# Legal Disruption and Sharia Arbitration: Navigating Change, Measuring Impact, and Fostering Innovation

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Abstract. This article evaluates the doctrinal challenges encountered by the law amid technological advancements, specifically in the areas of blockchain technology, smart contracts, digital assets, and data privacy. Certain conventional legal doctrines, including intellectual property law, privacy, and evidence, and the principle of non-refoulement, may no longer be applicable amidst the introduction of disruptive technological developments. We present methods for identifying irrelevant legal issues using the TRIZ approach, which enables the identification, evaluation, and updating of legal doctrine. Additionally, this article illustrates how TRIZ principles can develop more adaptable contract principles in response to technologies such as smart contracts. By applying these principles, the law can more effectively manage change, promote innovation in consumer protection, and support the use of smart contracts.

**Keywords:** Legal Disruption, TRIZ Method, Smart Contracts, Digital Innovation, Legal Doctrines.

# 1 Introduction

Indonesia, as the country with the largest Muslim majority population in the world, has a legal system that reflects the diversity of cultures, traditions, and religions that exist. One aspect that is the focus of attention in the Indonesian legal system is sharia arbitration, which deals with the settlement of disputes in the economic environment based on the principles of Islamic law. In recent years, there have been significant changes in the practice of sharia arbitration in Indonesia related to technological developments and the demands of an increasingly dynamic era. This change was accelerated by an era of disruption in which transformations in legal institutions occurred rapidly [1].

The importance of understanding the role of sharia arbitration in the context of legal and technological change is particularly relevant in crafting effective strategies to navigate institutional change. In this research, we will discuss in depth how sharia arbitration in Indonesia adapts to legal disruption. We will explore the institutional dimensions

of legal change, measure its impact, and formulate efforts to drive innovation. We will highlight the role of the legal system in confronting or adapting to evolving disruptive technologies [2].

The main challenges in sharia arbitration in an era of disruption include: first, inefficient processes. Parties to disputes often waste resources by returning to judicial habits, such as refiling a lawsuit to an excessive plea. This may reduce the efficiency of the Arbitration process. Second, the effectiveness of dispute resolution is at the core of sharia arbitration, becoming a significant challenge in an era of disruption, where new technologies and business models can complicate the dispute resolution process as business disputes involving disruptive technologies can become more complex to address. Third, disputes arising from disruptive technologies, such as smart contracts and blockchain, require new and innovative methods of resolution. However, there is still uncertainty over how complex or high-value disputes should be handled, which could raise concerns among the potentially involved parties. Meanwhile, sharia arbitration institutions in Indonesia still face limited unequal access of parties to financial, human, and technological resources, making it more difficult for some parties to participate effectively in arbitration proceedings. Fourth, along with the development of digital technology, the arbitration dispute resolution process faces the problem of ensuring the confidentiality and security of sensitive information is an important challenge in the era of disruption. Fifth, adaptation to new technologies and processes. Arbitration institutions and practitioners need to adapt to new technologies and processes to remain effective in an era of disruption. This includes the implementation of a fully digital APS platform, virtual meetings, and an efficient document management system [3].

This article brings a deeper understanding of how Indonesia, as a culturally and legally diverse country, can undergo a legal transition that integrates sharia values with the dynamics of changing times. Changes and adaptations in the sharia arbitration system can affect various aspects, including the relationship between national law and sharia law, competence in dispute resolution, and the influence of Islamic law on the practice of sharia arbitration.

This research aims to provide in-depth insight into the transformations taking place in sharia arbitration in Indonesia. Through a better understanding of the impact of institutional change, this research is expected to provide valuable guidance for stakeholders in navigating these changes wisely and ensuring the sustainability of Islamic arbitration practices in a changing context.

