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Legal Certainty and Financial Inclusion Effects of POJK 29/2024 on Innovative Credit Scoring

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Abstract

The development of financial technology has led to the emergence of ICS as a solution to the limited access to formal credit still experienced by underbanked communities and MSME players in Indonesia. This study aims to analyze the role of ICS in increasing financial inclusion and to examine the implementation of POJK 29/2024 in supporting the optimization of ICS for MSMEs. The research method employed is normative legal research, utilizing a legislative and conceptual approach. The results demonstrate that ICS plays a crucial role in expanding credit access by leveraging AI and ML-based alternative data, thereby reaching underbanked communities and MSMEs that lack a formal credit history. In addition, POJK 29/2024 provides legal certainty and a more comprehensive governance framework for the implementation of alternative credit, particularly in relation to licensing, supervision, and consumer protection. Banks are expected to optimized the use of ICS in the credit assessment process to improve access to financing for MSMEs while continuing to apply the principle of prudence.

Keywords Innovative Credit Scoring; Financial Inclusion; MSMEs

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1. INTRODUCTION

Rapid economic and technological developments have driven the transformation of the financial system in Indonesia, particularly in efforts to expand public access to formal financial services (Jange et al., 2024). As a developing country with a large population and high socio-economic heterogeneity, Indonesia still faces structural challenges in achieving equitable access. In fact, financial inclusion is an important part of efforts to fulfill the constitutional rights of citizens as guaranteed in Article 28H paragraph (2) of the 1945 Constitution, which guarantees the right of every person to receive special treatment and facilities to obtain equal opportunities and benefits to achieve equality and justice. However, the realization of this principle still faces various obstacles, as reflected in the fact that there are still groups of people who cannot access the formal financial system. This condition shows that economic and technological developments have not fully reached all levels of society. (Hakim & Nisa, 2024)

According to World Bank data from 2021, Indonesia ranks fourth among countries with the largest number of unbanked adults worldwide, with approximately 97.74 million people, or around 48% of the total adult population (Olavia, n.d.). This condition highlights the ongoing gap in people's access to formal financial services. The high percentage of unbanked people in Indonesia can be attributed to several factors, such as the high cost of accessing financial services (price barrier), limited access (channel barrier), financial services that do not meet the needs of the community (design product barrier), and a lack of financial literacy (information and literacy barrier) (Atmaja & Paulus, 2022).In addition to reflecting limited access, the high number of unbanked people also indicates inequality in the use of formal financial services between community groups and regions (Sahran et al., 2024). This condition has the potential to hamper community participation in formal economic activities and increase socio-economic inequality.

One of the efforts of the Financial Services Authority (OJK) to increase public knowledge and understanding of financial services is the establishment of Financial Services Authority Regulation Number 3 of 2023, concerning the Improvement of Financial Literacy and Inclusion in the Financial Services Sector for Consumers and the Public (POJK 3/2023). This POJK requires Financial Services Business Entities (PUJK) to carry out activities to improve financial literacy among consumers and/or the public as an annual program. The OJK also imposes administrative sanctions on PUJKs that do not implement financial literacy programs. One banking service that plays an important role in increasing financial inclusion is credit. Credit is the provision of debt or a loan based on an agreement between a bank and another party, which requires the borrower to repay the debt after a specified period with interest.

To expand access to financing and increase financial inclusion, the application of Innovative Credit Scoring (ICS) is one method for assessing creditworthiness that has been adopted in Indonesia. ICS works by using Artificial Intelligence (AI) and Machine Learning (ML) technology and utilizing alternative data on prospective debtors, such as digital transaction patterns, bill payments, and e-commerce activities, to obtain a comprehensive picture of the risk profile of prospective debtors, especially for people and businesses that do not have a formal credit history. Regulations regarding ICS in Indonesia have evolved in line with the increasing use of technological innovations in the financial services sector.

Previously, ICS was generally regulated in the Financial Services Authority Regulation No. 13/POJK.02/2018 concerning Digital Financial Innovation in the Financial Services Sector (POJK 13/2018). This regulation was then reinforced by Financial Services Authority Regulation Number 29 of 2024 concerning Alternative Credit Rating (POJK 29/2024), which also implements the mandate of Law Number 4 of 2023 concerning the Development and Strengthening of the Financial Sector (P2SK Law).

Through this regulatory framework, the implementation of ICS is expected to contribute to promoting broader financial inclusion.

