

THE ROLE OF AI IN STANDARDIZATING CONTRACTS AND ITS IMPACT ON BUSINESS PROCESS OPTIMIZATION

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Abstract

The relevance of the research is due to the rapid development of artificial intelligence technologies and the need to increase the efficiency of contractual work in the conditions of the modern economy and digital transformation of business. The use of artificial intelligence technologies in the standardization of contracts opens new opportunities for increasing the efficiency of legal processes, minimizing risks and reducing the cost of time and resources. Standardized contracts created with the help of artificial intelligence contribute to ensuring high quality documentation and efficiency in concluding agreements. The purpose of the study is to determine the role of artificial in the process of standardization of contracts and analyze its impact on the optimization of internal business processes of enterprises, as well as assess the effectiveness of the implementation of relevant technological solutions in the practical activities of companies. The following methods of scientific knowledge were used in the study: formal-logical method and generalization method, classification and grouping methods, observation method, analytical method, comparison and analogy method, empirical analysis, modeling, methods of economic and statistical analysis, content analysis of publications, reports and documents, methods of abstraction and concretization. The study identified key benefits and risks of implementing AI, including the need for staff training and ensuring high data quality. It highlights the importance of standardizing contracts to optimize legal processes, which can reduce legal risks, facilitate document review, and ensure compliance with legal requirements. The study explored the use of AI to update contract templates in line with changes in legislation, which helps avoid errors and maintain the relevance of contracts at all stages of their lifecycle. Also, based on simulated practical examples, it is shown how AI-based automation and contract standardization contribute to reducing the time for preparing contracts, reducing the burden on the legal department, and improving the efficiency of business processes. In addition, comprehensive measures are proposed to improve the process of contract standardization. The importance of creating state contract standards alongside private sector solutions is identified.

Keywords: artificial intelligence; standardization; contract; optimization; business processes; automation.

1. Introduction

In today's globalized and digitalized society, the legal regulation of economic relations is largely carried out through a system of contracts, which act as a key tool for determining the rights and obligations of business entities. At the same time, the effectiveness of contractual work is often limited by both objective and subjective factors. In particular, the manual preparation of contracts, checking the terms, the process

of coordination and ensuring their compliance with current legislative requirements are resource-intensive processes that require significant involvement of human and financial resources (Sri Adibhatla & Shrivastava, 2023).

An additional complication is the increasing dynamics of legal regulation, constant updating of legislation, increasing amounts of information that must be considered when concluding contracts, as well as a high risk of legal errors. In conditions of increased market competition, even minor inaccuracies or deviations from established standards in contractual documentation can lead to significant financial and reputational losses. An important challenge for enterprises is the overburdening of legal departments with routine work: searching for appropriate templates, adapting provisions to specific conditions, coordinating changes with counterparties, as well as monitoring the fulfillment of contractual obligations. In this context, the need to implement technological solutions aimed at standardizing contractual work and reducing the administrative burden on legal departments is becoming more urgent.

Businesses, regardless of size and form of ownership, are especially vulnerable to these risks, where significant volumes of contracts with partners, suppliers and customers are concluded every day. Therefore, there is an objective need to develop unified standards for contractual documentation that will help improve the legal quality of contracts, compliance with internal policies and legislative requirements. Small and medium-sized businesses, limited in financial and human resources, also demonstrate increased interest in implementing automated solutions.

In this context, artificial intelligence (AI) is seen as a promising tool for transforming contractual practice. It is not only about automating the drafting of contracts using templates, but also about deep integration of AI into legal processes, in particular:

- analysis of large volumes of text data and classification of contracts;
- identification of potential risks and atypical conditions;
- automation of routine operations with the provision of analytical recommendations;
- unification of legal formulations;
- ensuring compliance with the requirements of current legislation.

At the same time, the use of AI in contractual practice is accompanied by a number of challenges, in particular: the lack of clear legal certainty regarding the use of AI in the field of legal services, the risk of automatic reproduction of erroneous models, the reasoning of AI decisions. In addition, in many jurisdictions there are currently no specialized regulatory acts that would determine the procedure and limits of the application of AI in legal activities, which creates additional legal risks for business entities seeking to implement innovative solutions.

One of the key areas of application of AI in the legal sphere is the standardization of contractual documentation, which involves the unification of the structure of contracts, terminology, style and logic of text construction. Standardization helps to reduce the number of errors, ensures transparency of coordination procedures, reduces the time for document preparation and facilitates the administration of contractual obligations. However, in this aspect too, AI faces significant difficulties, in particular the need to adapt to industry specifics, the legal system of a particular country, local regulatory and legal features, as well as to the individual requirements of individual companies. The lack of universal solutions necessitates close cooperation between lawyers and developers of AI technologies.

