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INDONESIA'S ELECTRONIC MONEY LANDSCAPE: BETWEEN EFFECTIVITY AND INCLUSIVITY

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Abstract

Technology has transformed payment systems. Regulated digital money transactions are replacing traditional cash transactions. However, policy frameworks on payment systems often neglect to consider the diverse needs of society despite the critical role that payment systems play in society. This can be seen by the increasingly mandatory use of electronic money, which may exclude groups who have relied on traditional cash transactions but have unequal technological access. This paper explores the importance of electronic money accessibility from the perspective of Indonesian court decisions. This study reveals that current implementations, policies, and court decisions regarding electronic money have mainly focused on effectiveness rather than inclusivity. Electronic money was created to help unbaked people access financial services. However, ensuring people have technological access to these services must include everyone. This study recommends that policymakers ensure that electronic money services are accessible to the unbanked and those with limited technology access when promoting their use. On top of that, the government must also reinforce that using rupiah, in any form, remains a legal means of payment and must be respected in all transactions.

Keywords: *access to the Internet; effectiveness, electronic money, inclusivity, unbanked.*

I. INTRODUCTION

Payment technology has revolutionised the way we transact money. However, it is concerning that the implementation of new technology seldom considers the accessibility of the broader community. Beyond its implementation, Indonesia's regulations and court decisions relating to electronic money reflect a tendency to overlook inclusivity. Instead, the focus has been on making payment systems faster and more efficient, widening the gap between people who can access and use the technology and those who cannot. As advancements continue – from ATMs to QR code payment systems – it is crucial to shift the focus to ensuring accessibility so that these innovations can benefit everyone equally.

Electronic money was first legalised as a means of payment in Indonesia in 2009 through Bank Indonesia Regulation Number 11/12/PBI/2009 on Electronic Money ("BI Regulation on E-Money 2009"). At that time, Bank Indonesia recognised the existence of electronic money and declared it a legal means of payment. Electronic money was initially regulated explicitly because it is felt that the development of technology for "electronic money" is not only in the form of cards but also in other formats, including servers and chips. BI Regulation on E-Money 2009 defines electronic money as:

> "payment instruments that fulfil the following elements: issued based on the value of money deposited in advance with the issuer; the value of the money is stored electronically on a media server or chip; and the value of electronic money managed by the issuer is not a deposit as defined in the banking law."[1]

The utilisation of technology in the financial sector has been generally thought of as an effort to accommodate groups of people with limited access to the formal financial sector or 'unbanked'. To accommodate the unbanked population, countries have tried to open up access to financial services. Therefore, the goal of using technology is to provide easier access to financial services for the unbanked, also called financial inclusion. Based on data from the Indonesian Deposit Insurance Corporation (*Lembaga Penjamin Simpanan*), Indonesians held 531,066,487 bank accounts as of August 2023.[2] Even by 2022, the Indonesia Deposit Insurance Corporation recorded 49% of Indonesia's adult population with bank accounts.[3] Technology can play an essential role in reaching the 51% of Indonesians without access to formal banking services.

Bank Indonesia promoted the National Non-Cash Movement (*Gerakan Nasional Non Tunai)* in 2014 to create a safe, efficient, and smooth payment system and increase efficiency, convenience, and inclusiveness.[4] The central bank then named this action "electronification", a change in payment methods from cash to non-cash. Implementing electronification has included tolls and other

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[1] Article 1, Bank Indonesia Regulation Number 11/12/PBI/2009 on Electronic Money

[2] "Deposits Distribution of Commercial Banks August 2023", Indonesia Deposit Insurance Corporation, accessed July 21, 2024 https://lps.go.id/konten/unggahan/2024/05/Distribusi-Simpanan-Bank-Umum-Agustus-2023.pdf.

[3] Isna Rifka Sri Rahayu and Erlangga Djumena, "LPS: Baru 49 Persen Penduduk Dewasa Indonesia yang Punya Rekening Bank", *Kompas,* September 27, 2022 https://money.kompas.com/read/2022/09/27/120900826/lps--baru-49-persen-penduduk-dewasa-indonesia-yang-punya-rekening-bank?page=all.

[4] "*Elektronifikasi*", Bank Indonesia, accessed July 21, 2024 https://www.bi.go.id/id/fungsi-utama/sistem-pembayaran/ritel/elektronifikasi/default.aspx.

public transportation transactions. Money is a crucial aspect of people's lives, so equal access to its use is essential. Innovations in technological development should improve equitable access to money by creating an environment where every individual has the same ability to utilise the financial system. Sometimes, however, technology exacerbates disparities, making it difficult for marginalised groups to access and use payment systems equally. This happens because not all Indonesians have access to the Internet. The Internet is an essential medium through which a person can connect to electronic payment system services.

In Indonesia, despite Internet penetration reaching nearly 80%, the use of Internet services for financial transactions is relatively low, with a score of 2.75 on a scale of 1 to 4. Additionally, Internet penetration among the pre-boomer generation is still lower, at only 32%. This number is generous because this survey does not fully capture the disparities in underserved areas, as the sample from these regions constitutes only 3.64% of the total surveyed population.[5] This indicates that significant segments of the population, particularly older adults and those in remote areas, remain digitally excluded, highlighting the ongoing digital divide in the country. This is crucial in successfully introducing Central Bank Digital Currency ("CBDC") – a digital form of a country's fiat currency - as a payment tool, which must be accessible and usable by everyone, regardless of their demographic or geographic circumstances.

