

Artificial Intelligence in Commercial Contracting: The Mediating Role of Governance and Ethical Considerations in Saudi Arabia

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Information of Article

<i>Article history:</i> <i>Received: July 2025</i> <i>Revised: Aug 2025</i> <i>Accepted: Sep 2025</i> <i>Available online: Oct 2025</i>	Abstract This paper develops a conceptual framework that examines the role of artificial intelligence (AI) in commercial contract formation, focusing on the mediating influence of governance and ethical considerations. As AI continues to reshape legal processes by improving accuracy and efficiency, challenges such as bias, privacy concerns, and compliance with legal standards emerge, particularly in Saudi Arabia’s rapidly digitizing economy. This study identifies gaps in understanding how governance frameworks and ethical principles, including transparency, fairness, and accountability, moderate AI’s impact on contract formation. The proposed model integrates AI, governance, and ethics, providing insights for policymakers, legal professionals, and businesses. The paper emphasizes the need for robust governance mechanisms and ethical oversight to ensure AI’s responsible application in commercial contracts. Finally, it offers practical recommendations for the Saudi Arabian legal system, addressing the unique legal and cultural factors that influence AI adoption in contract law.
Keywords: Artificial Intelligence, Commercial Contracting, Ethical Considerations.	

1. Introduction

The rapid integration of artificial intelligence (AI) into commercial contracting processes is transforming how businesses engage in legal transactions across the globe, and Saudi Arabia is no exception. As part of the nation's digital transformation goals under Saudi Vision 2030, AI technologies such as automation, decision-making algorithms, and predictive analytics are increasingly being adopted to streamline contract formation. These technologies offer several advantages, including the ability to reduce human error, enhance accuracy, and improve overall efficiency in drafting, negotiating, and enforcing contracts. Automation, for instance, enables the execution of repetitive tasks, such as contract reviews and compliance checks, without the need for human intervention. Predictive analytics further assists in forecasting potential risks, ensuring that contracts align with current legal standards. However, as AI becomes more embedded in these processes, significant concerns regarding governance and ethical oversight arise. Without robust governance frameworks, the use of AI in legal contexts could lead to unforeseen risks, such as biased decision-making, breaches of privacy, and failure to meet legal and ethical obligations. Ethical considerations, including transparency, fairness, and accountability, are therefore crucial to fostering public trust and ensuring that AI applications in contract formation are both legally sound and socially responsible. The adoption of AI in commercial contracts offers substantial benefits to businesses, but it also raises complex challenges, particularly in balancing innovation with the need for compliance with legal norms and ethical standards, especially in Saudi Arabia’s unique socio-legal landscape.

Despite the growing use of AI in legal processes, there remains a significant gap in the literature on how governance and ethical considerations mediate the effectiveness of AI in commercial contract formation. While much research has focused on the technical capabilities of AI, such as its ability to analyze large datasets and optimize contract drafting, less attention has been paid to the role that governance structures and ethical frameworks play in shaping AI's impact on legal transactions. This gap is particularly relevant in Saudi Arabia, where the legal system is in the midst of adapting to rapid technological advancements. The country's unique cultural and legal framework, which integrates Islamic legal principles (Shari'ah) with contemporary regulatory standards, adds an additional layer of complexity to AI adoption in commercial contracts. This study seeks to address these gaps by exploring how governance and ethical standards can mitigate the risks associated with AI-driven contracts, such as bias, privacy violations, and unequal power dynamics in contract negotiations. By doing so, it aims to ensure that AI applications not only meet local legal standards but also align with international best practices in governance and ethics.

The primary objective of this research is to develop a conceptual framework that examines the relationship between AI applications in commercial contracting and the role of governance and ethical considerations. Specifically, the study aims to explore how governance mechanisms mediate the effectiveness of AI in contract formation and how ethical principles, such as fairness, accountability, and transparency, influence the use of AI in legal transactions. The study is particularly timely given Saudi Arabia's push towards digital transformation, where AI is increasingly seen as a tool to modernize the country's legal and business systems. By focusing on the interplay between AI, governance, and ethics, this research seeks to provide a structured approach to understanding the challenges and opportunities presented by AI in the Saudi Arabian context, offering valuable insights for policymakers, legal practitioners, and businesses alike.