So, the problem of implementing AI in the field of contractual relations covers a number of interdisciplinary challenges — legal, technical, managerial. It is a systematic approach to its study that will allow not only to assess the potential of AI in standardizing contractual practice, but also to identify practical mechanisms for optimizing business processes in modern conditions of digital transformation.

The purpose of the article is a comprehensive analysis of the potential and real

impact of AI on the standardization of contractual documentation, as well as a study of its role in optimizing key business processes. The following tasks are envisaged:

- to investigate the concept of AI in the field of law and analyze the scale of its implementation;
- to analyze the features of the integration of AI systems with modern business platforms and systems;
- to provide examples of the use of AI in the processes of concluding and managing contracts;
- to determine the advantages of implementing AI in the process of standardizing contracts;
- to identify the main shortcomings and risks of using AI in legal processes;
- to investigate the impact of the use of AI and standardizing contracts on the optimization of business processes, taking into account simulated practical examples;
- to develop proposals for improving the process of standardizing contracts and implementing AI to increase the efficiency of contractual work and business processes.

2. Materials and Methods

The research used various methods of scientific knowledge aimed at comprehensively investigating the role of AI in the standardization of contracts and its impact on the optimization of business processes. The formal-logical method and the generalization method were used to define the general concept of AI, its characteristics, and the main directions of its use in legal practice. Classification and grouping methods were used to systematize the advantages and disadvantages of using AI in the standardization of contracts, as well as to identify the types of contracts that are most often subject to automation and standardization. The observation method made it possible to investigate the scope of AI application in the legal sphere, especially in the processes of concluding contracts and managing them in a business environment.

The analytical method allowed us to consider the features of using various AI-based solutions for standardizing contracts, in particular, tools for automated document preparation, risk analysis, and agreement on contract terms. The comparison and analogy method were used to identify similar systems for automating contract processes, such as Kira Systems, Luminance, Ironclad, and others, in order to establish general patterns and best practices for their application. The empirical analysis consisted of studying real cases of implementing AI in contract support for companies of various scales. The modeling method allowed to create a practical model for implementing AI in the contract process of an enterprise and assess the possible consequences of such changes.

Methods of economic and statistical analysis were used to assess the effectiveness of the implementation of AI technologies and included the calculation of key performance indicators (KPI): average time for contract preparation, risk reduction and the overall contract conclusion cycle, the level of cost savings on legal services. This allowed us to objectively compare the effectiveness before and after the implementation of AI systems.

Content analysis of publications, reports and documents related to the implementation of AI, the conclusion and execution of contracts in various areas of economic activity helped to systematize the data and identify the main positive trends and problems arising in the process of applying AI in contractual relations. Abstraction and specification methods were used to identify and further analyze areas for overcoming current problems in the field of contractual work and the preparation of contracts using AI.

A complex combination of theoretical and empirical methods allows not only to analyze the current state of regulation and technical solutions, but also to assess the real practical effect of the use of AI in the standardization of contracts. Thanks to the

methods and materials used, the study allows us to identify the potential of using AI to automate and standardize contractual work and to determine the benefits and risks of this technology for business.

3. Results and Discussion

3.1. *The scale of AI implementation in legal practice*

Modern legal practice is undergoing a period of active transformation, driven by the dynamic development of digital technologies. One of the key innovations that significantly affects the structure and content of legal work is AI. In the context of law, AI is considered as a set of technological solutions that allow to automate routine or complex legal tasks by applying machine learning algorithms, natural language processing (NLP) and generative artificial intelligence (GenAI).

NLP (Natural Language Processing) (Fareed, 2020) is used to analyze, understand, and generate natural language, which allows you to automate processes such as translation, proofreading of contract texts, creating document summaries, detecting errors, and providing interface interaction through chatbots or voice assistants.

GenAI (García-Peñalvo & Vázquez-Ingelmo, 2023) is defined as the ability of a model to create original synthetic content — texts, images, analytics, which can serve as an auxiliary tool in the legal process: from preparing draft contracts to automatically building legal opinions. Among the practical capabilities of GenAI, it is worth highlighting the improvement of systematic review of large volumes of data (Khalid et al., 2025), analysis of sources and creation, editing of content of any format (text, audio, photo, video).

The issue of introducing AI into the legal sphere is also actively considered in modern Ukrainian scientific discourse. Researchers pay significant attention to both the practical potential and legal challenges associated with the use of AI in jurisprudence. The effectiveness of using AI to predict the outcomes of court cases, optimize internal legal procedures, and promote the democratization of justice through automated access to legal information is emphasized (Hrab & Tomashivs'kyy, 2024). However, with existing opportunities come challenges (Hryshko, 2024), in particular those related to human rights and the possibility of uncontrolled application of automated decisions. The lack of clear regulatory definitions and principles of the use of AI in law creates difficulties in determining legal liability for actions taken using AI (Kobko-Odariy, 2025). The focus of research is also on the use of AI as an assistive technology for lawyers and prosecutors (Plakhotnik, 2024), emphasizing the possibility of optimizing time, reducing human errors, but also the danger of excessive automation of processes that require professional intuition and ethical judgment.

