



Strathmore University
Law School

Leveraging Technology in Dispute Resolution: Analysing Its Integration and Implementation in Kenya

Submitted in partial fulfilment of the requirements of the Bachelor of Laws Degree, Strathmore University Law School

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March 2024

Declaration

I, NAIMA ABDULBAHAR ALI, do hereby declare that this research proposal is my original work and that to the best of my knowledge and belief, it has not been previously, in its entirety or in part, been submitted to any other university for a degree or diploma. Other works cited or referred to are accordingly acknowledged.

Signed: 

Date:21/01/25.....

This dissertation has been submitted for examination with my approval as University Supervisor.

Signed:..... 

[MARK MATHENGE]

List of Cases

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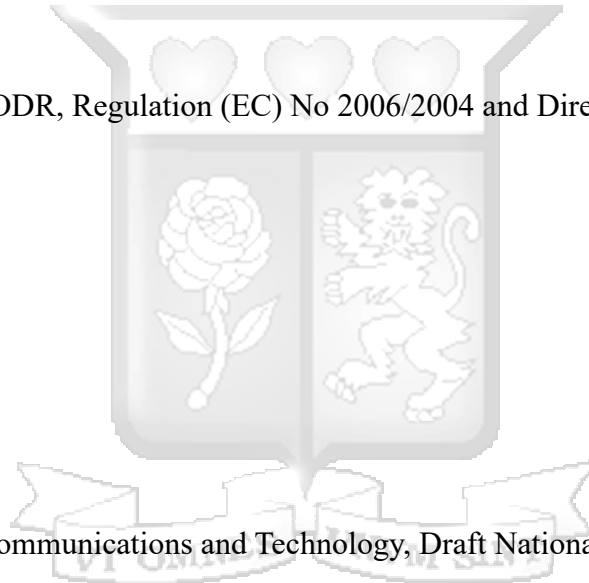
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List of Abbreviations

ADR	Alternative Dispute Resolution
AI	Artificial Intelligence
CIArb	Chartered Institute of Arbitrators
DRC	Dispute Resolution Centre
ICANN	Internet Corporation for Assigned Names and Numbers
ICC	International Chamber of Commerce
ICT	Internet and Communication Technology
MTI	Mediation Training Institute
NCAIR	National Centre for Automated Information Research
NCIA	Nairobi Centre for International Arbitration
ODR	Online Dispute Resolution
UNCITRAL	United Nations Commission on International Trade Law



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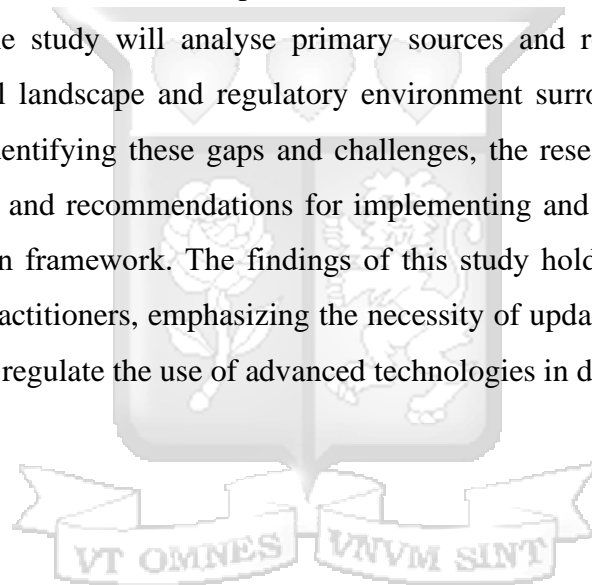
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Abstract

The integration of technology in dispute resolution has been gradually reshaping Kenya's dispute resolution landscape, transforming traditional and online methods alike. Technologies such as artificial intelligence, blockchain, and virtual platforms are increasingly being utilized to enhance efficiency, transparency, and accessibility in resolving disputes. This study aims to explore the current state of technology adoption in Kenya's dispute resolution system, focusing on the opportunities and challenges presented by these innovations. Specifically, the research will examine the concept of technology in dispute resolution, the existing legal and regulatory framework governing the use of technology in Kenya's dispute resolution system and identify opportunities as well as gaps that may hinder its effective implementation and enforcement. Employing a doctrinal research methodology, the study will analyse primary sources and relevant secondary data to evaluate the technological landscape and regulatory environment surrounding dispute resolution practices in Kenya. By identifying these gaps and challenges, the research will contribute to the development of strategies and recommendations for implementing and enforcing technology into Kenya's dispute resolution framework. The findings of this study hold potential significance for policymakers and legal practitioners, emphasizing the necessity of updating and adapting the legal framework to support and regulate the use of advanced technologies in dispute resolution.



Chapter One

Introduction

1.0 Background

Kenya's adoption of technology in dispute resolution is rapidly evolving, with advancements such as artificial intelligence (AI), blockchain, and virtual platforms being integrated to enhance the efficiency, transparency, and accessibility of legal processes.¹ Historically, Kenya's dispute resolution landscape has been characterized by traditional methods that often involve lengthy procedures, limited access to justice, and significant geographical barriers. Before the automation of court processes, particularly in the pre-COVID era, these challenges were even more pronounced. Court backlogs were a persistent issue, with cases taking years—sometimes decades—to resolve due to inefficiencies in manual case management systems. The reliance on physical filing of documents created additional administrative burdens, with files often misplaced, damaged, or lost, exacerbating delays. Geographical disparities in court infrastructure posed another challenge as it meant that individuals in remote or underserved areas faced significant hurdles in accessing justice. Traveling long distances to physically attend court proceedings was not only costly but also impractical for many, further marginalizing vulnerable populations. Inadequate funding for judicial resources and infrastructure compounded these issues, leaving courts ill-equipped to handle the growing demand for dispute resolution services.²

These challenges highlighted the urgent need for reforms, including the integration of technology, to streamline processes, reduce delays, and address the inefficiencies that plagued the traditional system. The disruptions caused by the COVID-19 pandemic further accelerated this shift, as health protocols necessitated the closure of physical courtrooms, leaving the judiciary with no choice but to adopt digital platforms to ensure continuity in the delivery of justice.³ Virtual court hearings, electronic filing systems, and digital case management tools quickly became essential, enabling remote access to justice and minimizing interruptions to legal processes. This rapid transition not

¹Eidemuller H and Wagner G, 'Digital Dispute Resolution' *Business Law Blog*, 2021<<https://blogs.law.ox.ac.uk/business-law-blog/blog/2021/09/digital-dispute-resolution>>on 15 July 2024.

²Muigua. K., 'Alternative Dispute Resolution and Access to Justice in Kenya.' *Glenwood Publishers Limited*, 2015, 9-15.

³Marang'a M. W, Kimalu P. K, & Ochieng M. A, 'Effect of COVID-19 pandemic on resolution of cases in courts: The Kenyan Judiciary' *The Judiciary*, Research Paper No. 1 of 2021, 10-15,—
https://download.ssrn.com/21/05/24/ssrn_id3851886_code4712887.pdf on 10 January 2025.

only addressed the immediate crisis but also laid the groundwork for long-term technological integration, marking a significant step toward making justice more accessible, transparent, and efficient.⁴

The integration of AI, blockchain, and virtual platforms into Kenya's dispute resolution framework holds substantial promise. For instance, AI can automate routine tasks and provide predictive analytics to support decision-making, while blockchain technology offers secure, transparent record-keeping and reduces the potential for fraud. Virtual platforms facilitate broader access to legal resources and services, particularly for underserved populations.⁵ Despite these advancements, significant challenges have emerged.⁶

Technological adaptation poses one of the primary challenges. The effective implementation and enforcement of new technologies requires substantial changes in existing practices, including training for legal professionals and updating infrastructure.⁷ Regulatory adequacy is another critical issue, as current legal frameworks may not fully address the nuances and complexities introduced by these technologies.⁸ This gap can lead to uncertainty and hinder the seamless integration of technological innovations. Stakeholder readiness further complicates the situation, as the successful adoption of technology depends on the willingness and ability of all participants—legal practitioners, judiciary members, and the public—to embrace and effectively use these new tools.