Technological transformation in the payment ecosystem, such as the use of chip- and server-based electronic money and its future development in the context of CBDC, may increase the risk of unequal access by citizens. The success of implementing this technology must be measured not only by its efficiency but also by the courts' consideration in deciding lawsuits regarding electronic money. However, it must also be seen from the perspective of inclusiveness and equality. Financial inclusivity assessment typically considers factors like gender geographical gaps. However, access to the Internet should also be a crucial consideration, especially when discussing technology use in financial systems. The digital divide signifies the disparity between individuals who possess sufficient access to information and communication technology ("ICT") and those who lack or have limited access to ICT.[6] The digital divide directly impacts financial inclusion, as those without adequate Internet access or digital devices remain excluded from modern financial systems.

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[5] "*Survei* Internet APJII 2024", Indonesian Internet Service Providers Association, accessed July 21, 2024 https://survei.apjii.or.id.

[6] Sophie Lytheratis, Sanjay Kumar Singh, and Abdul Nasser El Kassar, "The digital divide: A review and future research agenda", *Technological Forecasting and Social Change* 175, (February 2022): 1, https://doi.org/10.1016/j.techfore.2021.121359.

Numerous scholars have extensively researched digital money and inclusivity. Arman Nefi and Agus Sardjono emphasised the importance of strengthening the legal framework to accommodate technological advancements in currency, arguing that clear laws at the Indonesian legislative level are essential to eliminating ambiguity and hesitation in implementing digital currency.[7] Fransiska Ari Indrawati examined the ideal legal tender in the digital era, suggesting that it should incorporate both cash and digital currency. This perspective aligns with the current research's view that the advent of digital payment should not nullify the function of physical cash.[8] Other scholars, such as Cheng Yun Tsan, Louise Malady and Ross P. Buckley, have discussed the role of e-money in enhancing financial inclusion. They assert that regulators should allow and encourage the payment of interest on e-money balances to promote financial inclusion and benefit both customers and agents.[9] Ashley Lannquist and Brandon Tan examine CBDC's potential to bridge the gap for the financially excluded by offering digital payment solutions. It should be noted, however, that successful adoption of CBDCs requires addressing barriers such as digital literacy and access to infrastructure.[10] This research builds on these insights by examining how robust government involvement can achieve e-money inclusivity, providing a comprehensive understanding of the legal and regulatory measures necessary to ensure equitable access to digital financial systems. Furthermore, this research investigates how courts in Indonesia perceive the effectiveness of e-money, contributing to a complete evaluation of how digital payment technologies affect financial inclusivity in Indonesia.

This research provides deep insight into the state's mandate to address the challenges to ensuring that the technological advancements adopted in the payment ecosystem do not leave some communities behind and ensure that their rights are protected. This paper broadly discusses the state's role in ensuring that citizens' rights are treated fairly when accessing payment systems through electronic systems. This paper further addresses the importance of electronic money accessibility from the perspective of Indonesian court decisions. This study analyses the existing regulatory tools in Indonesia related

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[7] Arman Nefi and Agus Sardjono, "The Urgent Need to Amend the Indonesian Law on Currencies to Face the Digital Age," *Journal of Central Banking Law and Institutions* 1, no.1 (January 2022): 23-46, https://doi.org/10.21098/jcli.v1i1.8

[8] Fransiska Ari Indrawati, "An Ideal Legal Tender for the Digital Are", *Journal of Central Banking Law and Institutions* 2, no. 3 (September 2023): 373-400, https://doi.org/10.21098/jcli.v2i3.182.

[9] Cheng-Yun (CY) Tsang, Louise Malady, and Ross P. Buckley, "Promoting Financial Inclusion by Encouraging the Payment of the Interest on E-Money," *UNSW Law Research Paper,* (July 2017):17-48, http://dx.doi.org/10.2139/ssrn.3002925.

[10] Ashley Lannquist, Brandon Tan, "Front Matter," *Fintech Note*, (September, 2023): 10-13. https://doi.org/10.5089/9798400253331.063.A000.

to electronic money and the accessibility of electronic money from judges' viewpoints. The paper finds that the challenges regarding electronic money accessibility in Indonesia stem primarily from the practical application of existing regulations rather than from gaps in the regulatory framework itself.

Following this introduction, the article focuses on the concept of electronic money. This article then discusses equality and equity in access to money. Following the debate on reducing inequality by addressing the digital divide in digital money, this article analyses Indonesia's jurisprudence related to the electronification of money. Finally, the article provides some concluding remarks and recommendations.

II. MONEY AS LEGAL TENDER

Solikin and Suseno defined money as an object that can function as a medium of exchange, a store of value, a unit of account, and a measure of delayed payment.[11] This definition refers to the function of money that is widely used by economists, namely as a medium of exchange, a unit of account, and a store of value.[12] Mann states that money is a form of property or a bundle of property rights. He categorises money under English common law as personal chattel, which is a term that refers to movable property that can be touched or is tangible (chosen in possession*),* as well as a right that cannot be touched or is intangible (chosen in action*)*.[13] Lansburgh categorises money as a recognised right to receive something of value for prior contributions or services.[14] From these various definitions, it can be concluded that an object is said to be money because of its function and the authority that issues it, not because of its form or medium. This definition based on functionality is supported by Lansburgh, who emphasised that whatever the medium of money is, it does not matter as long as its function can be used to give and pay in a given country.[15] In line with the research that has been traced, this study examines whether money in digital form or through electronic systems maintains the validity of the use of money as a means of payment.