The research will address several key questions: How does AI influence the commercial contract process in Saudi Arabia? What role do governance frameworks play in mediating AI's impact on contract formation? And how do ethical considerations affect the use of AI in commercial contracts? Answering these questions is critical to understanding the broader implications of AI adoption in the legal domain, particularly in a country undergoing rapid digital transformation. The significance of this study lies in its contribution to the growing body of literature on AI's legal implications, particularly in commercial contracting. By integrating governance and ethical considerations into the analysis, this research offers a comprehensive perspective on how AI can be responsibly adopted in legal processes, ensuring compliance with both local and international regulations. Furthermore, it addresses the specific challenges and opportunities that arise in the Saudi Arabian context, where legal systems are adapting to the demands of AI and digitalization.

This paper is structured as follows: The Introduction provides an overview of the study's background, problem statement, research objectives, and significance. The Theoretical Foundations section explores the key concepts surrounding AI, governance, and ethics in commercial contracting. The Hypotheses Development section outlines the study's key hypotheses related to AI's role, governance, and ethics in contract formation. The Gap in the Literature identifies current research deficiencies, particularly within the Saudi Arabian legal context. The Conceptual Framework Development presents the proposed model that integrates AI, governance, and ethical considerations. Lastly, the Practical Implications and Conclusion sections discuss the broader relevance of the study and future research directions, offering practical recommendations for policymakers, legal professionals, and businesses navigating AI adoption.

in commercial contracts.

2. Theoretical Foundations

2.1 Artificial Intelligence and Commercial Contracting

Artificial Intelligence (AI) technologies are increasingly revolutionizing the field of commercial contracting, bringing unprecedented levels of efficiency and accuracy to the process of contract formation. AI technologies relevant to contract formation primarily include automation, decision-making algorithms, and predictive analytics. Automation, a foundational aspect of AI, enables the performance of routine and repetitive tasks such as generating contract templates, reviewing legal documents, and ensuring compliance with regulatory frameworks. This significantly reduces human error and expedites the contract formation process, freeing legal professionals to focus on more complex aspects of contracting. Decision-making algorithms go further by facilitating complex determinations within contract negotiations, where AI systems analyze data patterns to offer optimized contract clauses and outcomes. Predictive analytics adds another layer of functionality by forecasting potential risks and outcomes in contracts, helping businesses proactively address issues before they arise. Together, these technologies represent a transformative force in commercial contracting, reducing the time and effort required to draft and negotiate agreements while simultaneously enhancing precision and compliance.

The existing body of literature emphasizes the role of AI in optimizing contract negotiations and drafting. For example, AI systems have the ability to analyze large volumes of historical contract data, legal precedents, and statutory regulations, providing actionable insights that streamline the drafting of clauses and negotiation terms. This leads to more informed decision-making and often results in contracts that are both comprehensive and tailored to specific business needs. Moreover, AI's capacity to continually learn and adapt ensures that contracts are compliant with ever-changing legal standards. However, while the potential benefits of AI in contract formation are significant, concerns remain regarding the alignment of AI-generated contracts with legal and ethical standards. Issues such as the potential for algorithmic bias, the safeguarding of data privacy, and the question of accountability in AI-driven decisions must be addressed to ensure AI systems operate within acceptable legal and ethical boundaries.

2.2 Governance and AI in Contracting

Governance in the context of AI applications refers to the regulatory frameworks, corporate policies, and oversight mechanisms that ensure the responsible use of AI systems in legal and commercial processes. Given the complexity and legal significance of contracts, the application of AI in this domain must be carefully governed to ensure compliance with legal standards and protect the rights of the parties involved. Governance frameworks in AI-driven legal processes are designed to mitigate risks such as bias, unfair decision-making, and privacy violations, while also ensuring transparency and accountability. These governance mechanisms provide critical oversight for how AI is applied in commercial contracts, from initial negotiations to final contract execution.

Several governance frameworks specific to AI-driven legal processes have emerged to address the challenges posed by AI in contracting. These frameworks emphasize the need for transparency in AI

decision-making processes, ensuring that parties can understand how contract terms are generated and why certain decisions are made. Corporate policies also play a vital role in ensuring that AI systems align with both internal compliance requirements and external legal standards. In Saudi Arabia, where legal systems are rapidly evolving to accommodate digital transformation, governance mechanisms that ensure AI's compatibility with Islamic legal principles (Shari'ah) are particularly important. These frameworks establish boundaries for AI decision-making in contracting, ensuring that technology is used responsibly and in accordance with both legal and ethical norms. Strong governance not only enhances the effectiveness of AI-driven contract formation but also mitigates the risks associated with automation and algorithmic decision-making in legal contexts.