The current literature highlights the potential benefits of these technological innovations but often overlooks the practical issues that arise from their integration. Existing studies frequently emphasize the positive impacts of technology without providing a detailed analysis of the challenges faced during implementation. In Kenya, gaps persist in understanding how these technologies affect traditional dispute resolution methods and the associated regulatory and infrastructural limitations.

This research aims to address these challenges by examining the specific opportunities and obstacles associated with integrating technology into Kenya's dispute resolution framework. By analysing the

⁴ Marang'a M. W *et al*, 'Effect of COVID-19 pandemic on resolution of cases in courts: The Kenyan Judiciary', 10-15.

⁵ Muigua K, 'Legal Practice and New Frontiers: Embracing Technology for Enhanced Efficiency and Access to Justice' *KMCO*, June 2020 <<https://kmco.co.ke/wp-content/uploads/2020/06/Legal-Practice-and-New-Frontiers-Embracing-Technology-for-Enhanced-Efficiency-and-Access-to-Justice-Kariuki-Muigua-Ph.D-June-2020.pdf>> on July 15 2024.

⁶ Eidemuller and Wagner, 'Digital Dispute Resolution' 21.

⁷ Muigua. K, 'Alternative Dispute Resolution and Access to Justice in Kenya', 9-15.

⁸ Muigua. K, 'Alternative Dispute Resolution and Access to Justice in Kenya', 9-15.

technological landscape and the regulatory environment, this study seeks to propose practical strategies to enhance the effective use of technology. The goal is to ensure that the integration of these advancements not only improves efficiency and accessibility but also maintains fairness and adheres to legal standards, leading to a more robust and equitable dispute resolution system.

1.1 Statement of the problem

The integration of technology such as artificial intelligence, blockchain, and virtual platforms in Kenya's dispute resolution framework has brought promising advancements in efficiency, transparency, and accessibility. However, these innovations have introduced significant challenges that hinder their effective implementation and enforcement. Issues related to technological adaptation, regulatory adequacy, and stakeholder readiness have emerged, leading to a potential erosion of confidence in these technology-enhanced systems. This erosion risks compromising due process and alignment with legal standards, threatening the fundamental right to access justice and resulting in unfair outcomes.

1.2 Research Objectives

The aim of this study is to evaluate how technology is integrated into Kenya's dispute resolution framework and to identify strategies for optimizing their impact while addressing associated challenges. The research objectives are:

1. To analyse the role of technology in dispute resolution, focusing on its evolution, applications, and impact on the efficiency and accessibility of dispute resolution processes.
2. To examine the current state of technology adoption in Kenya's dispute resolution system, assessing how technologies such as artificial intelligence, blockchain, and virtual platforms are being utilized and their effectiveness in enhancing dispute resolution processes.
3. To identify and analyse the opportunities and challenges associated with the integration of emerging technologies in dispute resolution in Kenya, including technological, regulatory, and stakeholder-related issues.

1.3 Research Questions

This study is guided by the following research questions:

1. What is the role of technology in dispute resolution, focusing on its evolution, applications, and impact on the efficiency and accessibility of dispute resolution processes?
2. What is the current state of technology adoption in Kenya's dispute resolution system, and how effective are technologies like artificial intelligence, blockchain, and virtual platforms in improving dispute resolution processes?
3. What are the key opportunities and challenges associated with technology- technology enhanced dispute resolution in Kenya, and how do these factors impact the overall effectiveness of the system?

1.4 Justification of the study

This study is essential for understanding how technology is integrated into Kenya's dispute resolution system. By focusing on the impact of technologies such as artificial intelligence, blockchain, and virtual platforms, the research addresses key challenges and opportunities. The study aims to optimize technology use while ensuring effective implementation and adherence to legal standards. The primary beneficiaries include legal practitioners, policymakers, and technology developers, who will gain insights to enhance the dispute resolution framework. Ultimately, the research will support a more efficient, transparent, and accessible dispute resolution system in Kenya.

1.5 Hypothesis

The effective integration of technology into Kenya's dispute resolution system will enhance the efficiency, transparency, and accessibility of the system while addressing associated challenges and regulatory gaps.

1.6 Theoretical Framework

This study is grounded in the application of the Systems Theory. This model provides a robust theoretical foundation for examining the adoption and integration of technology in Kenya's dispute resolution system.

1.6.1 The Systems Theory

The theoretical framework underpinning this study is systems theory, developed by sociologist Niklas Luhmann in the late 20th century, primarily articulated in his seminal work *Social Systems* (1984). Luhmann's systems theory conceptualizes society as composed of functionally differentiated systems, each operating autonomously within its own boundaries while interacting with its environment. The legal system, under Luhmann's framework, is understood as a social system that produces and reproduces itself through continuous communication that references the law. This theory's foundational premise lies in the distinction between a system and its environment, where a system defines its boundaries and operations internally while remaining distinct from other subsystems such as politics, economics, or technology.⁹

In systems theory, law is framed as an autonomous subsystem within society that operates based on its own code of legal/illegal. According to Luhmann, the legal system operates as an autonomous subsystem within society, defined by its internal communications and boundaries.¹⁰ This perspective highlights the need for law to engage with external subsystems, such as technology, to address emerging challenges. Luhmann's theory underscores the interconnectedness of legal and technological systems, emphasizing that law must adapt to technological advancements without compromising its normative framework.¹¹

Critics, such as Sheila Jasanoff, challenge Luhmann's strict separation of societal subsystems, advocating instead for a co-production model. Jasanoff argues that knowledge and technology are both products of social practices and constitutive of societal forms.¹² This approach aligns with science and technology studies, which emphasize the mutual influence of law, technology, and society. Systems theory thus provides a lens to examine how law, as a social system, engages with and adapts to external influences like technological advancements without losing its internal logic or autonomy.¹³ By adopting systems theory, this research examines how legal systems incorporate technology to maintain their normative integrity while addressing the dynamic demands of dispute resolution.

⁹ Luhmann N, *A Sociological Theory of Law*, 2nd edn, Routledge, London, 2014, 84–86.

¹⁰ Koulu, 'Dispute Resolution and Technology', 42.

¹¹ Koulu, 'Dispute Resolution and Technology', 90.

¹² Susskind, *The End of Lawyers?*, 217.

¹³ Luhmann, *A Sociological Theory of Law*, 84–86.

Systems Theory and Technology in Dispute Resolution

When applied to dispute resolution, systems theory offers an insightful framework for understanding the interplay between law and technology. The legal system, as defined by systems theory, cannot intrinsically understand technology because it is an external subsystem governed by its own codes and rationalities. However, the integration of technology into dispute resolution processes, such as online dispute resolution (ODR), requires the legal system to engage with technological advancements. This engagement is not a seamless merger but rather a complex interaction where law must interpret, integrate, and adapt technological tools within its normative framework.¹⁴

Technology enters the legal system as ‘disturbances or inputs that the legal system processes according to its internal operations. For example, the use of algorithms in ODR platforms or the automation of certain procedural aspects in Kenyan dispute resolution frameworks represents instances where technology and law intersect. Systems theory helps elucidate how such technological inputs are absorbed into the legal system without fundamentally altering its core operations. Through the lens of systems theory, it becomes possible to analyze how the legal system incorporates these technological advancements to enhance efficiency, accessibility, and transparency in dispute resolution while safeguarding its autonomy and normative integrity.

1.7 Literature Review

Colin Rule’s research advocates for integrating emerging technologies into dispute resolution frameworks, emphasizing their potential to enhance efficiency and accessibility. Rule’s work introduces concepts like technology-assisted mediation and online arbitration, highlighting the transformative impact of these technologies.¹⁵ However, a gap exists in addressing the challenges related to regulatory adaptation and technological infrastructure in diverse contexts. This study aims to address this gap by exploring how emerging technologies can be effectively implemented in Kenya’s dispute resolution system, considering the local regulatory and infrastructural challenges.

Ethan Katsh’s contributions to the field emphasize the impact of emerging technologies on dispute resolution practices, focusing on their potential to revolutionize traditional methods. Katsh’s research

¹⁴Luhmann N, *The Differentiation of Society*, Columbia University Press, New York, 1982, 122.

highlights the opportunities these technologies present, such as improved efficiency and accessibility, while also stressing the need for a robust regulatory framework to manage their implementation.¹⁶ However, there is a notable gap in the practical strategies for integrating these technologies within existing legal frameworks, especially in developing contexts like Kenya. This research seeks to fill this gap by proposing practical strategies for the effective integration of emerging technologies in Kenya's dispute resolution system.