The state has full sovereignty over money in that it can determine what materials to use to produce money as it sees fit and the amount of money to

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[11] Solikin and Suseno, *Uang: Pengertian, Penciptaan, dan Peranannya dalam Perekonomian*, *Seri Kebanksentralan* (Jakarta: Pusat Pendidikan dan Studi Kebanksentralan Bank Indonesia, 2002), 9.

[12] Andreas Rahmatian, Credit and Creed: A Critical Legal Theory of Money, (Abingdon: Routledge, 2020), 5.

[13] Frederick A. Mann, *The Legal Aspect of Money Fifth Edition,* (Oxford: Oxford University Press, 1992), 8.

[14] Alfred Lansburgh, *The Essence of Money (Argentarius: Letters of a Bank Director to his Son (1921-1923)*, (Ainring: Jakubiak & Fischer GmbH, 2021), 21.

[15] *Ibid.,* 13.

produce.[16] However, the state cannot wholly and arbitrarily produce money because to do so would be to destroy the rights granted to the goods that give money value.[17] The state is the competent authority to determine both the means of payment used and the unit of value of the means of payment.[18] Simmel, as cited by Leopoldo, argues that the state or government's role as a determinant or giver of value includes its role as a guarantor of the value of the currency.[19]

Post-Keynesian theory states that money is non-neutral in its development, i.e., people need a secure asset (money) as a basis for contracts and transactions. Money is no longer just a technical input of exchange but also essential in social relations. Therefore, according to this view, states or governments, through their central banks, have the authority to manage money. Monetary stability involves stable social relations, just as the impact of crises destabilises social relations. In this theory, money as an instrument of the economic system is closely related to the social relations of society and the central bank's role in it.[20]

Rahmatian states that money is a dematerialised property that cannot be explained only from an economic point of view but also requires an explanation from a legal point of view.[21] The legal concept of the object of property rights is then constructed into visible goods and recognition of rights determined by law, such as copyright. Dematerialised property is an idea that holds that conceptually, in law, there is no difference whether the object of property rights is a tangible object (for example, a car and house) or an abstract object conceptualised by the law itself.[22]

Knapp emphasised that money is a creation of the legal order.[23] Money as a means of payment is an exchange commodity that is concretely realised in an exchange situation. According to Knapp, exchange situations arise because of social circles, so an exchange commodity is a tool in social interaction.[24] Law plays an important role in ensuring that the means of payment - money - can circulate and function as a means of payment. The value of a means of payment is only valid when founded in law.[25]

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[16] *Ibid.,* 8.

[17] *Ibid.,* 28.

[18] Georg Friedrich Knapp, *The State Theory of Money* [*Die Staatliche Theorie des Geldes*] (London: Macmillan, 1924), 21.

[19] Leopoldo Waizbort, "A Gloss on the State Theory of Money: Simmel and Knapp," *Simmel Studies* 24, no. 2 (March 2020): 30.

[20] G. Ingham, *The Nature of Money, (*Cambridge: Polity Press, 2004), 161.

[21] Rahmatian, *Credit and Creed,* 5.

[22] *Ibid*., 9.

[23] Knapp, *The State*, 1.

[24] *Ibid*., 3.

[25] *Ibid*., 9.

In addition to the legal order that ensures the value of money, Simmel believes that trust is needed. Leopoldo emphasises that trust is essential in the administration of money and that rust, as a belief, is a guaranteed mechanism (established by law).[26] This ensures that money will be valuable as a means of payment if it is stipulated by law and there are people who trust this instrument. In the end, money will be useful when there is social interaction, where the community plays an important role.

II.A. The Concept of Electronic Money

Rahmatian distinguishes classic or traditional bank money from electronic money in terms of the origin and authority of the issuer or creator. Classic money is issued and circulated by a central bank through commercial banks. Electronic money can allow the issuer to be authorised by commercial or non-commercial banks. Regardless of the entity issuing the money, the amount of electronic money issued must still refer to the applicable regulatory provisions.[27] A central bank can issue its own electronic money in addition to cash or other legal currencies.[28] This money is then known as central bank digital currency. The use of technology in money as a means of payment is referred to as electronic money or CBDC.

Itai Agur et al. define CBDC as fiat money that digitally extends access to central bank reserves to the general public instead of limiting it to commercial banks.[29] Jack Meaning, et al. define CBDC as electronic fiat money obligations of central banks that can be used to settle payments or as a store of value.[30] CBDC, under this definition, does not equate digital money with paper and coins; in fact, Jack Meaning et al. state that CBDC is essentially money in the narrow sense of "narrow money",[31] which is a form of money issued by a central bank that has a more limited scope than money in the general sense. In contrast to Jack Meaning, et al., Michael Kumhof, and Clare Noone provide a broader definition of CBDC, namely: 1) central bank money that can be accessed more widely than reserves; 2) has a more significant potential retail transaction function than cash; 3) has an operational structure that is separate from other forms of central bank money that allows CBDC to serve different purposes; and 4) can accrue or bear interest.[32]

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[26] Waizbort, "A Gloss," 31.

[27] Rahmatian, *Credit and Creed,* 95.

[28] *Ibid*., 95.

[29] Itai Agur, Anil Ari, and Giovanni Dell'Ariccia, "Designing Central Bank Digital Currencies," *Journal of Monetary Economics* 125 (January 2022): 62-63, https://doi.org/10.1016/j.jmoneco.2021.05.002.

[30] Jack Meaning, *et al*., "Broadening Narrow Money: Monetary Policy with a Central Bank Digital Currency," *International Journal of Central Banking* 17, no. 2, (June, 2021): 4.

[31] Meaning, et al., "Broadening Narrow Money," 4.