2.3 Ethical Considerations in AI Applications

Ethical considerations are central to the responsible application of AI in commercial contracting. As AI systems take on a greater role in decision-making, concerns about transparency, fairness, accountability, and bias have become more prominent. Transparency refers to the ability of AI systems to provide clear, understandable explanations for the decisions they make during contract formation. Ensuring that all parties involved in a contract understand how and why specific decisions were made is essential for maintaining trust in AI-driven systems. Fairness, on the other hand, addresses the need for AI systems to produce equitable outcomes, ensuring that no party is disadvantaged due to biases inherent in the system or the data it is trained on. Accountability involves the need to establish clear lines of responsibility when errors or disputes arise from AI-generated contracts. These principles are essential for ensuring that AI systems operate in ways that align with societal values and legal standards.

One of the major ethical challenges associated with AI in contract formation is the risk of bias. Since AI systems are often trained on historical data, there is a risk that they will perpetuate or even amplify biases present in the data, leading to unfair contract outcomes. For example, if historical contracts were skewed in favor of one party, AI systems could reinforce this bias in new contracts. Privacy is another critical ethical concern, as AI systems often require access to large volumes of sensitive data to make informed decisions. Ensuring that these systems comply with data privacy laws and protect sensitive information is crucial for maintaining the integrity of AI-driven contracting processes. Ethical oversight mechanisms, such as external audits or independent reviews of AI systems, can help address these concerns by providing an additional layer of accountability and scrutiny. These mechanisms ensure that AI systems are designed and implemented in a way that is both legally compliant and ethically responsible, fostering trust and confidence in AI-driven contracts.

2.4 Mediation Role of Governance and Ethics

The combined role of governance and ethics is critical in mediating the impact of AI on commercial contract formation. Governance structures provide the legal and procedural boundaries within which AI operates, ensuring that AI applications in contract formation adhere to established legal frameworks and standards. Ethical principles, meanwhile, offer guidance on the responsible use of AI, ensuring that the system's outputs are fair, transparent, and accountable. Together, governance and ethics create a framework that mediates the potential risks associated with AI-driven contracting, such as bias, lack of transparency, and unfair decision-making.

The interplay between governance, ethics, and AI in commercial contracting highlights the importance of a balanced approach to AI adoption. Governance frameworks set the technical and legal parameters, while ethical oversight ensures that AI applications align with broader social and moral values. For instance, governance may require human oversight during critical stages of contract formation, while ethical principles may dictate that AI-generated decisions are subjected to fairness checks to prevent discriminatory outcomes. The successful integration of AI into commercial contracting, particularly in Saudi Arabia, will depend on the ability of these governance and ethical mechanisms to effectively mediate the risks and challenges posed by AI-driven processes.

3. Hypotheses Development

3.1Hypotheses on AI's Role in Commercial Contracting

Artificial Intelligence (AI) technologies are transforming commercial contracting by enhancing the efficiency, accuracy, and compliance of contract formation processes. In a business environment where time and accuracy are paramount, AI offers the ability to automate routine legal tasks such as document review, contract drafting, and the analysis of legal risks. The use of decision-making algorithms and predictive analytics allows businesses to streamline contract negotiations, identify optimal contract clauses, and mitigate potential risks with greater precision than ever before. By automating these traditionally time-consuming tasks, AI significantly reduces the margin for human error, ensuring that contracts are not only drafted more quickly but also with a higher degree of accuracy. Thus, the first hypothesis (H1) posits:

H1: AI technologies improve the efficiency and accuracy of commercial contract formation.

Despite the obvious benefits, AI systems in contract formation must adhere to legal standards to ensure that automated decisions align with existing laws and regulations. Without appropriate governance, there is a risk that AI-driven contracts could violate legal norms or fail to account for regulatory changes. Governance mechanisms, such as corporate policies and regulatory frameworks, play a crucial role in ensuring that AI technologies operate within legal constraints and maintain the integrity of contracts. These mechanisms are essential in countries like Saudi Arabia, where the legal landscape is adapting to the rapid development of AI technologies. Therefore, the second hypothesis (H2) suggests:

H2: AI adoption in commercial contracting enhances compliance with legal standards when mediated by governance mechanisms.

3.2Hypotheses on the Mediating Role of Governance

Governance frameworks are essential in regulating the use of AI in commercial contracting, particularly in ensuring that AI systems uphold the legal integrity of contracts. Governance provides the necessary oversight to guarantee that AI-generated contracts comply with legal norms, contractual obligations, and industry standards. Effective governance ensures that AI technologies are used responsibly and that any decisions made by these systems are legally binding and free from error or oversight. In the context of commercial contracts, well-structured governance frameworks provide clear guidelines for the use of AI,

establishing boundaries for its application and ensuring that human oversight is present at critical decision points. The third hypothesis (H3) is thus formulated as:

H3: Governance frameworks positively mediate the relationship between AI and the legal integrity of commercial contracts.

