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ARTIFICIAL INTELLIGENCE (AI)-BASED ENTERPRISE BUSINESS INFORMATION MANAGEMENT ARCHIVE SYSTEM

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Abstract: *The purpose of this study is to describe an artificial intelligence (AI)-based corporate information management archive system. The use and technological advancement of artificial intelligence in corporate information management archiving systems is the primary emphasis of this research. This study employs a qualitative methodology that generates descriptive data through written text or behavior observations and takes a comprehensive approach to the situation and people. This article's research methodology blends empirical analysis with a study of the literature. This study's primary focus is on the state of artificial intelligence technology research and application in commercial data archive management systems. Business information management archive systems that use artificial intelligence (AI) technology provide creative ways to handle ever-more complicated corporate data. AI makes it possible to automate the process of effectively storing, categorizing, searching, and analyzing data, which raises the precision and efficacy of information management. Furthermore, this technology may enhance the security and openness of company data, identify irregularities, and offer strategic advice. AI has the potential to be a game-changing instrument that supports corporate objectives in the digital age if it is regularly adjusted and the appropriate policies are developed.*

Keywords: *Bussines, system, management and AI*

I. INTRODUCTION

In the current digital age, the corporate world is significantly impacted by the quick development of information technology. Information management is an important component that must be considered by companies in facing the challenges of globalization and increasingly fierce competition. The data and information owned by the company can affect the success of the company's strategy, operations and decision-making. Therefore, an effective and efficient archive management system is the main key in supporting the company's business activities. However, along with the increasing complexity of data generated by daily business activities, many companies face problems in managing these data appropriately and quickly.

Information technology, especially artificial intelligence (AI), is essential in this situation. AI technology makes it possible to manage vast volumes of data in a more automated, intelligent, and effective way. The use of AI-based archive systems in the context of company information management offers a chance

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to get beyond a number of obstacles in the administration of corporate documents and data. AI-based archive systems provide smart solutions in processing, storing, and managing corporate information in a more automated and precise manner. Artificial intelligence (AI) is becoming an important and transformative tool in technology[1].

AI-based archive systems utilize artificial intelligence to analyze, classify, and store information in archives in a more structured and accessible manner. AI allows the system to learn and adapt to patterns in company data, thereby improving the accuracy and efficiency of information management. In addition, AI is also able to make predictions, detect anomalies, and provide recommendations that can help management make better and more timely decisions.

AI applications in business information management archive systems may also lessen the need for labor-intensive, human error-prone manual procedures. With the automation offered by this technology, companies can focus more on strategic activities that support business development. In addition, the application of AI can also speed up the data search process, improve information security, and increase transparency in records management.

However, while AI technology offers various benefits, its implementation in business information management archive systems is not without its challenges. Some of the challenges that companies need to face are related to initial investment costs, the need for human resource training, and potential problems in integrating AI systems with existing infrastructure. Therefore, it is important for companies to consider these factors before adopting AI technology in their archive system.

This article aims to discuss in depth the application of AI-based archive systems in enterprise business information management. This article will also review the various benefits, challenges, and impacts that this technology can have on the efficiency and effectiveness of information management in the company. In addition, this article will also provide insight into the development of AI technology over time.

II. RESEARCH METODS

This research uses qualitative methods. Qualitative research is a research method that adopts a holistic approach to the context and individuals, producing descriptive data about individuals through written text or observed behavior. The research methodology used in this paper blends empirical analysis with a study of the literature. The state of artificial intelligence technology's use and advancement in business data management archiving systems is the main topic of the study. Secondary data gathered from pertinent literature, including books and scholarly papers, is part of data collecting. Qualitative analysis, the analysis approach employed in this study, generates deductive conclusions from the data gathered from the literature review and is then extensively addresse[2].

III. RESULT AND DISCUSSION

Basic Concept of Management Information System

The system is interpreted as a work network consisting of interrelated procedures, working together to carry out a task or achieve certain goals. Systems have several characteristics, including components or elements, system boundaries, external environment, connectors, inputs, processing, outputs, and goals or objectives. In addition, systems are classified into several categories, namely:

1. A physical system and an abstract system.
2. both man-made and natural systems.
3. systems that are probabilistic and deterministic.
4. two types of systems: closed and open.

