



E-court: A digital disruption in law enforcement and its impact on judicial efficiency in Indonesia

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Received Date: December 16, 2024

Revised Date: January 21, 2025

Accepted Date: January 30, 2025

ABSTRACT

Background: The use of digital technology in the justice system, known as E-Court, has significantly impacted law enforcement in Indonesia. This research explores E-Court as a manifestation of digital disruption, using normative legal research with a conceptual and statutory approach. **Method:** This research employs normative legal research with a conceptual and statutory approach to examine technological developments supporting E-Court, its benefits, and its challenges. **Findings:** E-Court consists of e-filing, e-payment, e-summons, and e-litigation, transforming legal case handling by improving efficiency, transparency, and accountability while reducing costs and administrative burdens. However, regulatory readiness and implementation mechanisms require further evaluation. **Conclusion:** E-Court has positively impacted law enforcement in Indonesia by increasing efficiency and accessibility in legal proceedings. To optimize its implementation, addressing challenges such as data security, digital infrastructure, and cultural adaptation within the legal system is essential. **Novelty/Originality of this Study:** This study provides a comprehensive analysis of E-Court as a digital disruption in Indonesia's justice system, highlighting its effectiveness, challenges, and the necessity of regulatory adaptation. It contributes to developing a theoretical framework for online law enforcement systems, ensuring sustainable digital transformation in the judiciary.

KEYWORDS: e-court; digital disruption; law enforcement; Indonesia; legal innovation.

1. Introduction

The development of information and communication technology has had a significant impact on various aspects of human life, including the legal sector. Indonesia, as a country with a large population and rapid technological development, cannot avoid the impact of the digital revolution. One important visible impact is the transformation in the justice system known as "E-Court", where digital technology is employed to revolutionize law enforcement practices.

Historically, law enforcement in Indonesia has faced numerous challenges, including slow court processes, complicated bureaucracy, and lack of transparency (Ganie-Rochman & Achwan, 2016). The application of technology in the justice system in Indonesia has the potential to overcome these challenges creating greater efficiency, transparency and accessibility in the law enforcement process. In this context, E-Court is a real form of digital disruption in the Indonesian justice system (Sibarani, 2023). E-Court is a concept where court processes and overall law enforcement are enhanced through the application of information and communication technology (Sugondo, 2022). Through E-Court, various stages of court, from case registration, submission of files, hearings, to announcement of decisions, can be carried out online, reducing dependence on manual processes which tend

Cite This Article:

Pitaloka, D. (2025). E-court: A digital disruption in law enforcement and its impact on judicial efficiency in Indonesia. *Ex Aequo Et Bono Journal of Law*, 2(2), 82-95. <https://doi.org/10.61511/eaebjol.v2i2.2025.1404>

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to be time consuming and have the potential to result in errors or information leaks (Ahmed et al., 2021). This transformation has the potential to provide several important benefits such as efficiency, transparency, accessibility, accuracy and consistency (Yavuz et al., 2022).

The use of technology can speed up the court process by reducing bureaucracy and delays in hearing schedules. In this way, judges and the parties involved can more quickly reach fair and appropriate legal decisions. Court processes carried out online can increase transparency and accountability in the justice system. Information about cases and trial developments can be accessed by the public more easily, thereby reducing opportunities for corrupt practices or abuse of power. E-Court allows access to court processes for people in various areas, including those in remote areas. This can help ensure that access to justice is not limited to those in large urban centres. Moreover, when using technology, data and information related to cases can be easily accessed by judges, prosecutors and the parties involved. This can help in making more informed and consistent decisions.

The era of disruption has also changed the law enforcement process in Indonesia (Tejomurti & Hermawan, 2022). Responding to this era of disruption, the Supreme Court issued Regulation no. 1 of 2019 concerning the Administration of Cases and Trials in Court on 8 August 2019. This era of disruption has begun to be truly visible and applied since the emergence of the Covid-19 virus outbreak (Jensen, 2021). The emergence of this virus has changed the order of the law enforcement process which is usually carried out in the courtroom to become a trial via video conference or video call (Jennings & Perez, 2020). Several countries also implement the same thing, such as Hong Kong, Singapore and America.