Furthermore, governance mechanisms not only ensure legal compliance but also mitigate the risks associated with AI-driven contracts. These risks include potential bias, privacy violations, and errors in decision-making processes. Strong governance structures can act as safeguards, reducing the likelihood of these risks manifesting in AI-generated contracts. By setting clear standards for the ethical and legal use of AI, governance frameworks can ensure that AI-driven contracts are both reliable and compliant. The fourth hypothesis (H4) builds on this notion:

H4: Strong governance mechanisms reduce the risks associated with AI-driven contracts, such as bias and privacy violations.

3.3Hypotheses on the Mediating Role of Ethical Considerations

Ethical considerations, such as transparency, fairness, and accountability, are essential in determining the impact of AI technologies on contract formation outcomes. Transparency is particularly crucial in ensuring that all parties involved in a contract understand how AI systems make decisions. Fairness is equally important, as AI systems must be designed to prevent bias and discrimination in contract terms. Accountability, which addresses who is responsible for errors or disputes arising from AI-driven contracts, also plays a central role in shaping the ethical use of AI. These ethical principles mediate the effects of AI by ensuring that its application is not only efficient but also aligned with societal values and legal standards. Therefore, the fifth hypothesis (H5) posits:

H5: Ethical considerations such as transparency and fairness mediate the impact of AI on contract formation outcomes.

Additionally, ethical oversight mechanisms help reduce the negative consequences of AI, such as bias, privacy concerns, and unintended outcomes. By embedding ethical standards into AI development and deployment, businesses can minimize risks and ensure that AI-driven contracts are both legally and morally sound. Ethical oversight also ensures that AI systems adhere to the broader social values and legal norms that guide contract formation, preventing exploitation and ensuring equitable outcomes. As a result, the sixth hypothesis (H6) is formulated as follows:

H6: Ethical oversight reduces negative impacts like bias and privacy concerns in AI-driven commercial contracts.

3.4Interaction Hypotheses

The interaction between governance frameworks and ethical considerations is crucial in determining the success of AI-driven contracts. Both governance and ethics serve as complementary forces that strengthen the positive effects of AI on contract efficiency, fairness, and compliance. When strong

governance frameworks are combined with robust ethical oversight, AI technologies can operate within clear legal and ethical boundaries, leading to more reliable and equitable contract outcomes. The combined influence of governance and ethics ensures that AI systems are not only compliant with regulatory standards but also operate in a way that is socially responsible. Therefore, the seventh hypothesis (H7) posits:

H7: The interaction between governance frameworks and ethical considerations strengthens the positive impact of AI on commercial contract efficiency and fairness.

Conversely, the absence of robust governance and ethical standards can lead to significant legal and ethical risks in AI-driven contract formation. Without proper oversight, AI systems may produce biased, unfair, or legally non-compliant contract terms. This can result in legal disputes, reputational damage, and a loss of trust in AI systems. In such cases, the risks associated with AI in commercial contracting are amplified, leading to greater uncertainty and potential harm for all parties involved. Thus, the eighth hypothesis (H8) suggests:

H8: The absence of robust governance and ethical standards leads to greater legal and ethical risks in AI-driven contract formation.

4. Gap in the Literature

4.1 AI in Commercial Contracting

Artificial Intelligence (AI) has been widely studied in various legal contexts, such as litigation support, automated legal research, and regulatory compliance. However, a significant gap remains in understanding AI's specific role in commercial contract formation. Existing studies tend to focus on the technical capabilities of AI, such as its use in natural language processing (NLP) for document analysis or predictive analytics for legal risk assessment. While these aspects are important, they do not address the complexities involved in contract formation, negotiation, and execution, which are critical components of commercial transactions. Contract formation is a nuanced process that requires a deep understanding of legal language, negotiation tactics, and compliance with dynamic regulatory frameworks. AI's application in this specific area is underexplored, despite its potential to revolutionize the efficiency and accuracy of commercial contracting.

Moreover, there is a clear gap in the literature when it comes to empirical studies on AI's impact on commercial contract formation in Saudi Arabia. The country is rapidly embracing digital transformation under the Saudi Vision 2030 initiative, with AI playing a key role in modernizing various industries. However, despite this push toward AI-driven technologies, there has been little scholarly attention to how AI is specifically applied in the context of commercial contracting within the Saudi legal framework. This presents an opportunity for research that not only focuses on the technological advancements but also examines how AI can align with the unique cultural and legal environment of Saudi Arabia. Such research is crucial for understanding how AI can enhance the efficiency of contract formation while respecting the country's specific legal standards and traditions.