Among the most important aspects of implementing AI in legal practice, it is worth highlighting contract law, in particular contract standardization, which consists in creating unified templates for contracts in order to increase the accuracy, speed of processing and consistency of documents. AI can automatically highlight critically important elements of contracts, such as liability conditions, amounts, terms and other essential terms of the contract, which increases the accuracy and efficiency of legal expertise (Hiranmai & Shrivastava, 2023). In addition, AI is being integrated into various industries including e-commerce (Muzychenko et al., 2023), which allows to significantly increase the efficiency of interaction with clients, which can be useful in legal practices for automating contract processes and managing legal processes.

The above theoretical and applied aspects of AI implementation in law are confirmed in current international research. According to statistical data from the Statista platform (Statista, 2024), the impact of GenAI on the legal profession arouses both significant interest and caution among specialists:

1. 23% of lawyers fully agree that the effective use of GenAI will be a critical factor that will separate successful and unsuccessful law firms. This indicator shows the

formation of new standards of competitiveness in the market of legal services, where technological competence is increasingly becoming the key to growth.

2. 22.9% of the respondents indicated that they are ready to trust GenAI if the transparency of the algorithms is ensured: how the AI works, how it is trained, what data it uses. This emphasizes the importance of ethical and technical openness of AI systems in the field of law, where trust is fundamental.

3. The most anticipated direction of GenAI implementation was the creation of summaries and analytics: 34% of respondents see this as the most powerful potential of AI. This vector is directly related to the processing of contracts, since the automated creation of summaries and extracts from contracts significantly reduces the workload on lawyers and reduces the likelihood of errors.

4. In practical terms, 19% of law firms are already using GenAI specifically for document summaries — this is not yet a dominant, but growing trend, confirming the gradual but steady introduction of technology into workflows.

5. In addition, 58% of lawyers expect increased investment in technology, which is an important signal for the market: AI is gradually moving from the sphere of «experimental tools» to the category of strategic investments of law firms.

Overall, these data highlight that the legal services market is in a transformational phase, where trust in GenAI, algorithm transparency and focus on specific practical tasks (resumes, analytics, contract processing) are key development factors.

According to a Thomson Reuters study (Future of Professionals, 2024), 72% of lawyers consider AI to be the main prospect that contributes to the development of the profession, and half of firms have identified the implementation of AI as a strategic priority.

Despite this, there is an uneven implementation of technologies, according to a study by the International Bar Association (Rotenberg et al., 2024), 100% of firms with more than 500 lawyers are already using AI, while only 32% of small firms (up to 100 lawyers) do so. This creates a risk of increasing market inequality, as technologically advanced companies gain competitive advantages in the speed of client service and the quality of contract support.

The data presented in the report (Thomson Reuters, 2021) demonstrates in which areas law firms most often use AI technologies. Based on the data, several key areas can be identified that are most popular today (Fig. 1).

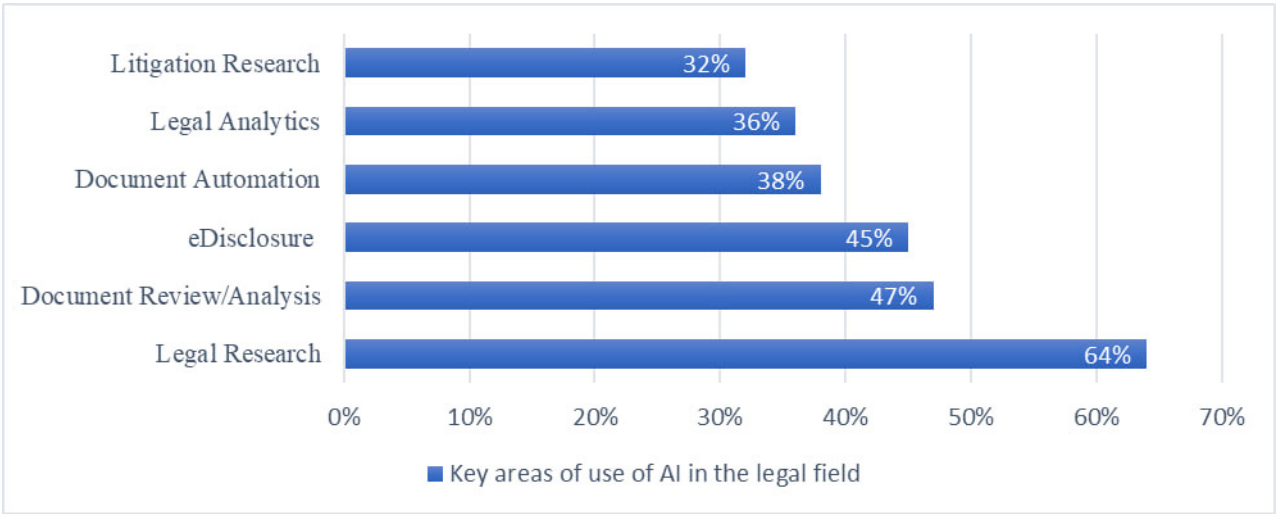


Figure 1. Key areas of use of AI in the legal field

AI is actively used in several key areas of legal practice. It is most commonly used for legal research, which allows lawyers to quickly find relevant information for case preparation. AI also plays an important role in document review and analysis, automating the process of reviewing agreements and contracts, which reduces the likelihood of