JN Kariuki's research primarily addresses the benefits of adopting technology in dispute resolution within Kenya, with a particular focus on its potential to enhance efficiency and streamline legal processes. His work provides valuable insights into the operational advantages of technology, including the use of digital tools such as virtual arbitration platforms, blockchain, and smart contracts. Kariuki highlights how these technologies can reduce costs, improve access to justice, and offer faster, more transparent resolutions. By integrating such innovations, Kariuki emphasizes that the legal sector in Kenya can overcome logistical barriers, expand accessibility, and significantly enhance the overall efficiency of dispute resolution mechanisms.¹⁷ However, it lacks a detailed exploration of the challenges and regulatory issues associated with integrating modern technologies into Kenya's existing dispute resolution framework. This study aims to address these gaps by analysing the specific challenges and proposing recommendations for optimizing technology use in Kenya's dispute resolution system.

1.8 Research Methodology

The researcher will undertake a doctrinal legal study, relying on both primary and secondary sources. Primary sources will include statutory instruments, legislative texts, and judicial decisions relevant to the integration of emerging technologies in dispute resolution. Secondary sources will encompass scholarly articles, books, and reports that discuss the theoretical foundations and practical implications of using technologies such as artificial intelligence, blockchain, and virtual platforms in dispute resolution, particularly within the Kenyan context. This methodology will provide a comprehensive analysis of the current legal and technological landscape, identifying gaps and opportunities for improvement.

¹⁶ Katsh E, *The Electronic Media and the Transformation of Law*, Oxford University Press, 2 ed, New York, 1991, 228-235.

¹⁷ Kariuki, 'Embracing Online Dispute Resolution as an Avenue to Justice in Kenya', 5.

1.9 Limitation of the study

The limitation of this study is associated with the dynamic nature of technology and legal frameworks in the realm of dispute resolution. The rapidly evolving technological landscape may introduce limitations that surpass the scope of the doctrinal legal research method, potentially reducing the comprehensive coverage of the research. An empirical legal research approach might have yielded more information by incorporating practical observations such as user experience and data analysis. To mitigate this, the study will conduct a thorough analysis of existing legal literature and precedents to identify trends and anticipate potential shifts in the dispute resolution landscape.

1.10 Chapter Breakdown

1.10.1 Chapter One: Background and Introduction to the Study

This Chapter will introduce the study, offering an overview of the research topic. It will highlight the background of the problem, outline the research objectives, and present several research questions that the research seeks to answer.

1.10.2 Chapter Two: Understanding the Role of Technology in Dispute Resolution

This chapter will examine the integration of technology into dispute resolution, focusing on its role in both courtroom settings and online platforms. It will explore how technological tools enhance efficiency and accessibility in legal processes. Additionally, the theoretical framework will incorporate systems theory to understand the interaction between law and technology, while considering the broader implications for legal practice and access to justice.

1.10.3 Chapter Three: The Current State of Technology- Enhanced Dispute Resolution in Kenya

This chapter will examine the current landscape of technology-enhanced dispute resolution in Kenya, focusing on the adoption and regulation of innovations like artificial intelligence, blockchain, and virtual platforms. It will assess how these technologies are recognised and practiced within Kenya's legal framework, identifying their effectiveness and any existing gaps.

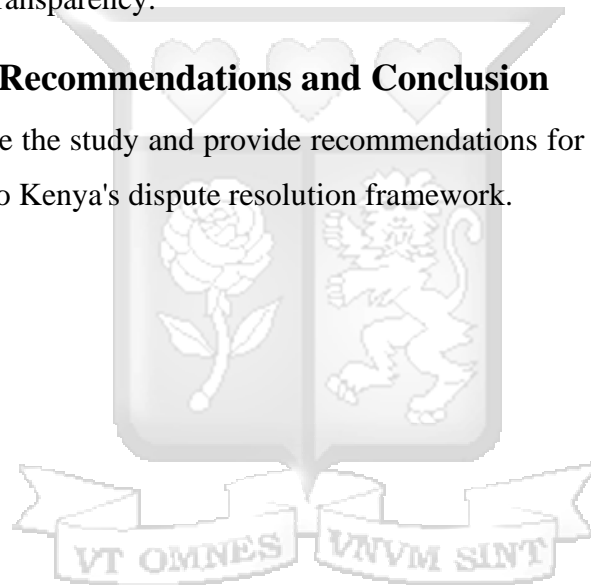
1.10.4 Chapter Four: Opportunities and Obstacles of Technology- Enhanced Dispute Resolution

This chapter will delve into the challenges and opportunities associated with integrating emerging technologies into Kenya's dispute resolution framework. It will address issues such as technological adaptation, regulatory adequacy, and stakeholder readiness. The chapter will also explore the potential benefits, including enhanced efficiency, transparency, and accessibility, while discussing the risks of ineffective implementation and the erosion of confidence in the system.

discuss the practical aspects of implementation, ensuring alignment with legal standards, and maintaining fairness and transparency.

1.10.5 Chapter Five: Recommendations and Conclusion

This Chapter will conclude the study and provide recommendations for the effective integration of emerging technologies into Kenya's dispute resolution framework.



Chapter Two

Understanding the Role of Technology in Dispute Resolution

The integration of technology into dispute resolution is a relatively recent phenomenon, and the available body of research is still fragmented. This chapter explores how technology intersects with dispute resolution processes, focusing on its application within courtroom settings and through online platforms. The theoretical framework adopted here underscores the importance of understanding the legal system's capacity to integrate technological advancements effectively.

2.1 Defining Technology in Dispute Resolution

The term 'technology' originates from the Greek words *tékhne*, meaning craftsmanship, and *logia*, referring to the study of skills or techniques. Today, the term encompasses tools, practices, and devices designed for information sharing and communication. In the context of dispute resolution, technology primarily refers to information and communication technologies (ICTs) rather than basic tools such as typewriters or courtroom fixtures.¹⁸ ICTs, such as videoconferencing, e-filing, online platforms, and artificial intelligence, transform traditional legal processes by enabling more efficient and accessible dispute resolution mechanisms.¹⁹

Despite the increasing role of technology in dispute resolution, defining it formally within policy and jurisprudence remains challenging. Most policy documents and legal frameworks, such as the EU's ODR Regulation, adopt a functional rather than a definitive approach. Similarly, scholars like Ethan Katsh and Colin Rule describe technology in dispute resolution as a 'fourth party' that assists the neutral third party in managing and resolving conflicts. These functionalist perspectives emphasize the practical applications of technology while acknowledging its transformative potential in dispute resolution.²⁰

¹⁸ Luhmann, *A Sociological Theory of Law*, 84–86.

¹⁹ Luhmann, *The Differentiation of Society*, 122.

2.2 Technology in Courtroom Settings

The first interface between technology and dispute resolution occurs in traditional courtroom settings, commonly referred to as ‘courtroom technology.’²¹ This includes tools and systems such as videoconferencing, case management software, e-mail-based service of documents, electronic access to legal information, automated document generation, and e-archiving. These technologies are largely auxiliary, facilitating the adjudicative process rather than replacing it. From a legislative perspective, technology provides effective solutions to address inefficiencies in national court systems by reducing time and costs.²² For example, one-time investments in videoconferencing systems or automated case management tools can yield significant savings in labor costs over time.

Courtroom technology is however often tailored to the needs of domestic legal systems, limiting its applicability in cross-border disputes. A landmark highlighting these challenges is *State of Wisconsin v. Loomis* (2016), 881 N.W.2d 749.²³ In this case, the Wisconsin Supreme Court examined the use of COMPAS, a machine learning-based risk assessment tool, in criminal sentencing. While the court allowed its use, it emphasized that such tools should supplement judicial discretion, not replace it. The court also cautioned against relying solely on algorithm-generated outcomes, given the proprietary nature of COMPAS and its lack of transparency.

This case serves as a cautionary tale for jurisdictions like Kenya as they adopt digital tools for courtroom proceedings. The integration of technology must balance efficiency with fairness, ensuring that automated systems enhance, rather than undermine, judicial impartiality and accountability. As Kenya continues to digitize its legal processes through e-filing and virtual court systems, lessons from *Loomis* underscore the need for transparency and the responsible use of technology in adjudication.

