Journal of Neonatal Surgery
ISSN(Online): 2226-0439
Vol. 14, Issue 32s (2025)
https://www.jneonatalsurg.com

OPEN ACCESS

Optimization Erp Systems In Healthcare Industry Using Artificial Intelligence

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Cite this paper as: Geetha Priya Thiyagarajan, Benita S Monica, (2025) Optimization Erp Systems In Healthcare Industry Using Artificial Intelligence. *Journal of Neonatal Surgery*, 14 (32s), 2165-2172.

ABSTRACT
The healthcare business is under more and more pressure to provide timely, high-quality, and cost-effective patient treatment while also handling complicated administrative and operational tasks. Traditional Enterprise Resource Planning (ERP) systems are important for bringing together different parts of a hospital, but they typically don't work well when it comes to being flexible, responding quickly, and making smart decisions. This study looks at how adding Artificial Intelligence (AI) to healthcare ERP systems changes the way they work and how well they do their jobs. We look at how important AI technologies like Machine Learning (ML), Predictive Analytics, Natural Language Processing (NLP), Robotic Process Automation (RPA), and Computer Vision can help with decision-making, cut down on mistakes made by people, make the best use of resources, and allow for real-time data analysis. The study also looks at how AI is changing both clinical and administrative ERP modules. It shows how automation, smart forecasting, and inter-module connectivity can improve patient outcomes and the performance of the institution. The results show that AI-powered ERP systems make it possible to go from reactive to proactive healthcare management. This lays the groundwork for better, data-driven, and patient-centered healthcare delivery.

Keywords: *Artificial Intelligence (AI), Healthcare ERP, Machine Learning, Predictive Analytics, Natural Language Processing (NLP), Robotic Process Automation (RPA), Operational Efficiency, Clinical Decision Support, Hospital Management, Healthcare Automation.*

1. INTRODUCTION

Technology integration has become an important part of increasing operational efficiency, patient outcomes, and resource use in the ever-changing world of healthcare management [1-2]. Enterprise Resource Planning (ERP) systems are one example of this kind of technical progress [3]. They bring together important corporate activities like managing inventory, human resources, finances, and patient care into one platform. Even though they have their benefits, traditional ERP systems typically can't keep up with the fast-paced, data-heavy, and patient-centered needs of today's healthcare facilities [4]. This problem has led to the merging of ERP systems with Artificial Intelligence (AI), which is a game-changing solution to improve healthcare operations [5].

Artificial Intelligence changes the way ERP systems work because it can process huge amounts of data, learn from patterns, and make decisions that are both predictive and prescriptive [6-7]. When it comes to healthcare, AI-enhanced ERP systems can help people make better decisions by forecasting patterns in patient admissions, improving staff allocation, controlling medical inventories in real time, automating administrative duties, and customizing patient care pathways [8]. Machine learning algorithms may find problems with hospital workflows, recommend ways to save money, and predict when equipment will break down or run out, which cuts down on downtime and improves the quality of care [9].

AI also makes it possible to do smart data analysis within ERP systems, which lets healthcare managers get useful information from complicated datasets that are created by many departments [10]. You may use natural language processing (NLP) to intelligently search through medical information, and robotic process automation (RPA) makes repetitive administrative tasks like billing and claims processing easier [11]. These features not only make healthcare ERP systems more responsive and flexible, but they also make sure that they follow the rules and keep data safe, which are very important in the healthcare field [12].

In short, using AI to make ERP systems in healthcare better is a big step toward making healthcare systems that are smarter, more flexible, and focused on the patient [13-14]. Healthcare organizations can move from reactive to proactive management

styles by using AI technologies [15]. This will ultimately lead to happier patients, lower operating costs, and better utilization of healthcare resources [16]. The goal of this study is to look into the ways, benefits, problems, and future possibilities of this integration. This will provide us a full picture of how AI can change ERP systems in the healthcare field [17].

2. AI-DRIVEN OPTIMIZATION TECHNIQUES IN HEALTHCARE ERP SYSTEMS

The use of Artificial Intelligence (AI) in Healthcare Enterprise Resource Planning (ERP) systems is changing the way healthcare organizations handle clinical, operational, and financial tasks [18]. Many traditional ERP systems aren't flexible or smart enough to meet the needs of today's healthcare settings, which are complicated and always changing [19]. AI solves this gap by letting ERP systems learn from data, make decisions on their own, and always make processes better [20].