errors. In addition, AI is used in electronic document disclosure, helping to efficiently process large amounts of information in court cases (Statista, 2024). Another important area is the automation of legal document creation, which significantly saves time and resources, as well as legal analytics, which allows you to assess trends and forecasts for making informed decisions. To a lesser extent, AI is used for case research, which helps to quickly find precedents for preparing case management strategies. In general, AI significantly optimizes legal processes, reducing the time and resources spent on routine tasks.

The results confirm the general trend — AI not only automates routine processes, but is also gradually turning into a legal «partner», especially in industries where standardization, accuracy, and speed are important, in particular in the preparation of contracts.

3.2. Integrating AI with modern business systems

A developed and effective business environment is a prerequisite for the effective use of business potential, increased productivity, investment attractiveness and overall stability of the market economy (Bila & Nasikan, 2021). Business environment management is considered as one of the areas of improving its quality, which is a generalizing result of the functioning of the entire system. AI is actively used to automate request processing and increase customer satisfaction. Similar processes can be applied in law firms, where automation and AI data analysis significantly improve management decisions (Chernyshova et al., 2024).

In this context, AI acts as a new level tool that allows not only to automate processes, but also to continuously analyze the effectiveness of their implementation, adapt to changes and improve the quality of decision-making. The integration of AI with already existing business platforms, which creates the unity of digital management, is of particular importance.

For the effective work of AI in the field of standardization and contract management, its interaction with key business systems of the company is important, for example:

- ERP (Enterprise resource planning) - integration with ERP allows you to take into account financial and operational restrictions when forming the terms of the contract, automatically substitute the relevant details of the company and monitor compliance of contracts with internal policies.

- CRM (Customer relationship management) - combining AI with CRM systems (for example, Salesforce) allows you to initiate contract creation immediately after reaching a certain stage of the sales funnel. This minimizes delays and speeds up the contract conclusion cycle.

- ECM (Enterprise content management) - AI can automatically classify, tag and archive contracts, facilitating further search and analysis.

- CLM (Contract lifecycle management) - AI deepens the capabilities of CLM systems, providing:

- generation of drafts based on templates;
- coordination of changes according to the «draft-edit-version» principle;
- risk and key provisions analysis;
- automatic status update (at the stages of approval, signing, execution, prolongation).

In practice, there are various successful examples of integrating AI solutions with leading global business platforms. The choice of a specific integration architecture depends on the specifics of the enterprise, but the key trend is the implementation of adaptive AI models through open interfaces (Tran, 2025):

- The use of AI in SAP (System applications and products in data processing) allows you to identify risky provisions in contracts at the drafting stage, automatically compare the draft contract with corporate procurement standards, which can reduce

the time of legal analysis.

- CRM platform (customer relationship management) - thanks to the integration of AI in CRM, employees can generate personalized contracts directly from the client's profile, filling in important details without the need for manual editing, which can increase the speed of processing deals.

- DocuSign - an electronic signature platform that complements the basic functionality with AI analytics, which in real time checks the compliance of the contract text with standard templates, offering editing or warning about potential risks.

The integration of AI into existing business systems ensures the creation of a single contract processing ecosystem, where processes become transparent, optimized and controlled. The result is not only the acceleration of contractual activities, but also an increase in the overall sustainability and competitiveness of the business.

The study of the benefits of AI in the context of standardization of contractual relations has long been a topic of scientific research (Linarelli, 2019). One of the main ideas is that AI can significantly contribute to the optimization of the processes of concluding and executing contracts, through automation and standardization. AI allows you to significantly improve management decisions, personalizing and predicting future trends. In the legal sphere, such technologies can be used to automatically form and manage contracts, which makes this process more efficient and accurate (Derba, 2024).

A standardized contract is a legal agreement, the terms of which are determined in advance, mostly without the possibility of making significant changes by the counterparty. Such documents are also called standard forms of contracts, or adhesion contracts, and are widely used, especially in industries with high operational activity.

Typical examples of standardized contracts include:

- Internet service, banking or insurance subscription agreements.
- Employment contracts in outsourcing companies.
- Public offers in e-commerce.
- NDA (Non-Disclosure Agreements), SLA (Service Level Agreements).
- Software license agreements (EULA).
- Logistics and distribution agreements.