Certain cross-border instruments encourage the use of technology even though there are limitations. For instance, the EU’s Evidence Regulation promotes videoconferencing for obtaining evidence across member states.²⁴ While these efforts highlight the auxiliary role of technology in courtroom procedures, they also reveal its potential to address procedural challenges in cross-border legal

²¹ Luhmann, *A Sociological Theory of Law*, 84–86.

²² Luhmann, *A Sociological Theory of Law*, 84–86.

²³ *State of Wisconsin v. Loomis* (2016), 881 N.W.2d 749.

²⁴ Susskind R, *The End of Lawyers? Rethinking the Nature of Legal Services*, Oxford University Press, Oxford, 2010, 217–225.

contexts.

2.3 Online Dispute Resolution (ODR)

The second interface, online dispute resolution (ODR), represents a private, technology-driven model of conflict management. Initially designed for low-intensity disputes arising from e-commerce transactions, ODR has evolved to address offline disputes as well. Unlike courtroom technology, ODR relies entirely on technology to facilitate dispute resolution. It operates under the principles of alternative dispute resolution (ADR), requiring the parties' consent to engage in private, often automated procedures. ODR providers range from e-commerce platforms and credit card companies to private intermediaries performing public functions.²⁵

ODR emerged in the early 2000s as a response to the rapid growth of Internet-based disputes. Although no uniform definition exists, ODR literature emphasizes its role as a transformative force in conflict resolution.²⁶ Scholars such as Katsh and Rule highlight how technology enables asynchronous communication (e-mails, threaded discussions) and synchronous interactions (chats, video conferencing), significantly expanding ADR's scope. However, ODR's development varies across jurisdictions, influenced by societal conditions, legal frameworks, and the innovative capacities of stakeholders.²⁷

2.4 Applications of Technology in Dispute Resolution

Technology is applied at various stages of dispute resolution, enhancing efficiency and accessibility. Claims can be initiated electronically through e-filing systems, and communication between parties, neutrals, and clerks can occur via e-mails or platform-based messaging. Case management systems streamline the lifecycle of disputes, enabling e-scheduling of hearings, automated document generation, and electronic archiving of case files. Hearings can be conducted via videoconferencing, reducing the need for physical presence.²⁸

²⁵ Susskind, *The End of Lawyers?*, 217.

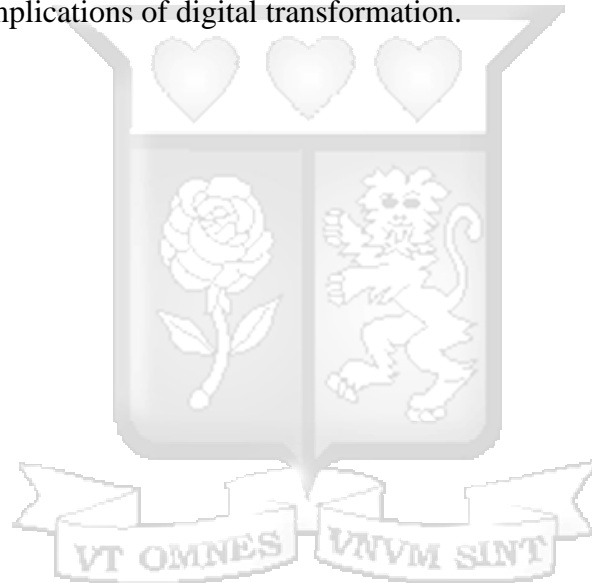
²⁶ Koulu R, 'Dispute Resolution and Technology: Revisiting the Justification of Conflict Management' *University of Helsinki Conflict Management*, 2016, 90–92.

²⁷ Koulu, 'Dispute Resolution and Technology', 90.

²⁸ Susskind, *The End of Lawyers?*, 218.

Additionally, technology plays a role in increasing access to justice through public online portals that provide up-to-date legislation and case law. While these platforms are not traditionally considered dispute resolution tools, they democratize legal information and empower litigants. Social media and online platforms also inform the public about ongoing cases, though their use raises questions about privacy and judicial impartiality.²⁹

In conclusion, the integration of technology into dispute resolution marks a significant shift in legal practice. Whether through courtroom technology or ODR, technological tools offer innovative solutions to longstanding challenges in efficiency, accessibility, and cost. However, the implementation of these technologies must account for jurisdictional differences, stakeholder needs, and the broader societal implications of digital transformation.



²⁹ Koulu R, 'Dispute Resolution and Technology: Revisiting the Justification of Conflict Management', University of Helsinki Conflict Management, 2016, 90-91.

Chapter Three

The Current State of Technology-Enhanced Dispute Resolution in Kenya

This chapter delves into Kenya's emergence as a hub for digital innovation in Africa, exploring the intersection of technology and legal services, particularly in dispute resolution. Over the past decade, Kenya has experienced rapid growth in technological infrastructure, which has catalysed the integration of cutting-edge advancements across various sectors. The legal sector, traditionally slow to embrace change, is now undergoing significant transformation as technology reshapes how disputes are managed and resolved.

The evolution from traditional courtroom litigation to technology-enhanced dispute resolution reflects Kenya's broader commitment to modernising its legal processes in line with global trends. As the nation continues to position itself as a leader in digital innovation, there has been a notable shift towards adopting technologies such as artificial intelligence (AI), blockchain, and virtual dispute resolution platforms. These innovations are already beginning to play a role in streamlining processes, enhancing access to justice, and increasing the efficiency of legal proceedings.

The application of these technologies in dispute resolution is however still in its infancy, presenting both opportunities and challenges. The integration of AI, for instance, holds potential for automating routine legal tasks, enabling predictive analytics in case management, and improving decision-making processes. Similarly, blockchain technology promises to enhance the security, transparency, and integrity of legal transactions, while virtual platforms offer new avenues for resolving disputes remotely, making justice more accessible to underserved communities.

Despite these promising developments, the Kenyan legal framework is still evolving to accommodate and regulate these technologies. There is a need for careful consideration of the ethical, legal, and procedural implications of technology in dispute resolution. Issues such as data privacy, algorithmic bias, and the need for regulatory oversight must be addressed to ensure that the integration of technology into legal processes aligns with the principles of fairness, transparency, and justice.

3.1 Artificial Intelligence in Dispute Resolution

Artificial intelligence (AI) has gained significant attention in the legal sector for its potential to streamline dispute resolution processes. In Kenya, AI-powered tools have been introduced to assist in legal research, case management, and even in adjudication, although the latter is still in the experimental stages.³⁰

3.1.2 Artificial Intelligence in Legal Research and Case Management

One of the most practical applications of AI in dispute resolution is Kenya's e-filing system was launched in 2020 as part of the Judiciary's efforts to digitise court processes and improve access to justice. The system allows lawyers and litigants to electronically submit documents, pay court fees, and track the progress of their cases online. This marked a significant shift from the traditional, paper-based filing system, which was often slow, cumbersome, and prone to delays.

The e-filing system is currently operational in major courts across the country, including the Nairobi, Mombasa, and Kisumu law courts. It applies to both civil and criminal matters, providing a platform where users can register cases, submit documents, and receive notifications about their cases without the need to physically visit court registries. By eliminating the need for manual filings, the system has helped reduce the long queues and inefficiencies that were characteristic of the old system. One of the key features of the e-filing system is the ability to pay court fees electronically through **virtual** money platforms such as M-Pesa and Airtel Money, as well as through bank transfers. This has simplified the process for both litigants and lawyers, who no longer need to make trips to banks or court registries to settle fees. The system generates an electronic receipt that is automatically attached to the case file, ensuring transparency and reducing the risk of lost payment records.

The e-filing system also provides a case tracking feature, where parties can monitor the status of their cases in real-time. This feature is particularly useful as it reduces the need to constantly follow up with court officials or make unnecessary visits to court. Lawyers and litigants are notified through

³⁰ Chief Bayo Ojo, 'Achieving Access to Justice Through Alternative Dispute Resolution' Chartered Institute of Arbitrators (Kenya) Journal, 1 2013 1.

email or SMS when there are updates or developments in their cases, such as hearing dates or rulings. This has made it easier to keep track of proceedings and has led to more efficient case management.