Key AI Techniques Used for ERP Optimization

1. Machine Learning (ML) Algorithms

Machine Learning is used to find patterns in big collections of data, such patient histories, billing trends, or how the supply chain works, and then generate predictions [21]. For example, ML can predict how many patients will be admitted, which makes it easier to manage resources and people in the ERP system [22].

2. Predictive Analytics

Using past and present data, predictive analytics tries to guess what will happen in the future. In healthcare ERP, it helps the system plan ahead by predicting things like patient flow, inventory demands, disease outbreaks, or equipment maintenance schedules [23].

3. Natural Language Processing (NLP)

NLP lets the ERP system handle unstructured data including doctors' notes, prescriptions, and patient feedback. It can also run voice- or text-based interfaces that make it easier to enter and get data in ERP modules [24].

4. Robotic Process Automation (RPA)

RPA takes care of boring chores like entering data, processing claims, making appointments, and making reports [25]. When you add AI to RPA, it becomes smart and aware of its surroundings, which makes ERP operations more accurate and efficient.

5. Computer Vision (CV)

Computer vision can be added to ERP systems to interpret visual data, including analyzing medical scans or finding strange patterns in how equipment is used. This information can then be sent back to the system to help with operational choices [26].

Table 1: AI Techniques and Their Applications in Healthcare ERP

AI Technique	ERP Module Affected	Optimization Outcome
Machine Learning	Scheduling & Resource Mgmt	Predicts patient inflow; optimizes staff allocation and room scheduling
Predictive Analytics	Inventory & Supply Chain	Forecasts inventory demands; reduces overstock and shortage risks
Natural Language Processing	Patient Records & Documentation	Extracts insights from clinical notes; improves EHR data entry
Robotic Process Automation	Billing & Administration	Automates insurance claims, billing processes, and appointment reminders
Computer Vision	Asset Management	Tracks usage of medical devices; identifies equipment issues before failure

The table shows how different AI algorithms improve different parts of ERP systems in the healthcare sector by making them more accurate, efficient, and able to make predictions [27]. Machine Learning improves scheduling and resource management by predicting how many patients will come in and adjusting staff and room assignments accordingly. Predictive analytics makes managing inventories and the supply chain better by predicting demand, which helps avoid having too much or too little of something. Natural Language Processing helps make patient records more accurate by pulling out important information from unstructured clinical documents. Robotic Process Automation makes invoicing and other administrative

work easier by automating things like processing claims and sending appointment reminders. Last but not least, Computer Vision helps with asset management by keeping an eye on how medical equipment is used and finding maintenance needs before they cause problems [28]. These AI-powered improvements turn ERP systems into smart, proactive platforms that make healthcare delivery more effective and focused on the patient.

Benefits of AI-Driven Optimization Techniques

- **Improved Decision-Making**: Real-time, data-informed insights enable better clinical and administrative decisions.
- **Operational Efficiency**: Reduces manual workload and turnaround time for critical tasks.
- **Cost Reduction**: Streamlines resource usage, inventory, and billing, resulting in financial savings.
- **Personalized Care**: Enhances the ability to deliver patient-centered services through better data interpretation.

By embedding AI into ERP systems, healthcare organizations can evolve from reactive to predictive and prescriptive operations—making the system not just a tool for managing resources but an active contributor to healthcare delivery.

3. IMPACT OF AI INTEGRATION ON OPERATIONAL EFFICIENCY IN HEALTHCARE ERP

Adding Artificial Intelligence (AI) to Healthcare Enterprise Resource Planning (ERP) systems has changed the way healthcare organizations run their businesses. Traditional ERP systems can handle a lot of administrative and clinical data, but they frequently don't work well when it comes to being able to change in real time, make predictions, and automate tasks. AI fills in these gaps by letting systems interpret data intelligently, automate monotonous jobs, and help people make better decisions [29]. This makes operations run more smoothly overall.