Standardized contracts are particularly useful in the context of low-risk or typical transactions, where speed of conclusion and scalability are critical, rather than individual customization of terms, but with the advent of AI, the need for a compromise between standardization and personalization disappears.

In today's environment, standard contract terms are increasingly digitized. Online platforms provide a regulatory infrastructure that can be combined with algorithmic data analysis and other digital tools, enabling accelerated "regulatory learning" that is more efficient than traditional legal approaches, including "manual" review of contract terms (Möslein, 2023).

Special attention in modern researches is paid to the standardization of smart contracts, which can significantly transform contractual practice. Smart contracts are a flexible and secure tool that can ensure the automatic execution of agreements (Capocasale & Perboli, 2022). However, to realize the full potential of this technology, it is necessary to integrate them into a broader technical and legal framework, rather than existing as isolated solutions.

In this context, it is worth considering the key advantages of contract standardization, especially with the use of AI tools:

1. Economic efficiency - the standardization of contracts allows you to significantly reduce the costs of legal support, since repeated provisions do not require constant revision or editing. Using AI to process contract templates further reduces human costs by automating routine operations and reducing the need for legal intervention, especially in the initial stages. For example, Orangetheory Fitness successfully implemented an AI-powered contract management system, which reduced the time to review a single

contract to 30 minutes, which is 80% faster than traditional methods (Williams, 2023). Using AI saved hundreds of hours of legal work and completed the project many times faster than planned.

2. Acceleration of the process - due to the use of standard wording, contracts are quickly created, the parties reach agreement faster, because they are familiar with the typical terms of the contract. AI can accelerate this process even more by analyzing the parties' requests in real time, offering compromise solutions and adapting standard terms to a specific context. Such tools are already used in LegalTech platforms for generating or verifying contracts. At the same time, the use of AI in business taxation (Shapovalova et al., 2024) can increase the accuracy and reliability of reporting, which can be extrapolated to legal processes where standardization of documentation is important.

3. Increased productivity - Using ready-made contract templates combined with intelligent systems reduces the time spent on each individual contract. Legal teams can focus on more complex or strategically important issues by transferring routine work to digital assistants. In an enterprise environment, this means scaling processes without a proportional increase in personnel costs.

A study conducted by LawGeex showed that an AI-based contract management tool achieves 94% accuracy in identifying risks in documents, while the average accuracy of lawyers is 85% (LawGeex, 2018). In addition, the AI document review time is only 26 seconds, compared to 92 minutes that lawyers need to analyze the same data.

The Forrester Total Economic Impact™ report on Lawgeex (The Total Economic Impact..., 2021) shows a return on investment of 209% and over 6,500 hours saved in contract review and negotiation. The results indicate the possibility of significant productivity improvements, which, in turn, contributes to cost reduction and improved quality of contract support.

4. Confidence in the content and execution of the contract - unified provisions reduce the likelihood of ambiguous interpretation of the terms of the contract, which contributes to an increase in the level of trust between the parties. AI can additionally analyze the wording of contracts for potential gaps, conflicts or ambiguities even before signing, thereby increasing the legal quality of the document.

5. Risk reduction - standardization helps reduce legal and operational risks, in particular in cases of involving third parties or executing contracts in different jurisdictions. AI can conduct preliminary compliance analysis, identify potential threats or inconsistencies with legal norms. In the event of an update of regulations, AI is able to quickly adapt standard templates to new requirements.

6. Scalability and reusability - in digital environments (e.g. e-commerce or SaaS), an important advantage is the ability to scale the process of concluding contracts with a large number of users. Standardized contracts are easily integrated into digital systems and allow for the automatic generation of contracts with a large number of customers or partners.

7. Flexibility within technical and legal innovations - although standardization is usually associated with limiting flexibility, in combination with AI it can allow for maintaining adaptability: conditions can change within defined parameters, and events that trigger the execution of the contract can be recorded automatically. Smart contracts can be part of larger legal frameworks, which allows combining the flexibility of technology with the clarity of legal regulation.

AI technologies are significantly changing the process of drafting legal contracts. AI tools help create accurate, customized, and compliant documents by automatically generating them based on input data and templates. Systems such as Legal Robot (Stavnichenko, 2024) analyze contract contexts, suggest appropriate terms, and ensure compliance with current legal standards. In addition, they support simultaneous collaborative work on draft contracts, change tracking, and access to extensive databases

of legal precedents, which significantly improves the quality and speed of contract work, minimizes the risk of human error, and reduces company costs. Standardization combined with AI not only optimizes contract practice, but also creates the prerequisites for new models: smart contracts, self-executing agreements, and contracts that can «learn» from past experience (machine learning). This opens up prospects for creating more predictable, automated, and adaptive legal relationships.

