence (AI) use cases in healthcare.

Medical Field	Use Case	Reference
Radiology	Use of deep learning to enhance medical images and improve diagnosis accuracy.	(Hosny et al., 2018) (Pesapane et al., 2018)
Dermatology	Use of AI screening tools to identify and diagnose skin diseases.	(Fernandez et al., 2023)
Cardiology	Use of AI tools to detect or predict heart defects.	(Klang et al., 2023)
Dental Health	Use of AI tools for diagnosis, treatment planning, and record analysis.	(Schwendicke et al., 2020)
Neurology	Use of AI tools in stroke diagnosis and hospitalization period prediction.	(Ali et al., 2020)
Drug Discovery	Use of AI tools to enhance clinical trials, improve drug design, reduce development time, and increase safety.	(Paul et al., 2021)
Mental Health	Use of AI tools for early detection and personalized treatment plan.	(Graham et al., 2019)

Despite the expanding usability of AI technology in different medical fields, the real-world integration rate remains low. Many healthcare organizations lack access or the resources to AI technology. Although the healthcare sector's technological advancement plays a vital role in society's well-being, the potential benefits of technology are met with different challenges. The rest of this paper will discuss the AI adoption and utilization challenges that face decision-makers in healthcare organizations.

4. Research Methodology

Literature that discussed challenges impacting AI adoption or scaling in healthcare from different perspectives was examined using a comprehensive research strategy, as illustrated in **Figure 2**. The research strategy used in this study developed based on the principles outlined by (Fisch & Block, 2018), which include a clear research objective, identification of information sources and relevant literature, balance between breadth and depth, and more focus on concepts rather than studies. Given the rapid evolving of the topic and the importance of capturing the most recent insights, the review focused on published research and review articles in the last five years. It included publications that clearly refer to AI in healthcare in their title, abstract, and keywords.

This review was conducted using defined keywords across the following scientific databases: PubMed, Science Direct, Google Scholar, IEEE Xplore, and SpringerLink. The search terms were developed based on a repaid review of relative studies. Combinations of the following keywords were used to identify related literature (“Artificial intelligence” OR AI OR “Machine learning” OR “Deep learning” AND Health OR Healthcare OR “Health organization” AND “Adoption factor” OR “adoption barrier” OR “adoption challenge”).

