

SECURING PERSONAL DATA IN E-KYC: VITAL FOR DIGITAL ECONOMY GROWTH

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Abstract

As the world enters the era of Industrial Revolution 4.0, Indonesia's creative industry has tremendous potential for economic growth. During this transformation, the digital economy of financial services, such as e-KYC (electronic Know Your Customer), has emerged as a crucial element for authenticating banking and financial technology customers. To safeguard consumer data, e-KYC procedures typically employ electronic methods, such as facial recognition and biometric scanning. In addition to qualitative analysis and secondary data, this research employs legal methodology to evaluate the protection of consumers' personal data. This study also aims to better understand the impact of the Personal Data Protection Law on the e-KYC process and its function in driving the growth of the digital economy. This study contributes to a deeper understanding of Indonesia's evolving digital landscape and economic outlook by emphasizing the legal framework governing consumer data protection. The results of this study indicate that customer personal data in the implementation of e-KYC are already protected by the newly enacted Personal Data Protection Law No. 27 of 2022.

Keywords: *e-KYC; Digital Transformation; Protection of Personal Data; Cybersecurity; Economic Development*

1. Introduction

In today's rapidly evolving digital landscape, enterprises are increasingly dependent on virtual platforms to provide their offerings to customers. The adoption of digital channels has facilitated novel prospects for organizations to expand their customer outreach and offer uninterrupted user experiences. The advent of digital transformation has brought about an urgent¹ requirement for streamlined and secure customer identification protocols.

Know Your Customer (KYC) is the process by which financial institutions identify their customers while managing the risks associated with both entering and managing the relationship, particularly those related to money laundering and terrorist financing. Besides being a legal requirement, KYC is an essential instrument to prevent financial scams and unlawful activities.² Conventional Know Your Customer (KYC) protocols have been widely adopted as the norm for authenticating the identities of clientele. Typically, these procedures entail the manual

¹ Stéphane Thomas, "KYC Analytics | Optimizing and Prioritizing the Client Onboarding and Recertification with P&L-Linked Triggers," *Global Research & Analytics Dept*, no. June (2020), <https://doi.org/10.13140/RG.2.2.21264.43527>.

² Niraj Ratnawat et al., "Optimizing the KYC Process Using a Blockchain Based Approach," *ITM Web of Conferences* 44 (2022): 03039, <https://doi.org/10.1051/itmconf/20224403039>.

authentication of identity documents, such as passports, driver's licenses, or utility bills. Nevertheless, conventional techniques frequently consume significant time, incur high expenses, and are susceptible to human fallibility. The process of physically handling documents and the requirement for in-person interactions may result in prolonged customer onboarding timelines and heightened operational costs.

Electronic Know Your Customer (e-KYC), which was developed to address these challenges, has fundamentally altered how companies recognize and confirm the identities of their customers. Electronic-Know Your Customer (e-KYC) is a service that banks or financial institutions (FIs) provide virtual banking operations related to authentication and verification of identity electronically to their customers for improving cost efficiency and customer satisfaction.³ e-KYC leverages cutting-edge technologies, such as blockchain, biometrics, machine learning, and artificial intelligence, to digitize and automate the client identification process. Businesses across a wide range of industries have been significantly impacted by this switch from manual verification to electronic KYC, particularly in the banking sector. In the banking sector, e-KYC has become a game-changer, completely changing how banks engage with their clients and provide services. Digital transformation has had a tremendous impact on the banking industry, and online banking services are becoming more and more popular with customers. The necessity for effective customer identification procedures becomes critical as banks work to offer seamless and convenient services.

To identify factors and understand the underlying dynamics of these differentiated banks, a grounded theory approach has been employed due to their novelty.⁴ The concept of scientific novelty in the context of e-KYC pertains to the introduction of novel and inventive approaches aimed at enhancing data security and privacy, while simultaneously facilitating efficient and effective identity verification processes. In the context of e-KYC for digital banks, scientific novelty refers to the introduction of novel and inventive approaches intended at enhancing data security and privacy while facilitating efficient and effective identity verification processes.⁵ As the digital banking industry grows, there is an increasing demand for secure and dependable electronic Know Your Customer (e-KYC) solutions that may protect customer data from cyber

³ Y Rajasekhar et al., "e-KYC" 13, no. 05 (2023): 250–61.