3.3. Disadvantages and risks of implementing AI in legal processes

The integration of AI opens up new opportunities for optimizing routine processes, increasing the efficiency of information processing, and reducing costs. At the same time, the rapid development of this technology creates a number of challenges that are essential for ensuring compliance with legislation and guarantees of counterparties' rights. Such risks require detailed analysis and development of appropriate mechanisms for their resolution.

One of the biggest threats is the gradual loss of full human control over decision-making processes in AI systems. Complex machine learning models can generate results whose logic is not always traceable even to the developers. In legal practice, this poses a particular danger, as decisions must be well-founded, predictable and open to scrutiny. The loss of transparency can lead to consequences such as reduced trust in automated decisions, violations of anti-discrimination laws, lawsuits and reputational damage.

For example, the COMPAS recidivism risk assessment algorithm (Scaria et al., 2024), which was used in US courts to make decisions on parole or bail, was found to be biased against people of African American origin. The assessment mechanism remained opaque, which made it impossible to effectively protect the rights of suspects.

In 2019, Apple faced a problem with the credit scoring algorithm in Apple Card (BBC, 2019). The AI provided lower credit limits to women than to men, even if their financial data was comparable or better. The company failed to provide a clear explanation of the logic behind the algorithm's decision-making, which raised serious questions about the transparency of the automated lending process and accountability for its results. To prevent such risks, it is necessary to introduce mandatory verification of all AI work results by specialists, establish clear boundaries of responsibility between machine and human, and develop protocols for regular algorithm audits. The key is the principle of «human-in-the-loop», which ensures that all legal conclusions remain under control.

Another serious threat is the tendency of modern models, in particular LLM, to create false or fabricated information. In legal practice, this can have serious consequences:

- submitting false information to the court may qualify as a disciplinary offense;
- undermining the trust of clients in the lawyer or law firm;
- receiving lawsuits for compensation of losses.

In *Mata v. Avianca Inc.* (*Mata v. Avianca, Inc*, 2023), a lawyer submitted documents to the court containing non-existent court precedents generated by AI. Even though the model provided fictional quotes and case details, the court's review revealed falsification, which led to the application of sanctions against the lawyer. To minimize this problem, it is necessary to implement multi-level verification of information, i.e., automatic results should be supplemented with independent expert assessment. It is also necessary to use highly specialized models that are «trained» exclusively on high-quality legal data, and regularly update them in accordance with changes in legislation and practice.

Legal activity is associated with the protection of a large amount of confidential information: personal data of clients, commercial secrets, strategic plans of companies. Transferring this data to third-party AI systems may violate attorney-client privilege or

data protection legislation (e.g. GDPR in the EU).

A well-known case of privacy concerns is the situation with Samsung Electronics (Priya, 2023), where employees inadvertently transferred confidential data to the open neural network ChatGPT while preparing internal documents, which created a risk of trade secret leakage. As a result, Samsung introduced a complete ban on the use of public AI platforms in work processes and began developing its own secure AI model for internal use. To prevent this, modern data encryption protocols should be used both when storing and transmitting information, data access should be separated and multi-level user authorization should be implemented. In addition, it is important to choose AI solutions from trusted suppliers that meet international security standards, such as GDPR, ISO 27001, SOC 2. Special attention should be paid to the use of local servers or private cloud environments instead of open public platforms.

Uncertainty regarding the subjects of responsibility for errors made by AI systems is a serious threat to legal stability. Is a person liable if he entrusted AI with the preparation of a document? Definitely yes, since he is responsible for the preparation, verification and transmission of this document.

Contractual practices, especially in B2B contracts for the supply of AI solutions, should include provisions on:

- limitation of the developer’s liability for unforeseen AI errors;
- the user’s obligation to independently verify the results of the system’s operation;
- the possibility of liability insurance for damage caused by decisions made on the basis of AI.

The case of Quoine Pte Ltd v B2C2 Ltd (Quoine Pte Ltd v B2C2 Ltd, 2020) is an important precedent that concerned algorithmic trading and the automated execution of transactions without direct human intervention. The court considered the issue of allocating liability for errors caused by automated systems.

AI is certainly becoming an integral part of the legal profession. However, the successful use of such technologies depends not only on the technical characteristics of the models, but also on the development of effective mechanisms to prevent the risks they carry. Only a systematic approach to legal and technical aspects will ensure that AI works for the benefit of the law, and not threaten its fundamental principles.

3.5. The impact of using AI and standardization of contracts on business process optimization

Automating contract work using AI tools and standardized templates is now one of the key strategies for improving the efficiency of business processes. It not only accelerates contract execution, but also reduces risks, optimizes costs, and improves collaboration in both external and internal company processes. The use of AI and standardization of contracts to optimize business processes is based on the main directions:

- Standardization of contract templates.
- Automated contract analytics and verification.
- Risk analysis and reduction of dependence on the human factor.
- Integration of contract processes into the business environment.

Below are the most popular solutions that help standardize and automate contract work and, as a result, improve core business processes (Table 1.).