#### 2 Research Method

This study aims to explore changes in the practice of sharia arbitration in Indonesia with a focus on the legal framework and its impact. First, the research will use the study of literature as the main foundation for understanding the relationship between the Islamization of conventional law [4]. This will involve analysis of legal literature relating to sharia arbitration issues. In addition, this approach will include views from various experts and relevant historical views. Second, comparative legal analysis methods will be applied to compare international and national legal norms related to sharia arbitration

related to Navigating Change, Measuring Impact, and Fostering Innovation in the era of disruption.

Through this combination of literature methods and comparative legal analysis, this research will provide deep insight into the implications of the era of disruption in the legal world with changes in sharia arbitration practices by navigating, measuring the impact, and encouraging legal innovation in the era of disruption. The results of this study are expected to be valuable guidance for stakeholders in dealing with these changes by ensuring the sustainability of sharia arbitration practices amid evolving legal dynamics [5].

# 3 Result and Discussion

The role of sharia arbitration is a key factor in the resolution of sharia economic disputes in Indonesia. This research aims to delve deeply into how sharia arbitration navigates changing legal challenges, measures their impact, and formulates effort innovation. Against the backdrop of technological influences and the dynamics of the times, it is important to understand the crucial role of this legal system in responding to the needs of society and industry. This understanding will help ensure the sustainability of sharia arbitration practices in an era of disruption.

#### 3.1 Disorder of Law: Sharia Arbitration Challenges in the Disruption Era

The interconnection of Sharia Arbitration makes an important contribution to responding to opportunities and challenges in the era of disruption based on several related studies. One of its contributions is in providing a faster and more efficient alternative to conventional litigation. Research by Aziz (2023) shows that Sharia arbitration through BASYARNAS has been effective in providing more efficient solutions [6]. In the context of Islamic banking, the need for an effective dispute resolution mechanism is increasingly urgent, especially with the development of a dual Islamic banking system in Indonesia, as explained by [7]. The development of alternative methods of dispute resolution, such as mediation and arbitration, has been key in resolving disputes quickly and efficiently, according to findings from the study. In addition, positive legal principles support the effectiveness of arbitration in resolving Islamic civil economic cases in Indonesia, prioritizing legal certainty and the implementation of arbitration decisions [8].

The contemporary approach to the doctrine of Sharia arbitration, which is based on the principles of Maqāṣid Al-Sharī'ah, has helped in providing a more comprehensive and effective approach to resolving Shariah economic disputes. The era of disruption tools such as the Legal Audit and Performance System (LAPS) helps measure opportunities and challenges in resolving Sharia Fintech business disputes, ensuring a more efficient resolution process [9]. Cooperation between religious courts and national Sharia arbitration institutions has proven effective in resolving Sharia economic disputes, providing a more comprehensive and efficient settlement process [10]. In the future, the development of electronic courts offers challenges and opportunities in the resolution of Islamic banking disputes, with the need for an effective and secure digital infrastructure to support the settlement process [11]. Overall, Sharia Arbitration has the

potential to continue to respond to opportunities and challenges that arise in the era of disruption, providing more efficient solutions in resolving disputes in financial transactions following Sharia principles.

However, it is also realized that there are several challenges for sharia arbitration in the era of disruption. *First*, Technological Change and the stagnation of legal doctrine, namely Technological progress cause standard legal processes to lose their relevance. The discrepancy between legal doctrine and the ability to perform economic institutions causes legal disruption. For example, the emergence of blockchain technology has raised complex legal questions related to smart contracts, digital assets, and data privacy [12].

Second, Environmental Disruption and Legal Change, like extreme climate events, can disrupt the ability of existing legal systems to address security, security, and well-being. This disruption demands changes in environmental law to better respond to the challenges of climate change, social inequality, and resource scarcity. For example, the increasing frequency of natural disasters may require the development of new legal frameworks for disaster management and resilience planning [13].