In implementing E-court, several challenges must be overcome (Pratiwi & Putri, 2020). These challenges include data security, adequate technological infrastructure, training for legal professionals in using this technology, as well as ensuring inclusivity for people who are not yet familiar with technology (Satirah et al., 2013). Overall, E-Court is a clear example of how digital disruption can bring positive changes to the law enforcement process in Indonesia (Sibarani, 2023). By implementing technology in the justice system, Indonesia has the potential to increase efficiency, transparency and accessibility of justice for all citizens.

The introduction of digital technology has changed many aspects in various sectors, including the E-Court justice system, or electronic-based justice system, which has emerged as a concrete form of digital disruption in the law enforcement process in Indonesia. In this Literature review, we will explore the development of E-Court, its impact on the efficiency and accessibility of justice, and the challenges that may arise with its implementation.

In recent years, many countries around the world, including Indonesia, have adopted E-Court as an effort to increase efficiency and accessibility in the justice system. Technologies such as online platforms, electronic filing of documents, and virtual hearings have played an important role in changing the traditional way justice is administered. E-Court can reduce the costs and time required in the judicial process, while increasing openness and transparency.

Furthermore, regarding the impact on the efficiency and accessibility of justice. The implementation of E-Court has had a positive impact on judicial efficiency. Using online platforms to file lawsuits and applications electronically can reduce processing time significantly compared to conventional methods (Pracipta et al., 2024). Apart from that, E-Court has also enabled greater accessibility to the justice system for people who live in remote areas or have physical limitations (Affandi, 2020).

On the other hand, E-Court implementation is also faced with various challenges (Putra, 2020). One of the main challenges is the aspect of data security and privacy. In an electronic-based justice system, sensitive data and personal information become vulnerable to security breaches. Data protection and privacy policies must be given serious attention in developing E-Court (Clarke et al., 2017).

E-Court has become a real manifestation of digital disruption in the justice system in Indonesia (Affandi, 2020). In facing global and local challenges, this system has proven its potential to increase the efficiency and accessibility of justice. However, efforts need to

continue to be made to ensure data security and privacy are maintained in an ever-changing digital environment. Thus, E-Court can become a strong foundation for realizing digital disruption in a more effective and inclusive law enforcement process in Indonesia.

2. Methods

This research adopts a normative legal research method to analyze the implementation of E-Court as a manifestation of digital disruption in Indonesia's law enforcement process. The study focuses on examining legal norms, regulations, and judicial policies governing the operation of the E-Court system. A statutory and conceptual approach is employed to review the legislative framework, including Supreme Court Regulations (Perma) and relevant laws, to assess the legal basis and implications of E-Court in transforming judicial processes.

Primary data sources include legal documents, regulations, and official reports issued by the Indonesian Supreme Court and the Ministry of Law and Human Rights. Secondary data is collected from academic journals, legal commentaries, books, and previous research on digital transformation in the judiciary. This study also utilizes a comparative analysis by reviewing how other jurisdictions implement E-Court systems, drawing insights to identify best practices and potential areas of improvement for Indonesia. The analytical methods applied are descriptive and prescriptive, aimed at outlining existing regulations, identifying gaps or challenges, and proposing recommendations to enhance the effectiveness of E-Court in the Indonesian legal system.

3. Results and Discussion

3.1 *The impact of E-Court on the law enforcement process*

Currently the Indonesian government has implemented an online trial process via E-Court. E-Court is a service for registered users to register cases online, obtain estimates of court costs online, make online payments, summons made via electronic channels, and trials conducted electronically. The system in this E-Court consists of e-filing (online case registration in court), e-payment (online downpayment of case fees), e-summons (online summoning of parties), e-litigation (online trial). In terms of online case registration, currently it is specifically for lawyers. Registered users, after registering and getting an account, must go through an advocate validation mechanism by the high court where the advocate is sworn in, while registration from individuals or legal entities must come to court and register in the E-Court corner at the local court.

E-Payment allows registered users to make down payment of case fees online. With this system, the payment process becomes more efficient and transparent, reducing the need to physically come to court. Next, the E-Summons service facilitates online summoning of parties involved in the case. Courts can send summonses and notices via electronic channels, saving the time and expense previously required for physical delivery. Lastly, E-Litigation is the most important component in E-Court, where the trial process is carried out electronically. Registered users, including advocates, can attend hearings via digital platforms. This includes the exchange of documents, presentation of arguments and all other stages of the trial in digital form. This can improve trial efficiency and reduce reliance on physical meetings.