[32] Michael Kumhof and Clare Noone, "Central Bank Digital Currencies - Design Principles for Financial Stability," *Economic Analysis and Policy* 71 (2021): 554, https://doi.org/10.1016/j.eap.2021.06.012.

Central banks in some countries also provide definitions of CBDCs, although not necessarily in those countries where CBDCs have been established and are legally valid. The United States Federal Reserve defines CBDC as a digital form of central bank money that is widely available to the public, placing electronic system responsibility on the central bank.[33] The Bank of England defines CBDC as money issued by a central bank in digital or electronic form (rather than in the form of traditional notes and coins) stored on a computer or similar electronic system or device.[34] Then, in 2023, the Bank of England used the term "digital pound" for its country's CBDC, which was then defined as digital money issued by the central bank for household and business purposes and other everyday payments,.[35] China's CBDC is defined as a digitised version of fiat money issued by the People's Bank of China.[36] Indonesia uses the term "rupiah digital" and defined as rupiah in digital form issued by Bank Indonesia and constitutes a Central Bank of Indonesia's monetary obligation.[37]

Heng Wang elucidated a difference between cryptocurrency and CBDC, cryptocurrency is "money" that operates outside the jurisdiction and direct control of a state or any single entity. Meanwhile, CBDC is digital money that is controlled by the state.[38] If we look at the development of CBDC to answer the concerns of the development of private currency and nullifying the role of the State, Friedrich August Hayek has a different view. For Hayek, free trade in money is needed to ensure that monetary institutions issue a type of money that is beneficial to society so that people have alternatives in choosing a reliable currency.[39] Hayek supports the idea of competition ("free market") in monetary matters rather than a government monopoly, as this competition would control and protect the value of the currency, hence, the role of private currency for Hayek is essential.[40]

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[33] Board of Governors of the Federal Reserve System, *Money and Payments: The US Dollar in the Age of Digital Transformation* (Washington, DC: Board of Governors of the Federal Reserve System, 2022), 13.

[34] Bank of England, "Response to the Bank of England March 2020 Discussion Paper on CBDC" (London: Bank of England, 2021), 5. https://www.bankofengland.co.uk/paper/2021/responses-to-the-bank-of-englands-march-2020-discussion-paper-on-cbdc

[35] Bank of England and HM Treasury, *The digital pound: a new form of money for households and business?*, CP 797 (London: UK Government, 2023), 7. https://www.bankofengland.co.uk/-/media/boe/files/paper/2023/the-digital-pound-consultation-working-paper.pdf

[36] Heng Wang, "China's Approach to Central Bank Digital Currency: Selectively Reshaping International Financial Order," *University of Pennsylvania Asian Law Review* 18, no. 1 (January 2022): 77, https://dx.doi.org/10.2139/ssrn.4036466

[37] Article 10 paragraph 2 section six, Indonesia Law No. 4 of 2023 on Financial Sector Development and Strengthening

[38] Heng Wang, "China's Approach to Central Bank Digital Currency: Selectively Reshaping International Financial Order," *University of Pennsylvania Asian Law Review* 18, no. 1 (January 2022): 84, https://dx.doi.org/10.2139/ssrn.4036466

[39] Friedrich August von Hayek, *Denationalisation of Money* (London: The Institute of Economic Affairs, 2007), 23.

[40] Hayek, *Denationalisation of Money,* 25.

Madi sees Hayek's views as at least relevant to the current development of digital currencies and the overall development of the intersection of finance and technology. Madi highlights that in the current market, commercial banks have begun to form partnerships with non-bank companies (financial technology or Fintech companies*)* to produce new technological solutions. Madi did not expressly agree or disagree with Hayek's ideas in the context of digital currencies but underlined that these developments have more or less impacted changes in the provision of financial products and services that may challenge the current pattern of central bank policy and regulation, thus requiring adjustments thereto.[41] Rahmatian criticised Hayek's views. According to Maid, the concept of "a free market" in private currency would sooner or later lead to monopolistic or oligopolistic practices. As an example, Rahmation pointed to Bitcoin to posit that that only large companies will be left to dominate the market.[42]

III. DIGITAL MONEY INCLUSIVITY ISSUES

III.A. Equality and Equity in Access to Money

The concepts of "equity", "equality", and "justice" are different. Naheed Dosani illustrates that equity, or equality gives everyone a shoe, while justice gives everyone enough shoes on their own". This means that in the context of justice, only some are treated equally and there is individual treatment, responsive to specific needs, different from general treatment.[43] Martha Minouw highlights that equity *has many different meanings, sometimes* referring to an ownership interest in property. Equity according to English lawyers and historians is a court rooted in the English monarch's power to grant specific performance, as a distinctive system of individualised justice beyond the strict application of generally accepted rules by promoting conscience need.[44]

Martha Minouw also highlighted the difference between equal policies and policies that lead to equality.[45] Each individual has different needs and a different position in society. This research is very relevant to the concept of equality and justice, especially equal access to electronic payment systems. Martha Minouw created a comparison table between equality and equity as a reference to distinguish between the two.[46]

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[41] Maria Alejandra Madi, "On Hayek, Digital Currencies and Private Money," *WEA Commentaries* 7, no. 4 (August 2017): 12. https://www.worldeconomicsassociation.org/newsletterarticles/hayek-digital-currencies/

[42] Rahmatian, *Credit and Creed,* 102.

[43] Martha Minouw, "Equality vs. Equity," *American Journal of Law and Equality* 1, (September 2021): 174, https://doi.org/10.1162/ajle_a_00019

[44] *Ibid.*, 173.

[45] *Ibid.*, 179.

[46] *Ibid.*, 180.