4.2 Governance and Ethics in AI Contracting

Another critical gap in the literature is the lack of integration between governance and ethical considerations in studies of AI-driven commercial contracts. While both governance and ethics are recognized as essential for the responsible use of AI, most studies treat these dimensions in isolation. Governance frameworks are often discussed in terms of regulatory compliance and corporate policies, while ethical considerations tend to focus on broader principles like transparency, fairness, and accountability. However, the interplay between governance and ethics is rarely examined, leaving a gap in understanding how these two elements together influence the use of AI in legal contexts, particularly in commercial contracting.

The fragmented approach to governance and ethics has resulted in a lack of comprehensive frameworks that account for both legal and ethical concerns in the deployment of AI in commercial contracts. Existing research often fails to explore how governance structures can be designed to ensure that AI systems operate ethically, or how ethical oversight can enhance governance mechanisms by embedding values such as fairness and transparency into legal processes. As AI becomes more prevalent in contract formation, the need for a cohesive understanding of how governance and ethics mediate its impact becomes even more urgent. This gap highlights the necessity of future research that integrates both governance and ethics into a unified framework, particularly for high-stakes commercial transactions that rely on AI for legal decision-making.

4.3 Sector-Specific Studies in Saudi Arabia

Despite the rapid growth of AI adoption across industries in Saudi Arabia, there is a noticeable gap in sector-specific studies that address the unique challenges and opportunities AI presents in commercial contracting. Industries such as finance, healthcare, and real estate are increasingly adopting AI technologies to streamline processes, improve accuracy, and reduce operational costs. However, few studies have examined the specific ways in which AI can be applied to contract formation within these industries. Each sector operates under its own set of legal, regulatory, and operational frameworks, which means that the application of AI in contract formation must be tailored to fit the specific needs and challenges of each industry.

In Saudi Arabia, where the legal system is influenced by both modern regulatory standards and traditional Islamic law (Shari'ah), there is a need for research that explores how AI can be adapted to meet these dual requirements. For instance, the finance sector must navigate complex regulations related to Islamic banking, while the healthcare industry faces stringent privacy and data protection standards. Understanding how AI can facilitate contract formation within these sectors, while ensuring compliance with both local laws and international best practices, remains a critical gap in the current body of research. Sector-specific studies are needed to provide a clearer picture of how AI can be effectively integrated into commercial contracting within these diverse industries in Saudi Arabia.

4.4 Lack of Comprehensive Conceptual Frameworks

A final significant gap in the literature is the absence of comprehensive conceptual frameworks that

integrate AI, governance, and ethical considerations in the context of commercial contract formation. While individual studies have explored aspects of AI's role in contract formation, governance mechanisms, or ethical standards, there is a lack of holistic models that demonstrate how these elements work together to influence AI's impact on legal transactions. Most existing frameworks are either too focused on the technological capabilities of AI or too narrow in their approach to governance and ethics, failing to capture the complexity of the interaction between these critical factors.

This gap is particularly relevant as the deployment of AI in commercial contracting becomes more widespread. A well-developed conceptual framework would provide both theoretical insights and practical guidance for policymakers, legal practitioners, and businesses. It would help in understanding not only the technical aspects of AI in contract formation but also how governance structures and ethical oversight can be designed to ensure that AI applications are both legally compliant and socially responsible. Without such a framework, the literature remains fragmented, making it difficult for stakeholders to fully grasp the implications of AI in commercial contracting. Future research should focus on developing a unified model that integrates AI's capabilities with governance and ethical principles, particularly in contexts like Saudi Arabia where legal and cultural considerations play a significant role in shaping business practices.

5. Conceptual Framework Development

5.1 AI Applications in Contract Formation

AI has the potential to revolutionize contract formation by introducing automation, decision-making algorithms, and predictive analytics into the process. One of the most significant contributions of AI is its ability to automate repetitive and time-consuming tasks, such as drafting standard contract clauses or reviewing legal documents for compliance with regulatory requirements. This automation reduces the likelihood of human error and frees legal professionals to focus on more complex aspects of contract negotiation and dispute resolution. Decision-making algorithms further enhance the contracting process by enabling AI systems to analyze vast amounts of data and make informed decisions on key contractual elements, such as pricing, risk allocation, and performance benchmarks. Predictive analytics, which uses historical data to forecast future outcomes, can also be employed to identify potential risks and opportunities, ensuring that contracts are not only legally sound but also strategically advantageous.