3.1 Enhancing Decision-Making Capabilities

One of the most important things AI can do for ERP systems is help people make better decisions. In older systems, decisions are mostly made based on prior data and manual analysis. AI makes it possible to do real-time analytics and predictive modeling, which helps healthcare administrators plan for patient flow, resource needs, and operational problems. For instance, ERP systems can use machine learning to look at past patient data and guess when hospital admissions will spike during certain times of the year. This helps with planning ahead and putting staff in the right places.

3.2 Minimizing Human Error through Automation

Human error in data entry, billing, and documentation can have serious consequences in healthcare. By integrating AI technologies such as Natural Language Processing (NLP) and Robotic Process Automation (RPA), ERP systems can automate tasks like processing insurance claims, updating patient records, or generating compliance reports [30]. This automation not only reduces the likelihood of errors but also frees up healthcare staff to focus more on patient care rather than administrative duties.

3.3 Improving Resource Allocation and Utilization

In healthcare, it's very important to manage resources well because using too many or too few can affect both the cost and quality of care. AI-powered ERP systems integrate real-time data and predictive analytics to make the best use of hospital beds, operating rooms, medical equipment, and drugs. For example, predictive algorithms can look at trends in appointments and treatments to change shift schedules and keep supply chains running smoothly, making sure that the proper resources are accessible when they are needed.

3.4 Real-Time Monitoring and Reporting

Traditional ERP systems sometimes have temporal delays, which can make it hard to make decisions in real time. With AI integration, data can be collected all the time and reports may be made right away. This is especially helpful for KPIs that have to do with patient safety, clinical outcomes, and following the rules [31]. AI can also send alarms when it finds unusual or dangerous situations, such a significant rise in patient readmissions, so that timely action can be taken.

Table 2: AI Integration and Its Impact on Healthcare ERP Operational Efficiency

Operational Area	Traditional ERP Challenge	AI Integration Feature	Resulting Efficiency Gain
Decision-Making	Delayed insights, reactive planning	Predictive analytics & real-time dashboards	Faster, data-driven strategic decisions
Data Entry & Accuracy	Manual errors in documentation and billing	NLP & RPA for automated data processing	Higher accuracy, reduced administrative burden
Resource	Inefficient allocation of	AI-based demand forecasting &	Improved utilization and cost

Management	staff, beds, and supplies	optimization	savings
Inventory Control	Overstock or understock of critical items	Intelligent reorder systems and demand prediction	Reduced wastage and supply continuity
Reporting & Compliance	Time-consuming manual reporting processes	Real-time data synchronization & automated report generation	Timely submissions, enhanced regulatory compliance
Appointment Scheduling	High no-show rates and scheduling conflicts	AI-powered dynamic scheduling & reminders	Better patient flow, improved satisfaction

3.5 Overall Operational Benefits and Outcomes

The integration of AI into healthcare ERP systems results in measurable improvements across multiple operational metrics. Hospitals and healthcare organizations have reported:

- Up to 40% reduction in administrative processing time
- 20–30% increase in patient throughput
- Significant reductions in documentation errors
- Better resource utilization and inventory management
- More accurate and timely regulatory reporting

AI-enhanced ERP systems are particularly important in modern healthcare delivery since they not only make internal operations more efficient, but they also lead to better patient outcomes and satisfaction.

AI integration into ERP systems is changing how well healthcare businesses run. AI turns static ERP platforms into smart systems that actively support clinical and administrative excellence by making them more automated, able to forecast the future, and able to respond in real time. Healthcare systems are becoming more complicated and demanding, thus AI-powered ERP optimization will be necessary for operations that are sustainable, high-quality, and focused on the patient.

4. AI-BASED ENHANCEMENTS IN CLINICAL AND ADMINISTRATIVE MODULES OF ERP

Artificial intelligence (AI) is changing the way ERP (Enterprise Resource Planning) systems work and how they are set up in the healthcare business in big ways. ERP systems have always been essential places for managing resources, finances, operations, and healthcare data. But their standard design doesn't always have the flexibility to adapt, interpret data in real time, or automate tasks intelligently. Healthcare ERP systems are now more responsive, data-driven, and able to support both clinical quality and administrative efficiency thanks to the use of AI [32]. The clinical and administrative components show the most change, with AI adding automation, predictive capabilities, and cognitive decision-making support.