Equality	*Treat everyone the same; resist group classifications*	*Focus on opportunity going forward*	*Ensure fairness, neutrality, impartiality*	*Even handed treatment and provision, whether levelling up or levelling down*
Equity	*Treat each individual differently based on needs and backgrounds OR identify and address different needs associated with different groups*	*Focus on past and present uneven playing fields and distribution of advantages and disadvantages*	*Reallocate resources and rules to overcome existing barriers and differences in outcomes and representation of particular groups*	*Substantive (minimal?) guarantees OR Reduce range of variance in access to resources at the top as well as at the bottom*

John Rawls, a contemporary philosopher, expressed views related to justice. Rawls' theory of justice is based on a long proposition. First, justice is the main virtue of social institutions; for Rawls, rights and justice are things that cannot be compromised. Furthermore, every individual has rights embedded in the principles of justice that should not be violated even in the name of public interest. In a just society, justice automatically guarantees freedom and cannot be compromised by politics or the public interest. Furthermore, justice can be tolerated only if it is necessary to avoid greater injustice. Rawls' theory of justice looks not at individuals' ultimate transactions but society's basic structure. Justice should serve to provide how key social institutions distribute fundamental rights and duties and determine the distribution of the benefits of social cooperation.[47]

Rawls argues that humans are initially in an *original position*, where individuals are assumed to be rational and free beings so that they can make their own choices. Each individual is in a symmetrical position, that is, no one is more significant or less.[48] This assumption encourages them to arrange agreements that can still accommodate their freedom to achieve their respective goals and interests in the most efficient way. However, then individuals realise that they come from different backgrounds, so it can be an obstacle in reaching an agreement. For this reason, Rawls coined the *veil of ignorance*[49]. In order to reach a fair agreement, the contracting individuals do not know the identity, desires, interests of other individuals or groups, so they are not interested in the interests of the other party. So, they compromise to decide what is suitable for all parties by bargaining.[50]

As initially rational beings, individuals are not necessarily blind to everything, , or at least they know what they want to achieve and their plans

[47] John Rawls, *A Theory of Justice*, (Cambridge: Harvard University Press Edition, 1995), 5.
[48] *Ibid.*, 16.
[49] *Ibid.*, 17.
[50] *Ibid.*, 12.

to achieve their goals. However, what needs to be understood according to Rawls is the conception of goodness, how to detail the plan and calculate how to get the interests and benefits. Therefore, he postulates that although their knowledge is limited, individuals realise as rational beings that greater primary goods will result in a greater individual share. Therefore, what must be defended according to Rawls is individual freedom, the freedom to choose and determine alternative ways to realise their life plans.[51] Individuals have the freedom to determine their paths to realising their life plans and to share opportunities with one another.

Rawls believes that justice is the main pillar of society that must be considered to achieve welfare. Rawls calls his theory "justice as fairness". Justice can be defined as justice in a broad sense. At the same time, fairness can be interpreted as two things. First, a fair way or procedure in terms of bargaining between individuals in order to reach consensus carried out in a fair system, removing all elements that trigger subjectivity and are behind the veil of ignorance. Second fairness is equality in distribution and the role of institutions or government in deciding policies in order to achieve equitable welfare (distribution of primary goods).[52]

The distribution of primary goods must be done equally so that everyone has open access and opportunities to achieve what they want. Rawls then formulated two principles of justice, namely: 1) every individual has equal rights to basic freedoms or fundamental obligations; and 2) social and economic inequality is only justified if it benefits all parties, especially the most disadvantaged.[53] Rawls then defines injustice as inequalities that do not benefit all parties.[54]

Rawls' theory of justice is relevant to this research, namely when the government provides for money in electronic form, it needs to be studied whether the policy fulfils the principles of justice as espoused by John Rawls. The danger is that the use of money in digital form will only benefit privileged parties who hold bank accounts and access to technology such as mobile phones or computers. However, as the data illustrates, bank account holders in Indonesia only account for 49% of the population, so it needs to be seen whether then money as primary goods can be enjoyed equally by all people. In addition, to access electronic money, every user is required to be connected to the internet network, until now in Indonesia, access to the internet has yet to be evenly distributed. In accordance with Rawls' principle, if there is

[51] *Ibid.*, 142.
[52] *Ibid.*, 54.
[53] *Ibid.*, 53.
[54] *Ibid.*, 54.

justified inequality, it is in a position if the policy benefits the disadvantaged (marginalised). If we relate this to CBDC, it can be said that the marginalised are further disadvantaged due to the lack of access to banks (unbanked) and access to technology.

III.B. Reducing Inequality by Addressing the Digital Divide in Digital Money

The Organization for Economic Co-operation and Development (OECD) describes the "digital divide" as a broad term commonly used to refer to varying levels of access to and use of ICTs, with a particular emphasis on gaps in access to and use of Internet-based digital services.[55] Broadband access, being a general-purpose technology, provides the necessary infrastructure for utilising these services. These digital gaps can exacerbate societal inequalities by either limiting or enhancing individuals' social and economic capital and their ability to participate in society.[56] In the 1990s, the digital divide was primarily seen as a binary divide between those with access to computers and the Internet versus those without. By the 2000s, the focus had shifted to digital skills and knowledge, taking into account factors such as access to relevant content, the quality of Internet connections, and users' proficiency. By the 2010s, the conversation evolved to consider the beneficial outcomes of Internet usage, marking the emergence of the third-level digital divide.[57] Disparities in connectivity levels influence whether and how countries, companies, and citizens engage in the digital economy and society. Therefore, the challenge moving forward is to bridge these digital gaps within and among countries by improving communications infrastructure quality and ensuring network resilience, which is crucial for equitable participation in the digital age.[58]