In addition to these technical capabilities, AI can improve the overall legal compliance of contracts. AI systems can be programmed to cross-reference contract terms with up-to-date legal regulations, flagging any potential violations or inconsistencies. This is particularly valuable in sectors where regulatory standards are constantly changing, such as finance, healthcare, and real estate. By ensuring that contracts comply with the latest legal requirements, AI helps mitigate the risk of legal disputes and ensures that contractual obligations are enforceable. In Saudi Arabia, where the legal framework is influenced by both modern regulatory standards and Islamic law (Shari'ah), AI can play a critical role in ensuring that contracts adhere to both sets of legal norms. Overall, the framework positions AI as a tool that enhances the efficiency, accuracy, and compliance of contract formation, while also acknowledging the need for governance and ethical oversight to address potential risks.

5.2 Governance as a Mediator

Governance structures are critical to the successful integration of AI in commercial contract formation. Governance refers to the set of rules, policies, and regulatory frameworks that guide the responsible use of AI technologies. In the context of commercial contracts, governance mechanisms are necessary to ensure that AI systems operate within the boundaries of legal and ethical norms. This includes establishing standards for data management, transparency, accountability, and oversight, all of which are essential for mitigating the risks associated with AI-driven contracts. Without appropriate governance, AI systems could inadvertently violate legal requirements or exacerbate existing biases, leading to unfair or legally unenforceable contracts.

In Saudi Arabia, the legal landscape is evolving rapidly in response to the country's broader digital transformation efforts under Saudi Vision 2030. However, there are still gaps in the regulatory framework governing AI applications in commercial contracts. The proposed framework suggests that developing tailored governance structures for AI in contract formation is essential to ensuring that these technologies can be safely and effectively integrated into the legal system. This may involve creating new regulations specific to AI, establishing oversight bodies to monitor AI applications, and developing corporate governance policies that ensure AI is used responsibly. By embedding governance mechanisms into AI-driven contract processes, businesses and legal practitioners can ensure that AI applications not only comply with existing legal standards but also contribute to the development of fair, transparent, and accountable contractual relationships.

5.3 Ethical Considerations as a Mediator

Ethical considerations play a crucial mediating role in determining the success and integrity of AI-driven commercial contracts. As AI systems take on increasingly significant roles in legal decision-making, ethical concerns such as fairness, transparency, accountability, and privacy become paramount. One of the key ethical challenges associated with AI is the potential for bias, particularly if AI systems are trained on historical data that reflect existing inequalities. For instance, if an AI system is trained on contracts that disproportionately favor one party, it may inadvertently perpetuate those biases in future contracts. Ensuring that AI systems are designed and implemented in a way that promotes fairness is therefore essential for maintaining trust in AI-driven contracts.

Another important ethical consideration is transparency. Parties to a contract must be able to understand how AI systems are making decisions, particularly when those decisions have significant legal or financial implications. Transparency mechanisms, such as algorithmic audits or explanations of AI decision-making processes, are necessary to ensure that AI-driven contracts are not only legally sound but also ethically justifiable. Privacy is another critical concern, as AI systems often rely on access to large datasets to make informed decisions. Ensuring that these systems comply with data protection laws and do not misuse sensitive information is essential for maintaining the integrity of AI-driven contracts. The framework proposes that ethical oversight, including independent reviews of AI systems, can help ensure that these ethical principles are upheld, thereby fostering trust and accountability in AI-driven legal processes.

5.4 Interaction of Governance, Ethics, and AI in Contracting

The interaction between governance, ethics, and AI is fundamental to the successful implementation of AI in commercial contract formation. Governance provides the legal and procedural framework within which AI operates, ensuring that AI systems comply with regulatory standards and corporate policies. Ethical considerations, on the other hand, guide the moral dimensions of AI's involvement in contract formation, ensuring that AI-driven decisions are fair, transparent, and accountable. Together, governance and ethics act as mediating forces that shape the way AI is applied in legal contexts, balancing the need for innovation with the responsibility to uphold legal and social norms.

The framework suggests that the synergies between governance and ethics are essential for maximizing the benefits of AI in contract formation. For example, governance structures that mandate transparency in AI decision-making can enhance ethical accountability, while ethical oversight can reinforce governance mechanisms by ensuring that AI systems are designed and implemented in a way that aligns with societal values. However, conflicts may also arise, such as when legal regulations lag behind the rapid pace of AI innovation, or when ethical concerns, such as privacy, conflict with the efficiency goals of AI-driven systems. Addressing these potential conflicts requires a flexible and adaptive approach to governance and ethics, one that evolves in response to new technological developments and legal challenges. By fostering a dynamic interplay between governance, ethics, and AI, the proposed framework aims to ensure that AI-driven commercial contracts are both legally sound and ethically responsible.