Table 1. Overview of systems for standardization and automation of contracts

System	Basic capabilities	Features
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ChatGPT (OpenAI)	Contract text generation, template creation, assistance in formulating terms.	Additional legal validation of created documents is required. High level of errors, loss of confidentiality.
Kira Systems	Pre-contractual risk analysis, creation of standard contracts.	Recognized leader in due diligence processes, used by leading law firms.
ThoughtRiver	Pre-contractual risk analysis, creation of standard contracts.	It has pre-configured modules for different branches of law.
World Commerce & Contracting (WorldCC)	Development of contract standards, contract optimization methodologies.	Actively used to implement best practices in contract management.
LexisNexis CounselLink	Contract management, analytics, contract templateization.	Suitable for large corporate legal departments.
Westlaw Edge (Thomson Reuters)	Search for precedents, contract analysis, generation of standard wording.	Especially useful for comprehensive analysis of contracts with reference to current practice.
Practical Law (Thomson Reuters)	Ready-made contract templates, step-by-step instructions for concluding agreements.	Ideal for a quick start in complex contractual issues.
Luminance	For verification, audit and contract management.	Suitable for identifying risks and inconsistencies.
Ironclad	Contract management "from creation to signing", automation of approvals.	One of the most popular "no-code" solutions for in-house lawyers.
ContractPodAi	AI-based contract creation, analysis, approval and storage.	Fully automated solution for the contractual lifecycle (CLM).
DocuSign CLM	Automation of workflows for signing and approving contracts.	Integration with popular CRM and ERP systems (Salesforce, SAP).

Intelligent systems optimize resource management. Due to such innovations, companies can reduce costs and shorten the time for concluding agreements, which makes their business processes much more efficient (Butenko et al., 2025). As can be seen from the table, there are already solutions on the market for different stages of working with contracts: from generation and verification of individual provisions to the full life cycle of the contract. The right choice of platform depends on the needs, size of the business, specifics of the activity and the volume of the workload. The optimal approach is to combine basic tools with professional systems such as Kira Systems or Ironclad to formalize and standardize work (Future of Professionals Report, 2025).

The effectiveness of contract automation should be assessed not only by qualitative impressions such as increased convenience, but also by quantitative indicators. For this, KPIs are used, which allow objectively measuring the impact of implemented solutions on business processes. Below are the key metrics used to assess the effectiveness of contract automation (Table 2).

Table 2. Example of efficiency measurement: key KPIs of business process optimization

Indicator	Meaning	Possible expected results
TAT (Turnaround Time)	Time from draft creation to final signing.	Reduction by 40-50%
Cost Saving	Reduction of the cost of legal support of contracts.	Save up to 30% of the budget
Contract Risk Level	Reduction of risks in contracts	Risk reduction by 20-35%
Cycle Time Reduction		Reducing the overall contract cycle.

The above indicates that reducing workload, increasing process transparency, and minimizing human errors in contract preparation contribute to the overall increase in the company's efficiency and increasing its competitiveness in the market. At the same time, when implementing any new solutions, it is necessary to systematically analyze the indicated indicators in order to have an objective idea of their actual impact on business processes and timely identify areas for further improvement.

3.5. Practical example of optimizing contractual processes through standardization

To demonstrate the effectiveness of implementing automation and standardization of contractual work and their impact on optimizing business processes, let's consider a conditional example of an IT company.

Initial data:

- Company: IT company with up to 150 employees.
- Legal department: 20 lawyers.
- Workload: 50 NDAs and 50 contracts per month.

In order to assess the effectiveness of work before and after the implementation of AI-based systems, it is worth considering specific indicators. Table 3 shows the key parameters that characterize the changes in the processes of preparing NDAs and service contracts after the implementation of AI technologies.

Table 3. Modeling the effectiveness of AI implementation in standardization of contract work

Parameters	Before AI implementation	After AI implementation
Number of NDAs/ per month	50	50
Time to prepare 1 NDA	120 min (fully manual by lawyer)	25 min (lawyer + AI generation)
Total time/month per NDA	100 hours	~20.8 hours
Part of NDAs requiring legal review	100%	10–15%
Average NDA cycle time	3 days	1 day
Number of service agreements/ per month	50	50
Time to prepare 1 agreement	180–240 min (fully manual by lawyer)	45–60 min (lawyer + AI generation)
Total time/month for agreements	175–200 hours	~41.6–50 hours
Part of agreements requiring legal review	100%	20–25%
Average contract cycle time	5–7 days	2–3 days
Legal workload	High	Average-low

Analysis of the obtained data demonstrates that the implementation of AI tools for automating the preparation of NDAs and service agreements allows to significantly optimize key business processes. There is a significant reduction in the time for preparing documents (by 70–80%), reducing the burden on the legal department. Reducing the time for preparing contracts provides additional benefits for the company:

- increases the level of satisfaction of counterparties due to faster response to requests;
- reduces the risk of losing potential deals due to a long wait for agreement on contracts;

- help to strengthen the company's reputation as a flexible and technologically advanced partner;
- is economically beneficial - allows to reduce costs for legal support and redirect resources to other priority business tasks;
- allows the legal team to focus on more complex and risky agreements, strategic consulting.