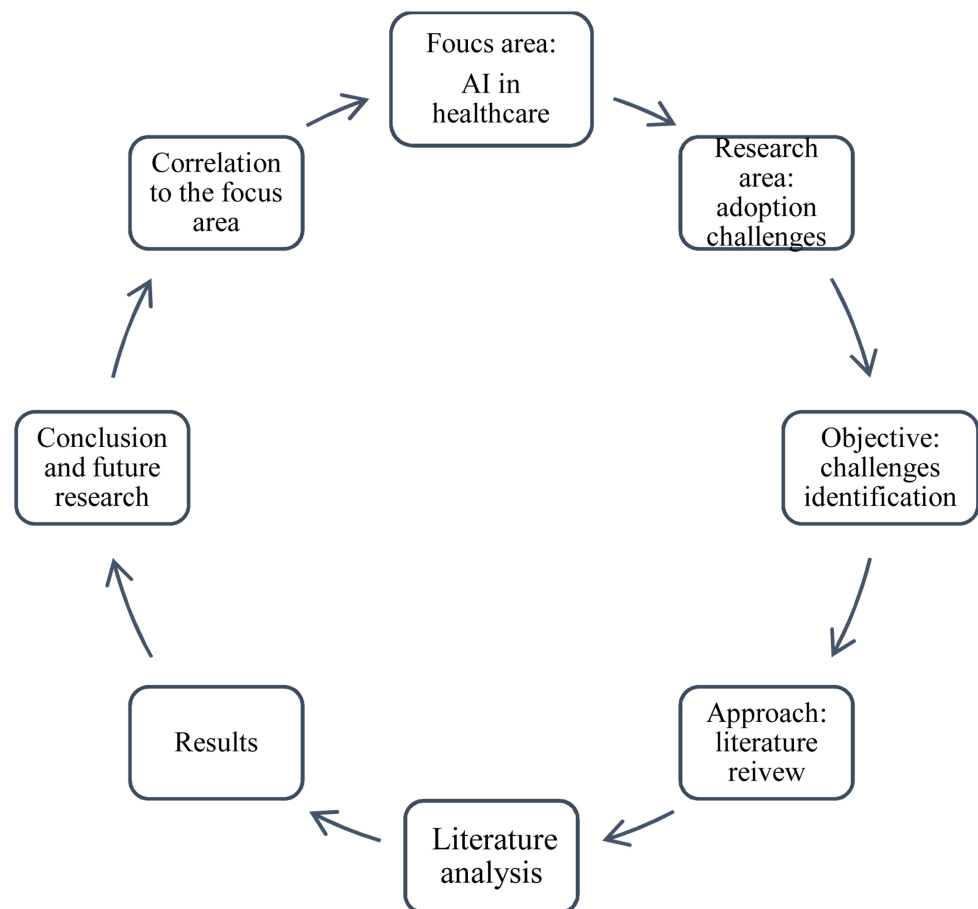


Figure 2. Literature review process, adopted from (Tenney & Sheikh, 2019).

5. Exclusion and Inclusion Criteria

The Initial search process using the keywords yielded a total of 1297 records, as shown in **Figure 3**. This number has been reduced to 756 potential contributions after excluding 541 records due to the type, language, and access restriction reasons. Screening of titles and abstracts was performed then to ensure that the scope of the studies is focused on the challenges facing the expansion of AI in healthcare. An additional 432 articles were removed after screening as they did not fall within the scope of the review or being duplicated. The review includes 324 published research and review articles from 2018 to 2023 that discussed or mentioned specific challenges, barriers, or factors hindering AI adoption in healthcare. The review includes only research, reviews, and conference documents written in English language. Other types of publications, such as book chapters, editorials, comments, and opinions, were excluded. Also, technical studies that included application development and intervention-based studies that discussed the AI system design in a medical context were excluded. Moreover, duplicated papers and papers that have restricted access to the full text were excluded as well.

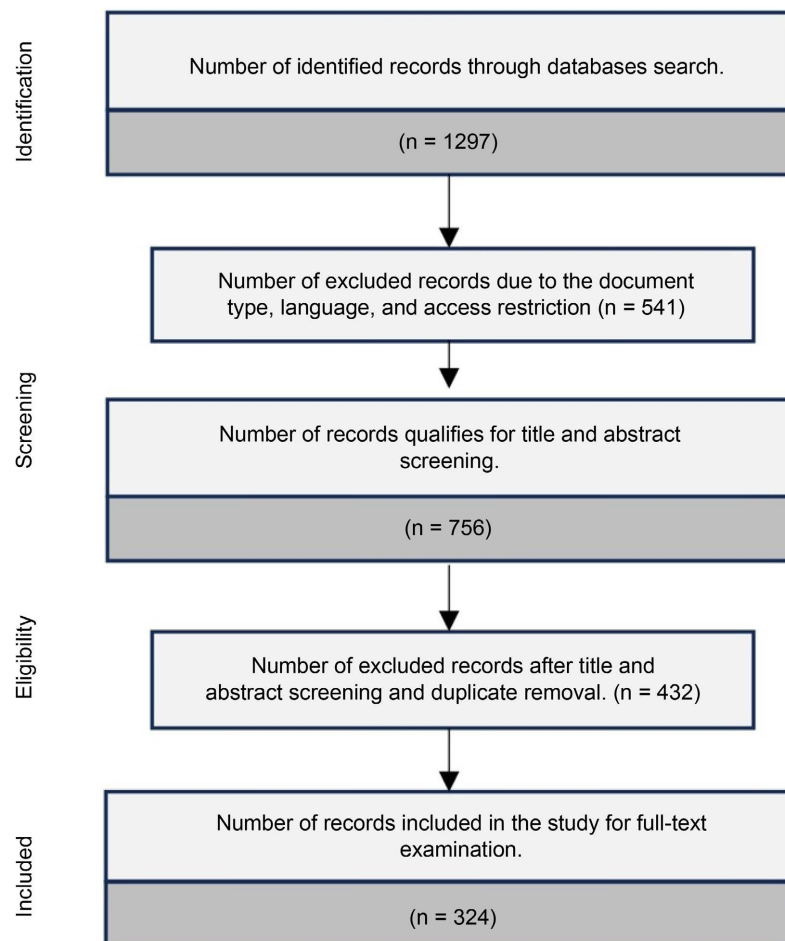


Figure 3. Literature selection process diagram.