The relevance of the digital gap becomes particularly significant when considering CBDC. Because CBDC relies on advanced technology to function, ensuring equitable access to this technology is essential for their successful implementation. The existing digital divide can directly impact the effectiveness and inclusivity of CBDC. If segments of the population lack reliable internet access or digital literacy, they may be excluded from the benefits of a CBDC. Thus, addressing the digital divide is not only crucial for broader digital inclusivity but also for the equitable and effective deployment of CBDC. Ensuring that CBDC can be accessed and used by everyone, regardless of

[55] OECD, "Bridging the rural digital divide," *OECD Digital Economy Papers*, No. 265, OECD Publishing, Paris, 2018, 11. https://dx.doi.org/10.1787/852bd3b9-en.

[56] Lytheratis, "The digital," 1.

[57] *Ibid.*, 5.

[58] OECD, Bridging digital divides in G20 countries, OECD Publishing, Paris, 2021, 27. https://doi.org/10.1787/35c1d850-en.

their technological capabilities, is essential for maximising CBDC potential to enhance financial inclusion.

Indonesia's Information and Electronic Transactions Law (UU ITE) codified the principle of technology neutrality, meaning that no specific technological basis is mandated for use. However, the UU ITE does set forth requirements for the inclusivity of the technology employed. The law merely stipulates that the technology must be secure, reliable, and responsible. This framework ensures that while technological flexibility is maintained, there is a clear emphasis on the integrity and reliability of the technology used, which is crucial for maintaining trust and efficacy in digital transactions, including the implementation of CBDC.

Ashley Lannquist and Brandon Tan argue that CBDC can enhance digital inclusivity only if several conditions are met. Firstly, CBDC must be usable without a bank account and should not imposed minimum balances, and less stringent identification requirements should be applied to provide greater access to financially excluded populations. Additionally, CBDC must offer offline functionality, as many financially excluded individuals rely on cash due to unreliable Internet or mobile connectivity, especially in remote areas, and because cash remains vital in areas prone to natural disasters with frequent network outages. To further inclusivity, the design of CBDC should also be compatible with feature phones (non-smartphones) and stored-value cards. Moreover, it should have a simple and intuitive user interface and user experience (UI/UX) to ensure ease of use for less technologically literate populations. For widespread acceptance, CBDC must be nearly universally accepted, akin to cash. Finally, as central bank money, CBDC could be given legal tender status and potentially mandate acceptance, making it crucial to consider its suitability for improving financial inclusion within the country's local context and legal concept of legal tender.[59]

To effectively reduce inequality through digital money inclusivity, it is essential to address the multifaceted factors contributing to the digital divide. This involves not only improving physical access to digital infrastructure but also improving digital skills and digital knowledge of the broader society.[60] The government must recognise that the current issue of the digital divide is not an issue of how sophisticated the technology is, but to ensure that the technology used will benefit all members of the society. Particular attention should be paid to marginalised communities, including those in underserved areas and the pre-boomer generation, to ensure they are not left behind. This

[59] Lannquist, "Central Bank," 10-13.

[60] Felippa Amanta, "Unpacking Indonesia's Digital Accessibility," *The Jakarta Post*, June 30, 2022, https://www.thejakartapost.com/opinion/2022/06/29/unpacking-indonesias-digital-accessibility.html.

holistic approach aligns with the 10th UN sustainable development goal (SGD), which aims to reduce inequality within and among countries. By fostering an inclusive digital environment in the implementation of CBDC, we can create more equitable opportunities for economic participation and access to financial services, ultimately contributing to a reduction in societal inequalities.

IV. INDONESIA'S JURISPRUDENCE RELATED TO ELECTRONIFICATION OF MONEY

IV.A. Regulating the Electronification of Money

As a first step, payment system electronification have been implemented to toll road transactions and public transportation transactions. Bank Indonesia and the Ministry of Public Works and Public Housing (*Kementerian Pekerjaan Umum dan Perumahan Rakyat or PUPR)* signed a Joint Agreement No. 19/5/NK/GBI/2017 on May 31, 2017. This agreement was related to the coordination of the implementation of the duties of Bank Indonesia and the Ministry of PUPR, primarily related to the implementation of electronification in toll road transactions. The PUPR Ministry then issued PUPR Ministerial Regulation No. 16/PRT/M/2017 on Cashless Toll Transactions on Toll Roads. This regulation provides the legal basis for the elimination of cash transactions on toll roads. The non-cash transaction in question uses *chip-based* electronic money and will eventually turn into a touchless transaction.

In the public transportation sector, almost all services require cashless payments. Following the onset of COVID-19, some businesses no longer accept cash payments. As happened to Transjakarta, initially, users were allowed to top up electronic money or buy electronic money starter packs by paying with cash. However, this is no longer allowed under the pretext of preventing the spread of the COVID-19 virus, as Transjakarta's home page indicated on 18 March 2020. The KAI Commuter train has also implemented an entirely cashless policy. Apart from transportation, non-cash services are also used by providers of goods and/or services.

IV.B. Judicial Views on the Electronification of Money

Equality in access to digital payment systems has been reflected through legal action. Parties who feel they are not getting equal treatment or who feel their rights have been violated have sought legal remedies to enforce their rights. At least two decisions can be used as a reference as to why the policy of requiring all transactions to be non-cash violates people's rights.