The application of ICS in the creditworthiness assessment process also aligns with point 8.2 of the Sustainable Development Goals (SDGs), as it supports inclusive and sustainable economic growth. Increasing economic productivity is a key focus of the sustainable development agenda, particularly through the use of technological innovation. Thus, the use of ICS not only contributes to economic growth but also supports inclusive and sustainable development. ICS enables fairer access to credit for the community, including MSMEs that contribute significantly to Indonesia's GDP, thereby accelerating financial inclusion and reducing economic inequality. In addition, the use of alternative data in ICS also promotes the efficient allocation of resources in line with the SDG principle of creating economic. (*Sustainable Development Goals - Localise SDGs Indonesia*, n.d.)

The implementation of ICS is a commitment to the Sustainable Development Agenda, which emphasizes a balance between economic growth, equity, and sustainability. Therefore, ICS serves not only as a method of assessing creditworthiness but also as an effort to create an economic system that is fair, inclusive, and oriented towards sustainably improving the community's welfare.

Several previous studies have discussed the application of ICS from various perspectives, particularly in relation to access to financing, financial inclusion, and legal protection. Research by Rahardjo, Murwadji, and Lita (2024) suggests that the application of ICS plays a crucial role in enhancing access to financing for MSMEs by leveraging non-traditional data sources, such as digital transactions and online sales activities. The study emphasizes that ICS is capable of producing more accurate credit risk assessments than conventional methods, thereby expanding opportunities for MSMEs to obtain credit from formal financial institutions.

In line with this, research by Rachbini et al. (2023) demonstrates that ICS significantly contributes to promoting financial inclusion, particularly for communities that are not yet served by the conventional banking system. This study emphasizes the importance of utilizing alternative data to assess creditworthiness and reviewing general regulatory frameworks, such as POJK 13/2018, Law Number 27 of 2022 concerning Personal Data Protection (PDP Law), and the P2SK Law. However, the study notes that there are no specific regulations that comprehensively govern the implementation of ICS, especially regarding data governance and consumer protection, thus necessitating more specific technical regulations.

Unlike the two previous studies, which emphasized access to financing and financial inclusion, the study by Cristine et al. (2023) focused more on personal data protection in automated credit scoring systems by fintech companies. This study found that automated decision-making practices in credit scoring are not yet fully aligned with the principles of personal data protection outlined in the PDP

Law, particularly in terms of transparency, accountability, and data subject rights. This study also highlights the absence of derivative regulation governing automated decision-making, which has the potential to create legal uncertainty for consumers. However, this study has not specifically examined the latest regulation regarding Alternative Credit Providers as stipulated in POJK 29/2024.

This study aims to analyze the role of Innovative Credit Scoring in increasing financial inclusion for underbanked communities and to examine the implementation of Financial Services Authority Regulation Number 29 of 2024 in supporting the optimization of Innovative Credit Scoring for MSMEs in Indonesia. Based on the background described above, the author identifies two key issues: the role of ICS in enhancing financial inclusion for the underbanked community and the implementation of POJK 29/2024 to support the optimization of ICS for MSMEs in Indonesia.

2. METHOD

This study employs a normative legal research method, examining law as a set of norms or rules that govern society (Ali, 2021). This study will focus on the Financial Services Authority Regulation (POJK) that regulates the implementation of ICS in Indonesia. This study employs both a statutory and a conceptual approach. The statutory approach is a method that examines regulations in the form of legislation relevant to the issue being studied. The conceptual approach is a framework based on concepts and doctrines relevant to the research in legal science. (Arifuddin et al., 2025)

The data sources used in this study include primary and secondary data. Primary data was obtained through interviews. The interviews in this study were limited in scope and were used primarily as supporting data to complement the normative legal analysis. The interviews were conducted with MSMEs that experienced difficulties in accessing banking credit services. Secondary data was obtained through library research.

Secondary data in this study comprises primary legal materials, secondary legal materials, and tertiary legal materials, including laws and regulations, legal literature, and electronic information sources. The data analysis technique employed in this study is a descriptive-analytical approach that aims to describe applicable laws and regulations, or positive law, and relate them to legal theory and the practical application of positive law in society.