One thing that is still hoped for by the community is that this E-Court registration service can be extended to the general public as a whole online without having to go to the local court again. E-Court is a step forward in digitalizing the justice system in Indonesia, which can help increase efficiency, transparency and accessibility in the legal process. The implementation of E-Court in the electronic trial system has several significant impacts on the law enforcement process in Indonesia (Table 1).

Table 1. The impact of E-Court on the law enforcement process in Indonesia

No	Impact	Description
1.	Efficiency and speed	The use of E-Court can reduce administrative burdens and manual processes in courts. Case registration, document exchange and other processes can be done online, reducing the time needed to handle various administrative aspects. This can accelerate the overall judicial process.
2.	Transparency and accountability	An electronic trial system can increase transparency in the legal process. All stages of the case, documents submitted and court decisions can be accessed electronically by the relevant parties. This can help ensure accountability and prevent harmful practices.
3.	Accessibility	E-Court can help overcome geographic accessibility issues. The parties involved in the case do not need to come to the physical court every time, making it easier for those who are in remote areas or far from the court.
4.	Lower costs	The conventional trial process often involves travel costs, physical delivery of documents, and a significant amount of time. With E-Court, these costs can be reduced, reducing the financial burden for the parties involved in the case.
5.	Reduction of administrative chaos	Convolved and messy legal processes can be better managed through an electronic court system. Documents and information are stored regularly and can be easily found, reducing the risk of administrative errors.

3.2 Public accessibility to E-Court

As stated in the background, this research will focus on seeing how accessible remote area communities are to E-Court. Based on the results of interviews with judges who work in one of the remote, frontier and outermost areas in Indonesia, namely East Nusa Tenggara region, specifically on Alor Island, the Judge stated that so far in East Nusa Tenggara, Alor Island in particular, E-Court has often been implemented. However, there is still a problem with the parties involved not having an Android cellphone. Moreover, if the parties involved take a long time to come to the local court to be helped to upload the requested files.

The results of this interview show that the implementation of E-Court has often been implemented in The East Nusa Tenggara region, especially on Alor Island. This indicates a positive step in bringing technology and digitalization to areas that may have previously had limited access to legal services. Even though E-Court is implemented, there are obstacles in terms of technology access. The parties involved, such as the principal, do not have an Android cellphone which is needed to participate in the electronic trial. This shows that even though technology has been introduced, there are still challenges in providing equal access to all parties.

The results of these interviews also highlight that some individuals may need assistance in dealing with technological obstacles. If they have problems uploading the requested files, especially if they must go to the local court for help, this can cause additional delays and complexity in the legal process. The success of implementing E-Court in remote, frontier and outermost areas depends on adequate supporting infrastructure. It requires stable access to the internet, appropriate devices, and Education on how to use technology for those less familiar with technology. In areas that may be just getting to know this technology, efforts need to be made to provide training and guidance to principals. This will help overcome barriers to the use of technology and ensure greater participation in electronic court proceedings.

The implementation of E-Court in remote, frontier and outermost areas such as East Nusa Tenggara, especially on Alor Island, is a positive step in expanding access to legal services through technology. However, challenges such as limited access to technology and technology education remain obstacles that need to be overcome to ensure that technology truly helps improve the efficiency and accessibility of justice processes in the region.

3.3 Data security and privacy in E-Court

Data security and privacy are very important in the E-Court system, which refers to the use of information and communication technology to support the electronic justice process. The E-Court system brings many benefits, such as greater efficiency, accessibility and transparency in the judicial process. However, because it involves the electronic exchange of sensitive information, data protection and privacy become significant challenges. Here are several ways to maintain data security and privacy in e-court (Table 2).