AI Enhancements in Clinical Modules

The clinical modules of ERP systems are in charge of managing patient data, clinical workflows, diagnoses, and coordinating care. Adding AI to these modules changes the way patient care is managed in a big way.

One big change is in Electronic Health Records (EHRs). AI can look at huge amounts of structured and unstructured patient data, such as lab results, doctor notes, and diagnostic images, to help doctors make diagnosis faster and more accurately. For example, Natural Language Processing (NLP) can pull out useful clinical information from doctors' notes or discharge summaries. This makes it easier for the ERP system to keep patient records up to date and find possible health problems in real time.

AI also makes clinical decision support systems (CDSS) possible. These systems help clinicians make diagnoses, plan treatments, and manage medications by looking at past patient data and current patterns. This results in therapy recommendations that are tailored to each person, quicker interventions, and better outcomes for patients. Machine learning models built into ERP systems may also figure out how likely it is that a patient will have to go back to the hospital or have issues, which makes it possible to plan for care ahead of time.

AI Enhancements in Administrative Modules

Billing, procurement, human resource management, scheduling, and following the rules are all parts of the administrative side of healthcare ERP. AI makes these modules better by using automation and smart analytics.

Robotic Process Automation (RPA) and AI can work together to make billing and claims management easier by automating operations that are done again and over again, like checking insurance, coding, and submitting claims. This not only cuts down on mistakes made by hand, but it also speeds up the process of getting paid. AI can also find unusual billing trends,

which can help find cases of fraud or overbilling.

AI algorithms look at how well employees are doing, guess how many staff members will be needed depending on patient volumes, and even make shift schedules better to cut down on burnout and boost productivity. AI-powered ERP systems can predict when there will be a lack of workers and suggest changes to schedules in real time based on how busy the staff is and how many patients are coming in.

AI also makes it easier to estimate supply demands, keep an eye on inventories in real time, and automatically restock important medical supplies when they run low. This cuts down on waste, makes sure things are always available, and decreases costs of doing business.

Table 3: Research Study

Reference	Study Focus	Methodology	Key Findings
Goundar et al. (2021) [33]	Transformation of ERP systems through AI integration	Theoretical analysis and case-based discussion	Highlighted how AI reshaped ERP functionalities by improving data handling, predictive capabilities, and automation, particularly in healthcare and manufacturing contexts
Jawad & Balázs (2024) [34]	Machine learning-driven optimization of ERP systems	Comprehensive literature review	Identified ML as a core technology for enhancing ERP adaptability, forecasting, and decision-making, especially in supply chain and patient scheduling
Yathiraju (2022) [35]	Use of AI models in cloud-based ERP systems	Experimental deployment and performance evaluation	Demonstrated improved scalability, response time, and accuracy in healthcare ERP environments using AI-powered cloud ERP systems
Sadeeq (2024) [36]	Optimization of IoT manufacturing and ERP with AI/ML	Applied research with simulated scenarios	Showed enhanced business intelligence and operational control when AI/ML models were integrated with ERP in IoT-enabled environments
Navalhas (2024) [37]	AI integration in ERP for procurement and logistics	Master's thesis based on industry case studies	Found that AI significantly reduced procurement cycles, improved vendor selection, and automated logistic workflows within ERP modules
Naqi et al. (2021) [38]	Impact of AI and ERP on healthcare productivity	Cross-industry survey and comparative analysis	Concluded that AI-integrated ERP systems improved staff efficiency, patient care quality, and operational throughput in hospitals
Restrepo & Córdoba (2023) [39]	AI in financial management and cost strategies in healthcare	Analytical study using performance indicators	Reported that AI-augmented ERP systems enabled better budgeting, cost optimization, and financial decision-making in healthcare organizations
Sarferaz (2024) [40]	Techniques for embedding AI in ERP software	Book-length technical exploration	Outlined strategies and algorithms for embedding AI into ERP platforms, resulting in real-time processing, automation, and contextual intelligence
Al-Assaf et al. (2024) [41]	ERP integration and performance management in UAE healthcare	Empirical survey-based study	Identified AI as a critical factor in aligning ERP systems with performance metrics, resulting in better service delivery in healthcare institutions
Imam et al. (2024) [42]	Digitization of healthcare service quality with ERP	Mixed-methods evaluation	Found that AI-enabled ERP platforms digitized patient records and improved service response times and data reliability
Choudhuri	AI in ERP and supply	Conceptual and applied	Emphasized the role of AI in streamlining ERP-

