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Using information systems to automate the document processing process

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Abstract. The relevance of the study is due to the growing need to optimise document processing in modern organisations. With the introduction of information systems, automation of document processing becomes a key factor in improving management efficiency, reducing costs and increasing processing speed. The purpose of the study was to create a comprehensive understanding of how various information systems can improve document processing processes, as well as to identify ways in which these systems contribute to automation and efficiency. The article examined the role of information systems in optimising document processing and examines their impact on the automation of these processes in order to improve the efficiency of document management. To achieve this goal, a detailed analysis of existing information systems used to automate document processing was conducted, including an assessment of various technologies that help automate document processing, their functionalities, and specifications. The impact of automation on organisational productivity was investigated. An assessment of how automation can reduce costs, increase the speed of document processing and improve workflows, including an analysis of how automation can contribute to more efficient resource management and improve overall organisational productivity, was conducted. The article identified potential problems that may arise when implementing information systems for automating document processing, including the identification of possible difficulties and barriers, such as technical issues, the need for staff training, or integration issues. The article provided a comprehensive overview of the role of information systems in optimising document processing, identified their advantages and disadvantages, and analysed their impact on organisational productivity and potential implementation challenges. The study provided specific recommendations for the selection and adaptation of automation technologies, which will allow organisations to reduce costs, shorten document processing time,

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reduce errors and increase employee productivity. The results can be used to improve the efficiency of document management in organisations through the implementation and optimisation of information systems

Keywords: information technology; document information processing; management processes; document management; document flow; office workflow; electronic signature

Introduction

Modern, dynamic world, where the speed of change and demands for efficiency are increasing, makes efficient document management critical to the success of any organisation. Traditional document processing is often time-consuming and resource-intensive, resulting in delays, errors and excessive costs. These problems arise from the use of paper-based media, routine manual processes, and insufficient integration of data processing systems. In order to overcome these challenges and increase efficiency, more and more companies and organisations are turning to the implementation of information systems to automate document processing. Automation of this process includes the use of advanced technologies such as electronic document management systems (EDMS), optical character recognition (OCR), robotic automation processes and integration solutions. These technologies not only automate routine tasks, but also provide more flexible and efficient information management. The introduction of such systems can significantly reduce dependence on paper, which is an important step towards environmental sustainability and reducing the cost of storing and transporting documents. In addition, automation increases the speed and accuracy of information processing, reduces the likelihood of human error, and optimises administrative processes. This allows organisations to reduce costs, speed up data processing and improve customer service. Research in this area is particularly relevant as it allows to assess the effectiveness of various automation technologies, as well as to identify potential problems and barriers that may arise during the implementation of such systems. Analysing the impact of automation on organisational processes helps to understand how these technologies can optimise business processes, increase productivity, and ensure compliance with regulatory requirements and standards. It is also important to estimate the costs of implementing and maintaining information systems, as well as to identify best practices for integrating them into the organisation's existing infrastructure.

The other authors' research in this area plays a key role in shaping the current understanding of the problem and developing innovative approaches to solving it. Studying the work that has already been done in this area allowed to identify the main trends, methods and tools used to automate document processing, as well as to understand the challenges organisations face when implementing them. The analysis of scientific papers is an important step in building a holistic view of this issue, as well as helping to identify knowledge gaps and outlining areas for further research, which is a prerequisite for improving existing systems and developing new approaches. Having reviewed the study of O.V. Sikora *et al.* (2022) on the development and implementation of information systems, it was found out that these information systems have functional capabilities. The authors' work described the creation of systems that ensure the collection, processing, storage and delivery of information resources, as well as their modification or development of new ones if necessary. The role of information and communication technologies and their impact on various areas of activity, including offices, enterprises, educational institutions and libraries, were considered. The subject of the study of Y. Hrybovska & Z. Kononenko (2023) were the peculiarities of implementation and use of information systems for accounting and management of an enterprise. The article focused on the essence of the concept of "information system" and the definition of its tasks. It is established that information systems include software products that ensure the collection, storage and processing of data used by internal users. I. Piatnychuk (2022) analysed and systematised the most popular online project management platforms and services that allow for effective task setting, task monitoring, and resource allocation. The services were compared according to criteria such as task display, mobile versions, opportunities for communication between colleagues, and total cost, taking into account the needs of the organisation. However, the author rightly pointed out that new platforms appear on the market every day, characterised by the presence of more functionality, so it is necessary to constantly research them. The subject of the study conducted by S. Holovatska (2021) was to identify the main advantages of electronic document management at enterprises, types of EDMS and areas it can be used. The study also covered the analysis of the taxonomy of financial reporting in Ukraine, the organisational basis for the administration of electronic financial and tax reporting, the systematisation of electronic document management and reporting services, and the role of government agencies in the development and adaptation of national electronic reporting standards.