6. Results

Following the initial screening of titles and abstracts and removal of duplicates, 324 articles were identified for in-depth examination. This large number of studies reflects the rapidly growing interest in the topic and highlights the efforts undertaken by researchers in this domain. The historical publication analysis indicates a significant increase in the number of publications in the last five years as shown in **Figure 4**. These articles went through full-text analysis to determine their relevance and alignment with the objective of this review. The diversity of articles sources, such as sustainability (Buchelt et al., 2020), economics (Nguyen Van, 2022), and psychiatry (Graham et al., 2020) reflects the multidisciplinary nature of this topic. It suggests that researchers from different fields are eager to explore the AI-associated challenges in the healthcare sector. A noticeable part of the literature, especially the papers from management literature, has adopted a broader perspective on examining the topic. AI in healthcare is often investigated in the context of other emerging technologies. For instance, a number of studies discuss the role of AI as a driven platform for other technologies, such as the Internet of Things (IoT) (Calegari & Fettermann, 2022) and Robotics (Boch et al., 2023). This integration approach indicates that AI can be considered an important part of a larger intelligent ecosystem in healthcare settings.

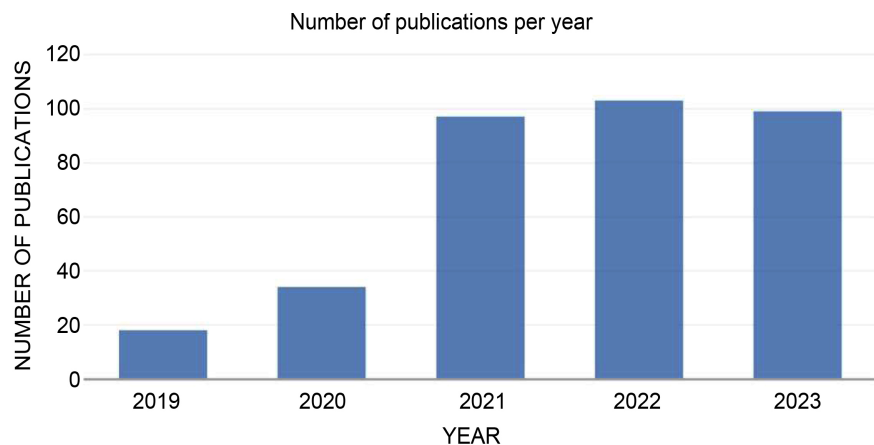


Figure 4. Number of publications in the last five years.

However, the extracted articles for this search have been categorized into different research themes according to the full-text analysis. Firstly, technology management-related studies include studies about assessment, evaluation, and strategic decision-making aspects of the topic. The second theme is health services, which include studies that explore AI integrating challenges in specific medical areas. Lastly, the emerging technology theme, which involves studies, discusses the topic from an innovation diffusion perspective. The aim of this paper, as shown in **Figure 5**, focuses on the intersection between these interconnected research themes.