3. FINDINGS AND DISCUSSION

3.1. The Role of Innovative Credit Scoring in Increasing Financial Inclusion for the Underbanked

Access to financing through formal financial institutions plays a crucial role in promoting national economic empowerment, as financing is a key instrument in supporting business activities, enhancing productivity, and fostering equitable economic growth across all levels of society (Pellu, 2024). However, there are still gaps in Indonesia's financial access, especially for the unbanked and underbanked communities who do not yet have access to the formal financial system. The determination of credit granting used in Indonesia utilizes information from the Financial Information Service System (SLIK), managed by the OJK. (Sanib et al., 2024)

SLIK contains information about debtors, including debtor identity, collateral, guarantor, quality of funding facilities, funding facilities received by the debtor, and other information related to the debtor's financial condition (Meilisa Ayu Pratiwi et al., 2024). PUJK will then use the information and credit scores obtained from SLIK to determine whether a prospective debtor is eligible for credit. In addition, creditworthiness in Indonesia is also assessed using the 5C principle, namely character (the trustworthy nature of the prospective debtor), capacity (analysis of the ability to repay the loan based on education and business capabilities), capital (whether the capital is used effectively or not), collateral (physical and non-physical collateral provided by the prospective debtor), and condition (assessment of current and future economic and political conditions). (Anggraini & Widyastuti, 2020)

Credit scoring using this conventional method makes it difficult for the underbanked to access formal credit services. The creditworthiness assessment system, which still relies on historical banking data, such as previous loan history, means that many people cannot meet the creditworthiness criteria (Teruna & Ardiansyah, 2024). This situation creates new problems, as individuals who are actually able and willing to pay their financial obligations are still unable to obtain financing simply because they lack a conventional credit history. (Maimunah, 2025)

Therefore, financial technology innovation is necessary to enhance people's access to banking services and promote financial inclusion. One of the emerging financial technology innovations is ICS. ICS is a more inclusive creditworthiness assessment method that utilizes alternative data. ICS enables the unbanked (individuals who lack access to financial institutions) and underbanked (those with limited access to financial services) to access credit services (Helen & Kurniawan, n.d.). ICS works by utilizing non-traditional data on prospective debtors, including e-commerce transaction history, utility bill payment data, and social media activity (Hlongwane et al., 2024). The use of alternative data provides a comprehensive picture of the financial behavior and level of discipline of prospective debtors, even those with no formal credit history.

ICS works by utilizing Artificial Intelligence (AI) and Machine Learning (ML) technologies to analyze data accurately (Wijaya, 2023). With machine learning algorithms, the ICS system can analyze data to identify patterns and trends related to default risk. Thus, PUJK can assess creditworthiness without relying on traditional data, as done in SLIK. The presence of ICS allows people without a formal credit history to access banking services, thereby promoting greater financial inclusion. In addition to expanding creditworthiness assessments, the application of AI and ML-based credit scoring techniques can also improve the accuracy of credit risk predictions (Cerrone, 2023). ML algorithms can process large and diverse data, enabling financial institutions to recognize debtor behavior patterns related to default risk with higher accuracy than conventional credit assessments (Roland Abi, 2025). With an adaptive analysis approach, the ICS system can adjust and refine risk assessments in response to developments in data and community economic behavior over time.

Table 1.1 Comparison of the Financial Services Information System (SLIK) managed by the OJK and Innovative Credit Scoring

Indicators	**Financial Services Authority Financial Information Service System**	***Innovative Credit Scoring***
Data	Historical credit data reported by banks and financial institutions	Non-financial data such as payment history, utilities, e-commerce activity, and social media digital footprints
Regulation	Financial Services Authority Regulation No. 18 of 2017 concerning the Reporting and Requesting of Debtor Information through the Financial Information Service System	Financial Services Authority Regulation No. 29 of 2024 concerning Alternative Credit Rating
Technology	System reporting and conventional data	Using Artificial Intelligence and Machine Learning
The role of OJK	Managed directly by OJK as a national credit information system	Implemented by legal entities and must obtain permission from OJK

In addition to improving the accuracy of creditworthiness, the implementation of ICS also contributes to operational efficiency in the credit-granting process. The use of this artificial intelligence-based credit assessment system can simplify the conventional creditworthiness assessment process, which is slow and prone to errors (Rais & Warjiyono, 2024). The automation of credit analysis through AI and ML-based systems can reduce dependence on manual processes, which have traditionally required time, human resources, and relatively high administrative costs. Creditworthiness assessments can be carried out in a shorter time without compromising the quality of risk analysis (Naganarendar Chitturi, 2025). This change enables PUJK to expand the reach of credit services, particularly to low-income communities and micro-entrepreneurs whom the formal banking system has underserved.