The study of other authors' research has provided a key understanding of current trends and approaches to the processing, accounting and storage of documentary information in the context of globalisation and informatisation of society. The analysis of the papers allowed to identify the main methods and tools for automating document management and to identify the challenges faced by organisations in implementing new information technologies. The purpose of this study was to create a

comprehensive understanding of the role of information systems in optimising document processing, as well as to study the impact of information systems on the automation of document processing in order to improve the efficiency of their management. This included assessing the advantages and disadvantages of various automation technologies. The objectives of the work are: analysis of existing information systems for automating document processing; assessment of their advantages and disadvantages; evaluation of the impact of automation on organisational productivity, cost reduction, increased document processing speed and improved workflows; identification of potential problems that may arise when implementing such systems. The research was conducted using a set of general scientific methods, such as induction and deduction, analysis and synthesis, systemic and functional approaches, classification and systematisation, observation and description, explanation and generalisation. The methodological basis of the study was the use of analysis and synthesis, which allowed to identify trends and cause-and-effect relationships in the implementation of information systems for automating the document processing process in organisations. The conceptual basis of the study is based on establishing the relationship between the use of such systems and improving the efficiency of document management, reducing costs and increasing productivity. The study is based on the analysis of primary sources and modern scientific works, which allowed to create a comprehensive overview of the problem and propose effective approaches to solving problems related to the automation of document processes.

Efficiency of Automating Document Processing with the Help of Information Systems

The use of information systems to automate the document processing process significantly increases the efficiency of enterprises, institutions and organisations. Automation allows to optimise document flow, speed up the processes of creating, storing, searching, sorting and archiving documents, which reduces errors and ensures control at all stages of the document lifecycle. It also improves access to information, as employees are able to quickly find the documents they need, view their modification history, and process them according to established procedures. In addition, automation helps to significantly reduce the costs associated with manual processing of paper documents, including paper, printing, storage and transport costs, and reduces the need for physical storage space. Information systems provide a high level of data protection through the use of modern encryption and access control methods, which helps protect documents from unauthorised access and ensure compliance with confidentiality standards. Modern information systems can also integrate with other systems, such as accounting software, CRM and ERP systems, to create integrated solutions for all aspects of an organisation's operations. This increases the efficiency of decision-making, as documents are processed faster and more accurately, and managers and employees have access to up-to-date information, which helps them make informed and timely decisions. Information systems also facilitate document management by providing clear control at every stage of the document workflow, from creation to archiving and destruction. In addition, automating the document processing process helps organisations comply with legal requirements for the storage and processing of documents, including tax and financial statements, which is an important aspect of modern management.

According to B. Molnár & A. Benczúr (2015), the concept of business documents has two important functions. On the one hand, a business document (for example, a text file or a spreadsheet) can be used as a tool to describe requirements or specifications, and on the other hand, a business document is an integral part of business processes and therefore an important element of business information systems. The current trend shows that most of these documents remain in a semi-structured format, with only a small proportion being converted into structured database schemas. Semi-structured documents can be stored and processed in modern database management systems in accordance with the requirements of business processes. The study emphasised the importance of integrating documents into business processes and reflects the trend towards the use of semi-structured document formats, which allows for greater flexibility and adaptability in data management. H. Puriy (2019) pointed out that there is an opinion that an information system is implemented exclusively with the help of computer technology. However, in practice, enterprises often need information technologies based on both computer solutions and without them. A modern enterprise information system should be viewed as a software package consisting of separate modules that cover all areas of an organisation's activities and interact in real time. This allows for timely and informed decision-making at various levels of management. The information system should be based on a software product that meets the requirements for efficient document management and information exchange to the maximum extent possible.