Despite its benefits, the e-filing system faces several challenges. The system, though operational in the major courts, has not yet been fully rolled out in all counties, meaning that many litigants in remote areas rely on traditional filing methods. Additionally, the platform has experienced technical difficulties since its launch, with users sometimes struggling to upload documents, access the system during peak hours, or deal with system outages. These uploaded documents are many a time not printed physically and placed before judicial officers leading to delays in the dispensation of justice.

Another challenge has been the digital literacy of both court officials and users. While many legal practitioners, especially in urban areas, have adapted to the new system, there are still those who struggle with navigating the platform. Moreover, litigants who represent themselves, particularly those from rural areas, often face difficulties using the system due to lack of familiarity with technology or limited access to reliable internet services.

The e-filing system has been hailed as a significant step towards the modernisation of Kenya's judiciary despite several challenges. The platform has brought about greater transparency, as all documents and case updates are digitised and accessible at any time. This has also reduced the incidences of corruption that were sometimes associated with manual filings, where documents could go missing or be mishandled by court officials.

Efficiency in legal research has also increased as, AI-powered platforms like *LawPadi*³¹ and *LegalAI*³² have emerged in Kenya, offering automated legal research and analysis.³³ These tools utilise machine learning algorithms to sift through vast amounts of legal data, including case law, statutes, and regulations, to provide lawyers and arbitrators with relevant precedents and legal principles. This significantly reduces the time spent on manual research.³⁴

³¹ LawPadi, *LawPadi Platform* (2024) <https://lawpadi.com>.

³² LegalAI, *LegalAI Platform* (2024) <https://legalai.com>.

³³ Chief Bayo Ojo, 'Achieving Access to Justice Through Alternative Dispute Resolution' *Chartered Institute of Arbitrators (Kenya) Journal*, 1 2013 1.

³⁴ Chief Bayo Ojo, 'Achieving Access to Justice Through Alternative Dispute Resolution' *Chartered Institute of Arbitrators (Kenya) Journal*, 1 2013 1.

3.1.3 Artificial Intelligence in Adjudication: Opportunities and Challenges

The use of AI in adjudication, though still nascent, represents a frontier in dispute resolution. AI algorithms can be programmed to analyse facts, weigh evidence, and even propose settlement options based on patterns from previous cases.³⁵ In Kenya, AI adjudication has been considered for simpler disputes, such as small claims or consumer complaints, where automated systems can deliver quick decisions. However, there are significant challenges, including concerns about transparency, accountability, and the ethical implications of delegating decision-making to machines. The lack of a robust regulatory framework governing AI adjudication also limits its widespread adoption in Kenya.³⁶

3.2 Blockchain Technology in Dispute Resolution

Blockchain technology, originally developed for cryptocurrencies like Bitcoin, is a decentralised digital ledger that securely records transactions across multiple computers. It creates permanent records that cannot be altered without consensus from the network, ensuring transparency and security. In dispute resolution, blockchain allows for the secure storage and verification of evidence, contracts, and agreements, reducing the risk of tampering and building trust among parties. This transparency ensures that all stakeholders have access to the same information, making the process more open and accountable.

3.2.1 Blockchain for Secure Record-Keeping

One of the key features of blockchain is its ability to create immutable, transparent records. In dispute resolution, this technology is used to maintain secure records of evidence, transactions, and decisions.³⁷ For instance, blockchain platforms such as *Kleros* are being explored in Kenya for their potential to securely store contracts and evidence in a tamper-proof ledger. This ensures that once a piece of evidence is submitted, it cannot be altered or tampered with, thereby enhancing the integrity of the dispute resolution process.³⁸

3.3 Smart Contracts and Automated Enforcement

³⁵ Kleros, *Kleros Blockchain Platform* (2024) <https://kleros.io>.

³⁶ Kleros, *Kleros Blockchain Platform* (2024) <https://kleros.io>.

³⁷ Schär, F., *Smart Contracts: A Survey of the State of the Art*, Springer International Publishing, 2024, 7-12.

³⁸ Schär, F., *Smart Contracts: A Survey of the State of the Art*, Springer International Publishing, 2024, 7-12.

Smart contracts are self-executing contracts where the terms of the agreement are written directly into code.³⁹ In Kenya, blockchain-based smart contracts are being piloted for commercial transactions and dispute resolution. For example, in payment disputes, a smart contract can automatically handle the transfer of money based on the conditions set in the agreement. If the agreed terms are met—such as a product being delivered or a service completed—the smart contract will release the funds to the recipient without delay. However, if the conditions are not fulfilled—like the goods not being delivered or the service being incomplete—the contract will withhold the funds, keeping them secure until the issue is resolved, or the terms are met. This reduces the need for intermediaries and accelerates the resolution process.⁴⁰ However, the enforceability of smart contracts within Kenya’s current legal framework remains an area of concern, as there is no specific legislation governing their use.

The enforceability of smart contracts in dispute resolution can draw upon the principles established in *Trimex International FZE Ltd. v Vedanta Aluminum Ltd. (2010) 3 SCC 1*.⁴¹ In this case, the Indian Supreme Court upheld the validity of an agreement even in the absence of formal written documentation, emphasizing the importance of the parties' intent and their consistent actions in executing the agreement. Similarly, smart contracts embedded with pre-defined conditions provide clarity and automation, which eliminate the ambiguities typically present in traditional agreements. For Kenya, recognizing the enforceability of blockchain-based contracts under the Arbitration Act would align with global trends and enhance the predictability of commercial dispute resolution outcomes. The case illustrates how courts can adapt conventional legal principles to new technological dimensions without undermining their foundational rules.

3.4 Virtual Dispute Resolution Platforms

3.4.1 The Rise of Virtual Courts

Alongside the implementation of an e-filing system, the judiciary has expanded its services through a “virtual court” framework, where parties can attend court proceedings online from remote locations. This transition to virtual hearings means that litigants, lawyers, and other stakeholders can

³⁹ G Kaufmann-Kohler, T Schultz, *Online Dispute Resolution: Challenges for Contemporary Justice*, Kluwer Law International, 2004, 180.

⁴⁰ G Kaufmann-Kohler, T Schultz, *Online Dispute Resolution: Challenges for Contemporary Justice*, Kluwer Law International, 2004, 180.

⁴¹ *Trimex International FZE Ltd. v Vedanta Aluminum Ltd. (2010) 3 SCC 1*.

participate in legal processes without needing to be physically present in the courtroom. Microsoft Teams serves as the main platform for these sessions, providing a consistent digital environment for conducting official judicial proceedings.

To access a virtual court session, participants must obtain the necessary link, which is made available on the Kenya Law website (www.kenyalaw.org). This link directs users to a designated virtual courtroom, where they join the proceedings at the scheduled time. Accessing this service requires not only an internet-enabled device, such as a smartphone or computer, but also a stable internet connection to maintain clear communication throughout the session.

These courts, often facilitated via electronic applications, allow users to submit claims, upload evidence, and even attend hearings remotely.⁴² For instance, the *eCitizen* platform provides citizens with access to various government services, including legal services, through their **virtual** devices. This has made it easier for Kenyans, particularly those in rural areas, to access justice without the need to physically visit a court. Furthermore, virtual dispute resolution platforms reduce the time and costs associated with traditional litigation, allowing users to resolve issues more efficiently. As a result, these innovations not only promote fairness in the legal system but also empower individuals to seek justice from the comfort of their homes.

3.4.2 Alternative Dispute Resolution (ADR) via Virtual Platforms

Virtual platforms have also been instrumental in facilitating alternative dispute resolution (ADR) methods such as mediation and arbitration. Platforms like *ODReurope* and *Modria* offer virtual-based arbitration and mediation services, allowing parties to resolve disputes without the need for face-to-face meetings.⁴³ These platforms are particularly useful for resolving small-scale commercial disputes and consumer complaints. However, there is a need for more widespread adoption and awareness of these platforms, as many Kenyans are still unfamiliar with their availability and benefits.

3.5 Regulatory Framework for Technology-Enhanced Dispute Resolution in Kenya

The successful integration of technology in dispute resolution requires a supportive regulatory framework. In Kenya, several legal and regulatory instruments govern the use of technology in legal

⁴² Kariuki, 'Embracing Online Dispute Resolution as an Avenue to Justice in Kenya', 10.

⁴³ Kariuki, 'Embracing Online Dispute Resolution as an Avenue to Justice in Kenya', 10.

processes, but there are still significant gaps that need to be addressed.