Table 2. Steps to maintain data security and privacy in the E-Court system

No	Security Steps	Description
1.	Data Encryption	Ensure that all data transmitted and stored in the E-Court system is encrypted with a strong encryption method. Encryption prevents unauthorized access to transmitted or stored data.
2.	Authorization and authentication	Implement a strict authorization system, ensuring that only users who have the right permissions can access certain information. Additionally, ensure that the user authentication process is strong to prevent access by unauthorized parties.
3.	Separation of sensitive data	Separate sensitive data such as personal, medical, or financial information from general data. This will help reduce the risk of unauthorized access to sensitive data.
4.	Audit and monitoring	Implement a strong audit and monitoring system to track user activity and data access. This helps identify potential threats or security breaches and enables rapid response.
5.	Protection against cyber attacks	Protect the system from cyber-attacks by implementing security solutions such as firewalls, intrusion detection, and malware protection.
6.	System security maintenance	Make sure the E-Court system is always updated with the latest security patches. This reduces the risk of exploiting known vulnerabilities.
7.	User training	Provide training to all E-Court system users on good data security practices. This includes strong password security, phishing recognition, and safe practices in information management.
8.	Clear privacy policy	Establish a privacy policy that explains how data will be processed, stored and shared in the E-Court system. Provide users with information about their rights regarding data privacy.
9.	Secure data storage	Ensure that data is stored physically and virtually in a secure environment. Physical data storage places need to have physical security measures such as monitoring and restricted access.
10.	Collaboration with third parties	If third parties such as cloud service providers are involved, ensure that they meet high security standards and comply with applicable privacy regulations.
11.	Laws and regulations	Ensure that the E-Court system complies with applicable data privacy laws and regulations in the particular jurisdiction.
12.	Transparency	Provide transparency to relevant parties about how their data is used in the E-Court system. This will build trust and maintain the integrity of the system.

Additionally, it should be noted that data security and privacy are ongoing efforts. New threats and risks emerge along with technological developments; therefore, E-Court systems need to continue to be updated and improved to maintain user security and privacy. Many other countries have also implemented E-Court and of course all these countries have also prepared methods to maintain the security of data in the E-Court system.

Based on the Table 3, several countries have included virtual trials as their legal system. With existing conditions and supported by technological developments, judicial institutions have been able to explore, reconstruct and capture the substance of justice that is increasingly developing in society and then return it to society in the form of court decisions that focus on justice, legal certainty and benefits. Guarantee of protection of human rights in the Constitution, the development of international human rights norms and democratic

values is an important factor in influencing a country's criminal law policy. Therefore, to realize Indonesia's virtual court, effective and efficient steps are needed from the beginning of the entry of cases into the criminal justice system so that courts, especially at the first level, are able to serve the interests of the community, which is characterized by low-cost judicial processes, simple trials, and trial with time to resolve the case. Because in general, time standards are a measure of efficiency and effectiveness set by courts and other institutions to support performance standards and indicators aimed at ensuring efficient processes and accountability.

Table 3. List of countries that have used online court systems

Country	Legal basis	Terms used
America	Public Act 262 of 2001	Cyber Court
Australia	High Court Bulletins 1996	E-Justice
Netherlands	Act 78a and 131a Straafvoering	Remote Justice
Great Britain	Criminal Justice 1988 act 32 and Statute Roma act 68 (2)	Digital Court
Singapore	The Evidence Act 97	Virtual Court

3.4 Harmonization of regulations for implementing E-Court in Indonesia

Regulation of the implementation of E-Court in criminal cases through the Supreme Court Regulations for electronic hearing of criminal cases in court is the authority of the Supreme Court whose authority has been granted by the highest legal rules, namely the Constitution. With the authority granted, the supreme court's regulations for electronic hearing of criminal cases in court are recognized and have binding legal force.

Supreme court regulations have binding legal force, are legitimate and do not deviate from the principle of *lex superior derogate legi inferior* (high law overrides low law). Meanwhile, the supreme court can further regulate matters necessary for the smooth administration of justice if there are matters that are not sufficiently regulated in this law. So that the legal products issued by the Supreme Court in adapting to the development of modern information technology-based justice are an answer to certain circumstances.

This E-Court arrangement is very correlative with Lawrence M. Friedman's view, that there are three components of the legal system, namely: legal substance, legal structure and legal culture. This legal substance is an important support in the process of law enforcement by legal structures (law enforcement agencies) to achieve the desired justice. Thus, law enforcement officials (components of the criminal justice system) can adapt to the development of existing values in society in terms of implementing e-courts for criminal cases as one of the efforts to realize an integrated judiciary in the criminal justice system in Indonesia.