R.L. Baskerville *et al.* (2022) noted that the close relationship between information systems and information technology creates difficulties for researchers, as it is difficult to clearly distinguish between them. According to the authors, from a practical point of view, information systems encompass both technical and social subsystems, while an IT system focuses mainly on technical aspects. This distinction provides useful insights, as information security professionals are often involved in the acquisition and integration of IT systems into an organisation's overall information system. According to O. Larchenko (2020), in general terms, an information

system is a complex of hardware, software and organisational support, as well as qualified personnel that provides users with the necessary information at the appropriate time. An information system is defined as a set of information stored in databases and processed using information technology and technical means. The definitions of N. Chernyashchuk *et al.* (2020), who believed that an information system is an integrated set of data, equipment, software, personnel and standard procedures that ensure the collection, processing, distribution, storage and presentation of information in accordance with the organisation's goals. The author argued that information systems are becoming increasingly automated. They include data processing equipment, software and personnel. The main elements of information systems include tools for recording and collecting information, tools for data transmission, tools for storing information, and tools for analysing, processing and presenting data.

In agreement with I. Petrov (2022), who believed that the continuous development of computing technologies increases the requirements for improved methods and tools for assessing the performance of information systems. This applies to aspects such as reliability, compliance with standards, and quality of service. Improved assessment methods allow not only to ensure stable operation of information systems, but also to increase their efficiency in the face of increasing workload and complexity of the tasks they perform. In addition, it is important to take into account the impact of the latest technologies on the overall architecture and integration of systems, which further improves their performance and reliability. Information systems for automating the document processing process include not only electronic document management. Electronic document management is one of the main components of information systems, which also include content management systems, DMS, business process automation (BPA) systems, corporate information resource management systems, OCR systems, electronic archiving systems, electronic signature systems, case management systems, etc. Each of these systems plays a role in ensuring the efficiency and transparency of document processing, storage, transfer and management within an organisation.

Categories of Information Systems for Automating Document Processing

The main categories of information systems designed to automate the document processing process should be considered in more detail in order to understand its functionality, advantages, and role in improving efficiency and optimising document flow in organisations. *EDMS* is a key component of modern information systems that automates the processes of creating, storing, processing and exchanging documents in electronic format. L. Prokopets *et al.* (2021) highlighted numerous advantages of electronic document management. These include instant access to documents and prompt changes, which significantly increases the speed of work. Effective document management simplifies the activities of companies with branches or representative offices in different cities or countries. All structures of the company can work in a single information environment, which speeds up document approval and decision-making, and therefore document processing software has been actively developed and improved in recent years. The benefits also include improved performance discipline due to the ability to identify those responsible for the execution of documents at any time and increased employee productivity. The security and safety of documents is ensured through data encryption, which protects information from unauthorised use. Electronic document management also eliminates duplication of documents, reduces the cost of document management and office work, improves the processes of preparing, submitting, recording and storing documents, their authentication, ensuring their integrity, confidentiality and inviolability. In addition, it provides fast and reliable exchange of electronic documents with partners and contractors, regardless of their location.

I. Nazarova (2020) included the following in the main functions of internal electronic document management: generating documents using templates or uploading documents of various formats created in other systems; automatic creation of new documents based on existing ones; reviewing and signing documents using a qualified electronic signature or other identifiers; sending documents for review or approval within the enterprise according to an approved sequence; controlling the approval process with the ability to track changes in the status of documents; storing documents electronically for quick retrieval and review; saving resources by storing documents on servers instead of printing and maintaining archives; and the ability to remotely create and use documents from anywhere in the world using various devices. The main function of external electronic document management is the remote exchange of documents with buyers, customers, suppliers, regulatory authorities and other counterparties. However, many software solutions for external document management also include functions for internal accounting, such as creating, reviewing and signing documents, or allow to download ready-made electronic documents from internal systems.

T. Korolyuk & N. Rapa (2021) noted that electronic document management has become a key element in the formation of the modern information society. Electronic documents are now equal in importance to paper-based media. At the current stage of economic development, electronic document management technologies with uniform standards and regulations are being introduced. Supporting the opinion of J. Han *et al.* (2021), who noted that with the development of information technology, cloud computing has greatly simplified work. The growth of electronic governance

and electronic commerce has led to an increase in the number of electronic documents, which have become a key tool in these areas. Effective management of electronic documents is an important task for governments and businesses, as it helps to increase efficiency, protect confidential information and reduce costs. This article discussed the use of cloud technologies in the creation of an electronic file management system, proposed an architecture for such a system, and discussed key technologies and implementation methods. A cloud-based file management system allows users to upload, share, check and retrieve files using various access modes, ensuring reliable and secure management.