⁴ Rahul Pramani and S. Veena Iyer, "Adoption of Payments Banks: A Grounded Theory Approach," *Journal of Financial Services Marketing* 28, no. 1 (2023): 43–57, <https://doi.org/10.1057/s41264-021-00133-w>.

⁵ Somchart Fugkeaw, "Enabling Trust and Privacy-Preserving e-KYC System Using Blockchain," *IEEE Access* 10 (2022): 49028–39, <https://doi.org/10.1109/ACCESS.2022.3172973>.

attacks and data breaches. In the disciplines of biometric authentication and Blockchain-based electronic Know Your Customer (e-KYC) systems, this particular environment has the potential to provide scientific novelty. Biometric authentication techniques, such as facial, fingerprint, and voice recognition, can verify a customer's identity without the use of conventional identification documents.⁶ This method protects customer information while enhancing the security and convenience of electronic Know Your Customer (e-KYC) processes. The application of blockchain technology presents an opportunity to establish a secure and decentralized e-KYC system.

The Know Your consumer (KYC) process plays a pivotal role in the authentication of consumer identity, which is a fundamental requirement for all banks. Know Your Customer (KYC) serves as a preventative measure against the exploitation of financial institutions by criminal organizations engaged in money laundering endeavors, including but not limited to drug trafficking, terrorism, and other criminal activities. In common practice, the current manual Know Your Customer (KYC) method is characterized by reduced security, extended duration, and obsolescence. The use of Blockchain-based KYC verification can circumvent the inherent Blockchain technology limitations of decentralization, immutability, and security.⁷ This system grants customers control over their confidential information, allowing them to choose to disclose it only to authorized entities. This method has the potential to enhance the security and privacy of consumer data while simultaneously facilitating the simplification of identification verification procedures.⁸ The deployment of e-KYC entails the creation of novel approaches aimed at enhancing security, privacy, and accuracy, all the while ensuring a seamless and user-friendly client experience.

As information technology continues to advance, the matter of customer protection has become a critical concern that financial institutions must take into account. The advent of technological advancements has led to a transformation in the mode of customer engagement with financial institutions, as a growing proportion of banking activities are conducted via digital channels and electronic means. The misuse of personal data is a phenomenon that occurs in

⁶ Janelle Mason et al., "An Investigation of Biometric Authentication in the Healthcare Environment," *Array* 8, no. August (2020): 100042, <https://doi.org/10.1016/j.array.2020.100042>.

⁷ Pradnya Patil and M. Sangeetha, "Blockchain-Based Decentralized KYC Verification Framework for Banks," *Procedia Computer Science* 215 (2022): 529–36, <https://doi.org/10.1016/j.procs.2022.12.055>.

⁸ Shuyun Shi et al., "Applications of Blockchain in Ensuring the Security and Privacy of Electronic Health Record Systems: A Survey," *Computers and Security* 97 (2020), <https://doi.org/10.1016/j.cose.2020.101966>.

Indonesia. Nonetheless, this advancement also poses novel challenges with regard to safeguarding customer security and privacy. As a consequence of the implementation of e-KYC in Indonesia, concerns have been raised regarding the protection of personal customer information. In the financial technology industry, the use of electronic consumer identification is regarded as a crucial measure in the fight against money laundering.⁹ On the other hand, the fact that the financial technology industry offers advantages such as speed and convenience raises concerns that criminals may exploit this sector for money laundering. Through the implementation of the concept of e-KYC, or electronic know your customer, governments all over the world have digitalized this process in order to make it more flexible and open to public scrutiny.