Third, Market Disruption and Unfair Competition, where business models using digital data theft mode can cause market disruption, and challenge existing legal frameworks in competition and intellectual property protection [14]. Courts often need to take a long time to decide that a particular business competition model is declared "unfair" and should be prevented. This requires a careful analysis of the relationship between such interference and the fundamental policy interests of the legal system [15].

Fourth, crisis events and contractual obligations, such as those that occurred during the COVID-19 pandemic. Contractual obligations may be disrupted. Force majeure clauses, which allocate the risk of loss in the event of unforeseen circumstances, have been the subject of litigation and interpretation varied during the pandemic. The causes (pandemic) and effects (performance disruption) of the crisis highlight the importance of clear and comprehensive contractual provisions [16].

Thus, understanding cause and effect within a legal framework becomes crucial to cope with rapid and complex changes in the legal environment. It involves adapting laws and legal institutions to respond to challenges arising from changing social, technological, and environmental dynamics [17].

### 3.2 Theory of Inventive Problem Solving in the Legal Context

Research on "Disorder of Law and Challenges in Sharia Arbitration in the Disruption Era" and "Legal Shockwaves at the Core of the Digital Economy" is important to correlate with TRIZ (Theory of Inventive Problem Solving) because TRIZ is a methodology that can assist legal professionals and researchers in facing complex challenges and obstacles in an era of disruption and a changing legal environment [18]. TRIZ enables the identification of fundamental legal issues, identifies relevant legal principles, extracts analogies from previous legal cases, identifies critical obstacles in legal proceedings, and designs innovative solutions that conform to fundamental legal principles [19]. By implementing TRIZ, legal professionals can address the challenges faced in navigating legal and technological changes in an era of disruption, as well as understand the legal implications that may arise from the huge impact of the digital economy. This

enables the development of legal solutions that are more efficient, and innovative, and follow fundamental legal principles to ensure the sustainability of sharia legal practice and arbitration [20].

TRIZ (Theory of Inventive Problem Solving) is a methodology used in product and process development to solve problems with innovative approaches. Although originally developed for technical issues, the concept of TRIZ can be applied in the context of resolving legal dispute cases in the following ways [21].

Problem Identification and Analysis: As in the use of TRIZ on technical issues, the first step is to identify and analyze the legal issues at hand. This includes a thorough understanding of the facts of the case, applicable regulations, and issues that need to be addressed. In the context of law, these basic principles can be the underlying legal principles, such as the principles of justice, equality, and the fulfilment of human rights [22].

Identify Patterns and Analogies: TRIZ emphasizes the use of analogies and repetitive patterns in finding innovative solutions. In a legal case, this could mean looking for previous legal cases that have similarities in key factors or legal issues. Investigators of similar cases who have been tried and whose verdicts can provide guidance for resolving current cases.

Identifying Bottlenecks: In TRIZ, the identification of critical barriers is an important step. In a legal context, barriers can be ambiguous regulations, legal uncertainties, or even fundamental differences in legal interpretation. Identifying these barriers helps formulate innovative measures.

Application of TRIZ Principles: Based on an understanding of problems, legal principles, analogies, and obstacles, TRIZ can be applied in designing innovative solutions. This may involve seeking new legal approaches, finding analogies from similar cases, or even formulating stronger legal arguments.

Solution Evaluation and Implementation: Once a solution has been generated, it is important to test and evaluate its effectiveness in a legal context. The next step is to implement this solution in the actual resolution of dispute cases.

With the TRIZ approach, legal professionals can seek innovative solutions to resolve complex legal dispute cases. Although applying innovative principles in a legal context requires an in-depth understanding of applicable law and previous case research, TRIZ can be a useful tool for tackling complex legal issues.

# 3.3 Navigating Legal Change, Measuring Impact, Fostering Innovation

In an era of technological change, law faces several doctrinal challenges. Rapidly changing and complex technologies can create a gap between existing laws and realities on the ground. For example, in the case of blockchain and smart contracts, the law may have to adapt conventional contract doctrines to different technological characteristics. In the context of blockchain technology, smart contracts, digital assets, and data privacy, some legal doctrines may no longer be relevant to apply. Here are some examples of legal doctrines that may no longer be relevant in this context. First, the principle of non-refoulement, this principle prohibits the return of a person to his or her country of origin if he or she faces the risk of torture, inhuman treatment, or other mistreatment.