(2024) [43]	chain management	synthesis	based supply chain processes, leading to reduced delays and enhanced inventory control in healthcare settings
Jhurani (2022) [44]	AI's impact on ERP efficiency and decision-making	Qualitative case review	Demonstrated how AI empowered ERP systems to support real-time strategic decisions and organizational efficiency
Haider (2021) [45]	General overview of AI applications in ERP	Narrative literature review	Provided a foundational understanding of how AI enhances ERP modules such as finance, HR, and clinical scheduling

Interconnected Benefits Across Modules

One of the best things about AI-enhanced ERP systems is that they can connect clinical and administrative tasks. For example, predictive analytics that sees a rise in patient admissions can send signals to the HR module to hire additional nurses, the inventory module to replenish pharmaceuticals, and the facilities management module to make more beds available. This integrated information helps departments work together and respond quickly, which cuts down on delays and improves the quality of care.

AI-powered improvements in the clinical and administrative parts of ERP systems are changing the way healthcare organizations provide treatment and run their businesses. AI makes healthcare ERP systems genuinely dynamic, responsive, and smart platforms by letting them handle patient data intelligently, support clinical decisions, automate invoicing, inventory control, and staffing predictions. These improvements not only make the system work better on the inside, but they also make patient care better. This marks the beginning of a new era of digitally optimized healthcare services.

5. CONCLUSION

In conclusion, adding AI to Healthcare ERP systems is a big step toward smarter, more efficient, and patient-centered healthcare administration. ERP systems can now automate complicated operations, foresee operational needs, reduce mistakes, and let people make decisions in real time thanks to AI-driven optimization methods including machine learning, predictive analytics, NLP, RPA, and computer vision. These improvements make both the clinical and administrative modules much better by making diagnoses more accurate, tailoring care to each patient, making billing easier, making sure that resources are used in the best way possible, and making sure that rules are followed. When used together, these AI innovations make healthcare delivery more efficient, less expensive, and of higher quality. This makes AI-enabled ERP systems important for contemporary, scalable, and data-driven healthcare systems.

REFERENCES

[1] Wang, W. C. (2023). Constructing a AI ERP diamond model for the optimal allocation of long-term care center resources-applying a fuzzy analytic hierarchy process for operations research. Journal of Accounting, Finance & Management Strategy, 18(1).

[2] Lakhamraju, M. V. (2024). Enhancing compensation administration in healthcare: A Workday ERP Perspective.

[3] Aktürk, C. (2021). Artificial intelligence in enterprise resource planning systems: A bibliometric study. Journal of International Logistics and Trade, 19(2), 69-82.

[4] Chinta, P. C. R., Jha, K. M., Velaga, V., Moore, C., Routhu, K., & SADARAM, G. (2024). Harnessing Big Data and AI-Driven ERP Systems to Enhance Cybersecurity Resilience in Real-Time Threat Environments. Available at SSRN 5151788.

[5] Mandava, H. A. R. I. P. R. A. S. A. D. (2024). Streamlining enterprise resource planning through digital technologies. Journal of Advanced Engineering Technology. ResearchGate.

[6] Wijesinghe, S., Nanayakkara, I., Pathirana, R., Wickramarachchi, R., & Fernando, I. (2024, April). Impact of IoT integration on enterprise resource planning (ERP) systems: A comprehensive literature analysis. In 2024 International Research Conference on Smart Computing and Systems Engineering (SCSE) (Vol. 7, pp. 1-5). IEEE.

[7] Munavalli, J. R., Boersma, H. J., Rao, S. V., & Van Merode, G. G. (2020). Real-time capacity management and patient flow optimization in hospitals using AI methods. In Artificial intelligence and Data mining in healthcare (pp. 55-69). Cham: Springer International Publishing.

[8] Pentyala, D. K. (2022). Enhancing Supply Chain Management in The Oil and Gas Industry Through Digital

Transformation of ERP Systems. International Journal of Acta Informatica, 1(1), 96-115.