Electronic Know Your Customer (e-KYC) offers users a number of advantages, including the ability to expeditiously complete the on-boarding process from the convenience of their own homes. Nevertheless, there are a few unresolved issues that need to be addressed before its full benefits can be realized. These issues include the absence of any global standardization, the possibility of fraudulent activities occurring during the e-KYC process, and other concerns regarding privacy.¹⁰ The objective of this paper is to emphasize the significance of safeguarding customers in the realm of digital banking. This is essential for banks to uphold customer confidence, ensure the security of their personal data, mitigate the risk of identity theft, and minimize financial hazards that may adversely affect customers. In addition, the government must ensure that Indonesia has a law or regulation that specifically regulates customer personal data, particularly in the implementation of e-KYC, which includes biometric data such as facial, fingerprint, and voice recognition, so that data leakage and illegal use of data are expressly prohibited and regulated by law. Financial institutions can adopt proactive measures to ensure the safety, reliability, and optimal benefits of the digital financial system they provide by recognizing the significance of customer protection.

2. Method

The present study employed normative legal research methodology. The present methodology is commonly denoted as document analysis, which employs a qualitative research

⁹ Ahmad Ghozi, "The Urgency of Electronic Know Your Customer (E-Kyc): How Electronic Customer Identification Works To Prevent Money Laundering in the Fintech Industry," *Diponegoro Law Review* 7, no. 1 (2022): 34–52, <https://doi.org/10.14710/dilrev.7.1.2022.34-52>.

¹⁰ Md Abdul Hannan et al., "A Systematic Literature Review of Blockchain-Based e-KYC Systems," *Computing*, 2023, <https://doi.org/10.1007/s00607-023-01176-8>.

design and relies on secondary data sources. Normative legal research draws upon a variety of sources, including court judgements, legal literature, theoretical frameworks, established doctrines, regulatory provisions, and empirical data. A thorough examination of this topic within a more specific framework has provided sufficient understanding. Therefore, explaining or categorizing it within a more extensive, cross-disciplinary study framework has not been necessary.¹¹

3. Results and Discussion

The advent of digital banking has revolutionized the mode of engagement with banking services, facilitating users to perform a diverse range of financial transactions in a convenient and expeditious manner via online platforms. Digital banks have become a popular option for many individuals due to the benefits they offer, including round-the-clock accessibility, streamlined fund transfers, and enhanced banking efficiency. Notwithstanding the advantages, digital banks face obstacles in protect customers' personal information. In contemporary times, protection personal data has gained significant significance due to the prevalence of electronic storage and exchange of sensitive information. The concepts of personal data privacy and personal data protection are intricately linked, as privacy concerns emerge in any instance involving the collection, storage, or utilization of data.¹² Within the realm of digital banking, the personal data of users encompasses a range of sensitive information, including but not limited to their name, address, identity number, financial details, and transaction history. The safeguarding of this information is of utmost importance as it represents a valuable resource that necessitates sturdy measures against any form of unauthorized entry or inappropriate handling.

The implementation of laws and regulations pertaining to privacy and protection of personal data assumes paramount significance in upholding the accountability of digital banking institutions in their management of user information. In the contemporary landscape where personal information holds significant value, the presence of well-defined legal frameworks and regulations serves as an essential cornerstone for guaranteeing sufficient safeguarding of individuals' personal data within the realm of digital banking.

¹¹ Terry Hutchinson and Nigel Duncan, "Defining and Describing What We Do: Doctrinal Legal Research," *Deakin Law Review* 17, no. 1 (2021): 83, <https://doi.org/10.21153/dlr2012vol17no1art70>.

¹² R.H Huang, "Personal Data and Privacy Protection in Online Learning : Guidance for Students , Teachers and Parents," *Smart Learning Institute of Beijing Normal University* 10 (2020): 1–109.

The recognition of the right to privacy, including the protection of personal data, has been established as a constitutional right for citizens in Indonesia, particularly following the constitutional amendment of the 1945 Constitution. This is in line with the inclusion of a special chapter on human rights (bill of rights) in the amended constitution (Chapter XA—Article 28 A-J).¹³ The regulations pertaining to the protection of individuals' personal data in Indonesia in relation to the utilization of diverse online services have been established in multiple legislations, namely Law Number 19 of 2016 concerning Information and Electronic Transactions (UU ITE), Government Regulation Number 82 of 2012 concerning the Execution of Electronic Systems and Transactions, and Regulation of the Minister of Communication and Informatics Number 20 of 2016.¹⁴