The implementation of ICS in Indonesia aligns with John Rawls' theory of justice as fairness. One of the key principles of justice proposed by Rawls is the difference principle. The difference principle states that social and economic inequalities can be justified as long as they provide the greatest benefit to the least advantaged groups in society (Salsabila, 2025). In the financial system, the unbanked and underbanked communities are disadvantaged groups due to their limited access to formal financial services, particularly bank loans and credit. Conventional creditworthiness assessment systems that rely on historical banking data through SLIK tend to create inequality in access to financing, as they only benefit individuals or businesses that already have a formal credit history (Saleh et al., 2025). This condition prevents people who are actually able and willing to pay their financial obligations from being included in the formal financial system.

Therefore, the implementation of ICS is an effort to realize the principle of justice, especially the principle of difference. By utilizing alternative data and AI and ML technology, ICS opens up access to financing for unbanked and underbanked communities that were previously hampered by limitations in conventional credit data (Hidajat & Ismail, 2025). This innovation enables disadvantaged groups to access fairer opportunities in credit services, allowing the benefits of financial technology developments to be felt more evenly across all groups.

3.2. The Implementation of Financial Services Authority Regulation Number 29 of 2024 concerning Alternative Credit Rating can Support the Optimization of Innovative Credit Scoring for MSMEs in Indonesia

MSMEs are an important sector in the Indonesian economy. MSMEs not only contribute significantly to Indonesia's GDP, but also play a major role in job creation. In 2024, MSMEs contributed 60.51% to Indonesia's total GDP and absorbed nearly 97% of the workforce (*Kementerian Koordinator Bidang Perekonomian Republik Indonesia*, n.d.). Despite their vital role in the national economy, MSMEs continue to face obstacles in developing and operating their businesses, particularly in accessing formal credit services. This is due to several factors, including limited collateral and the absence of a formal credit history for MSMEs (Sakdiah Purba et al., 2025). This is also confirmed by data presented by Deputy Minister of Micro, Small, and Medium Enterprises (MSMEs) Helvi Moraza, who stated that 69.5% of MSME entrepreneurs have not been able to access bank credit. (kontributor . 1, 2025)

Interviews with MSME actors reveal that MSMEs continue to face challenges in accessing formal credit services. These difficulties are mainly related to the collateral requirements set by banks. In addition, there are MSMEs whose credit applications are rejected because they are deemed unable to repay their credit obligations, an assessment that is generally based on formal financial analysis, such as the existence of a previous credit history. As a result, MSMEs that have been operating their businesses are still unable to access bank credit due to collateral requirements and a lack of formal credit history. This situation highlights the mismatch between the characteristics of MSMEs and the creditworthiness assessment patterns applied by banks. Although banks are obliged to apply the principle of prudence in order to maintain the stability and health of the banking system, creditworthiness assessments that place too much emphasis on formal requirements have the potential to hinder access to financing for MSMEs, even though this sector plays a strategic role in the national economy. (Lestari, n.d.)

This indicates that, despite clear regulations governing the implementation of ICS, the public, particularly MSMEs, still face obstacles in accessing credit services. Therefore, ICS is a new, more adaptive solution. By utilizing alternative data such as digital trade transaction history, utility bill payment patterns, and digital platform-based economic activity, ICS enables creditworthiness assessments that better reflect the conditions of business actors (Adam et al., 2025). This implementation opens up opportunities for MSMEs that have been unable to access banking services due to the absence of a formal credit history or limited collateral.

However, the use of AI and ML technology in the creditworthiness assessment process also carries potential risks if it is not carried out in a reliable, transparent, and responsible manner (Salami et al., 2025). One of the primary risks lies in automated decision-making practices that heavily rely on data processing and algorithmic models, potentially limiting consumers' ability to fully understand the considerations underlying credit decisions. This condition can weaken the position of consumers, particularly MSME actors, in challenging or seeking clarification regarding credit decisions that directly affect their access to financing.

Furthermore, the use of alternative data in ICS increases the risk of misuse, unauthorized access, or leakage of prospective debtors' personal information (Kumar et al., 2021). Alternative data, such as digital transaction records, utility bill payment histories, and activities on digital platforms, constitute personal data that reflect an individual's economic behavior. If the collection and processing of such data are not carried out in accordance with clear legal bases, proportional limitations, and adequate data security measures, they may contravene the principles of personal data protection, including lawfulness, purpose limitation, data minimization, and data security (OECD, 2021). Such conditions may undermine public trust in the implementation of ICS and expose consumers to potential financial and non-financial harm.

Furthermore, the application of AI- and ML-based credit scoring systems also carries the risk of algorithmic bias, particularly when the data used for model training and evaluation does not adequately represent the diversity of socio-economic conditions within society (HALLAGI, 2025). Bias embedded in data or modeling processes may lead to unequal credit assessments, whereby certain MSME actors or underbanked communities are disproportionately categorized as high-risk borrowers, despite having sufficient repayment capacity. This outcome contradicts the objective of financial inclusion and may give rise to new forms of exclusion within the formal financial system.