3.6 The Constitution and Access to Justice

Kenya's Constitution guarantees the right to access justice, and this has been a driving force behind the adoption of technology in dispute resolution. Article 48⁴⁴ of the Constitution requires the state to ensure that all citizens have access to justice, and this has been interpreted to include access to digital platforms for dispute resolution.⁴⁵ The judiciary has embraced this mandate by implementing e-filing systems and virtual court hearings, particularly during the COVID-19 pandemic, when physical court operations were limited.

3.6.1 The Kenya Information and Communications Act (KICA)

The Kenya Information and Communications Act (KICA)⁴⁶ provides a legal framework for the regulation of information and communication technologies (ICT) in Kenya. KICA plays a crucial role in governing the use of virtual platforms and online services for dispute resolution. The Act outlines provisions for data protection, cybersecurity, and electronic transactions, all of which are vital for the safe and secure use of digital platforms in legal processes.⁴⁷

KICA does not however specifically address the use of emerging technologies like AI and blockchain in dispute resolution. This regulatory gap has raised concerns about the legal enforceability of decisions made through AI-powered platforms or blockchain-based smart contracts. There is a need for comprehensive legislation that specifically addresses these technologies to ensure their safe and effective use in the legal sector.

3.6.2 The Data Protection Act 2019

With the rise of digital dispute resolution platforms, the protection of personal data has become a critical issue. The Data Protection Act 2019⁴⁸ provides a framework for the processing of personal data in Kenya. This Act aligns with international standards, such as the General Data Protection Regulation (GDPR), and imposes obligations on entities that handle personal data, including dispute resolution platforms. Compliance with the Data Protection Act is essential for ensuring the privacy

⁴⁴ Article 48, *Constitution of Kenya* (2010).

⁴⁵ Article 48, *Constitution of Kenya* (2010).

⁴⁶ Section 33 (2), *Kenya Information and Communications Act* 1998 (Revised 2020).

⁴⁷ Section 33 (2), *Kenya Information and Communications Act* 1998 (Revised 2020).

⁴⁸ Section 4, *Data Protection Act 2019*, No. 24 of 2019.

and security of users engaging in technology-enhanced dispute resolution. However, enforcement of the Act has been inconsistent, and there is a need for more robust oversight to ensure that digital platforms adhere to data protection standards.

3.7 Effectiveness of Technology-Enhanced Dispute Resolution in Kenya

While the adoption of technology-enhanced dispute resolution in Kenya has brought about several benefits, including increased accessibility and efficiency, its effectiveness is still uneven across different sectors.

One of the most significant developments in Kenya's TDR landscape is the Judiciary's adoption of e-filing systems and virtual court hearings. These innovations have significantly reduced the backlog of cases and improved the efficiency of the judicial process. The digitisation of court records and the introduction of online case management systems have also contributed to faster dispute resolution. For example, during the COVID-19 pandemic, the Kenyan Judiciary was able to continue operations by conducting hearings via Zoom and other virtual platforms, ensuring that justice was not delayed despite the restrictions on physical gatherings.⁴⁹

Data privacy is a critical component of technology-enhanced dispute resolution systems, particularly in Kenya, where digital transformation is rapidly reshaping legal practice. The importance of secure data handling is reflected in *Kenya Union of Post Primary Education Teachers (KUPPET) v Teachers Service Commission (2019) eKLR*.⁵⁰ In this case, the court underscored the need to protect sensitive personal information, ruling against practices that jeopardized confidentiality. This judgment reinforces the requirement for ODR platforms in Kenya to adhere to the Data Protection Act 2019, ensuring that personal data processed during dispute resolution remains secure. Integrating these safeguards will not only build trust among users but also ensure compliance with constitutional principles guaranteeing privacy and justice.

Virtual dispute resolution platforms have also been effective in providing access to justice for individuals in remote areas. The *eCitizen* platform has been lauded for its ability to bring legal

⁴⁹ The Kenya Judiciary, *Judiciary Transformation Framework 2012-2016*, 46.

⁵⁰ (2019), eKLR.

services closer to the people, reducing the time and cost associated with traditional litigation.⁵¹

3.8 Conclusion

The integration of technology into dispute resolution in Kenya marks a vital move towards modernising our legal system and enhancing access to justice for all citizens. Notable successes have been achieved, particularly with virtual platforms and e-courts, yet several challenges remain that must be addressed to fully harness the potential of technology-enhanced dispute resolution (TDR). The persistent digital divide, regulatory gaps, and limited awareness about these technologies stand as significant hurdles.



⁵¹ Musuli P, 'The Challenges of Implementing ADR as an Alternative Mode of Access to Justice in Kenya', *Chartered Institute of Arbitrators (Kenya) Journal* 1 2013 15.

Chapter Four

Opportunities and Obstacles of Technology-Enhanced Dispute Resolution

This chapter delves into the transformative impact of technology-enhanced dispute resolution (TDR), examining both its remarkable benefits and the challenges it poses. The integration of digital innovations, such as online dispute resolution (ODR), automated case management, and artificial intelligence-driven analytics, has the potential to significantly improve the dispute resolution process. These technologies offer new ways to streamline procedures, reduce backlogs, and provide wider access to justice—particularly in countries where remote areas lack sufficient legal infrastructure. For example, TDR platforms make it possible for parties to participate in arbitration or mediation from anywhere in the world, reducing travel costs and making it easier for underserved communities to engage in the process.

Yet, the adoption of TDR is not without obstacles. Data privacy concerns emerge as digital dispute systems collect, store, and manage vast amounts of sensitive information, making it critical to ensure secure handling and storage of personal data. In regions with limited digital infrastructure, such as some areas in Kenya, the disparities in access to reliable internet and technological tools can exacerbate inequality, creating barriers for individuals who cannot afford or access the necessary technology to participate fully in TDR. Moreover, the regulatory landscape has yet to catch up with the rapid pace of technological innovation in many jurisdictions, creating challenges around enforceability, jurisdiction, and compliance with international standards.

4.1 Opportunities

4.1.1 Enhanced Accessibility and Convenience

ODR has significantly improved accessibility by removing the need for physical presence in dispute resolution processes, making it feasible for individuals in remote or underserved areas to access justice. In Kenya, the rapid adoption of digital platforms for case hearings, particularly during the COVID-19 pandemic, has enabled people to engage in hearings from various locations, reducing travel expenses and providing access to those with mobility issues. This shift towards digital accessibility reflects a growing commitment to inclusivity in Kenya's justice system, as evidenced

by continued use of virtual court systems post-pandemic.⁵²

For instance, during the pandemic, the Kenyan judiciary quickly adopted virtual court systems, allowing parties to attend hearings remotely. This setup has particularly benefited individuals in rural areas or with physical limitations, enabling them to participate in dispute resolution without the constraints of travel and geographical boundaries.

4.1.2 Increased Efficiency and Cost-Effectiveness

Technology greatly reduces the delays often associated with traditional dispute resolution. By automating administrative tasks, ODR platforms can expedite processes, minimizing the backlog commonly seen in Kenyan courts. The automated scheduling, document submission, and case tracking offered by ODR platforms cut down on prolonged timelines, significantly enhancing cost-effectiveness for both parties.⁵³

4.1.3 Enhanced Transparency and Record-Keeping

Transparency in digital dispute resolution is strengthened through automated, traceable records. All proceedings are securely documented, creating an accessible and permanent record for both parties. This transparency fosters trust and reduces disputes about what occurred during proceedings, as every decision and submission is readily available for review.⁵⁴

In Kenya, improved transparency aligns with Article 47 of the Constitution, which mandates fair administrative action and procedural integrity. Digital record-keeping also combats corruption and procedural misconduct by preventing tampering with evidence and enhancing accountability, a crucial step in maintaining the integrity of dispute resolution.

4.1.4 Facilitation of Cross-Border Disputes

ODR facilitates cross-border disputes, providing a seamless resolution platform for parties from different jurisdictions. Virtual communication platforms eliminate geographical barriers, allowing parties to participate without incurring travel expenses. Platforms used in e-commerce, like those in the EU and China, demonstrate how technology-enabled systems manage cross-border disputes effectively, which is particularly advantageous for Kenyan businesses involved in international trade. In Kenya's commercial sectors, cross-border trade disputes are common. By employing virtual

⁵² Chambers & Partners. 'DLA Piper Africa.' *Chambers Global*, 2024.