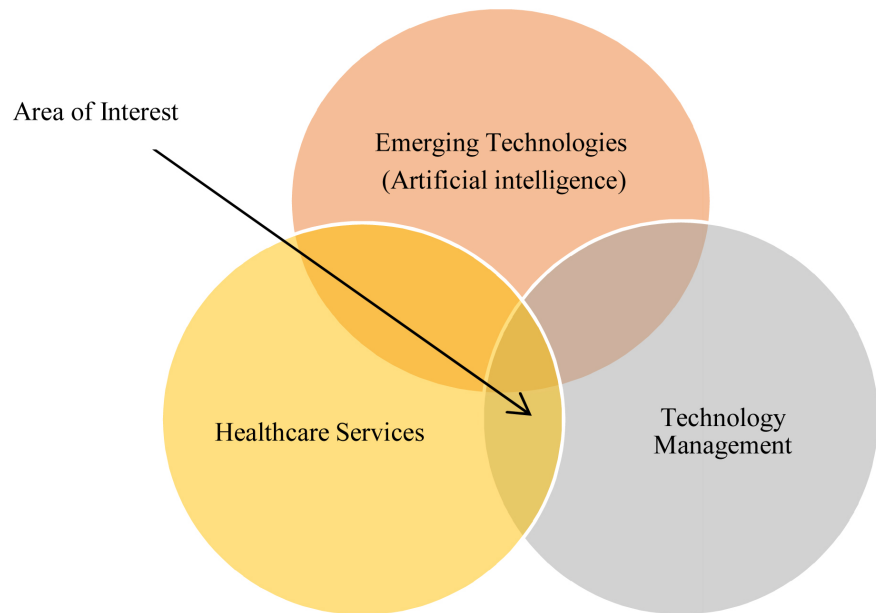


Figure 5. Research area of interest.

Table 2 provides a list of examples of papers included in this review. It provides an overview of the study objectives and defines potential research gaps.

7. Discussion

The aim of this paper is to identify and discuss challenges that prevent the healthcare industry from harnessing the potential of artificial intelligence (AI). The growing literature in this research area emphasizes the importance of investigating these challenges and providing scientific-based recommendations to support the decision-making process. The review of the included studies results in the identification of different challenges associated with AI adoption in healthcare. However, the analysis of these challenges reveals a degree of overlap or similarity in interpretation. For instance, the challenge related to financial commitments required for developing AI systems has different references, such as economics, costs, and capital. Moreover, the issues surrounding liability overlap with legal concerns. To avoid terminology confusion and add more clarity, the identified challenges have been categorized into the following Social, Technology, Organization, Regulatory, and Economic (STORE) perspectives, as shown in **Table 3**.

Overall, part of the challenges can be addressed internally within health organizations; hence, the organizations have control over causes. For example, IT infrastructure limitation has a significant impact on integrating advanced systems such as AI. This is a particularly more pressing issue in developing countries (Petersson et al., 2022). Moreover, healthcare organizations that lack AI-compatible systems can overcome the technology gap by upgrading current systems to meet the integration requirements. The integration of AI in the clinical

Table 2. Sample of reviewed papers and potential gaps.

Title	Source	Highlights	Gaps
Organizational, professional, and patient characteristics associated with artificial intelligence adoption in healthcare: A systematic review.	(Khanijahani et al., 2022)	Study organizational, professional, and patient characteristics factors that influence the adoption of Artificial Intelligence (AI) in healthcare.	Technology aspects. Low response rate.
Artificial intelligence healthcare service resources adoption by medical institutions based on the TOE framework.	(Yang et al., 2022)	Study factors influence AI adoption, such as awareness, risk of data, management support, and policy factors. Adopted hierarchy decision-making processes to present factors relation.	Ethical and social factors. Hospital size and government policies are subject to change.
Perspective of Information Technology Decision Makers on Factors Influencing Adoption and Implementation of Artificial Intelligence Technologies in 40 German Hospitals: Descriptive Analysis.	(Weinert et al., 2022)	The study focuses on the AI readiness of German hospitals and the challenges to AI adoption. Focus on IT managers. Major challenges include existing IT infrastructure and unclear business cases.	Specific country. Small sample compared to the number of hospitals. Low response rate, survey technical issues. Specific group of stakeholders.
Big data analytics: Understanding its capabilities and potential benefits for healthcare organizations.	(Wang et al., 2018)	Examines the design and implementation of big data analytics in healthcare. Use 26 implementation cases.	Associated challenges. Technology perspective.
The role of artificial intelligence in healthcare: a structured literature review.	(Secinaro et al., 2021)	Discuss the role of AI in cardiac imaging. Highlight challenges related to data management, ethics, and regulation.	Specific AI application. Human factors.
Accelerating the integration of ChatGPT and other large-scale AI models into biomedical research and healthcare.	(Wang et al., 2023)	Benefits and challenges of integrating large-scale AI models into biomedical research and healthcare.	Organizational challenges. Specific AI application.
Artificial intelligence in healthcare: Opportunities and risk for future.	(Sunarti et al., 2021)	Literature review from three databases. Highlight challenges such as privacy and ethical issues.	Technological factors, costs, and management role.
Mapping the challenges of Artificial Intelligence in the public sector: Evidence from public healthcare.	(Sun & Medaglia, 2019)	Evaluates the challenges encountered AI adoption in public healthcare in China. Used case study methodology.	Specific country. China has a unique health-care system. Limited to the public sector.
Current Challenges and Barriers to Real-World Artificial Intelligence Adoption for the Healthcare System, Provider, and the Patient.	(Singh et al., 2020)	Discuss the AI adoption challenge in a particular area, ophthalmology. Emphasize ethical and liability concerns.	Technology factors. Specific application area.