These results confirm the feasibility of further developing document standardization processes and using modern technologies to support contractual work. Along with the automation of basic contracts, it is important to pay attention to improving the procedures for auditing counterparty changes, risk analysis, and the gradual integration of AI tools into more complex types of contracts

3.6. Prospects for improving the standardization process and implementing AI to optimize business processes

The implementation of AI in the process of standardizing contracts and automating legal processes is an important step for optimizing business processes. However, to achieve maximum effect and efficiency, it is important to consider not only technological innovations, but also changes in organizational and management processes, as well as in employee skills:

1. Expanding the application of AI to different types of contracts. It is important to apply AI technologies not only to standard contracts such as NDAs, but also to more complex documents such as service contracts, software development or license agreements. Intelligent systems such as Kira Systems, ThoughtRiver or Luminance can significantly reduce the number of errors in the contract and speed up the process of concluding them, which is especially important for companies with many counterparties.
2. The development of an internal database of standard contracts is necessary in the standardization process, which allows you to create and store a single database of verified and adapted templates and will provide faster access to current documents, reducing the time for their preparation.
3. Automatic or updating of templates and verification using AI. It is important to ensure regular updating of contract templates, considering changes in legislation and internal company policies. For this, you can use both automatic AI-based tools and combined solutions: automatic notification of changes + manual confirmation or updating of templates by responsible persons.
4. The development of an internal database of standard contracts is necessary in the standardization process, which allows you to create and store a single database of verified and adapted templates and will provide faster access to current documents, reducing the time for their preparation.
5. Automatic or updating of templates and verification using AI. It is important to ensure regular updating of contract templates, considering changes in legislation and internal company policies. For this, you can use both automatic AI-based tools and combined solutions: automatic notification of changes + manual confirmation or updating of templates by responsible persons.
6. Creating a «guide» or «checklist» for contracts will help to unify approaches to concluding complex B2B agreements, improve the legal quality of documents and speed up the approval processes. They should contain mandatory elements of contracts, examples of wording and recommendations for working with atypical conditions.
7. Training employees in new systems. Technologies in themselves do not guarantee efficiency without proper mastery of them by the staff. Regular education and training will increase the efficiency of lawyers' work with AI systems, minimize technical errors and improve the overall quality of contractual activities.

In addition to internal business process optimization, an important area of improvement is the development of unified contract standards at the state level.

Introducing standardization of individual documents (e.g. NDA, service agreements, agency agreements, contracts) would provide the following benefits:

- unity of law enforcement - uniform interpretation of typical provisions in the practice of state bodies, business and the judicial system;
- reduction of the number of disputes by minimizing ambiguous wording and legal risks;
- increasing the efficiency of inspections and controls - unified contracts facilitate audit, legal expertise and ensure compliance with legislative requirements;
- optimization of public procurement - simplification of procedures for concluding contracts in the public sector, reduction of administrative costs;
- increasing the level of legal culture - facilitating the understanding of basic contractual provisions for entrepreneurs and citizens;

Thus, the combination of internal digitalization of contracts in business and the development of standardization of contracts at the national level will contribute to greater predictability of contractual relations, reduction of transaction costs and sustainable development of the private and public sectors.

4. Conclusions

As a result of the research, the essence of the AI concept in the field of law and the scope of its implementation were analyzed. AI is actively integrated into legal practice, significantly changing approaches to working with documents, forensic analytics, and managing contractual processes. Special attention is paid to the integration of AI with modern business platforms, which allows automating the processing of large volumes of data, reducing time spent and increasing the accuracy of legal work.

Examples of the use of AI in the conclusion and management of contracts are considered - in particular, through the Kira Systems, ThoughtRiver and Luminance systems, which allow to accelerate the approval of contracts, automatically identify risks and propose options for changes. The key advantages of implementing AI in the process of standardizing contracts are established: increasing work efficiency, minimizing the risks of errors, faster updating of templates in accordance with changes in legislation. At the same time, the main disadvantages and risks are identified, including: the need for high-quality data for training AI, the risks of misinterpretation of complex legal norms, confidentiality and liability.

It has been proven that the use of AI in combination with contract standardization contributes to the optimization of business processes, reduction of transaction costs and increase of predictability of contractual relations. The study simulated practical scenarios of application of AI to optimize the processes of concluding contracts. Several practical proposals for improvement were developed: expanding the use of AI for complex contracts, creation of internal databases of templates, automation of document updates, development of guides and training of personnel. It was also proposed to introduce national standards of contracts to unify practices and reduce legal risks.

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