The legal safeguarding of personal data necessitates that digital banks adhere to the security and privacy standards established by regulatory frameworks. One of the challenges in implementing e-KYC in the digital banking sector is the occurrence of data leaks. As we know, in implementing e-KYC there is a lot of customer personal data such as fingerprints, electronic signatures, scanned personal data, and voice recognition. According to national law and policy, how to identify and verify customers in a certain area will depend on things like the way national identification systems work (if they exist) and how common ID cards are among the people.¹⁵ This standard encompasses the technical and organizational measures that digital banks are required to implement in order to safeguard users' personal data against unauthorized access and misuse. In order to safeguard the privacy and reliability of users' personal information, it is imperative for digital banks to establish and enforce strong security measures.

In order to guarantee sufficient safeguarding of individuals' personal information within the realm of digital banking, it is imperative to establish a collaborative framework involving the government, regulatory bodies, and the banking sector. It is imperative for governments to enhance and modernize legislation and regulations pertaining to privacy and safeguarding of personal data. Concurrently, regulatory bodies should diligently oversee and enforce these regulations. However,

¹³ Wahyudi Djafar, "Perlindungan Data Pribadi Di Indonesia: Lanskap, Urgensi, Dan Kebutuhan Pembaruan," *Jurnal Becoss* 1, no. 1 (2019): 147–54.

¹⁴ Hari Sutra Disemadi, "Urgensi Regulasi Khusus Dan Pemanfaatan Artificial Intelligence Dalam Mewujudkan Perlindungan Data Pribadi Di Indonesia," *Wawasan Yuridika* 5, no. 2 (2021): 177–99, <https://doi.org/10.25072/jwy.v5i2.460>.

¹⁵ Aaron Martin and Linnet Taylor, "Exclusion and Inclusion in Identification: Regulation, Displacement and Data Justice," *Information Technology for Development* 27, no. 1 (2021): 50–66, <https://doi.org/10.1080/02681102.2020.1811943>.

it is imperative for digital banks to place a high priority on allocating resources towards enhancing data security and privacy measures. Additionally, they must demonstrate a strong commitment to adhering to relevant regulations and ensuring sufficient safeguards are in place to protect their users. The objective of the Indonesian government in implementing these regulations is to establish a reliable and protected digital milieu where individuals can participate in electronic transactions and access diverse online services. Sustained endeavors in the areas of enforcement, compliance, and public awareness are imperative to guarantee the successful execution and cultivation of a data privacy and protection ethos within Indonesia's digital domain.

In the realm of digital banking, it is imperative to establish comprehensive legal safeguards to protect personal data. Digital banks must prioritize compliance with relevant laws and regulations and ensure sufficient protection for users' personal data when confronted with the task of safeguarding such information. By implementing appropriate measures, it is possible to establish a digital banking ecosystem that ensures security, dependability, and robust protection of user privacy. The preservation of privacy and the protection of personal data, as well as the implementation of prudent usage practices within the realm of technology, are of paramount importance in guaranteeing the efficient safeguarding of privacy and personal data.¹⁶

3.1. Protection of Customer Personal Data in the Implementation of e-KYC

By investing in and supporting creative sector, Indonesia has an outstanding chance to accelerate the growth of the national economy. As we go into a new era, the industrialized world is going through a shift that is being referred to as the Industrial Revolution 4.0. The internet and other forms of digital technology will play a significant role in the fourth industrial revolution, which is a comprehensive shift that will show all aspects of industrial production. At this level in the development of the concept, the primary focus of implementation is on the automation of application procedures made possible by information technology. As a result, there is very minimal engagement of the human workforce. The advancement of technology has had a profound impact on human civilisation everywhere. The continual advancement of technology has the effect of making the world borderless, which in turn has profound effects on society. In addition, advancements in technology bring a plethora of advantages to all facets of human existence, which are all of great value. A person living in Indonesia can find it much simpler to learn about events

¹⁶ Muhammad Fadly Nasution, "The Role of Civil Law in the Protection of Privacy and Personal Data" 3 (2023): 3669–79.

taking place in the United States as a result of the development of information technology. Additionally, the advancement of information and communication technologies has had an impact on the financial services industry.