Continued

User Intentions to Use ChatGPT for Self-Diagnosis and Health-Related Purposes: Cross-sectional Survey Study.	(Shahsavari & Choudhury, 2023)	Discuss factors that influence user intention. Highlighted the importance of collaborations among developers and health policymakers.	Users 'actual use Organization factors. Technology factors.
Artificial intelligence in healthcare: Complementing, not replacing, doctors and healthcare providers.	(Sezgin, 2023)	Discuss the doctor and provider's concerns about AI, especially the potential replacement.	Organization factors. Technology factors. Patients' role.
Artificial intelligence in dentistry: chances and challenges.	(Schwendicke et al., 2020)	Discuss AI applications' benefits and challenges in the field of dentistry. Highlighted data availability and lack of AI deployment plan as challenges.	Specific application area Ethical and social factors.
Impact and Challenges of Integrating Artificial Intelligence and Telemedicine into Clinical Ophthalmology.	(Ramessur et al., 2021)	Discuss the benefits and challenges of AI in ophthalmology. Focus on legal, safety, and privacy challenges.	Specific application area. Technology factors.
Framework for Understanding the Impact of Machine Learning and Artificial Intelligence in Healthcare Industry.	(Raha & Seetharaman, 2022)	Discuss AI adoption factors using a conceptual framework. Focus on data, workforce, patients, security, and privacy.	Specific country. Cultural and infrastructural differences. Organization factors.
Ethical, legal, and financial considerations of artificial intelligence in surgery.	(Morris et al., 2023)	Discuss the AI adoption challenge in surgery. Focus on decision-making considerations such as legal, financial, and ethical implications.	Specific application area. Organization factors. Technology Factors.
Investigating the impacting factors for the healthcare professionals to adopt artificial intelligence-based medical diagnosis support system (AIMDSS).	(Fan et al., 2020)	Discuss healthcare professionals' adoption of AI-based decision-making technology. Highlighted trust, complexity, technology, and personal IT experience as influencing factors.	Specific country (China). Specific application. Organizational Factors. Ethical and legal factors.

workplace requires understanding and support from internal users. The technical knowledge gap of health professionals and lack of necessary training challenge the usability of AI in healthcare (Reddy et al., 2020). Understanding the specific role of AI is critical to minimizing health professionals' resistance to change (Weinert et al., 2022). In addition to human and technology challenges, data management and security plays an important role in enabling AI integration (Firouzi et al., 2022). Medical data in large volumes is essential to enable AI in healthcare. However, the privacy and security of medical data can be addressed by healthcare management (Singh et al., 2020). Sharing medical data with AI developers and tech experts while ensuring the protection level is a

Table 3. Summary of the AI adoption challenges in healthcare as identified by literature review.