In the context of blockchain technology, smart contracts, and digital assets, user data privacy can be well protected through encryption and anonymity mechanisms offered by these technologies[23]. Therefore, the principle of nonrefoulement may no longer be relevant if it becomes a major issue in sharia arbitration disputes.

Second, the doctrine of traditional Intellectual Property Law, when the development of blockchain technology and digital assets, such as non-fungible tokens (NFTs), has changed the way copyright is distributed and protected. NFT technology, for example, can provide a better registration system through data that is directly connected to copyrighted works and can be accessed publicly. Traditional intellectual property law doctrines may need to be adapted to these developments [24].

Third, the doctrine of traditional contract law. Smart contracts are automated contracts that are executed digitally based on a predefined set of rules. These contracts do not require human intervention and can be executed automatically when specified conditions are met. In this context, traditional contract law doctrines requiring human intervention may no longer be relevant [25].

Fourth, the traditional privacy legal doctrine of blockchain technology offers a guarantee of privacy because what can be traced is the public data of the transaction itself. The user's data is not revealed in blockchain transactions. Therefore, traditional privacy law doctrines requiring the protection of personal data may need to be adapted to these developments [26].

Fifth, the traditional legal doctrine of proof, in the context of smart contracts, proof of contract execution can be found in the algorithm code that executes the contract. Therefore, the traditional doctrine of evidentiary law that requires physical evidence or witnesses may no longer be relevant in this regard [27].

The technique of identifying irrelevant legal problems is an important step in utilizing the TRIZ (Theory of Inventive Problem Solving) method in the context of legal changes in the era of disruption. This technique allows the discovery of legal doctrines that may no longer be relevant to the conditions and problems that develop in the disruptive era. The explanation of techniques for identifying irrelevant legal problems is as follows.

First, Understanding of Emerging Legal Issues: The first step is a deep understanding of legal problems that arise in the era of disruption. In the example above, the issue is consumer protection in a fast-changing digital business.

Second, Identify Legal Doctrines That May Be Irrelevant: After understanding the problem, the next step is to identify legal doctrines that may no longer be relevant or less effective in addressing the problem.

An example of some of the doctrines identified as no longer relevant to the effectiveness of sharia arbitration dispute resolution is the Doctrine of Caveat Emptor, which places the onus on buyers to ensure that they get what they pay for, losing its relevance in an era of disruption. With the rise of digital transactions and smart contracts, the responsibility for ensuring the accuracy and completeness of transactions shifts to the technology itself [28].

The doctrine of Privity of Contract, which limits the parties who can execute a contract to those directly involved in the agreement, has also lost its relevance in the context of sharia arbitration dispute resolution. With the rise of digital transactions and smart

contracts, the parties involved in a transaction may be more dispersed, and traditional concepts of privacy may not apply [29].

The Doctrine of Contributory Negligence, which states that the party contributing to the loss or damage is partly responsible for the loss, also loses its relevance in the era of disruption. With the rise of digital transactions and smart contracts, the responsibility for ensuring the accuracy and completeness of transactions shifts to the technology itself, and the concept of contributing negligence may not apply [30].

The Doctrine of Unfair Contract Terms, the doctrine that protects parties from unfair or unilateral contractual terms, has also lost its relevance in the context of Shariah arbitration dispute resolution. With the rise of digital transactions and smart contracts, contract terms may be more standardized and less subject to negotiation, so the concept of unfair contract terms becomes less applicable [31].