5.5 Proposed Framework

The proposed conceptual framework serves as a structured approach to understanding the complex relationships between Artificial Intelligence (AI), governance, and ethical considerations in the context of commercial contract formation. AI has the potential to significantly transform the legal landscape by enhancing the efficiency, accuracy, and speed of contract creation and execution. However, these benefits come with inherent risks, such as biases, privacy concerns, and potential legal ambiguities. The conceptual framework addresses these challenges by proposing that the successful application of AI in commercial contracts is mediated by robust governance structures and ethical oversight mechanisms. The framework not only highlights the technological advantages of AI but also underscores the importance of ensuring that these technologies are used in a manner consistent with legal standards and societal expectations, particularly in the context of Saudi Arabia, where digital transformation is rapidly progressing.

At the core of the framework is the premise that AI technologies alone are insufficient to guarantee fair and legally sound contract formation. Instead, AI must operate within a well-defined governance framework that ensures regulatory compliance, and ethical considerations must be embedded to maintain trust and accountability. The framework suggests that AI, when combined with appropriate governance and ethical standards, can optimize contract formation processes by reducing human error, improving decision-making, and ensuring that contracts adhere to both local and international legal norms. Moreover, the framework is designed to be flexible enough to adapt to different sectors and regulatory environments, making it particularly relevant for countries like Saudi Arabia, where legal, cultural, and business practices are rapidly evolving.

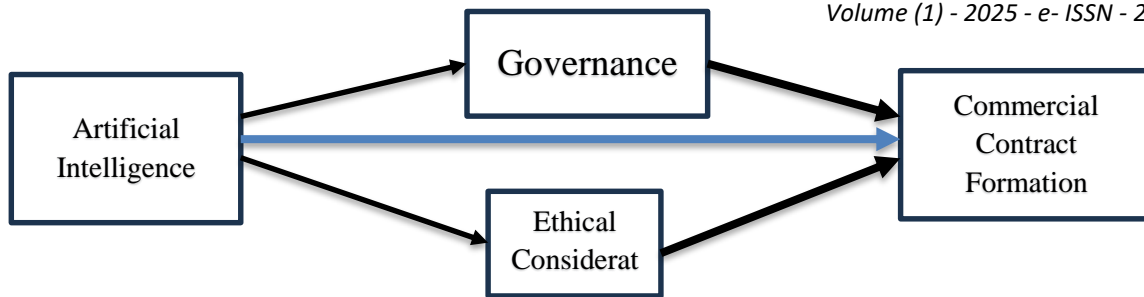


Fig.1: conceptual framework

6. Practical Implications

6.1For Policymakers

Policymakers play a critical role in shaping the regulatory landscape that governs AI's application in commercial contracting, particularly in regions like Saudi Arabia, where rapid digital transformation is underway. As AI technologies continue to evolve, it becomes increasingly important to develop robust regulatory frameworks that ensure the responsible use of AI in contract formation. These regulations should emphasize transparency, accountability, and fairness, guiding the integration of AI into legal processes while mitigating risks associated with biases, privacy concerns, and potential misuse. For Saudi policymakers, this requires aligning AI regulations with the broader objectives of Saudi Vision 2030, a national plan focused on modernization and economic diversification. Policymakers must address the challenges posed by AI to traditional legal systems and ensure that AI-driven contract processes adhere to both local legal standards and international best practices.

A key policy recommendation is the development of AI-specific governance frameworks that mandate clear guidelines for AI usage in commercial contracts. These frameworks should include requirements for algorithmic transparency, ensuring that the decision-making processes of AI systems are understandable and justifiable to all parties involved in a contract. Additionally, accountability mechanisms must be established to assign responsibility for AI-driven decisions, particularly when errors or biases occur. Policymakers should also focus on data protection laws, ensuring that AI systems respect privacy rights and handle sensitive information in compliance with national and international standards. In the context of Saudi Arabia, where cultural and religious values play a significant role in shaping legal norms, it is essential that AI regulations reflect these unique considerations, promoting an ethical approach to AI integration that aligns with the principles of Islamic law (Shari'ah) while fostering innovation and economic growth.