According to Mc.Leod in, SIM is defined as a computer-based system that provides information to a number of users who have similar needs. Managers or organizational leaders use the results of information to make decisions about how to solve problems . An information management system (IMS) is a system designed to collect, store, manage and distribute relevant information to support decision-making and organizational

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operations. The main objective of a SIM is to provide accurate information to those who need it, in the appropriate format, and at the right time. It consists of various components, including software,hardware[3].

The importance of management information systems

Both private and public organizations are increasingly dependent on management information systems. Managers are increasingly realizing the importance of getting accurate and timely information can affect decisions and overall organizational effectiveness. Computers are highly sophisticated and fast-growing tools that are used everywhere to manage information.

The rise of a substantial corpus of prescriptive literature on how to improve computers as an information management tool is one effect of this trend. Any manager who is required to evaluate and implement these prescriptive reasons has to be able to distinguish between prescriptions that are suitable for their particular circumstance[4].

Development of Artificial Intelligence (AI) Technology

AI was first proposed by Alan Turing in the 1950s-1960s with the concept of the Turing Test, which tested whether machines could think like humans. In this era, AI focused more on programming rules and logic to simulate human thought. The concept of expert systems began to develop where computer programs could make decisions based on manually entered knowledge. In addition, the field of machine learning began to emerge, where computers could learn from data without explicit programming. 1990-2000 During this era, AI began to be applied in real-world applications, such as speech recognition and image recognition. Machine learning, particularly neural networks algorithms, began to be used in research and practical applications.

In recent years, artificial intelligence (AI) has undergone rapid development and made a significant impact on various industries. The creation of sophisticated models that can comprehend and produce language in a human-like way is one instance of AI progress(Mohd Rushidi Mohd Amin a, and C 2025). This technology advances the integration of tools for the Fourth Industrial Revolution. This tool integration aims to enhance overall project results, accuracy, and efficiency[5]. The phrase artificial intelligence (AI) describes computer technology designed to do tasks like learning, reasoning, and problem solving that often need human intellect[6].

In the future, artificial intelligence (AI) technology is expected to progress rapidly. Therefore, in order to stay competitive and adjust to the advancements in science and technology, humans must keep improving their skills. Although AI can replace some of the tasks that humans used to do, the emotional aspect remains something that cannot be replicated by technology. Therefore, in order for humankind to continue to have worth and significance in the future, individuals everywhere—including in Indonesia—must preserve, grow, and enhance their emotional intelligence. To improve the overall quality of life, as true human beings, we need to cultivate a sense of care, empathy and compassion for our fellow living beings[7].

AI Integration in Business Information Management Archive System

Computer artificial intelligence technology has many applications that can be used in businesses related to information management archive systems. It can increase the level of intelligence and automation of the system and enable effective analysis and efficient management of very large data sets. using machine learning algorithms such as neural networks, decision trees, naive Bayesian classifiers, etc. The system can automatically classify and annotate enterprise data, perform automatic data processing and analysis; natural language processing technology can identify and extract important information from enterprise data; deep learning technology can be used for image recognition, helping the system automatically recognize documents such as corporate business licenses and annual reports; and natural language processing technology can perform intelligent search and data extraction.

In addition, a recommendation system based on artificial intelligence can improve the user experience by providing company information recommendations tailored to user preferences. The application of business information management archive systems has been researched on several issues, such as data security, privacy protection, and the ability to interpret algorithms. However, reasonable design and implementation can solve these problems. In summary, AI has enormous potential for enterprise business data(Yang H, Alphones A, Xiong Z 2020). Enterprise information management records are classified and archived using a naive Bayesian classifier. Features are extracted from the text data for use by the naive Bayesian classifier[8].

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Implementation of AI in various aspects of information management in the Enterprise

With the introduction of artificial intelligence (AI) technology, information management has come a long way. Several case studies and research have shown that AI can be used in various aspects of information management, such as knowledge management systems and digital archive management(Farwati et al. 2023). For example, the National Archives and Records Administration (NARA) in the United States uses artificial intelligence to process and categorize millions of historical records. Machine learning methods save time and human labor by identifying and classifying archival documents. As a result, the speed of document processing increased by 30% and the accuracy of archive management was improved.