Third, Determination of Relevance Criteria: In this technique, it is necessary to establish the criteria or parameters used to determine the relevance of legal doctrine. This criterion should reflect the characteristics of the problem at hand. Examples of relevance criteria in the example above include the inadequacy of consumer protection in a rapidly changing digital business environment.

Fourth, Evaluation of Legal Doctrine by Relevance Criteria: Legal doctrines that have been identified as possibly irrelevant are evaluated based on established relevance criteria. Doctrines that meet these criteria are considered relevant, while those that do not meet are considered irrelevant.

Fifth, Rationalization of Irrelevant Legal Doctrines: In the context of "Navigating Legal Change," TRIZ makes it possible to formulate reasons why irrelevant legal doctrines need to be adjusted or replaced. This rationalization is based on an understanding of the incompatibility of doctrine with problems and conditions that arise in the era of disruption. Sixth, Renewal and Replacement of Legal Doctrine: The result of the technique of identifying irrelevant legal issues is the renewal or replacement of legal doctrine that is no longer appropriate. In "Navigating Legal Change," this means that these doctrines must be adapted or replaced with those that are more relevant and effective in protecting consumers in digital businesses [32].

By applying this technique of identifying irrelevant legal issues, the law can better navigate legal changes and can provide protection that is appropriate to the characteristics of problems that develop in an era of disruption. This is an important step in efforts to "navigate" legal changes for the benefit of consumers and society in the rapidly changing era of digital business.

To encourage innovation in the birth of contemporary contract principles to replace traditional principles in the era of disruptive technology, such as smart contracts, the following steps can be taken: Extraction: Identify important elements of traditional contract principles that are still relevant in the context of smart contracts. For example, the principle of offer and acceptance can still be applied in the context of smart contracts, even if the contract is executed automatically.

Partial or Excessive Action: Adapting traditional contract principles to address specific issues related to smart contracts. For example, the principle of consideration may need to be modified to account for the fact that smart contracts may not involve the exchange of traditional forms of consideration, such as money.

Transition to a New Dimension: Developing new legal doctrines that can address the challenges and opportunities presented by smart contracts. For example, a new legal framework may need to be developed to address issues related to smart contract enforcement [33].

Composite Materials: Combining traditional contract principles with new principles to create more innovative and comprehensive solutions in the use of smart contracts. For example, the principles of good faith and fair treatment can be combined with new principles regarding the use of blockchain technology to create a more effective legal framework for smart contracts.

By applying these TRIZ principles, legal professionals can develop legal doctrines that are better suited to the technological era of disruption, while retaining essential elements of traditional contract principles. This can result in legal solutions that are more adaptive and responsive to technological developments, particularly in the context of using smart contracts.

#### 4 Conclusion

TRIZ (Theory of Inventive Problem Solving) is an innovative methodology relevant to navigating legal changes in an era of disruption. In the legal context, TRIZ helps in the identification of legal issues, understanding basic principles, the search for analogies from previous cases, the identification of obstacles, and designing innovative solutions that conform to fundamental legal principles. Through the application of TRIZ, legal professionals can address the challenges of legal and technological change, developing legal solutions that are efficient, innovative, and following legal principles. As such, TRIZ contributes to efforts to navigate change, measure its impact, and drive innovation in the practice of sharia law and arbitration in an era of disruption.

In an era of technological disruption, legal doctrine needs to be adapted to technological developments, especially in the context of blockchain, smart contracts, and data privacy. Some traditional legal doctrines, such as the principle of non-refoulement, intellectual property law, contracts, privacy, and evidence, may become irrelevant. The application of TRIZ in identifying irrelevant legal issues allows the renewal and replacement of legal doctrines that do not follow the conditions of the disruption era. These measures include the identification of legal issues, assessment of relevance, rationalization of inappropriate doctrines, and renewal of legal doctrines. In this way, the law can navigate change, measure its impact, and encourage innovation according to the challenges of the times.