The proliferation of internet and mobile phone use across the globe has had an effect on the development of innovative new forms of banking and the financial industry, which has ultimately led to the development of digital banking. The term “*Digital Banking*” refers to the employment of technology to carry out banking operations in a way that is both streamlined and convenient.¹⁷ There are a number of synonyms for digital banking, the most common of which are electronic banking, internet banking, and online banking. In addition to this, the implementation of digital banking has revolutionized banking services, allowing them to be more productive and competitive while also providing them with a competitive advantage. Additionally, the use of digital banking has currently revolutionized the banking industry in attaining financial inclusion by delivering cost reductions rather than the traditional banking and enabling broader accessibility across the usual geographical reach of physical locations. This has occurred as a result of the adoption of digital banking in the current time.

The implementation of digital banking has increased the productivity and cost-effectiveness of technology-enabled service delivery processes. As a result, the focus of management has switched toward improving the productivity of digital channel operations in order to lower operational expenses. It is vital that banks understand how customers utilize digital services and make advantage of their benefits in order to develop stronger customer connections as an increasing number of banks are providing digital banking services. This is all the more significant given the fact that the number of banks providing these services is growing.¹⁸

The digital transformation in banking has become a turning point for the banking world because, if it were not implemented quickly, it will decrease the competitiveness of the local banking business in comparison to international banking, producing systemic risk in the event of a global financial crisis. This would be a turning point for the banking world because it would

¹⁷ S Sardana, V., & Singhanian, “Digital Technology in the Realm of Banking: A Review of Literature. *International Journal of Research in Finance and Management*,” *International Journal of Research in Finance and Management* 1, no. 2 (2018): 28–32.

¹⁸ Muhammad Ridhwan Ab Aziz et al., “Bibliometric Analysis Of Literatures On Digital Banking And Financial Inclusion Between 2014-2020,” *Library Philosophy and Practice* 2021 (2021): 1–31.

reduce the competitiveness of the local banking business in comparison to international banking.¹⁹ Technology-based financial services companies (fintech) have developed with the mission to make it simpler and more efficient for consumers to gain access to financial products, subsequently easing the process of financial transactions, and finally enhancing people's ability to manage their finances.²⁰

The progression of the times and the ever-quicker pace of globalization both contribute significantly to the significant amount of advancement that takes place in financial institutions. Electronic-Know Your Customer, abbreviated as “e-KYC”, is a service that banks, and other Financial Institutions (FIs) offer their customers in the form of a virtual banking operation that is connected to the identification and verification of identity electronically. This includes transaction screening client file enhancement, which includes paperwork and data as well as identity verification, and structural solutions to implement the bank’s KYC standards.²¹ These steps aim to protect the bank from financial and economic crime. To boost cost efficiency and customer satisfaction. By the e-KYC system, financial institutions can electronically verify the identification of their customers and get KYC data for individual customers as well as corporate customers. Either off-the-shelf e-KYC software that is fully equipped with the necessary features or software that has been developed in-house by the financial institution is used to implement the e-KYC system.

The e-KYC procedure, on the other hand, is completed totally online with the assistance of various digital tools and *Artificial Intelligence* (AI). This convenience can help to streamline the client onboarding process and make it more efficient by reducing the need for documentation such as paper and face-to-face meetings. Consequently, the process can be simplified and made more effective. In addition, e-KYC is safer than traditional methods because it eliminates the possibility of fraud as well as other types of financial crimes.²²

¹⁹ Shinta Winasis and Setyo Riyanto, “Digital Transformation in the Indonesian Banking Industry: Impact on Employee Work Stress,” *IQTISHADIA: Jurnal Ekonomi Dan Perbankan Syariah* 7, no. 1 (2020): 55–64, <http://ejournal.iainmadura.ac.id/index.php/iqtishadia>.

²⁰ Maxmanroe Majid. “Mengenai FinTech, Inovasi Sistem Keuangan Di Era Digital.” Learn about Media in Business, Technology and Marketing. Maxmanroe, March 6, 2015. Last modified March 6, 2015. Accessed June 28, 2023. <https://www.maxmanroe.com/mengenai-fintech-inovasi-sistem-keuangan-di-era-digital.html>.