First, Constitutional Court Decision No. 91/PUU-XV/2017 was the final opinion in the case filed by Muhammad Hafidz, a private employee. Muhammad Hafidz filed a challenge to the constitutionality of certain

provisions of Law No. 8 Year 1999 on Consumer Protection (the "Consumer Protection Law"), specifically Article 4(b), which states that "[c]onsumer rights are the rights to choose goods and/or services and to obtain these goods and/or services in accordance with the exchange rate and the promised conditions and guarantees".

The judicial review sought by Hafidz arose because, as a private employee who lives in Bogor Regency and works in West Jakarta, Hafidz felt that the obligation to pay for tolls using electronic money exclusively violated his right to protection from discriminated.[61] Hafidz highlighted that the policy does not consider the occurrence of *force majeure*, as well as emergencies, negligence, or errors in the chip reader machine in electronic money. Meanwhile, the function of electronic money with coins or paper money is the same, namely as a medium for storing a certain amount of money's value. Hafidz believes that this policy should not necessarily nullify the use of cash but give toll road users the option to pay electronically or in cash.

The Court held that the issue for judicial review filed by Hafidz relates to "whether Article 4(b) of the Consumer Protection Law governs provisions regarding the mandatory use of non-cash payments for toll road services which are considered burdensome and detrimental to the applicant". In general, the Consumer Protection Law, according to the Court, are the government's efforts to guarantee or provide certainty of consumer rights in the event of the possibility of delivery of goods and/or services to consumers that are not in conformity with what was agreed upon at the beginning or goods and/or services that violate the provisions of the law. Consumers are given the freedom of choice to avoid the infringement of their constitutional rights if there are assumptions or allegations that the actions of business actors can harm consumers.[62]

Article 4(b) of the Consumer Protection Law, according to the Court, guarantees the constitutional rights of citizens by allowing consumers to choose not to agree and avoid transactions with goods and/or services provided by businesses if consumers object. This means that according to the Court, Article 4(b) of the Consumer Protection Law is not unconstitutional and instead accommodates the constitutional rights of citizens. The Hafidz case is not a case of the constitutionality of consumer rights norms but the practical problems consumers face. According to the Court, the discrimination in question does not exist because the use of toll roads is basically a choice. However, if consumers want to use toll roads, they are required to pay using electronic money for the effectiveness and efficiency of payment.[63]

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[61] Constitutional Court Decision No. 91/PUU-XV/2017, 7

[62] Constitutional Court Decision No. 91/PUU-XV/2017, 16.

[63] Constitutional Court Decision No. 91/PUU-XV/2017, 17.

The Court highlighted that although the issue of non-cash payment obligations on toll roads is not a constitutionality issue, the Court reminded businesses providing toll road services to anticipate foreseeable difficulties with e-money payments. The Court also reminded businesses to ensure anticipatory steps if consumers need to learn the necessity of using electronic money so this possibility does not trap toll road users. The Court essentially dismissed Hafidz's lawsuit because it was not legally cognisable.

What is interesting in this decision is that one justice commented on the implementation of electronic money. The applicant argued that the terminology or concept of electronic money had yet to be recognised by Law No. 7 Year 2011 on Currency. The Court held that the value of electronic money is not the value of other countries' currencies. Therefore, according to the Court, the provision does not violate the relevant provisions of Law No. 7 Year 2011 on Currency. The Court's decision was correct, but the basis of consideration should be adjusted to conform with the existing rules in Indonesia. Courts should not immediately comment on the provisions of the Act without being based on a transparent basis. Even at that time, there was legislation in Indonesia that prohibited the use of virtual currency. The prohibition was contained in Bank Indonesia Regulation No. 18/40/PBI/2016 on the Implementation of Payment Transaction Processing and Bank Indonesia Regulation No. 19/12/PBI/2017 on the Implementation of Financial Technology.

Virtual Currency, according to the two Bank Indonesia regulations, is defined as "digital money issued by parties other than monetary authorities obtained by mining, purchasing, or transferring rewards, including Bitcoin, blockchain,[sic.] Dash, Dogecoin, Litecoin, Namecoin, Nxt, Peercoin, Primecoin, Ripple, and Ven [sic.]." According to this provision, electronic money is not included in the definition of virtual currency. This means that Indonesian legislation has provided explicit provisions regarding the legality of electronic money. Courts should also be able to refer to these provisions to strengthen their opinions.

In his written opinion, one justice argued that the policy regarding the use of non-cash payments on toll roads increases effectiveness by providing more accessible and faster services. According to the justice's reasoning, the provisions related to the obligation are acceptable. The successful implementation of technology in the policy must be measured by the efficiency and the consideration that courts use in deciding lawsuits regarding electronic money. However, it must also be seen from the perspective of inclusiveness and equality.

Another case was Supreme Court Decision No. 61P/HUM/2017, in which Tubagus Haryo Karbyanto and Normansyah filed a claim against Bank Indonesia. The petitioner sought judicial review of Bank Indonesia Regulation

No. 16/8/PBI/2014 on the Amendment to Bank Indonesia Regulation No. 11/12/PBI/2009 on Electronic Money. The Petitioner objected to multiple provisions of the regulation. First, the Petitioner argued that Law No. 7/2011 on Currency does not recognise electronic forms of money, but only paper rupiah (*uang kertas)* and coins (*uang logam)*. Secondly, the Petitioner argued that electronic money should not discriminate against people who use paper or coins.[64]

The discriminatory treatment felt by the two petitioners was different. Tubagus Haryo, as a Transjakarta service user, felt forced and discriminated against for using electronic money to enjoy the service. Meanwhile, Normansyah, as a toll road service user, felt discriminated against because the cash payment counters had been abolished. Therefore, the petitioners argued that Bank Indonesia Regulation No. 16/8/PBI/2014 on the Amendment to Bank Indonesia Regulation No. 11/12/PBI/2009 on Electronic Money contradicted Law No. 7/2011 on Currency.