[9] Bauskar, S. (2024). Business Analytics in Enterprise System Based on Application of Artificial Intelligence. International Research Journal of Modernization in Engineering Technology and Science.

[10] Yagubzade, P. (2023). The impact of SAP ERP systems on business process optimization and decision-making efficiency. Endless light in science, (май), 271-276.

[11] Lin, G., & Duan, N. (2024). Research on integration of enterprise ERP and E-commerce systems based on adaptive ant colony optimization. Journal of Intelligent & Fuzzy Systems, 46(4), 11169-11184.

[12] Lin, H. (2020). Enterprise ERP system optimization based on deep learning and dynamic fuzzy model. Journal of Intelligent & Fuzzy Systems, 38(6), 7119-7131.

[13] Chinta, P. C. R., Katnapally, N., Ja, K., Bodepudi, V., Babu, S., & Boppana, M. S. (2022). Exploring the role of neural networks in big data-driven ERP systems for proactive cybersecurity management. Kurdish Studies.

[14] Rashid, A., Butt, N. A., Choudhary, N. R., Choudhary, R., & Jabeen, H. (2019). Process mining approach towards optimization of ERP business processes: a case study of healthcare. University of Sindh Journal of Information and Communication Technology, 3(1), 7-16.

[15] Godbole, M., & Josyula, H. P. (2024). Navigating the Future: A Comprehensive Analysis of AI, ML, ERP, and Oracle Integration in Financial Digital Transformation. International Journal of Computer Engineering and Technology, 15.

[16] Zaman, S. (2024). A systematic review of ERP and CRM integration for sustainable business and data management in logistics and supply chain industry.

[17] Sudarmi, E., & Sunaryo, W. (2024). Enhancing Inventory Accuracy and Operational Performance with ERP. Sinergi International Journal of Logistics, 2(2), 76-89.

[18] Ojika, F. U., Owobu, W. O., Abieba, O. A., Esan, O. J., Ubamadu, B. C., & Daraojimba, A. I. (2022). The Role of Artificial Intelligence in Business Process Automation: A Model for Reducing Operational Costs and Enhancing Efficiency.

[19] Dong, A. (2021, January). ERP and Artificial Intelligence based Smart Financial Information System Data Analysis Framework. In 2021 6th International Conference on Inventive Computation Technologies (ICICT) (pp. 845-848). IEEE.

[20] Mah, P. M., Skalna, I., & Muzam, J. (2022). Natural language processing and artificial intelligence for enterprise management in the era of industry 4.0. Applied Sciences, 12(18), 9207.

[21] Maged, A., & Kassem, G. (2024, December). Self-Adaptive ERP: Embedding NLP into Petri-Net creation and Model Matching. In 2024 International Conference on Computer and Applications (ICCA) (pp. 1-6). IEEE.

[22] Danda, R. R., Nampalli, R. C. R., Sondinti, L. R. K., Vankayalapati, R. K., Syed, S., Maguluri, K. K., & Yasmeen, Z. (2024). Harnessing Big Data and AI in Cloud-Powered Financial Decision-Making for Automotive and Healthcare Industries: A Comparative Analysis of Risk Management and Profit Optimization.

[23] Hasan, S. K., Islam, M. A., Asha, A. I., Priya, S. A., & Islam, N. M. (2024). The Integration of AI and Machine Learning in Supply Chain Optimization: Enhancing Efficiency and Reducing Costs. Int J Multidiscip Res [Internet].

[24] Long, P., Lu, L., Chen, Q., Chen, Y., Li, C., & Luo, X. (2023). Intelligent selection of healthcare supply chain mode–an applied research based on artificial intelligence. Frontiers in Public Health, 11, 1310016.

[25] Ogeawuchi, J. C., Abayomi, A. A., Uzoka, A. C., Odofin, O. T., Adanigbo, O. S., & Gbenle, T. P. (2023). Designing Full-Stack Healthcare ERP Systems with Integrated Clinical, Financial, and Reporting Modules. management, 10, 11.

[26] Chowdhury, T. U. (2020). Use of artificial intelligence (ai) in managing inventory of medicine in pharmaceutical industry. AU-GSB e-JOURNAL, 13(2), 3-15.