²¹ Tina Peeters, Jaap Paauwe, and Karina Van De Voorde, “People Analytics Effectiveness: Developing a Framework,” *Journal of Organizational Effectiveness* 7, no. 2 (2020): 203–19, <https://doi.org/10.1108/JOEPP-04-2020-0071>.

²² Bluepowertechnology.com. “Ketahui Apa Itu e-KYC Dan Manfaatnya Dengan Dukungan Teknologi AI.” Accessed June 28, 2023. <https://www.bluepowertechnology.com/news-detail/ketahui-apa-itu-e-kyc-dan-manfaatnya-dengan>.

The financial technology business is fraught with significant dangers despite the enormous opportunities it presents. Illegal fintech companies, system failures, misinformation, transaction errors, data security issues, the implementation of Know Your Consumer (KYC) principles, astronomical interest rates, exoneration clauses, and the handling of consumer complaints are some of the most prevalent risks that threaten the industry. Illegal fintech companies are also one of the most prevalent risks that threaten the industry. According to the findings of the Investment Alert Task Force (Investment Alert Task Force), there are 2.018 instances of unlawful peer-to-peer lending, 472 instances of illegal investment firms, and 69 instances of illegal pawnbrokers.²³

Certain existing regulations can be interpreted to define data protection in accordance with Article 28G of the Indonesian 1945 Constitution. This constitutional provision affirms the right of every individual to the protecting of their personal well-being, familial relationships, reputation, dignity, and possessions within their jurisdiction. Subsequently, the legal foundation of data protection was established by the enactment of Law No. 19 of 2016 concerning Information and Transactions. The concept of electronic defined personal data becomes an integral component of an individual's personal rights.²⁴

The Financial Action Task Force (FATF) on Money Laundering guidelines, which were made at the G7 conference in France, are referenced in Indonesia's implementation of KYC. This principle is derived from these suggestions and is incorporated into the following laws and regulations: Law Number 7 of 1992 as amended by Law Number 10 of 1998 concerning Banking (Banking Law); Law of the Republic of Indonesia No.8 of 2010 concerning the Prevention and Eradication of Money Laundering; Minister of Finance Regulation Number 30/PMK.010/2010 concerning the Application of Know Your Customer Principles for Non-Bank Financial Institutions; Decree of the Capital Supervisory and Financial Supervisory Agency (BAPEPAM) No. Per01/BL2011/ concerning the Implementation of Guidelines for the Implementation of KYC Principles for Insurance Companies; Financial Services Authority Regulation Number 12-POJK.01-2017 concerning the Implementation of AML CFT Program in the Financial Services

²³ Dona Budi Kharisma., Urgency of Financial Technology (Fintech) Laws in Indonesia. *International Journal of Law and Management*, 63(3), (2020), pp.320-331.

²⁴ Edelweiss Premaulidiani Putri and Aroma Elmina Martha, "The Importance of Enacting Indonesian Data Protection Law as a Legal Responsibility for Data Leakage," *Varia Justicia* 17, no. 3 (2022): 287–303, <https://doi.org/10.31603/variajusticia.v17i3.6231>.

Sector; and Bank Indonesia Regulation Number 3-10-PBI-2001 concerning the Application of Know Your Customer Principles.²⁵

The implementation of KYC in the Law is used as a standard policy that exists in every financial institution. Article 40 (1) of Law No. 10 of 1998 Concerning Banking states that “Banks are required to maintain confidentiality with respect to information regarding depository customers and their deposits”. In their capacity as depository clients, those institutions are expressly required by this article to maintain the confidentiality of information concerning their customers. The Financial Services Authority (FSA) released Circular Letter No. 14/SEOJK.07/2014 concerning Confidentiality and Security of Consumer Data and/or Personal Information in accordance with the aforementioned Article. The Financial Services Authority Regulation No. 1/POJK.07/2013 concerning Consumer Protection in the Financial Services Sector was implemented in conjunction with the release of this circular letter. According to this FSA Circular Letter, Financial Service Institutions, including banks, are required to secure consumer data and/or personal information and are not permitted to share it with third parties in any way. According to the FSA Circular Letter mentioned above, the following consumer data and/or information must be kept private: name, address, date of birth and/or age, phone number, name of the birth mother, etc.