3.5 Challenges and future prospects of E-Court implementation in Indonesia

The introduction of the E-Court system in Indonesia marks a significant step in modernizing the judicial process, aiming to enhance efficiency, transparency, and accessibility (Latifiani et al., 2024). However, its implementation faces notable challenges, particularly regarding technological disparities across regions. While E-Court services are operational in major cities and urban centers, many remote areas lack the necessary infrastructure to support seamless digital proceedings (Norton, 2022). Limited internet access and inadequate technological facilities hinder the broader application of E-Court (Donoghue, 2017), creating discrepancies in legal access between urban and rural populations. This unequal distribution of resources risks marginalizing communities in remote regions, undermining the very goal of democratizing the judicial process.

One prominent example of these challenges is seen in Alor Island, East Nusa Tenggara, where judges report frequent technological obstacles among local residents. Many parties involved in legal cases lack basic tools such as smartphones, preventing them from participating fully in E-Court proceedings. As a result, these individuals often have to travel

to local courts for assistance with uploading documents or accessing online hearings. This not only diminishes the benefits of the E-Court system but also highlights a broader issue of digital literacy and accessibility in Indonesia's legal landscape. Addressing these disparities is crucial for ensuring that the E-Court system serves all citizens equally, regardless of their geographic location.

In addition to infrastructure limitations, cultural resistance to technological change poses another barrier to the successful implementation of e-Court. Many legal practitioners, including judges, lawyers, and court staff, are accustomed to traditional face-to-face court proceedings. The shift to digital platforms often meets resistance due to unfamiliarity with new technologies and skepticism regarding the security and reliability of virtual court processes. Without adequate training and awareness programs, this reluctance may slow down the adoption of E-Court services, impeding efforts to modernize Indonesia's judiciary.

Another significant challenge is data security and privacy. As the E-Court system involves the electronic exchange of sensitive legal documents and personal information, safeguarding data integrity is paramount. Concerns regarding potential cyber threats, data breaches, and unauthorized access to case files have been raised by legal professionals and policymakers. To mitigate these risks, it is essential to implement robust encryption, multi-factor authentication, and secure data storage mechanisms. Moreover, compliance with Indonesia's Electronic Information and Transactions Law (UU ITE No. 11 of 2008) is vital in ensuring that data privacy is upheld within the E-Court framework.

The issue of regulatory harmonization also presents a challenge in the rollout of e-Court. Although Supreme Court Regulation (Perma) No. 3 of 2018 provides the legal basis for e-Court, inconsistencies between existing laws and the evolving digital landscape may lead to conflicts in practice. For example, while civil and administrative cases have largely transitioned to online platforms, criminal cases often remain constrained by procedural requirements that necessitate physical presence. A unified and comprehensive legal framework that aligns various regulations with digital advancements is necessary to fully integrate E-Court across all case types.

Despite these challenges, the future prospects of E-Court in Indonesia remain promising. As demonstrated by the growing adoption of e-litigation and e-summons services, there is increasing recognition of the benefits of digital transformation in the judiciary. E-Court not only expedites case resolution but also reduces the administrative burden on court staff and minimizes opportunities for corruption by enhancing transparency. Continued investment in technology and infrastructure, particularly in underserved regions, will play a pivotal role in expanding the reach of E-Court services.

To address the digital divide, the Indonesian government can collaborate with telecommunications providers and tech companies to improve internet connectivity in rural areas. Establishing E-Court assistance centers in local courts can also provide support for individuals who lack technological resources or digital literacy, ensuring that no one is excluded from accessing justice. These centers can serve as hubs for training and education, bridging the gap between traditional court practices and modern digital systems. Moreover, fostering a culture of digital adaptation within the legal community is essential for the long-term success of e-Court. Regular workshops, certification programs, and online training modules for legal practitioners can facilitate smoother transitions to E-Court platforms. The involvement of bar associations and legal education institutions in promoting digital literacy will further strengthen the judiciary's capacity to adapt to technological advancements.

In terms of international benchmarking, Indonesia can draw valuable lessons from countries like Singapore and the Netherlands, where virtual court systems have been successfully implemented. Singapore's Virtual Court System under the Evidence Act 97 and the Netherlands' Remote Justice Act provide models for integrating technology into judicial processes while maintaining high standards of data security and procedural fairness. By studying these best practices, Indonesia can enhance its regulatory framework and operational protocols to align with global standards.