Furthermore, a 2020 study by Smith et al. examined "AI-Driven Information Discovery," demonstrating how AI might enhance big businesses' information retrieval systems. AI systems can produce more relevant search results by understanding and responding to queries in the natural language used by users through natural language processing (NLP). It illustrates how AI may significantly improve the efficacy of information retrieval systems by increasing user satisfaction by 20% and reducing the time required to search for information by 40%[9].

The use of AI can reduce human errors by 35% and speed up document processing by 50%. Additional research conducted by Brown et al. in 2019 on the topic “AI and Big Data Analytics for Strategic Decision Making” examines how large technology companies utilize big data and AI in analyzing information. Machine learning (ML) algorithms are applied to process data on a large scale with the aim of generating insights that support strategic decision making. The results showed that AI increased the accuracy of market predictions by 25% and improved decision-making efficiency by 15%. These findings confirm that AI has an important role to play in supporting data-driven decisions.

Many studies have been conducted on enterprise information management. Li Xiaoyan studied the design principles and design of the hierarchical structure and basic modules for the information management system of footwear and clothing enterprises based on the J2EE design pattern. The purpose is to provide a reference for the construction of footwear and clothing enterprise information management systems[10].

Wen Lei created the overall resource management system architecture, designed corresponding functions for each subsystem, and implemented the system hardware environment. He organized the software execution algorithm by using big data fusion technology, mined resource association rules through fuzzy scheduling, and established a fusion model for similar resources based on similarity functions, improving business processing efficiency, and solving unsolvable problems[11].

Energy information collection, customer payment management, marketing report management, and system development are some of the subsystems designed by An Dawei. He defined the system algorithm using the improved K-means method, added the concept of weights, assigned elements to clusters closest to the center point, and generated archive classification statistics[12].Liu Yu concentrates on the development and implementation of laboratory information management systems. He does this by analyzing project management theory and learning how core functional modules such as data management, task management, data input, data query, report processing, and database work[13]. The in-depth research conducted by Chen Hong discusses the innovative use of digital records management information systems in hospital records management[14]. A structured literature review on industry 4.0, digital transformation, and knowledge management [15].

Looks at blockchain-based frameworks for building sound information management[16]. Veza O used PHP, CSS, and a MySQL database connection to construct a company information management system[17]. Munir M was interested in learning how established assets are handled by the strategic asset information management (AIM) approach[18]. Settembre-Blundo D creates a new interpretive framework for assessing enterprise risk management methods[19].

Artificial Intelligence (AI) Applications in Document and Records Management

One application of AI is automation in document classification. By utilizing machine learning algorithms, AI can automatically classify documents based on their content and format[20].In addition to ensuring consistent data management, this process also saves time that would normally be spent on manual classification. The accuracy in document classification increases, thereby reducing human errors that often occur in manual processes. Artificial intelligence-based Optical Character Recognition (OCR) technology also plays

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an important role in document digitization. OCR allows printed documents to be converted into text that can be searched and processed further, while AI is able to extract information from scanned documents with a high degree of accuracy, making searching and archiving easier.

OCR technology allows organizations to convert physical archives into a more structured and accessible digital database, thus speeding up the process of finding documents when needed. Additionally, one of the features of AI in document and records management is automatic indexing, which works by identifying the metadata as well as the main keywords of each document[21].

This process speeds up the categorization of documents and makes it easier to find them in the future. With automatic indexing, companies can ensure that documents are well organized and can be accessed easily when needed. In addition, AI's ability to analyze sentiment in documents also plays an important role. For example, AI can assess sentiment in product reviews or customer emails to provide insight into public perception and opinion. This information is valuable to companies as it helps them measure customer satisfaction levels and understand consumer feedback more deeply. Through sentiment analysis, companies can make decisions more quickly and accurately.

AI also plays a role in document version management, security, and compliance. With this technology, the system can automatically manage different versions of documents, monitor changes, and accurately store previous versions. This ensures that the information used remains up-to-date and relevant. In terms of security, AI is able to identify suspicious activity in document access and provide early warning of potential security breaches. In addition, AI helps ensure compliance with company policies and regulations, minimizing the risk of potentially costly breaches.