In order to enhance the security of personal data belonging to Indonesian residents, the government implemented Law Number 27 of 2022, which is titled "Personal Data Protection" (UU PDP, 2022). The implementation of rules is expected to provide a sense of legal certainty for the Indonesian population, who frequently fall victim to the unauthorized disclosure of their personal data. The PDP Act is an outcome of the European Union General Data Processing Regulations (EU-GDPR) and serves as a benchmarking measure. The EU-GDPR is a regulatory framework established by the European Union with the objective of safeguarding the personal data and privacy of individuals residing in the EU and European Economic Area (EEA) inside the digital sphere. It also seeks to encourage the adoption of more responsible practices in the utilization and handling of personal data.²⁶

The data and information explained above may not be shared with any third parties or used for any purposes other than those that have been agreed upon. If the consumer provides written

²⁵ Ad-Ins. “Arti KYC: Prinsip, Dasar Hukum, dan Manfaat Penerapannya!” Advance Innovations. Last modified November 15, 2022. Accessed June 19, 2023. <https://www.ad-ins.com/id/arti-kyc-dan-manfaatnya/>.

²⁶ Valentina Ancillia Simbolon and Vishnu Juwono, “Comparative Review of Personal Data Protection Policy in Indonesia and The European Union General Data Protection Regulation,” *Jurnal Ilmu Administrasi* 11, no. 2 (2022): 2022–2178, <http://dx.doi.org/10.31314/pjia.11.2.178-190.2022>.

authorization or if it is required by laws and regulations, then such data may be utilized (for more information on this exception, regulated in Articles 41 to 43 of Law No. 10 of 1998 Concerning Banking). This would also make companies more responsible, and their promise to protect personal data could become a business advantage for digital players.²⁷

3.2. The Effectiveness of Implementation e-KYC in Digital Banking Sector

The Know Your Customer (KYC) policy has gained attention in the digital commerce industry, with a growing demand for transparent procedures, consensus-based data management, and improved access control. Blockchain technology can be used to secure KYC information, adding banks to the network and providing unique IDs and login pages. Banks provide unique identifiers for customers to access their accounts, and every confirmed document creates a blockchain block. This system eliminates the need for recurring verifications and costs associated with traditional systems. By constructing a blockchain-based KYC regulatory system, customers can verify their identities once, reducing costs and improving efficiency.²⁸ This is done with the intention of overcoming the primary challenges posed by the traditional system that is now in place.

The Know Your Customer (KYC) process is employed by financial institutions, telecom companies, and other organizations to authenticate the identity of their customers. KYC, or Know Your Customer, serves as a preventive measure against identity theft, money laundering, and various other financial illicit activities. Nevertheless, the conventional KYC procedure is laborious, expensive, and susceptible to inaccuracies, leading to account opening delays and customer inconvenience. Moreover, the conventional KYC procedure entails the divulgence of sensitive personal data, which has the potential to jeopardize the confidentiality and protection of customers. Electronic Know Your Customer (E-KYC) systems have been suggested as a substitute for conventional KYC approaches. E-KYC systems employ electronic methods to authenticate customer identities, thereby minimizing the requirement for physical documentation and manual verification. Nevertheless, E-KYC systems encounter obstacles concerning privacy and security,

²⁷ Bormida, M.D. "The Big Data World: Benefits, Threats and Ethical Challenges", Iphofen, R. and O'Mathúna, D. (Ed.) *Ethical Issues in Covert, Security and Surveillance Research (Advances in Research Ethics and Integrity, Emerald Publishing Limited, Bingley* 8 (2021): 71-91. <https://doi.org/10.1108/S2398-60182021000008007>