[27] Olagunju, E. (2022). Integrating AI-driven demand forecasting with cost-efficiency models in biopharmaceutical distribution systems. Int J Eng Technol Res Manag.

[28] Li, P., Bastone, A., Mohamad, T. A., & Schiavone, F. (2023). How does artificial intelligence impact human resources performance. evidence from a healthcare institution in the United Arab Emirates. Journal of Innovation & Knowledge, 8(2), 100340.

[29] Sarferaz, S. (2024). Intelligent ERP. In Embedding Artificial Intelligence into ERP Software: A Conceptual View on Business AI with Examples from SAP S/4HANA (pp. 25-40). Cham: Springer Nature Switzerland.

[30] Karim, M. R., Nordin, N., Yusof, M. F., Amin, M. B., Islam, M. A., & Hassan, M. S. (2023). Does ERP

implementation mediate the relationship between knowledge management and the perceived organizational performance of the healthcare sector? Evidence from a developing country. Cogent Business & Management, 10(3), 2275869.

[31] Syed, Z. A., Dapaah, E. M. M. A. N. U. E. L., Mapfaza, G. L. O. R. I. A., Remias, T. I. C. H. A. O. N. A., & Mupa, M. N. (2024). Enhancing supply chain resilience with cloud-based ERP systems'. IRE Journals, 8(2), 106-128.

[32] Basu, A., & Jha, R. (2024). ERP adoption prediction using machine learning techniques and ERP selection among SMEs. International Journal of Business Performance Management, 25(2), 242-270.

[33] Goundar, S., Nayyar, A., Maharaj, M., Ratnam, K., & Prasad, S. (2021). How artificial intelligence is transforming the ERP systems. Enterprise systems and technological convergence: Research and practice, 85.

[34] Jawad, Z. N., & Balázs, V. (2024). Machine learning-driven optimization of enterprise resource planning (ERP) systems: a comprehensive review. Beni-Suef University Journal of Basic and Applied Sciences, 13(1), 4.

[35] Yathiraju, N. (2022). Investigating the use of an artificial intelligence model in an ERP cloud-based system. International Journal of Electrical, Electronics and Computers, 7(2), 1-26.

[36] Sadeeq, H. (2024). Optimizing IoT Manufacturing Processes with AI/ML and ERP Cloud Solutions for Enhanced Business Intelligence.

[37] Navalhas, A. R. R. (2024). The integration of artificial intelligence (AI) into Enterprise Resource Planning (ERP) systems for procurement and logistics (Master's thesis, ISCTE-Instituto Universitario de Lisboa (Portugal)).

[38] Naqi, M., AL-Hashimi, M., & Hamdan, A. (2021). Impact of innovative technologies in healthcare organization productivity with ERP. Applications of Artificial Intelligence in Business, Education and Healthcare, 309-330.

[39] Restrepo, M., & Córdoba, L. (2023). The Role of Artificial Intelligence in Transforming Financial Management and Cost Optimization Strategies in Healthcare Organizations. Journal of Computational Intelligence for Hybrid Cloud and Edge Computing Networks, 7(10), 1-13.

[40] Sarferaz, S. (2024). Embedding Artificial Intelligence into ERP Software. Springer Nature.

[41] Al-Assaf, K., Alzahmi, W., Alshaikh, R., Bahroun, Z., & Ahmed, V. (2024). The relative importance of key factors for integrating Enterprise Resource Planning (ERP) systems and performance management practices in the UAE Healthcare Sector. Big Data and Cognitive Computing, 8(9), 122.

[42] Imam, M., Nahidul, M., Masrur, M., & Neherin, N. (2024). Healthcare service quality digitization with Enterprise Resource Planning. Journal of Angiotherapy, 8(5), 1-11.

[43] Choudhuri, S. S. (2024). AI in ERP and supply chain management. Academic Guru Publishing House.

[44] Jhurani, J. (2022). Revolutionizing enterprise resource planning: The impact of artificial intelligence on efficiency and decision-making for corporate strategies. International Journal of Computer Engineering and Technology (IJCET), 13(2), 156-165.

[45] Haider, L. (2021). Artificial intelligence in ERP.