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# References

- Giraudo, M.: On legal bubbles: some thoughts on legal shockwaves at the core of the digital economy. Journal of Institutional Economics, 18(4), 587-604 (2022). https://doi.org/10.1017/S1744137421000473
- 2. Ante, L.: Smart contracts on the blockchain A bibliometric analysis and review. Telematics and Informatics, 57 (2021). https://doi.org/10.1016/j.tele.2020.101519
- 3. Gezari, S.: Tidal Disruption Events. Annual Review of Astronomy and Astrophysics, 59, 21-58 (2021). https://doi.org/10.1146/annurev-astro-111720-030029
- 4. Isman, I.: Cumulation of claims between tort and default. Judicial Journal, 14(1), 57 (2021). https://doi.org/10.29123/jy.v14i1.370
- Capano, G.: The Knowns and Unknowns of Policy Instrument Analysis: Policy Tools and the Current Research Agenda on Policy Mixes. SAGE Open, 10(1) (2020). https://doi.org/10.1177/2158244019900568
- Aziz, M.A., Sasongkojati, F.B.: The effectiveness of Sharia economic dispute resolution between religious court and National Sharia Arbitration Board. Journal of Islamic Economic Laws, 5(2), 216–245 (2022). https://doi.org/10.23917/jisel.v5i2.19709.
- Syaifuddin, S.: Dispute settlement in Sharia banking in Indonesia. Randwick International of Social Science Journal, 4(2), 297–309 (2023). https://doi.org/10.47175/rissj.v4i2.671
- Saepullah, U.: Legal certainty of arbitration in the settlement of Islamic economic civil cases in the perspective of positive law in Indonesia. Al-'Adalah, 19(2), 261–290 (2022). https://doi.org/10.24042/adalah.v19i2.14384
- Nurhayati, S., Nurjamil, N., Fadhillah, M.H.: Measuring opportunities and challenges in dispute resolution of fintech sharia business through laps. Batulis Civil Law Review, 3(1), 1 (2022). https://doi.org/10.47268/ballrev.v3i1.929
- Minardi, A.: Two lane settlement of Sharia economic disputes between religious court and National Sharia Arbitration Agency (BASYARNAS). Indonesian Journal of Religion and Society, 1(2), 126–137 (2020). https://doi.org/10.36256/ijrs.v1i2.66
- 11. Latifiani, D., Yusriyadi, Y., Sarono, A., Al Fikry, A.H., Cholis, M.N.: Reconstruction of E-court legal culture in Civil Law Enforcement. Journal of Indonesian Legal Studies, 7(2), 441–448 (2022). https://doi.org/10.15294/jils.v7i2.59993
- 12. Hameed, A.: Parliament's Constitution: Legislative Disruption of Implied Repeal. Oxford Journal of Legal Studies, 43(2), 429-455 (2023). https://doi.org/10.1093/ojls/gqad004
- 13. Driesen, D.: 2 The sleeping giant awakes?: US actions to mitigate climate disruption. Legal Regimes for Environmental Protection, 23–36 (2015). https://doi.org/10.1163/9789004302839\_004
- Zakeri, B.: Pandemic, War, and Global Energy Transitions. Energies, 15(17) (2022). https://doi.org/10.3390/en15176114

- Alexander, C.: Unfair Commercial Practices and Individual Consumer Claims for Damages