⁵³ Chambers & Partners. 'DLA Piper Africa.' *Chambers Global*, 2024.

⁵⁴ Kariuki, 'Embracing Online Dispute Resolution as an Avenue to Justice in Kenya', 13.

arbitration and mediation, exporters and importers can resolve conflicts more efficiently, thus bolstering international trade relationships and economic stability.

Cross-border disputes often present jurisdictional challenges, as highlighted in *Shakti Bhog Foods Ltd. v Kola Shipping Ltd.* AIR (2009).⁵⁵ In this case, the Indian Supreme Court reinforced the importance of clear arbitration clauses in addressing jurisdictional ambiguities in international trade disputes. This precedent underscores the relevance of pre-agreed terms in ensuring procedural certainty, particularly for ODR platforms handling cross-border cases. For Kenya, adopting similar principles by leveraging blockchain-based arbitration systems, which transparently encode jurisdictional rules within their frameworks, could significantly enhance the resolution of international trade disputes. This approach would also align Kenya with global standards in managing cross-border commerce effectively.

4.1.5 Improved Case Management and Reduced Caseloads

Effective case management is another advantage of technology integration, especially in high-volume environments. Case management software enables efficient scheduling, reminders, and document sharing, reducing delays in court proceedings. This enhanced organization allows judges and mediators to focus on case substance rather than logistical issues. Jurisdictions like Singapore and the UK have successfully employed digital case management systems, providing a model for Kenya to emulate as its courts manage significant case volumes.

With Kenya's high caseloads, improved case management through digital tools can prevent court congestion and streamline operations, helping maintain a consistent, fair dispute resolution process.

4.1.6 Data-Driven Decision Making and Predictive Analytics

Data analytics and predictive tools can transform decision-making in dispute resolution. Through analysis of past case trends and outcomes, AI-powered tools can provide insights on likely resolutions for similar cases, helping parties make informed choices about pursuing or settling disputes. In arbitration, for example, predictive analytics can assess likely outcomes based on precedent, giving parties a data-backed perspective on their case's potential results.

Kenya's judiciary can benefit from such tools, especially in reforming dispute resolution policies based on data insights. By leveraging analytics, Kenyan institutions could implement evidence-based

⁵⁵ *Shakti Bhog Foods Ltd. v Kola Shipping Ltd.* AIR (2009).⁵⁵

reforms to improve efficiency and transparency in the judicial process.⁵⁶

4.1.7 Embracing Smart Contracts and Automation

Blockchain technology and smart contracts represent a cutting-edge solution in dispute resolution, automating transactional agreements and reducing the need for manual intervention in case of disputes. Smart contracts execute predefined actions—such as issuing payments or penalties—automatically when specified conditions are met. In cases involving delayed payments, smart contracts can automatically enforce the agreed-upon terms by issuing refunds or applying penalties without the need for arbitration or court intervention. For instance, if a buyer fails to pay on time, the smart contract can automatically deduct a late payment fee from the buyer's funds or freeze access to certain services until payment is made. Similarly, if the seller does not deliver the goods or services on schedule, the smart contract can refund the buyer instantly or reduce the payment amount to account for the delay.

This automation ensures that both parties are held accountable to the terms of their agreement, eliminating the need for costly and time-consuming legal processes.

Kenya's fintech and digital payments sectors stand to benefit from smart contract technology, which reduces reliance on intermediaries, cutting costs and proactively preventing disputes by automating transaction-based compliance. The incorporation of smart contracts into dispute resolution frameworks could enhance efficiency and mitigate disputes from the outset.

4.1.8 TMDR in E-commerce: Addressing Jurisdiction and Enforcement Challenges

TMDR provides an essential framework for handling disputes in e-commerce, where cross-border jurisdiction issues often complicate resolution. By offering a standardized process for consumers and vendors in different locations, TMDR facilitates enforcement of decisions, bolstering consumer confidence in online transactions. For instance, automated transcription, translation services, and digital record tracking in TMDR enhance the accuracy and efficiency of proceedings, especially when handling international cases, thus expanding access to justice.

This infrastructure is less costly than traditional court systems, relying on minimal physical space and operational costs while providing the flexibility to choose convenient times and virtual

⁵⁶ Kariuki, 'Embracing Online Dispute Resolution as an Avenue to Justice in Kenya', 13.

communication methods. This accessibility is particularly beneficial for individuals in remote or underserved areas, as well as those with mobility issues, ensuring they can participate meaningfully in dispute resolution.

4.1.9 Speed and Efficiency in Resolution Processes

TMDR's streamlined digital communication reduces delays common in traditional processes, which is crucial for fast-paced environments like e-commerce. By leveraging rapid information exchange, TMDR platforms resolve disputes in a timely manner, allowing e-commerce vendors and buyers to address issues efficiently and move forward.

This advantage has significant implications for Kenya's e-commerce growth, as timely resolution of consumer disputes helps foster trust and encourage online transactions.

4.2 Obstacles

4.2.1 Reduction of Human Interaction

One significant drawback of TMDR is the absence of in-person human interaction, which plays a critical role in communication, particularly in resolving disputes. Body language, eye contact, and tone of voice are integral to understanding the emotions and intentions of the parties involved. Video conferencing may replicate some aspects of face-to-face interaction but still falls short of fully capturing these important non-verbal cues, which can lead to misinterpretation.⁵⁷ Moreover, the inability of digital mediums to replace the complexity of in-person communication makes the resolution process less personal, potentially affecting its effectiveness.⁵⁸

4.2.2 Loss of Human Judgment in Decision-Making

A growing concern with TMDR is the potential for technology to replace human decision-making, especially in legal interpretations. While AI and algorithms can assist in simplifying certain tasks, the intricacies of law—particularly its reliance on context, discretion, and moral judgment—cannot be entirely addressed by machines. Legal systems often require the ability to make nuanced decisions based on human factors, which automated processes may fail to account for, potentially diminishing

⁵⁷ A. Larson, 'Technology Mediated Dispute Resolution (TMDR): Opportunities and Dangers' (2006) 38 *University of Toledo Law Review* 213.

⁵⁸ A. Larson, 'Technology Mediated Dispute Resolution (TMDR): Opportunities and Dangers' (2006) 38 *University of Toledo Law Review* 213.

the fairness and quality of decisions.⁵⁹

4.2.3 Data Privacy and Security Risks

The use of digital platforms in dispute resolution raises concerns about data privacy and security. Sensitive personal and legal information exchanged online is vulnerable to hacking or unauthorized access. This risk is heightened when secure systems are not implemented or when the platforms used fail to meet rigorous security standards. Furthermore, questions of confidentiality can arise, especially when parties question whether their discussions are being recorded or monitored, potentially jeopardizing the trust that underpins dispute resolution. As digital platforms become more prevalent, ensuring robust encryption and secure channels for communication is crucial.

4.2.4 Sustainability of Virtual Agreements

While virtual dispute resolution can facilitate quick resolutions, there is concern over the practical applicability of agreements reached online. Agreements made in virtual settings may not always be sustainable in real-life situations due to logistical challenges or misalignments between virtual and real-world contexts. Some agreements may appear feasible in a controlled online environment but become unworkable when implemented offline, especially when parties are unfamiliar with the technology or its limitations.⁶⁰ Ensuring that digital agreements are viable in practical settings is essential for the long-term success of TMDR.

4.2.5 Technological Access Disparities

Another critical issue is the unequal access to technology. Not all participants in dispute resolution have equal access to reliable internet, devices, or technological skills. Individuals from lower socio-economic backgrounds or those living in remote areas may face significant challenges in engaging effectively with TMDR. This digital divide can create barriers to participation, leading to inequities in the process and potentially undermining the fairness of the resolution. Addressing these access disparities is essential for making TMDR truly inclusive.

4.2.6. Threats to Infrastructure Integrity

The technical reliability of TMDR platforms is crucial for the smooth running of dispute resolution processes. Cyber-attacks, system malfunctions, or technical glitches can disrupt proceedings,

⁵⁹ R. Lodder and J. Zelenikow, “Developing an Online Dispute Resolution Environment: Dialogue Tools and Negotiation Support in a Three Step Model” (2005) 10 *Harvard Negotiation Law Review* 291.