6.2For Legal Practitioners

For legal practitioners, the rise of AI in commercial contracting presents both opportunities and challenges. On one hand, AI technologies offer significant benefits by streamlining routine legal tasks, improving contract accuracy, and enhancing efficiency. However, the integration of AI into legal workflows also requires practitioners to develop a deep understanding of these technologies to ensure that their application aligns with legal standards and ethical norms. Legal professionals must be proactive in familiarizing themselves with AI tools and technologies, particularly in areas such as natural language processing (NLP) and machine learning, which are increasingly being used to draft and analyze contracts. This technical knowledge is essential for ensuring that AI systems are used responsibly and that their

outputs—such as contract terms and legal recommendations—are legally sound and ethically justified.

Governance structures within law firms and corporate legal departments must be updated to include clear policies on the use of AI in legal processes. This includes establishing internal oversight mechanisms that monitor AI-driven contract formation for compliance with legal and ethical standards. Legal practitioners must also advocate for transparency in AI decision-making, ensuring that clients and opposing parties are fully aware of how AI systems are influencing contract negotiations and outcomes. In cases where AI introduces potential biases or privacy concerns, legal professionals must be equipped to address these issues proactively, using governance and ethical frameworks to mitigate risks. Moreover, legal practitioners in Saudi Arabia should be particularly mindful of the cultural and religious implications of AI usage, ensuring that AI-driven contracts adhere not only to international legal standards but also to the specific requirements of Islamic law.

6.3 For Businesses

For businesses, the adoption of AI in commercial contracting represents a significant opportunity to enhance operational efficiency and reduce costs. AI technologies can automate time-consuming processes such as contract drafting, review, and compliance checking, allowing companies to expedite transactions and reduce human error. However, the integration of AI into business operations must be approached with caution, particularly when it comes to governance and ethics. Businesses looking to adopt AI for contract formation must ensure that their AI systems are aligned with legal standards and ethical principles, minimizing the risk of biases, privacy violations, and legal disputes. This requires the establishment of robust governance frameworks that regulate how AI is used in contract negotiations and ensure that AI-driven decisions are transparent, fair, and accountable.

In addition to governance structures, businesses must also implement ethical oversight mechanisms to address concerns related to AI-driven bias, privacy, and trust in the commercial contracting process. One practical approach is to form ethical review committees that regularly evaluate the performance and fairness of AI systems used in contract formation. These committees can help ensure that AI technologies do not disproportionately favor one party over another or violate data privacy laws. Furthermore, businesses should prioritize transparency in their use of AI, making it clear to all parties involved in a contract when and how AI is being used to make decisions. This transparency helps to build trust in AI-driven systems and ensures that AI usage aligns with both legal requirements and societal expectations. Ultimately, businesses that successfully integrate AI into their contract formation processes while maintaining strong governance and ethical oversight will be better positioned to navigate the complexities of modern commercial transactions and gain a competitive advantage in the marketplace.

7. Conclusion

The present study has underscored the critical role of governance and ethical standards in mediating the influence of AI on commercial contract formation, particularly in the context of Saudi Arabia's rapidly transforming digital landscape. As AI technologies become more deeply embedded in legal processes, their potential to enhance efficiency, accuracy, and decision-making in contract formation becomes evident. However, the benefits of AI are closely tied to the implementation of robust governance

mechanisms and ethical oversight. Without proper regulation and ethical frameworks, AI applications in commercial contracting could lead to significant risks, such as bias, privacy violations, and non-compliance with legal standards. This study's conceptual framework provides a structured approach to understanding the relationship between AI, governance, and ethics, highlighting the importance of transparency, fairness, and accountability in AI-driven contract formation. Moreover, it offers valuable insights into how these elements interact to shape AI's role in the legal domain, particularly in countries like Saudi Arabia, where cultural and legal considerations require careful alignment with emerging technologies.

Despite the framework's potential to guide policymakers, legal practitioners, and businesses in their adoption of AI, the study faces certain limitations. One of the most significant limitations is its conceptual nature, as it lacks empirical validation. While the proposed framework provides theoretical insights into the interaction between AI, governance, and ethics in contract formation, the absence of real-world data limits the ability to apply the model with certainty across different sectors and legal environments. Moreover, the unique context of Saudi Arabia presents challenges in generalizing the findings to other regions or legal systems, as cultural, legal, and regulatory factors differ significantly from country to country. Future research should focus on empirically testing the proposed framework in various sectors, such as finance, healthcare, and real estate, to validate its applicability and effectiveness. Furthermore, studies should explore the long-term effects of AI on governance structures and ethical considerations within commercial law, providing a deeper understanding of how AI can be responsibly integrated into legal frameworks while adhering to both local and global standards. The findings of this study, though conceptual, offer a starting point for further exploration and development of AI-driven commercial contracting that is both legally sound and ethically responsible.

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