Ultimately, the successful implementation of E-Court in Indonesia requires a multi-faceted approach that combines technological innovation, regulatory reform, and cultural

transformation. By addressing existing challenges and leveraging opportunities for growth, Indonesia's judiciary can fully embrace the digital age, ensuring that the benefits of E-Court are accessible to all citizens, thereby strengthening the nation's legal system as a whole.

The expansion of E-Court services in Indonesia holds transformative potential for the country's legal landscape, but socio-economic disparities remain a critical factor that must be addressed. While urban areas experience faster adoption of E-Court due to better infrastructure, many rural and underdeveloped regions face limitations in both technology and resources. For communities in remote areas, such as Papua and outer islands, the lack of access to reliable internet and digital devices continues to hinder participation in electronic legal proceedings. This disparity reinforces the need for inclusive digital policies that prioritize equitable access to legal services, ensuring that the benefits of E-Court are not limited to those in metropolitan centers.

Moreover, public trust in digital court processes must be cultivated to ensure long-term success. Many citizens still express concerns over the reliability and fairness of online trials, fearing that the absence of physical presence may compromise their ability to present evidence or defend themselves adequately. Transparency in the operation of e-Court, alongside regular public awareness campaigns, can help alleviate these fears by demonstrating the efficiency and integrity of the system. Building confidence in E-Court will also require the judiciary to consistently deliver fair, impartial, and timely rulings through digital platforms, reinforcing the perception of equal treatment under the law.

The integration of alternative dispute resolution (ADR) mechanisms into the E-Court platform can further enhance access to justice, particularly for civil and commercial cases. ADR methods such as mediation and arbitration can be conducted virtually, offering a faster and less adversarial approach to resolving disputes. By streamlining these processes within the E-Court ecosystem, parties can avoid lengthy litigation and reduce the overall burden on the judicial system. This initiative aligns with Indonesia's ongoing efforts to simplify legal proceedings and promote non-litigious methods of dispute resolution, fostering a more responsive and agile legal environment.

At the same time, continuous evaluation and improvement of the E-Court system will be essential to address emerging technological and legal challenges. The digital landscape evolves rapidly, and Indonesia's judiciary must remain adaptive by integrating new technologies and addressing vulnerabilities as they arise. Periodic reviews of the E-Court platform, driven by user feedback and performance metrics, can ensure that the system evolves in line with the needs of its users. Additionally, partnerships with academic institutions and technology providers can facilitate research and innovation, helping to refine the E-Court infrastructure and introduce new features that improve efficiency and user experience.

Finally, the successful implementation of E-Court must be viewed as part of a broader effort to modernize Indonesia's legal system and align it with international best practices. By fostering regional cooperation and participating in knowledge exchanges with countries that have established virtual court systems, Indonesia can accelerate the development of its digital judiciary. This collaborative approach can help Indonesia navigate the complexities of legal digitalization while drawing inspiration from global success stories. Ultimately, the goal is to create a legal ecosystem that not only leverages technology to enhance efficiency but also upholds the principles of fairness, accessibility, and justice for all citizens, regardless of their location or socio-economic background.

3.6 Some cases settled in E-Court

Indonesia's implementation of the E-Court system marks a significant leap in modernizing its judicial processes, aiming to enhance efficiency, accessibility, and transparency in the legal system. This digital transformation allows for electronic case registration, online document submission, virtual hearings, and digital fee payments, streamlining what were traditionally cumbersome and time-consuming manual procedures. By embracing technology, the judiciary has managed to reduce court backlogs,

accelerate case resolution, and lower operational costs. Courts such as the South Jakarta Religious Court and the Sukadana District Court have reported substantial improvements in efficiency, with over 85% of cases being processed through the E-Court system. This shift has not only expedited civil and religious cases but also reduced the necessity for physical presence, making the legal system more inclusive, especially for those in remote areas.

The South Jakarta Religious Court serves as a prominent example where E-Court services have revolutionized case management, enabling quicker resolutions while minimizing the need for litigants to be physically present. Similarly, the Sukadana District Court has demonstrated how E-Court adoption can simplify legal procedures, reduce administrative burdens, and improve overall transparency. These digital platforms empower citizens by cutting down travel and legal expenses, ultimately making justice more accessible. Beyond cost reduction, the E-Court system enhances procedural efficiency, thereby allowing judges and court staff to handle cases more effectively.