⁶⁰ R. Lodder and J. Zelenikow, “Developing an Online Dispute Resolution Environment: Dialogue Tools and Negotiation Support in a Three Step Model” (2005) 10 *Harvard Negotiation Law Review* 291.

compromise the data integrity, and delay resolution. This issue raises concerns over the resilience of digital platforms, with the potential for disruptions to undermine the credibility of the process. To ensure continuity, platforms must incorporate fail-safes, secure backups, and emergency response strategies to minimize the impact of such disruptions.⁶¹

4.2.7 Challenges to the Formality of Proceedings

Finally, the informal nature of online platforms may detract from the perceived seriousness and integrity of the dispute resolution process. In traditional settings, formal proceedings help to uphold the dignity of the process and ensure that all parties are held to the same standards. In contrast, the informality of virtual spaces could lead to a sense of detachment or a lack of accountability, potentially undermining the authority of the resolution. Concerns about the authenticity of witness testimony or the effectiveness of administering oaths in virtual spaces further complicate the issue. Addressing these concerns may require adjustments to ensure that virtual proceedings retain the gravitas associated with traditional dispute resolution.⁶²

4.3 Conclusion

In conclusion, the integration of emerging technologies in dispute resolution presents a mix of promising benefits and significant challenges. On the positive side, technology enhances access to justice by providing more affordable and efficient ways for individuals to resolve disputes. Tools such as online platforms for mediation and arbitration can make the process faster, more transparent, and accessible, particularly for those in remote areas. Moreover, technology reduces the cost and time involved in resolving disputes, which can be crucial for businesses and individuals who need quicker resolutions. It can also help manage large volumes of cases, ensuring that the judicial system is not overburdened.

However, despite these advantages, there are notable limitations and concerns. Data security remains a primary challenge, as cyber threats could compromise sensitive information shared during online proceedings. Additionally, there is a risk that technology may exclude certain populations due to lack of digital literacy or access to reliable internet services. Furthermore, the impersonal nature of digital platforms could undermine the relational aspect of dispute resolution, where face-to-face

⁶¹ A. Larson, 'Technology Mediated Dispute Resolution (TMDR): Opportunities and Dangers' (2006) 38 *University of Toledo Law Review* 217.

⁶² Hörnle, J. 'Online Dispute Resolution—More Than the Emperor's New Clothes.' In *Proceedings of the UNECE Forum on ODR* (2003), 21.

interactions are crucial for building trust and ensuring fairness.

Thus, while technology holds great promise for transforming dispute resolution systems, it must be carefully managed to ensure that it complements, rather than replaces, traditional methods. A holistic approach, addressing both technological potential and its limitations, will be essential in ensuring a more inclusive, fair, and efficient system for resolving disputes in Kenya.



Chapter Five

Recommendations and Conclusions

This chapter synthesises the findings from the study and offers actionable recommendations to enhance the integration of technology into Kenya's dispute resolution framework. These recommendations address policy development, infrastructural improvement, stakeholder involvement, and adoption of international best practices. The chapter also evaluates the practicalities of implementation and concludes by emphasizing the transformative potential of these innovations to ensure equitable access to justice.

5.1 Recommendations

5.1.1 Strengthening Legal and Regulatory Frameworks

Effective implementation of technology in Kenya's dispute resolution system requires comprehensive legal and regulatory reform. Drawing from global models such as the EU's ODR platform and UNCITRAL's Technical Notes, Kenya should develop specific guidelines for integrating AI, blockchain, and automated systems into dispute resolution. This includes safeguarding data under the Data Protection Act 2019 and establishing protocols for cross-border disputes. By aligning with international frameworks, Kenya can enhance the credibility and interoperability of its systems, addressing both domestic and global demands.

5.1.2 Enhancing Technological Infrastructure

Addressing infrastructural disparities, particularly in rural areas, is critical. Investments in high-speed internet, courtroom technology, and electronic filing systems will reduce the procedural burden on courts. Drawing lessons from Cyberjustice Laboratories across the globe, Kenya can implement cost-effective technology to streamline judicial processes while maintaining procedural integrity. Ensuring compatibility between public and private dispute resolution platforms will further enhance accessibility and efficiency.

5.1.3 Building Stakeholder Capacity

The adoption of advanced technologies requires a simultaneous effort to enhance stakeholder capabilities. Comprehensive training programs for judges, lawyers, and court administrators will

foster familiarity with AI-powered tools and blockchain technologies. Public education campaigns are equally important to build trust and understanding among citizens regarding the benefits and reliability of technology-driven dispute resolution systems. By increasing technological literacy across all stakeholders, Kenya can ensure the smooth adoption of these innovations.

5.1.4 Promoting Public-Private Partnerships

Private-sector expertise offers valuable insights into technological implementation. Collaborations between the judiciary, technology firms, and academic institutions can yield innovative solutions such as ODR platforms tailored to Kenya's unique socio-legal environment. Partnerships with global platforms like ICANN or private e-commerce dispute systems can provide technical support and encourage knowledge exchange, enabling the country to leapfrog traditional barriers to technological integration.

5.1.5 Incorporating AI and Predictive Analytics

Adopting AI-powered tools such as predictive analytics and decision-support systems can reduce case backlogs and enhance decision-making accuracy. Blockchain can provide tamper-proof records of arbitration and mediation, ensuring transparency and credibility. For instance, smart contracts and automated enforcement mechanisms could revolutionize areas such as commercial arbitration by enabling self-executing agreements.

5.1.6 Establishing Monitoring and Evaluation Systems

Continuous assessment of technology-enabled solutions is necessary to ensure their effectiveness. By developing performance metrics and publishing periodic evaluations, Kenya can track progress and make data-driven adjustments to its implementation strategy. Transparency in reporting will also enhance public trust and provide insights for policymakers to refine regulations and processes.

5.2 Implementation Considerations

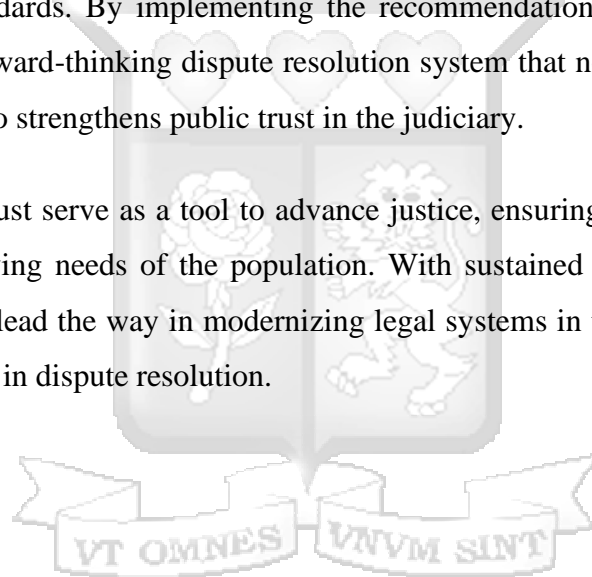
The implementation of these recommendations requires a phased approach that prioritizes stakeholder readiness and systemic adaptability. An initial focus on pilot projects in urban centers, followed by gradual expansion to rural areas, will enable the identification and resolution of practical challenges. Drawing from the experiences of platforms like eBay's Resolution Center and the EU's ADR Directive, Kenya can design localised solutions that balance efficiency and inclusivity.

Resource allocation will be critical to this process. While partnerships with private entities can alleviate financial constraints, government commitment to funding infrastructure and training initiatives is essential. Furthermore, ensuring regulatory compliance and addressing ethical considerations—such as algorithmic bias and data privacy—will safeguard the integrity of these systems.

5.3 Conclusion

Technology presents unprecedented opportunities to transform Kenya’s dispute resolution framework by enhancing accessibility, efficiency, and transparency. However, its successful integration hinges on addressing infrastructural challenges, fostering stakeholder buy-in, and aligning with global standards. By implementing the recommendations outlined in this chapter, Kenya can establish a forward-thinking dispute resolution system that not only meets the demands of a digital society but also strengthens public trust in the judiciary.

Ultimately, technology must serve as a tool to advance justice, ensuring it remains fair, inclusive, and adaptive to the evolving needs of the population. With sustained commitment and strategic collaboration, Kenya can lead the way in modernizing legal systems in the region, setting a global benchmark for innovation in dispute resolution.



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