   The Transposition of Art. 11a UCP Directive in Germany and Austria. GRUR International, 72(4), 327-336 (2023). https://doi.org/10.1093/grurint/ikac152
- Vahdat, S.: The role of IT-based technologies on the management of human resources in the COVID-19 era. Kybernetes, 51(6), 2065-2088 (2022). https://doi.org/10.1108/K-04-2021-0333
- Goriacheva, A.I.: Modification or termination of contracts due to international economic sanctions from the standpoint of Russian legislation and court practice. Vestnik Sankt-Peterburgskogo Universiteta. Pravo, 13(4), 877-895 (2022). https://doi.org/10.21638/spbu14.2022.403
- 18. Giraudo, M. On legal bubbles: some thoughts on legal shockwaves at the core of the digital economy. Journal of Institutional Economics, 18(4), 587-604 (2022). https://doi.org/10.1017/S1744137421000473.
- Hameed, A.Z. Sustainable Product Development Using FMEA ECQFD TRIZ and Fuzzy TOPSIS. Sustainability (Switzerland), 14(21) (2022). https://doi.org/10.3390/su142114345
- 20. Hentschel, C.: Better–Simpler–More Ideal: Disruptive Innovation by Patent Circumvention with Function Models from TRIZ. Lecture Notes in Networks and Systems, 358, 697-716 (2022). https://doi.org/10.1007/978-3-030-89906-6\_46
- Hentschel, C.: Better–Simpler–More Ideal: Disruptive Innovation by Patent Circumvention with Function Models from TRIZ. Lecture Notes in Networks and Systems, 358, 697-716 (2022). https://doi.org/10.1007/978-3-030-89906-6
- Zhou, J.H.: Recognizing and coordinating multidimensional dynamic stakeholder value conflicts for sustainability-oriented Construction Land Reduction projects in Shanghai, China: An integrated SA-SNA-TRIZ approach. Journal of Cleaner Production, 348 (2022). https://doi.org/10.1016/j.jclepro.2022.131343
- 23. Olajos, I.: The use of the precautionary principle and the non-refoulement principle in public law Or how far the boundaries of constitutional principles extend. Journal of Agricultural and Environmental Law, 17(32), 79-97 (2022). https://doi.org/10.21029/JAEL.2022.32.79
- Chalmers, D.: Beyond the bubble: Will NFTs and digital proof of ownership empower creative industry entrepreneurs?. Journal of Business Venturing Insights, 17 (2022)., https://doi.org/10.1016/j.jbvi.2022.e00309
- 25. Guo, H.: A survey on blockchain technology and its security. Blockchain: Research and Applications, 3(2) (2022). https://doi.org/10.1016/j.bcra.2022.100067
- Wang, W.: Blockchain-Based Reliable and Efficient Certificateless Signature for IIoT Devices. IEEE Transactions on Industrial Informatics, 18(10), 7059-7067 (2022). https://doi.org/10.1109/TII.2021.3084753
- 27. Centobelli, P.: Blockchain technology for bridging trust, traceability and transparency in circular supply chain. Information and Management, 59(7) (2022). https://doi.org/10.1016/j.im.2021.103508
- 28. Holden, A.C.L.: Dentists' Perspectives on Commercial Practices in Private Dentistry. JDR Clinical and Translational Research, 7(1), 29-40 (2022). https://doi.org/10.1177/2380084420975700
- 29. Liu, M.: The Privity of Contract Under the Contracts (Rights of Third Parties) Act: Frustrate or Facilitate the Participation of Third Parties to the Arbitration?. International Arbitration Law Review, 25(2), 154-175 (2022).
- 30. Rizos, E.: A Contract Law Approach for the Treatment of Smart Contracts' 'Bugs'. European Review of Private Law, 30 (5), 775-802 (2022). https://doi.org/10.21202/jdtl.2023.44

- Kiryushina, I.V.: Protection of Consumers from Unfair Agreement Terms. Lecture Notes in Networks and Systems, 234, 179-185 (2023). https://doi.org/10.1007/978-3-030-75483-9 18
- 32. Isman, I., Absori, S.H.: The Concept of Extrapolated Reasoning in a Prophetic Legal Perspective. Thesis, Muhammadiyah Surakarta (2022).
- 33. Isman, I., Yahya, Y.: Istiqra al-Ma'nawi; Multicultural Judicial Reasoning. Ijtihad: Jurnal Wacana Hukum Islam Dan Kemanusiaan, 22(1), 95–116 (2022). https://doi.org/10.18326/ijtihad.v22i1.95-116