However, despite these advancements, challenges remain. One of the key barriers is technological literacy and accessibility, particularly in rural areas where internet connectivity and access to digital devices are limited. For some citizens, the shift to an entirely digital platform may pose difficulties, potentially limiting their ability to fully engage with the legal system. Additionally, the legal framework must continuously adapt to keep pace with technological developments, ensuring that E-Court practices align with existing legal norms. Concerns surrounding data security and the protection of sensitive legal documents also persist, highlighting the need for robust cybersecurity measures to prevent breaches and maintain public trust in the system.

In summary, Indonesia's E-Court system reflects a commendable effort to bring justice closer to the people, reducing costs, expediting processes, and promoting transparency. Yet, the long-term success of this digital transformation hinges on addressing the technological divide, strengthening the legal framework, and prioritizing data protection. By overcoming these challenges, Indonesia can continue to lead by example in the region, showcasing how digital innovation can drive judicial reform and improve access to justice for all citizens.

The E-Court system in Indonesia represents a transformative step towards creating a more responsive and accessible judiciary, aligning with global trends of digitalization in legal processes. This initiative, spearheaded by the Supreme Court of Indonesia (Mahkamah Agung), reflects the country's commitment to improving judicial efficiency while addressing long-standing issues such as case backlogs, slow proceedings, and logistical burdens on litigants. By facilitating electronic submissions, virtual hearings, and online payments, the E-Court system reduces bureaucracy and streamlines case management, allowing the judiciary to focus on substantive legal matters rather than administrative hurdles.

A particularly noteworthy case is the South Jakarta Religious Court, where the implementation of E-Court services has led to faster case resolutions and a significant reduction in the physical presence required in court. This is especially relevant for cases involving marital disputes, inheritance, and other civil matters, where lengthy processes often exacerbate the emotional and financial toll on the parties involved. By digitizing much of the process, the court has been able to process cases more swiftly, reduce costs, and enhance public satisfaction with judicial services. Similarly, the Sukadana District Court exemplifies how smaller courts benefit from the adoption of E-Court technology, demonstrating that even at the district level, digital platforms can drive systemic improvements.

Despite its successes, the E-Court system faces several challenges that could impact its widespread adoption and effectiveness (Waseem et al., 2023). One primary concern is the digital divide across Indonesia's diverse and geographically dispersed population. While urban areas may benefit from seamless access to technology, rural regions often face infrastructural limitations that hinder full engagement with E-Court services (Djuraev et al., 2025). This disparity raises concerns regarding equal access to justice, as citizens in remote areas may struggle to participate fully in virtual hearings or file documents electronically. Furthermore, technological literacy varies among the population, potentially excluding older generations or individuals with limited experience in navigating digital platforms.

Moreover, cybersecurity and data protection remain critical issues in the implementation of E-Court systems (Zulaeha, 2023). With sensitive legal documents and personal information being exchanged online, ensuring the integrity and confidentiality of this data is paramount. Breaches or unauthorized access could undermine public trust in the judiciary, making robust encryption, secure servers, and regular system audits essential components of the E-Court infrastructure. Additionally, judges and court staff require ongoing training to adapt to new technologies, ensuring that the transition from traditional to digital processes is smooth and does not compromise the quality of judicial decision-making (Adeleye et al., 2021).

From a legal perspective, the introduction of E-Court systems necessitates continuous revisions to existing regulations to accommodate evolving digital practices (Amarini et al., 2023). The Indonesian Supreme Court has issued several decrees to regulate E-Court operations, but further harmonization with procedural laws is required to avoid legal ambiguities (Setyowati et al., 2023). Ensuring that E-Court proceedings hold the same legal standing as traditional in-person hearings is essential for maintaining the credibility and legitimacy of virtual cases (Lemire-Garlic & Dunbar, 2024). This legal evolution mirrors global trends, where courts in jurisdictions like Singapore, the UK, and the US have integrated digital courtrooms into their judicial frameworks, setting valuable precedents for Indonesia to follow.