Bank Indonesia responded, arguing that the lawsuit filed by the Applicant was not legally cognisable. The Applicant did not challenge the entire Bank Indonesia Regulation related to electronic money, but only one change from several existing regulations. In addition, Bank Indonesia also responded that the Supreme Court only has the authority to examine ministerial regulations and that the Bank Indonesia Regulation is not a Ministerial Regulation because the Governor of Bank Indonesia himself is not included in the cabinet or state ministry based on Law No. 39 of 2008 concerning State Ministries. This is related to the independence of Bank Indonesia as a state institution and public legal entity. According to Bank Indonesia, the object of the petition submitted by the Applicant needed to specifically explain the article or paragraph of the Bank Indonesia Regulation on Electronic Money that was disputed. In addition, according to Bank Indonesia, the applicant could not articulate the amount of damages form regulation.

Bank Indonesia further responded that electronic money is a familiar form of money outside of paper and coin rupiah. Electronic money is an electronic non-cash payment instrument or instrument used to facilitate payment traffic, so the provisions of PBI Electronic Money do not conflict with the Currency Act. Using electronic money for Transjakarta and toll road transactions is not an obligation arising because of the PBI Electronic Money.

In this decision, the Court held that PBI Electronic Money did not conflict with the Currency Law. This conclusion is based on the consideration that electronic money is a means of payment, not an extension of the form of

[64] Supreme Court Decision No. 61P/HUM/2017, 4

money. Electronic money policy increases users' and businesses' efficiency, convenience, and security. This efficiency can be seen from the fact that businesses do not need to provide change, and consumers do not need to lose a certain amount of service change.[65]

Although the Court rejected both lawsuits, the claims prove that some groups of people are discriminated against by the mandatory use of non-cash, especially if the obligation is not accompanied by accepting cash as an alternative payment. In addition to the lawsuit to the court, public objections were also submitted to the Ombudsman, primarily related to the use of non-cash to pay toll road services.

The objection submitted to the Ombudsman was filed in 2017. The Ombudsman stated that the public has the right to choose the type of transaction used, whether cash or non-cash. The obligation to use non-cash requires massive education and socialisation for the public. Based on the 2017 Ombudsman Report, the follow-up to the objection was carried out by summoning the Governor of Bank Indonesia and the Minister of PUPR. The Ombudsman then suggested that there should be at least one hybrid toll booth and at least one officer to assist the payment process on the toll road. In addition, the Ombudsman also asked the Toll Road Operator Agency to ensure the reliability of the system used in electronic money.

V. CONCLUDING REMARKS

V.A. Conclusion

Based on the discussion above, we can conclude that money, whether in traditional or digital form, functions as a medium of exchange, unit of account, and store of value, with its legitimacy derived from state authority and societal trust. The evolution from tangible to digital money highlights the increasing integration of technology in monetary systems. To maximise this evolution's potential, aspects of effectiveness and inclusivity must be prioritised, ensuring that digital money can be widely accessible and functionally beneficial for all segments of society. Several key findings emerge from the analysis above:

First, access to technology plays an important role in supporting the effectiveness and inclusivity of electronic money usage by addressing the key aspects of digital inclusivity. At least there are four aspects that need to be considered to ensure an inclusive electronic money policy. First, enhancing digital inclusivity by making it accessible without a bank account. Second, using digital identification can also achieve lenient ID requirements. Third,

[65] Supreme Court Decision No. 61P/HUM/2017, 42

it can be functioning offline. Lastly, it is compatible with feature phones and stored valued cards.

Second, in the view of judges, the accessibility of electronic money is primarily considered in terms of its efficiency, effectiveness, and the potential for discrimination. In Constitutional Court Decision No. 91/PUU-XV/2017, the justices acknowledged the effectiveness of electronic money in facilitating faster and more accessible payment systems but also noted that its mandatory use could potentially disadvantage certain individuals, especially those unfamiliar with or unable to access electronic payment methods. The Court recognised the need for business actors to take anticipatory measures to accommodate these consumers, particularly in situations of *force majeure* or system errors. Similarly, in Supreme Court Decision No. 61P/HUM/2017, while the Court upheld the validity of electronic money regulations, it emphasised that the policy's efficiency benefits should not overshadow the importance of inclusivity. The justices considered that mandatory electronic payment systems could inadvertently discriminate against individuals who rely on cash, thus highlighting the need for alternative payment options to ensure equal access for all users. Overall, judges view the accessibility of electronic money as a balance between promoting technological advancement and ensuring that such advancements do not exclude or burden specific groups of consumers.

V.B. Recommendations

This study recommends that to ensure the broader success of electronic money, including CBDC the government must prioritise inclusivity and accessibility across all digital payment systems. Electronic money should feature a simple user interface, be widely accepted, and hold legal tender status to ensure universal acceptance. Additionally, it is essential to reinforce that paper and coin rupiah, remains a valid and respected means of payment for all transactions within Indonesia. Policymakers must address the diverse needs of society, including unbanked populations and those without reliable Internet access, ensuring these groups can access and benefit from electronic money services. Regularly reviewing and updating policies and regulations is essential to maintain their relevance and effectiveness. By prioritising inclusivity in the development and governance of electronic money systems, the government can ensure that marginalised groups are not left behind, fostering equitable access to digital payments and promoting a more inclusive society.

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