DMS provide storage, organisation, management and access to documents in digital form. They allow to control document versions, perform searches, automatically archive documents and provide a level of security for access to documents. I. Matiienko-Zubenko (2023) noted that business processes generate a large amount of data, such as contracts, employee information, process documentation, and financial statements. Manually managing this data is time-consuming and can lead to low productivity and the risk of losing information confidentiality. Therefore, special attention should be paid to electronic document management, which includes a set of procedures for creating, processing, adjusting, transmitting, receiving, using, storing and destroying electronic documents. The system also controls data integrity and confirms receipt of documents, which is ensured by modern DMS. These systems optimise all technological procedures for working with electronic documents, from data collection to file usage.

BPA systems automate routine and repetitive processes, including document processing. They allow to model business processes, manage tasks, automatically route documents based on predefined rules and conditions, and track the status of tasks. S. Obikhod (2021), studying the introduction of information and communication technologies into the business process management system, concluded that BPA is a key digital tool for improving the efficiency of daily routine tasks of staff. These solutions help to systemise and unify specific business processes, such as order processing, dispatch, customer interaction, etc., which greatly facilitates their implementation and optimises the company's operations.

Enterprise content management (ECM) systems for managing corporate information resources combine different types of information resources into a single platform, including documents, email, multimedia and other data. They provide an integrated approach to information management across an organisation, improving accessibility and control over data (Huzhva, 2021). The main purpose of ECM systems is to support the full life cycle of information, from its creation or receipt to the moment when it loses its value and needs to be destroyed. Unlike traditional EDMS, ECM systems have the ability to work not only with documents, which make up only a small part of corporate content, but also with any other types of data, such as emails, graphics, photos, audio and video files, and web pages. As noted by N. Hocine & I. Bokhari (2021), due to the widespread adoption of the remote work business model, employees can work anytime and from anywhere, sometimes using their own devices due to limited financial resources of companies. This raises many security and access control issues for ECM systems. In particular, access control must be adapted to the context of employees' work, their devices, and their profiles and situations to increase the usability of the system. However, most access control models do not take into account user profiles and the diversity of their devices in open networks. They also depend on constant intervention by administrators to manage the system, add new devices, and configure settings. In a remote work environment, with its diversity of devices and contextual conditions, access control needs to be managed dynamically to minimise the need for human intervention.

OCR systems are used to automatically recognise and digitise text from paper documents or document images. This allows to convert printed or handwritten texts into editable electronic documents, which facilitates their further processing and storage. Ye. Chichkarov *et al*. (2023) noted that OCR systems help to avoid errors and save time. They are used to solve a wide range of practical problems, such as converting printed academic records into text for storage in electronic databases, decoding ancient inscriptions and texts, and automatic data entry by optical scanning of cards or bank cheques. M. Sirajudeen & R. Anitha (2020) rightly argued that manual authentication of physical documents (identity cards, certificates, passports, legal documents) increases administrative costs and is time-consuming. Automated document authentication using convolutional neural networks, OCR and other image processing methods significantly increases the accuracy of counterfeit detection compared to traditional methods. As defined by N. Sarika *et al.* (2021), the process of converting images of handwritten, typewritten, or printed text into a format that can be recognised by a computer is called OCR. This technology allows for editing, indexing, searching, and reducing storage space. This is achieved by scanning an image of text character by character, then processing the scanned image and converting the characters into text codes such as ASCII. An OCR system is used to convert image text into a text format. It is based on three main stages, namely pre-processing, character recognition, character segmentation, and data representation.

Electronic archiving systems are designed for long-term storage of electronic documents and data. They provide structuring, indexing and access to archived documents, as well as guarantee their integrity and availability over time. By definition of V.O. Yaruta & G.G. Aseyev (2020), an electronic archive is a set of software and hardware tools and business procedures that

ensure the performance of basic archival operations, such as value assessment, classification, categorisation, determination of retention periods, destruction of unnecessary documents and transfer of documents for long-term storage to other archives. Electronic archiving systems are designed to store, index, classify and manage electronic documents and data, ensuring their safety and integrity throughout their life cycle. H. Okhrimenko & O. Fedoruk (2023) noted that such systems must comply with regulatory requirements so that the stored data cannot be altered or damaged, allowing them to be created as certified copies of the originals for audit or legal purposes. The lifecycle of an electronic document begins with the receipt or creation of the document, that is, its entry into the system, after which it is processed and archived. Archived documents are available for organisational purposes and further use through central databases. Modern archiving systems show whether a document is still being processed, has been published, can be edited, or can no longer be changed. Documents go through a lifecycle that may include different stages depending on the type, format and purpose. In order to find the best solution for digital document management, each stage of the lifecycle needs to be carefully followed and it is important to check whether the software you choose provides all the necessary functions.