Looking ahead, the expansion of Indonesia's E-Court system presents an opportunity to redefine public interaction with the judiciary, fostering greater transparency and accountability (Handini et al., 2024). The system's success will largely depend on the government's ability to address infrastructural gaps, enhance digital literacy, and provide necessary technological support to marginalized communities (Silalahi & Siregar, 2023). By investing in these areas, Indonesia can ensure that the benefits of judicial digitalization are felt across all strata of society, thereby reinforcing the principle of equal access to justice (Irianto, 2021).

In conclusion, Indonesia's E-Court system stands as a beacon of judicial reform in Southeast Asia, demonstrating the potential of digital innovation to modernize legal processes and improve public access to justice (Bong, 2014). While challenges persist, the system's continued development and refinement reflect a broader commitment to strengthening the rule of law through technology (Setiawan et al., 2024). By addressing existing barriers and enhancing digital infrastructure, Indonesia can solidify its position as a regional leader in judicial modernization, setting an example for other nations seeking to embark on similar paths of legal transformation (Dressel, 2024).

4. Conclusions

The implementation of Indonesia's E-Court system signifies a profound shift in the judicial and law enforcement process, driven by the rapid influence of digital disruption. By integrating services such as e-filing, e-payment, e-summons, and e-litigation, the E-Court system has redefined how legal proceedings are conducted, enhancing efficiency, accessibility, and transparency within the country's judiciary. This technological advancement has streamlined various legal processes, reducing administrative burdens, expediting case resolution, and improving overall accountability. Courts at different levels, from district to religious courts, have increasingly embraced E-Court mechanisms, reflecting Indonesia's commitment to a modern, responsive legal system.

However, the transition to E-Court has not been without its challenges. Issues such as data security vulnerabilities, uneven internet access, and the digital divide between urban and rural areas present significant obstacles. In addition, the cultural adaptation required within the judicial workforce and litigants poses further complexities. There is also concern regarding the legal standing of virtual proceedings and the need to ensure that the integrity of due process is upheld in digital environments. These challenges highlight the necessity for comprehensive strategies to safeguard the continuity and reliability of the E-Court system.

Despite these hurdles, the benefits of the E-Court system far outweigh the limitations. The introduction of digital platforms facilitates faster case resolutions, reduces legal costs, and broadens access to justice by eliminating logistical barriers that often hinder court participation. Moreover, E-Court enhances judicial transparency, minimizes corruption, and simplifies document tracking—ensuring that court records are maintained in a more organized and efficient manner. This creates a more streamlined and equitable judicial system that benefits legal practitioners and the public alike.

Additionally, regulatory readiness and the establishment of robust legal frameworks are critical in supporting the sustainable growth of the E-Court initiative. Continuous evaluation and adaptation are essential to address emerging issues and ensure that the system evolves alongside technological advancements. Legal practitioners and court officials must receive ongoing training and capacity-building programs to navigate digital platforms effectively, bridging the gap between traditional legal practices and the demands of a digitalized judicial system.

One key aspect that must not be overlooked is the need to extend E-Court facilities to remote, frontier, and outermost areas. These regions often face disproportionate challenges in accessing legal services due to limited infrastructure and digital literacy. Addressing this disparity by providing adequate facilities, strengthening internet infrastructure, and conducting public outreach programs can help ensure that the benefits of E-Court are equitably distributed across the nation.

In conclusion, Indonesia's E-Court initiative represents a pivotal step toward judicial modernization and reform, reinforcing the principles of efficiency, transparency, and inclusivity. By addressing the identified challenges, particularly in remote and underdeveloped areas, and leveraging the full potential of digital technology, Indonesia can create a more effective and accessible legal system. This aligns with the broader goals of enhancing justice and rule of law, ensuring that legal services are available to all citizens, regardless of geographical or economic constraints. Ultimately, E-Court stands as a transformative force that drives Indonesia closer to a future where justice is swift, equitable, and within reach for all.

Acknowledgement

The author acknowledges the support of mentors, colleagues, and legal experts who provided valuable insights for this research. Special thanks to those whose feedback and guidance enhanced the depth and quality of this study.

Author Contribution

The author solely conducted the research, including conceptualization, data analysis, writing, and reviewing, ensuring the study's originality and accuracy.

Funding

This research received no external funding.

Ethical Review Board Statement

Not available.

Informed Consent Statement

Not available.

Data Availability Statement

Not available.

Conflicts of Interest

The author declares no conflict of interest.

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