Perspective	Challenges	Source
Social	• Safety, fairness, social equality.	(Kumar et al., 2021)
	• Public acceptance and trust.	(Alsheibani et al., 2019)
	• Privacy, transparency, and ethical use.	(Boada et al., 2021; Char et al., 2018; Davenport & Kalakota, 2019)
	• liability and legal accountability.	(Ahmad et al., 2020)
Technology	• Technical integration, IT infrastructure, and lack of compatible systems.	(Nguyen Van, 2022; Petersson et al., 2022)
	• Quality and functionality of AI systems.	(Solaimani & Swaak, 2023)
	• AI systems ownership and privatization.	(Racine et al., 2019)
	• Data quality, management, and usability.	(Firouzi et al., 2022)
Organization	• Organization structure, size, culture, and management support.	(Secinaro et al., 2021)
	• Resistance to change and leadership roles.	(Reddy et al., 2020; Weinert et al., 2022)
	• Health professional adoptions, required training programs, and fear of replacement.	(Fan et al., 2020; Sezgin, 2023)
	• Patient awareness and AI explainability.	(Shahsavari & Choudhury, 2023)
Regulatory	• AI regulations rapid change, uncertainty, and lack of clarity.	(Brecker et al., 2023; Cohen et al., 2020)
	• Approval process time and complexity.	(Verma et al., 2020)
	• Compliance cost, resources, and expertise requirements.	(Hoffmann-Riem, 2020)
	• lack of consensus among international regulatory bodies.	(Lekadir et al., 2023)
Economic	• Limited financial resources.	(Morris et al., 2023; Owoyemi et al., 2020)
	• Unclear Return on Investment (ROI).	(Wolff et al., 2020)
	• High development and maintenance costs.	(Alnasser, 2023)
	• Reimbursement for AI based services.	(Alami et al., 2020)

challenging decision encounter for decision-makers. The economic implication is another challenge facing health organizations. Healthcare organizations often operate under heavy financial burdens, especially in the public sector. The costs associated with AI integration are significant, which may include technology infrastructure upgrading, software procurement, training programs, and talent acquisition. This imposes a significant challenge toward AI integration in healthcare.

While some of the challenges can be addressed within health organizations, other challenges are subject to external environmental change (Solaimani & Swaak, 2023). The challenges in this context have a multidimensional nature that is influenced by different factors. For example, policies and regulations surrounding the healthcare industry are considered a leading challenge for AI integration. The healthcare sector is highly regulated sector and strictly follows standards and guidelines (Renukappa et al., 2022). On the other hand, the AI regulation landscape remains uncertain, considering the age and exponential growth of the

field. This can lead to challenges in developing compliance plan that meet regulatory requirements (Breckner et al., 2023). Additionally, the lengthy and complex approval process can increase the cost and delay the deployment of AI systems, especially for limited resources organizations (Verma et al., 2020). Although assurance of safety, security, and ethical use is a common principle enforced by different regulatory agencies to enable AI intervention in healthcare, the lack of coordination among international agencies can create operational challenges across borders (Lekadir et al., 2023). Additionally, the integration of AI in healthcare needs collaboration between different parties, such as AI experts, policymakers, and patients. Each party has a perspective on the uses of AI in the health context. Creating harmony among different parties imposes a communication challenge and requires a lot of work to realize the benefits of AI.

8. Conclusion and Future Research

Despite the revolutionized promise of AI in healthcare, the way to harness the potential of this technology is hindered by many challenges. A literature review has been conducted to identify these challenges and explore their influence on the adoption decision in healthcare. These challenges have been divided into STORE perspectives. Leadership roles, health professional acceptance, infrastructure limitation, management support, and data management are examples of challenges within the health organization. The external challenges include regulatory issues, public trust, and social and ethical concerns surrounding AI implementation. Addressing these challenges requires careful strategic planning that involves all stakeholders, such as patients, health professionals, AI talents, policymakers, and public opinion leaders. Healthcare's future directions and potential change rely on the trust of patients and the public. A transparent decision process about AI integration and use cases can reduce misconceptions from both internal and external actors and create a supportive environment. Also, establishing collaboration projects with academic institutions can reduce the economic impact of integrating AI into healthcare. Academic institutions have the talents and the desire to apply knowledge in real life, which could help health organizations overcome limited resources abstractions.

9. Future Research

The adoption of emerging technologies, including AI, often meet with challenges, and identifying these challenges is a step in a more complex journey. To strategically address and overcome these challenges, decision-makers must prioritize these challenges according to their level of impact. Therefore, the future research direction should employ qualitative or quantitative research approaches to further investigate, measure, and rank these challenges according to their impacts on the adoption of AI in the healthcare sector. This objective can be achieved through the construction of an informed pair comparison decision-making

framework such as Analytic hierarchy process (AHP) that can be used to rank and evaluate the relative impact of each challenge compared to others based on insights from panels of domain experts. The potential outcome of this research will help decision-makers prioritize their efforts and resources, which will consequently enhance the organization's opportunity to reach the potential of adopting AI technology.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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