Electronic signature systems ensure the legal force of electronic documents by signing them with a digital signature. This confirms the authenticity of the signatory and the integrity of the document. Such systems are often integrated with other information systems to simplify the process of signing contracts, agreements and other important documents. A. Mosevnina & L. Polovenko (2022) defined an electronic digital signature as electronic data obtained as a result of cryptographic transformation that is attached to other data or documents. An electronic signature system ensures the security of the information it contains and also confirms the authenticity of the key holder, which can be obtained from specialised key certification centres. The certificate confirms the authenticity of the owner's data and contains a public key signed by a trusted person. It is virtually impossible to forge an electronic signature. This system protects the key from being tampered with, which allows it to be approved at the legislative level. The main goal of introducing electronic digital signatures in Ukraine, according to U. Vatamanyuk-Zelinska & V. Sushko (2020), is to use it in practice to simplify and accelerate the document flow between business entities. This, in turn, increases the competitiveness of Ukrainian enterprises, as the procedures for concluding civil and commercial contracts, processing export-import transactions, providing electronic banking services and other operations are faster. The digital signature not only optimises most document management processes, but also contributes to the development of business practices, their approximation to European standards and the improvement of the business environment through digital transformation.

An overview of the main categories of information systems designed to automate document processing showed their importance in improving the efficiency of document management in organisations. Electronic document management, DMS, BPA, corporate information resource management, and OCR systems provide speed, security, convenience, and control in document processing, reducing costs and increasing productivity. These technologies help to optimise business processes, support remote work and ensure efficient information exchange.

Challenges and Risks of Implementing Information Systems for Automation of Document Processing: Management Aspects and Strategic Solutions

It should be noted that organisations may face a variety of challenges when implementing information systems to automate document processing, regardless of the specific type of system. Although such systems can significantly increase efficiency and productivity, their integration may be accompanied by a number of common risks and barriers. These include the following aspects. The high upfront costs of acquiring, implementing and maintaining systems, including software, hardware and staff training, can be a significant challenge for many organisations. The implementation of new systems can be complex and require significant resources, including integration with existing systems, process adaptation and data migration. Compatibility issues can prevent the new system from working effectively. Possible technical issues or software bugs can affect the system's performance and lead to delays in operations. Employees may be unprepared or unwilling to change their usual work processes. Resistance from users may lead to problems with the adoption of the new system and reduce its effectiveness. Employees may require significant training to use the new system effectively. Insufficient training can lead to errors and reduced productivity. Ensuring the confidentiality and protection of data is critical. Risks include possible data leaks, unauthorised access or cyber-attacks that could compromise the integrity and confidentiality of information. Problems with proper data storage and archiving can lead to data loss or corruption, which can negatively impact the availability and integrity of information. Risk of dependence on the system vendor for technical support, updates and bug fixes. These common issues require careful management and planning to ensure the successful implementation of information systems and the achievement of expected results.

According to A. Abecker *et al.* (2000), the clear modelling of business processes and their implementation in DMS has proven to be extremely important for improving the overall performance of organisations. It is authors' contention that implemented business processes, which include DMS, provide a solid foundation

for ensuring adequate information support for complex and knowledge-intensive operations. This is confirmed by the results of two different projects that illustrate the successful use of these systems to optimise management and information flows in organisations. In the modern business environment, as noted by L. Dolgova & H. Yamnenko (2021), the choice of a corporate information system is becoming a key strategic decision that significantly affects the company's efficiency. The information systems market is developing dynamically, with new solutions emerging that meet different business needs. Most of the information about these systems, about 80-90% of market data, can be obtained through the analysis of open sources of information. This allows companies to make informed choices based on up-to-date and detailed data on market offerings.

O. Hostryk (2021) believed that the choice of an information system and the setting of tasks should be based on long-term economic planning of the organisation's activities. The structure and functional purpose of the information system should be aligned with the specific goals of the organisation. The process of implementing new information technologies should take into account the speed of their changes, emergence of new versions or types. Ignoring this aspect can lead to rapid obsolescence of the technology and require its modernisation, which will affect the efficiency and costs of the organisation. To avoid such problems, it is necessary to regularly review and update the information system in accordance with current requirements and market trends. Implementing information systems to automate document processing can therefore be fraught with numerous challenges, such as high upfront costs, technical problems and employee resistance to change. Successful integration requires careful management and planning, as well as regular market analysis to ensure compliance with the latest requirements. Clear business process modelling is critical to improving the overall efficiency of organisations.