Key advantages and challenges of using AI in records and document management

The key advantage of using AI in records and document management(Amalia Yunia Rahmawati 2020). is its ability to automate the search and retrieval process. Artificial intelligence algorithms have the ability to analyze data usage patterns and help find relevant information quickly and accurately. This is especially beneficial in situations where quick access to information is critical, such as when making business decisions or complying with regulations. The process of digitizing conventional archives using AI. Many companies still store documents and archives physically. However, AI-assisted digitization processes can convert physical documents into electronic formats quickly and accurately, which makes searching and managing documents easier. OCR (Optical Character Recognition) technology driven by AI can identify text in photos and turn it into searchable information. AI helps project managers manage time and resources. AI can analyze previous project schedules and provide advice on the ideal allocation of resources, helping to ensure projects run on schedule. In addition, AI is able to predict problems or delays that may occur in the project, so that corrective actions can be taken immediately.

Although AI has many benefits for records and document management, there are some issues that need to be addressed. The high expense of deploying and sustaining AI systems is one of the primary problems. Furthermore, integrating AI into current systems might occasionally need a significant amount of work. Another factor to consider is the need for employees to be trained and adapted to the new technology. Regulatory compliance and privacy are additional issues that must be addressed. Data is a precious resource, and improper application of AI might result in data misuse(Purwaamijaya & Prasetyo, 2022). Therefore, to ensure that data privacy and security are maintained, strict data security policies must be implemented. If AI technology is used, applicable laws, such as the European GDPR, must be complied with.

Artificial Intelligence's (AI) Effect on Document and Records Management

In the development aspect, AI significantly improves efficiency in records management by minimizing human errors and speeding up various processes. Moreover, with its capabilities in predictive analytics, AI helps organizations save time and resources. Additionally, records managers may use AI to spot trends and patterns in the data they oversee. In terms of development, AI greatly increases records management efficiency by reducing human mistake and expediting a number of procedures. Moreover, given its powers in predictive analytics, AI helps enterprises save time and money. Records managers can also spot trends and patterns in the data they handle thanks to AI. AI gives deeper insights, which play a role in assisting strategic decision-making. Furthermore, AI improves security by identifying online risks and implementing automated encryption to shield private data from unwanted access.

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Overall, AI is making a huge impact in records and document management, from automating the implementation process, increasing efficiency in development, to formulating the right policies and regulations. By continually modifying and implementing fair and bias-free policies, the use of AI may further improve the efficacy and efficiency of records and document management.

IV. CONCLUSSION

Business information management archive systems that use artificial intelligence (AI) technology provide creative ways to handle ever-more complicated corporate data. AI makes it possible to automate the process of effectively storing, categorizing, searching, and analyzing data, which raises the precision and efficacy of information management. Furthermore, this technology may enhance the security and openness of company data, identify irregularities, and offer strategic advice.

Notwithstanding its numerous advantages, there are drawbacks to using AI in archive systems, including the necessity for human resource training, high upfront expenditures, and integration with current infrastructure. Therefore, before implementing this technology, businesses must take these aspects into account. All things considered, AI significantly affects how successful and efficient commercial information management is. AI has the potential to be a game-changing instrument that supports corporate objectives in the digital age if it is regularly adjusted and the appropriate policies are developed.

REFERENCE

[1] K. Moulaei, S. Akhlaghpour, and F. Fatehi, “Patient Consent for the Secondary Use of Health Data in Artificial Intelligence (AI) Models :,” *Int. J. Med. Inform.*, p. 105872, 2025, doi: 10.1016/j.ijmedinf.2025.105872.

[2] H. Tian, “Enterprise Business Information Management Archive System under Computer Artificial Intelligence Technology,” *Procedia Comput. Sci.*, vol. 243, pp. 850–857, 2024, doi: 10.1016/j.procs.2024.09.102.

[3] G. Turban, E., Volonino, L., & Wood, “Information Technology for Management: Transforming Organizations in the Digital Economy,” *Wiley*, 2013.

[4] S. Bretschneider, “Management Information Systems in Public and Private Organizations: An Empirical Test,” *Public Adm. Rev.*, vol. 50, no. 5, p. 536, 1990, doi: 10.2307/976784.