Therefore, while the implementation of ICS offers greater efficiency and inclusiveness in credit assessment, its application must be accompanied by robust governance mechanisms and effective regulatory oversight. The use of AI and ML in ICS should consistently uphold the principles of transparency, accountability, and fairness, while also ensuring the protection of consumers' personal data (Almeida et al., 2022). In this regard, integrating personal data protection principles and consumer protection standards is essential to ensure that the implementation of ICS supports financial inclusion without undermining legal certainty and justice for MSMEs and underbanked communities (Adedoyin Tolulope Oyewole et al., 2024).

The regulation of ICS implementation in Indonesia has been only vaguely addressed so far in POJK 13/2018. POJK 13/2018 regulates the mechanism for testing Digital Financial Innovation (IKD) conducted by OJK to assess the reliability of business processes, business models, financial instruments, and governance of IKD Providers through the regulatory sandbox. The scope of regulation and supervision of the implementation of Financial Sector Technology Innovation (ITSK) includes the provision of space and/or facilitation of innovation testing/development (sandbox).

However, POJK 13/2018 is a general regulation that does not specifically regulate the implementation of ICS in Indonesia. Therefore, the OJK issued POJK 29/2024, which specifically regulates the implementation of alternative credit in Indonesia. The presence of this POJK provides a legal umbrella that guarantees legal certainty and good governance in the implementation of ICS in Indonesia. This POJK regulates the institutional aspects, the obligation to obtain a business license from the OJK, and the obligations of PKA as a Private Electronic System Operator (PSE).

Additionally, the issuance of POJK 29/2024 is a follow-up step to implement the provisions mandated by the P2SK Law. Article 213 of the P2SK Law stipulates that one of the scopes of ITSK is market support, which involves technological innovation to meet the needs of Financial Services Institutions (LJK), including the use of credit scoring with AI and ML technology. With this legal certainty, PKA and financial institutions have a clear basis for developing and using ICS systems sustainably. In addition, the public also has the certainty that their data is managed transparently and accountably.

The establishment of POJK 29/2024 represents the OJK's commitment to supporting the growth of ICS. With this regulation, PKA is expected to encourage increased financial inclusion and expand access to financing, especially for MSMEs (*Siaran Pers: OJK Terbitkan Peraturan Pemeringkat Kredit Alternatif*, n.d.). The implementation of ICS as stipulated in POJK 29/2024 is also in line with the concept of a welfare state. In welfare state theory, the state is positioned as the party responsible for ensuring the economic and social welfare of its citizens through policies that favor social justice (Sarifuddin & Joesoef, 2023). The state is required to play an active role in ensuring fair social welfare so that every citizen has a good quality of life and is free from social and economic inequality. (Dirkareshza, 2022)

However, the implementation of ICS should not exempt the bank from its obligation to apply the prudential principle in lending. The prudential principle is the primary foundation in the banking system for maintaining financial stability and minimizing the risk of non-performing loans (Maluw, 2024). Therefore, the use of ICS should be positioned as a supporting instrument for credit decision-making, not as a complete substitute for risk analysis conducted by banks. The integration of AI and ML-based credit assessment technology with prudential principles enables banks to expand access to financing for MSMEs more inclusively, while also fulfilling their obligations to manage risk and maintain financial system stability. (Shannia Angelia Rahardjo et al., 2025)

4. CONCLUSION

ICS is a creditworthiness assessment method that expands access to financing for individuals who lack a formal credit history. The use of AI and ML-based alternative data enables creditworthiness assessments that are more inclusive, adaptive, and efficient than conventional methods that rely on SLIK and the 5C principles. Therefore, banks are expected to optimize the use of ICS as a credit decision support tool by integrating it into internal risk management without compromising the principle of prudence, so that the expansion of access to financing can be balanced with the stability of the banking system.

POJK 29/2024 has provided legal certainty and a more comprehensive governance framework for the implementation of alternative credit ratings, particularly in terms of licensing, supervision, and consumer protection. However, the effectiveness of this regulation still depends on technical implementation and coordination among stakeholders. Therefore, the Financial Services Authority needs to strengthen its technical guidelines and supervision. Alternative Credit Rating companies are required to ensure transparency, accountability, data protection, and algorithm bias mitigation, so that the use of ICS can truly support fair and safe access to MSME financing.

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