Conclusions

The use of information systems to automate document processing significantly improves the efficiency of enterprises, institutions and organisations. Automation optimises document flow, speeds up the creation, storage, search, sorting and archiving of documents, reducing errors and ensuring control at all stages of their lifecycle. It also improves access to information, allowing employees to quickly find the documents they need, view the history of changes, and process them according to procedures. Automation helps to reduce the cost of manual processing of paper documents by reducing the need for physical storage space. Information systems provide a high level of data protection through modern encryption and access control methods, which protects documents from unauthorised access and maintains confidentiality. In addition, they can integrate with other systems to create end-to-end solutions for an organisation's operations, which improves decision-making through faster and more accurate document processing. Information systems also simplify document management by providing control at all stages, from creation to archiving and destruction.

A modern enterprise information system should be viewed as a software package consisting of individual modules that cover all areas of an organisation's activities and interact in real time, allowing timely and informed decisions to be made at various levels of management. Each of the system included in the electronic document management plays a role in ensuring the efficiency and transparency of document processing, storage, transfer and management. Implementing information systems to automate document processing can face several challenges. These include difficulty integrating with existing systems, high purchase, training and support costs, employee resistance to change, data security issues, technical difficulties and limited access to resources. All of these factors can complicate the implementation process and require careful planning. For a successful information systems implementation, it is important to plan the integration carefully, defining clear objectives and creating a detailed action plan with milestones and timelines. It is also necessary to estimate the budget and resources and ensure that they are available for the project. It is important to train employees to increase their readiness to work with the new system and reduce resistance to change. Ensuring data security is critical, so security policies should be developed, including protection against unauthorised access, data backup, and data integrity monitoring. Regular monitoring and support of the system will help to quickly resolve technical issues and ensure stable operation of the system.

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Conflict of Interest

None.

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Використання інформаційних систем для автоматизації процесу обробки документів

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Анотація. Актуальність дослідження обумовлена зростаючою потребою в оптимізації процесів обробки документів у сучасних організаціях. З впровадженням інформаційних систем автоматизація обробки документів стає ключовим фактором для підвищення ефективності управління, зменшення витрат і підвищення швидкості обробки. Мета дослідження полягала в створенні комплексного розуміння, як різні інформаційні системи можуть покращити процеси обробки документів, а також у визначенні способів, якими ці системи сприяють автоматизації та підвищенню ефективності. У статті досліджено роль інформаційних систем в оптимізації процесів обробки документів і вивчено їх вплив на автоматизацію цих процесів із метою підвищення ефективності управління документацією. Для досягнення цієї мети проведено детальний аналіз існуючих інформаційних систем, що використовуються для автоматизації обробки документів, що включало оцінку різних технологій, які допомагають в автоматизації обробки документації, їх функціональних можливостей та специфікацій. Досліджено вплив автоматизації на організаційну продуктивність. Оцінено, яким чином автоматизація впливає на зниження витрат, підвищення швидкості обробки документів та покращення робочих процесів, що включає аналіз того, як автоматизація може сприяти більш ефективному управлінню ресурсами і покращенню загальної продуктивності організації. Виявлено потенційні проблеми, які можуть виникнути під час впровадження інформаційних систем для автоматизації обробки документів, що включає ідентифікацію можливих труднощів і бар'єрів, таких як технічні проблеми, потреба в навчанні персоналу або інтеграційні питання. У статті надано комплексний огляд ролі інформаційних систем в оптимізації обробки документів, визначено їх переваги та недоліки, а також проаналізовано їх вплив на організаційну продуктивність і потенційні проблеми при впровадженні. Надано конкретні рекомендації щодо вибору та адаптації технологій автоматизації, що дозволить організаціям знизити витрати, скоротити час обробки документів, зменшити кількість помилок та підвищити продуктивність працівників. Результати можуть бути використані для підвищення ефективності управління документами в організаціях через впровадження та оптимізацію інформаційних систем

Ключові слова: інформаційні технології; обробка документної інформації; управлінські процеси; управління документами; документообіг; діловодство; електронний підпис