[5] S. Heo and S. Na, “Ready for departure: Factors to adopt large language model (LLM)-based artificial intelligence (AI) technology in the architecture, engineering and construction (AEC) industry,” *Results Eng.*, vol. 25, no. February, p. 104325, 2025, doi: 10.1016/j.rineng.2025.104325.

[6] G. von Krogh, “Artificial intelligence in organizations: New opportunities for phenomenon-based theorizing. Academy of Management Discoveries,” *f Manag. Discov.*, vol. 4, no. 4, pp. 404–419, 2018.

[7] M. Farwati, I. Talitha Salsabila, K. Raihanun Navira, T. Sutabri, and U. Bina Darma Palembang, “Analisa pengaruh teknologi artificial intelligence (AI) dalam kehidupan sehari-hari [Analyze the influence of artificial intelligence (AI) technology in daily life],” *J. Sist. Inform. dan Menejemen*, vol. 11, no. 1, pp. 41–42, 2023.

[8] et al Deng S, Zhao H, Fang W, “The confluence of edge computing and artificial intelligence,” *IEEE Internet Things Journa*, vol. 7, no. 8, pp. 7457–7469, 2020.

[9] Smith et al, “AI-Powered Information Retrieval,” 2020.

[10] Li Xiaoyan, “The Construction of an Enterprise Information Management System Based on J2EE -Taking Shoe and Clothing Enterprises as an Example. Chinese Leather,” vol. 53, no. 1, pp. 150–153, 2024.

[11] wen lei, “An enterprise information resource management system based on big data technology,” . *Inf. Technol.*, vol. 48, no. 1, pp. 176-181+188, 2024.

[12] T. Y. An Dawei, Shao Linling, Xiang Lizhi, “Electric Power Marketing Archive Information Management System Based on Improved K-meansAlgorithm,” *Autom. Technol. Appl.*, vol. 44, no. 3, pp. 185–188, 2024.

[13] Liu Yu, “Research on the Application of Laboratory Information Management System in Pharmaceutical Enterprises,” *Shandong Chem.*, vol. 53, no. 1, pp. 202–203, 2024.

[14] Chen Hong, “The application of digital archive management information system in hospital archive management,” *OfficeAutomation*, vol. 29, no. 2, pp. 70–72, 2024.

[15] et al De Bem Machado A, SecinaroS, Calandra D, “Knowledge management and digital transformation for Industry 4.0: a structuredliterature review. Knowledge Management Research & Practice,” vol. 20, no. 2, pp. 320–338, 2022.

DOI: 10.52362/jisamar.v9i2.1829

[16] et al Zhong B, Wu H, Ding L, "Hyperledgerfabric-based consortium blockchain for construction quality information management," *Front. Eng. Manag.*, vol. 7, no. 4, pp. 512–527, 2020.
[17] M. N. Veza O, "Business management information system at the cantine of PT. SAT Nusaersada Batam," *Eng. Technol. Int. J.*, vol. 2, no. 01, pp. 55–69, 2020.
[18] et al Munir M, Kiviniemi A, Finnegan S, "BIM business value for asset owners through effective asset information management," *Facilities*, vol. 38, no. 3, pp. 181–200, 2020.
[19] et al Settembre-BlundoD, González-Sánchez R, Medina-Salgado S, "Flexibility and resilience in corporate decision making: a new sustainability-based risk management system in uncertain times," *Glob. J. Flex. Syst. Manag.*, vol. 22, pp. 107–132, 2021.
[20] L. Robbani, I. Z., Silvana, H., & Khoerunnisa, "Manajemen Arsip Statis Pada Dinas Arsip dan Perpustakaan Kota Bandung.," *Ilmu Inf. Perpust. Dan Kearsipan*, vol. 13, no. 1, p. 55, 2024.
[21] M. Haries, "Sistem Informasi Arsip Dokumen Berbasis PHP MySQL Pada Kantor Camat Nisam Antara," *J. Inform. Komputer, Bisnis Dan Manaj.*, vol. 22, no. 1, 2024, [Online]. Available: https://doi.org/10.61805/fahma.v22i1.107

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