²⁸ Bhandiwad, Anish S., Y. M. Abhilash, Pratik K. Kunthe, Amit Kalagi, and Vasudev K. Parvati. "A Survey on e-KYC Verifier Using Blockchain." (2022). Page. 561-562

specifically in safeguarding customer data against unauthorized access or tampering.²⁹ Before the advent of e-KYC, the process of physically visiting a branch was a problem for banks because it required costs, time and inconvenience for customers. In addition, E-KYC was considered a safe process, thus encouraging customers to use it to open bank accounts online.³⁰ Digital KYC has evolved from physical visits to a framework using blockchain technology, which can serve as the basis for KYC. This framework is more efficient and convenient than traditional methods, as it complies with the growing popularity of mobile and internet banking. Trust is essential in mobile banking adoption and usage. When it comes to matters pertaining to finances, trust is an essential component of what should be anticipated of performance.³¹

Global financial institutions are employing the e-KYC procedure, which streamlines the account opening process. Financial institutions must use a government-facilitated central identity service provider to initiate and verify the e-KYC procedure. They can use commercial e-KYC software or develop their own, and they can deploy the system locally or in the cloud. Although cloud-based e-KYC authentication is more efficient and flexible than host-based authentication, security and privacy concerns remain. The identification of consumers and their paperwork is necessary for compliance with KYC criteria. In addition to this, banks are obligated to monitor both incoming and leaving transactions for each individual customer.

4. Conclusion

The growth of the digital economy relies heavily on the implementation of both the Personal Data Protection Law and electronic Know Your Customer (e-KYC). They offer a structured system for businesses to operate with responsibility and efficiency in the digital realm, promoting trust and stimulating economic development. By implementing e-KYC procedures, businesses can accelerate the process of verifying customer identities, decrease operational expenses, and enhance the user experience by making it more streamlined. This enhanced efficiency plays a crucial role in fostering the expansion of the digital economy by eliminating obstacles to entry and enabling

²⁹ Yash Tambe et al., “Designing a Secure and Private Electronic Know Your Customer (E-Kyc) System Using Blockchain Technology,” *International Research Journal of Modernization in Engineering Technology and Science*, no. 04 (2023): 2267–71, <https://doi.org/10.56726/irjmets35759>.

³⁰ Gerand Boy O. Elinzano and Michelle Renee D. Ching, “Factors That Leads to Adoption and Use of Online Bank Account Opening through E-KYC Using UTAUT and Its Extensions,” *RSF Conference Series: Engineering and Technology* 2, no. 1 (2022): 85–94, <https://doi.org/10.31098/cset.v2i1.508>.

³¹ Vincent Schlatt et al., “Designing a Framework for Digital KYC Processes Built on Blockchain-Based Self-Sovereign Identity,” *Information and Management*, 2021, <https://doi.org/10.1016/j.im.2021.103553>.

seamless transactions. The implementation of e-KYC holds significant potential in facilitating the digital banking revolution by providing clients with a seamless and expedited onboarding process. The rapid acceleration of technical progress, in conjunction with the increasing inclination towards the digitization of services, has led to the accumulation and analysis of substantial volumes of customer data. Despite the unquestionable importance of ensuring the security of customer data, there are ongoing concerns regarding the adequacy of protection offered by the implementation of e-KYC systems for securing individuals' personal information. There have been expressed concerns over the efficacy of the existing security mechanisms due to multiple occurrences of data theft and misuse. Although e-KYC offers a quick and efficient method for client onboarding, it comes at the cost of compromising the individual privacy and data protection of users or customers. The implementation of e-KYC has incorporated measures for protecting client data, as stipulated by the enactment of law No. 27 of 2022, which specifically addresses the protection of personal data. The utilization of electronic know-your-customer checks, also referred to as e-KYC, is an efficient and expedient approach to conducting online verification. Nevertheless, it is crucial to emphasize that ensuring the security of client data is a fundamental catalyst for the advancement of the digital economy in the context of implementing e-KYC procedures. Business enterprises may enhance consumer trust, promote the broader use of digital services, and cultivate a robust digital ecosystem by prioritizing the safeguarding of customers' data privacy and security. In order to facilitate the sustainable growth of the digital economy, it is imperative to establish resilient frameworks, implement stringent security measures, and foster a culture that prioritizes data privacy. The successful achievement of this objective necessitates collaborative endeavors among governmental bodies, regulatory authorities, enterprises, and individuals.

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